# Appendices

# Appendix A

Initial Study, Notice of Preparation (NOP), and NOP Comment Letters

# Appendix A.1

Initial Study

LOS ANGELES
DEPARTMENT OF CITY
PLANNING
221 North Figueroa St., Suite 1350
Los Angeles, CA 90012

# INITIAL STUDY

## 9000 Airport Boulevard

Case Number: ENV-2023-6757-EIR

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**Project Location:** 9000-9160 South Airport Boulevard; 5801-5881 West Arbor Vitae Street; 5820-5880 West Interceptor Street; 8941 and 8940-9000 South Interceptor Street; Los Angeles, California 90045

**Community Plan Area:** Westchester–Playa del Rey Community Plan Area

**Council District:** 11—Park

**Project Description:** The 9000 Airport Boulevard Project (Project) would develop up to 435,390 square feet of industrial uses on an approximately 18-acre site. The Project includes two options: Option 1 would develop one building comprised of up to 435,390 square feet of industrial floor area and a maximum building height of 50 feet. Option 2 would develop three buildings comprised of up to 410,056 square feet of industrial floor area a maximum building height of 46 feet. The Project would include truck trailer parking spaces and vehicle parking spaces under Option 1, and vehicle parking spaces under Option 2. A total of 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas would be demolished.

**PREPARED FOR:**
The City of Los Angeles
Department of City Planning

**PREPARED BY:**
Eyestone Environmental, LLC

**APPLICANT:**
Rexford Industrial–9000 Airport, LLC.

**August 2024**

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# 1 INTRODUCTION

An application for the proposed 9000 Airport Boulevard (Project) has been submitted to the City of Los Angeles Department of City Planning for discretionary review. The City of Los Angeles, as Lead Agency, has determined that the project is subject to the California Environmental Quality Act (CEQA), and that the preparation of an Initial Study is required.

This Initial Study evaluates the potential environmental effects that could result from the construction, implementation, and operation of the proposed Project. This Initial Study has been prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.), and the City of Los Angeles CEQA Guidelines (1981, amended 2006). The City has determined to use Appendix G of the State CEQA Guidelines as the thresholds of significance for the Project unless another threshold of significance is expressly identified in the document. Based on the analysis provided within this Initial Study, the City has concluded that the Project may result in significant impacts on the environment and that the preparation of an Environmental Impact Report (EIR) is required. This Initial Study and the forthcoming EIR are intended as informational documents, which are ultimately required to be considered and certified by the decision-making body of the City prior to approval of the Project.

## 1.1 PURPOSE OF AN INITIAL STUDY

The California Environmental Quality Act was enacted in 1970 with several basic purposes, including: (1) to inform governmental decision makers and the public about the potential significant environmental effects of proposed projects; (2) to identify ways that environmental damage can be avoided or significantly reduced; (3) to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures; and (4) to disclose to the public the reasons behind a project's approval even if significant environmental effects are anticipated.

An Initial Study is a preliminary analysis conducted by the Lead Agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the Lead Agency shall prepare a Negative Declaration. If the Initial Study identifies potentially significant effects but revisions have been made by or agreed to by the applicant that would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, a Mitigated Negative Declaration is appropriate. If the Initial Study concludes that neither a Negative Declaration nor Mitigated Negative Declaration is appropriate, an EIR is normally required.[1]

[1] State CEQA Guidelines Section 15063(b)(1) identifies the following three options for the Lead Agency when there is substantial evidence that the project may cause a significant effect on the environment: "(A) Prepare an EIR, or (B) Use a previously prepared EIR which the Lead Agency determines would adequately analyze the project at hand, or (C)
(Footnote continued on next page)

## 1.2 ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into sections as follows:

**1 INTRODUCTION**

Describes the purpose and content of the Initial Study and provides an overview of the CEQA process.

**2 EXECUTIVE SUMMARY**

Provides Project information, identifies key areas of environmental concern, and includes a determination whether the project may have a significant effect on the environment.

**3 PROJECT DESCRIPTION**

Provides a description of the environmental setting and the Project, including project characteristics and a list of discretionary actions.

**4 EVALUATION OF ENVIRONMENTAL IMPACTS**

Contains the completed Initial Study Checklist and discussion of the environmental factors that would be potentially affected by the Project.

## 1.3 CEQA PROCESS

Below is a general overview of the CEQA process. The CEQA process is guided by the CEQA statutes and guidelines, which can be found on the State of California's website.

### 1.3.1 Initial Study

At the onset of the environmental review process, the City has prepared this Initial Study to determine if the proposed Project may have a significant effect on the environment. This Initial Study determined that the proposed Project may have a significant effect(s) on the environment and an EIR will be prepared.

A Notice of Preparation (NOP) is prepared to notify public agencies and the general public that the Lead Agency is starting the preparation of an EIR for the proposed project. The NOP and Initial Study are circulated for a 30-day review and comment period. During this review period, the Lead Agency requests comments from agencies and the public on the scope and content of the environmental information to be included in the EIR. After the close of the 30-day review and comment period, the

Determine, pursuant to a program EIR, tiering, or another appropriate process, which of a project's effects were adequately examined by an earlier EIR or negative declaration.

Lead Agency continues the preparation of the Draft EIR and any associated technical studies, which may be expanded in consideration of the comments received on the NOP.

### 1.3.2 Draft EIR

Once the Draft EIR is complete, a Notice of Completion and Availability is prepared to inform public agencies and the general public of the availability of the document and the locations where the document can be reviewed. The Draft EIR and Notice of Availability are circulated for a 45-day review and comment period. The purpose of this review and comment period is to provide public agencies and the general public an opportunity to review the Draft EIR and comment on the document, including the analysis of environmental effects, the mitigation measures presented to reduce potentially significant impacts, and the alternatives analysis. After the close of the 45-day review and comment period, responses to comments on environmental issues received during the comment period are prepared.

### 1.3.3 Final EIR

The Lead Agency prepares a Final EIR, which incorporates the Draft EIR or a revision to the Draft EIR, comments received on the Draft EIR and list of commenters, and responses to significant environmental points raised in the review and consultation process.

The decision-making body then considers the Final EIR, together with any comments received during the public review process, and may certify the Final EIR and approve the project. In addition, when approving a project for which an EIR has been prepared, the Lead Agency must prepare findings for each significant effect identified, a statement of overriding considerations if there are significant impacts that cannot be mitigated, and a mitigation monitoring program.

# 2 EXECUTIVE SUMMARY

| | |
|---|---|
| **PROJECT TITLE** | **9000 Airport Boulevard** |
| ENVIRONMENTAL CASE NO. | ENV-2023-6757-EIR |
| RELATED CASES | CPC-2023-6756-CU-SPR |
| **PROJECT LOCATION** | 9000-9160 South Airport Boulevard; 5801-5881 West Arbor Vitae Street; 5820-5880 West Interceptor Street; 8941 and 8940-9000 South Interceptor Street, Los Angeles, California 90045 |
| COMMUNITY PLAN AREA | Westchester–Playa del Rey |
| GENERAL PLAN DESIGNATION | Limited Manufacturing |
| ZONING | [T][Q]M1-1 |
| COUNCIL DISTRICT | 11—Park |
| **LEAD AGENCY** | **City of Los Angeles** |
| CITY DEPARTMENT | Department of City Planning |
| STAFF CONTACT | Kiersten Turner, Planning Assistant |
| ADDRESS | 221 North Figueroa Street, Suite 1350<br>Los Angeles, CA 90012 |
| PHONE NUMBER | (213) 756-1731 |
| EMAIL | kiersten.turner@lacity.org |
| **APPLICANT** | **REXFORD INDUSTRIAL—9000 AIRPORT, LLC** |
| ADDRESS | 11620 Wilshire Boulevard, Suite 1000, Los Angeles, CA 90025 |
| PHONE NUMBER | (310) 966-3812 |

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ☒ Aesthetics
- ☐ Agriculture & Forestry Resources
- ☒ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☒ Energy
- ☒ Geology/Soils
- ☒ Greenhouse Gas Emissions
- ☒ Hazards & Hazardous Materials
- ☐ Hydrology/Water Quality
- ☒ Land Use/Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population/Housing
- ☐ Public Services
- ☐ Recreation
- ☒ Transportation
- ☒ Tribal Cultural Resources
- ☒ Utilities/Service Systems
- ☐ Wildfire
- ☒ Mandatory Findings of Significance

## DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

| Kiersten Turner, Planning Assistant | August 21, 2024 |
|---|---|
| **PRINTED NAME, TITLE** | **DATE** |

## EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross referenced).

5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

# 3 PROJECT DESCRIPTION

## 3.1 PROJECT SUMMARY

The 9000 Airport Boulevard Project (Project) would develop up to 435,390 square feet of industrial uses on an approximately 18-acre site. The Project includes two options: Option 1 would develop one building comprised of up to 435,390 square feet of industrial floor area and a maximum building height of 50 feet. Option 2 would develop three buildings comprised of up to 410,056 square feet of industrial floor area and a maximum building height of 46 feet. The Project would include truck trailer parking spaces and vehicle parking spaces under Option 1, and vehicle parking spaces under Option 2. A total of 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas would be demolished.

## 3.2 ENVIRONMENTAL SETTING

### 3.2.1 Project Location

The Project Site is located at 9000-9160 South Airport Boulevard; 5801-5881 West Arbor Vitae Street; 5820-5880 West Interceptor Street; 8941 and 8940-9000 South Interceptor Street, within the Westchester–Playa del Rey Community Plan area of the City.[2] As shown in Figure 1 on page 8, the Project Site is bounded by South Interceptor Street to the north, West Arbor Vitae Street to the south, residential uses and surface parking to the east, and South Airport Boulevard to the west.

Local vehicular and pedestrian access to the Project Site is provided by Sepulveda Boulevard and Westchester Parkway located west of the Project Site, and La Cienega Boulevard located east of the Project Site. Primary regional vehicular access to the Project Site is provided by the San Diego Freeway (I-405), which is located approximately 0.8 miles east of the Project Site. The Project Site is served by several local and regional bus lines as well as rail lines serviced by the Los Angeles County Metropolitan Transit Authority (Metro). In particular, the Project Site is located within 0.5 miles of Metro Line 111 located at the intersection of Westchester Parkway and Airport Boulevard, Metro Line 115 located at the intersection of Manchester Avenue and Belford Avenue and approximately 0.7 miles southwest of the existing Metro K Line Westchester/Veterans station. Furthermore, the Project Site is located less than 0.4 miles northeast of the future LAX Automated People Mover Intermodal Transportation Facility station expected to be completed in 2025 and less than 0.4 miles northwest of the future expansion of the Metro K-Line LAX/Metro Transit Center station, which is currently under construction and anticipated to be completed in 2024.[3]

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[2] The Westchester–Playa del Rey Community Plan is one of the four Westside community plans currently being updated with the City of Los Angeles Department of City Planning.

[3] LA Metro, Ride the K!, https://kline.metro.net/, accessed August 13, 2024

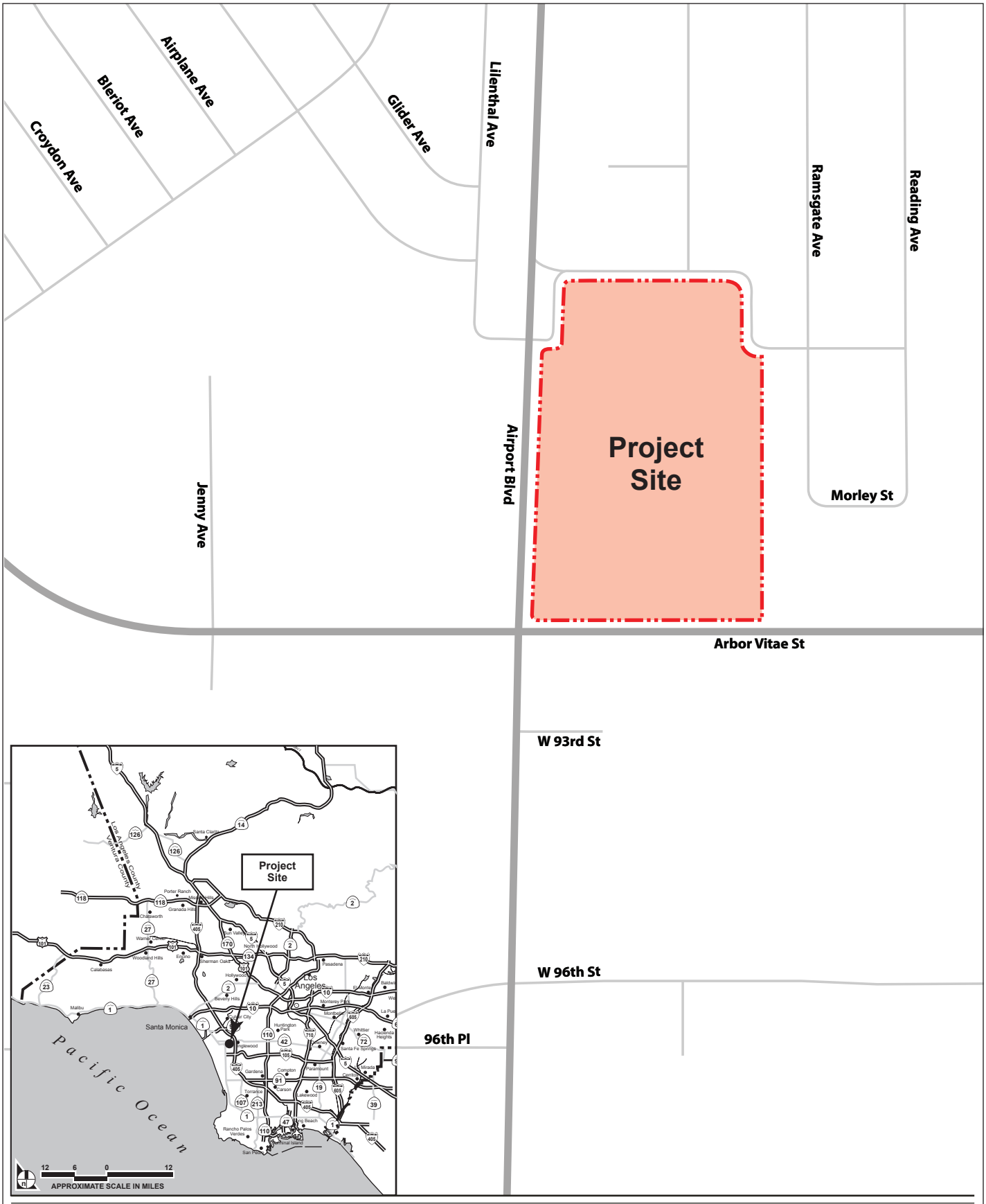



**Figure 1**
Project Location Map

Source: Eyestone Environmental, 2023.

## 3.2.2 Existing Conditions

### 3.2.2.1 Existing Project Site Conditions

As shown in Figure 2 on page 10, the Project Site is currently developed with an approximately 37,860-square-foot rental car facility. The Project Site currently has two single-story buildings with maintenance facilities and office uses, as well as surface parking. Additionally, the Project Site contains accessory structures including a carwash, solar panel canopies, and fueling station canopies. Access to the Project Site is provided via vehicle ingress/egress along Interceptor Street and egress onto Arbor Vitae Street, as well as bus ingress along Airport Boulevard and egress along Arbor Vitae Street. The perimeter of the Project Site is secured with chain link fencing and concrete block walls. Further, two, double-sided advertising billboards are located within the Project Site boundaries along Airport Boulevard.

Existing landscaping within the Project Site includes 146 on-site non-protected trees and 14 street trees within the public right of way surrounding the Project Site. Existing on-site and street trees include species such as Shamel Ash, Queen Palms, Canary Pines, Weeping Figs, and Jacaranda. Based on the Tree Inventory Report included in Appendix IS-1 of this Initial Study, none of the street trees are considered to be protected by the City of Los Angeles Protected Tree and Shrubs Ordinance No. 186,873.[4,5]

### 3.2.2.2 Land Use and Zoning Designations

The Project Site is located within the Westchester–Playa del Rey Community Plan area. The Project Site is designated as Limited Manufacturing and is zoned as [T][Q]M1-1 (Limited Industrial, Height District No. 1). The M1 Zone permits a wide array of land uses. Specifically, the M1 Zone permits any land use permitted in the MR1 and C2 zones, in addition to other specified uses including, but not limited to, foundry, rental of equipment commonly used by contractors, stadiums, arenas, auditoriums, and indoor swap meets. Residential uses are generally not permitted. The "1" in the Project Site's zoning designation refers to the Project Site's location in Height District No. 1. All uses located in the M1 Zone and within Height District No. 1 are restricted to a maximum floor area ratio of 1.5:1.[6] Accordingly, buildable area for FAR purposes is the same as lot area. With a maximum FAR of 1.5:1, the Project Site's 789,989 square feet of lot area/buildable area would permit up to 1,184,984 square feet of floor area. Height District No. 1 within the M1 Zone normally imposes no height limitation, however, the Project Site is subject to the Commercial Corner Development height limit of 45 feet as established by the City of Los Angeles Municipal Code (LAMC) Section 12.22 A.23.

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4 Arborist Tree Survey and Report for Rexford LAX Industrial Project 9000 Airport Boulevard Los Angeles, California, Steve F. Anderson / Arborist Services, February 2024. See Appendix IS-1 of this Initial Study.

5 Pursuant to Ordinance No. 186,873 and as defined in LAMC Section 17.02, a protected tree or shrub includes any of the following Southern California indigenous tree species, which measure four inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the tree, or any of the following Southern California indigenous shrub species, which measure four inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the shrub: Oak tree; Southern California Black Walnut tree; Western Sycamore tree; California Bay tree; Mexican Elderberry shrub; and Toyon shrub. This definition does not include any tree or shrub grown or held for sale by a licensed nursery, or trees planted or grown as part of a tree planting program.

6 FAR and height restrictions can be found at LAMC Section 12.21.1 A.1.




**Figure 2**
Aerial Photograph of the Project Vicinity

Source: Google Earth Pro, 2023; Eyestone Environmental, 2023.

The M1 zone does not impose any setback requirements for commercial or industrial uses. However, the Project Site is subject to "Q" Conditions established by Ordinance No. 167,642, adopted in 1992, which changed the zone to [T][Q] M1-1 and incorporated "Q" Conditions in Section 2 of Ordinance No. 151,439.[7,89] The site's "Q" Conditions generally include provisions to setbacks, noise conditions, traffic congestion, and landscaping requirements. Specifically, with regard to setbacks, an approximately 15-foot landscaped setback shall be provided along portions of the northern and western boundaries of the Project Site along Interceptor Street; the existing seven-foot landscaped setback along Interceptor Street on the east boundary shall be preserved and maintained; a minimum ten-foot landscaped setback shall be provided along both Airport Boulevard and Arbor Vitae Street; and a minimum five-foot setback shall be provided along the east property line contiguous to the R3-1 zone to include trees. No new building or structure shall be built within 50 feet of the northerly or easterly property line adjacent to or across the street from an R3-1 zoned lot.

The Project Site is also located within a Transit Priority Area (TPA) pursuant to Senate Bill (SB) 743. SB 743 established new rules for evaluating aesthetic and parking impacts under CEQA for certain types of projects. Specifically, Public Resources Code (PRC) Section 21099(d) states: "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment." Employment center projects are projects located on property zoned for commercial uses and within a TPA, and with a floor area ratio of not less than 0.75, and TPAs are defined as areas within 0.5 miles of a major transit stop that are existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in an adopted Transportation Improvement Program (TIP) (PRC, Section 21099). The Project Site is also within the boundaries of the Los Angeles Coastal Transportation Corridor Specific Plan established pursuant to Ordinance No. 168,999, effective on September 22, 1993, and amended pursuant to Ordinance Nos, 186,104 and 186,105 on June 28, 2019.[10] Additionally, the Project Site is located within the boundaries of the Los Angeles State Enterprise Zone.

### 3.2.3 Surrounding Land Uses

As shown in Figure 2, on page 10, the Project Site is located in an urbanized area that includes a mix of low-rise buildings containing industrial, residential, and commercial uses. The land uses surrounding the Project Site include Airport Landside, Limited Industrial, Light Manufacturing, Limited Manufacturing, Medium Residential, and Low Residential and have varying zoning designations, including LAX, M1-1, M2-1, MR1-1, R3-1, and R1-1. Directly north of the Project Site, across Interceptor Street, are properties zoned R3-1 with single- and multi-family residential uses. To the east of the Project Site are properties zoned R3-1 and MR-1, which include single-and multi-family residential uses and a car rental facility. To the west of the Project Site, across Airport Boulevard, are properties zoned R1-1 and LAX (as an indication of inclusion in the LAX Los Angeles International Airport Specific Plan), which include surface parking and single-family residential. To the south, across Arbor Vitae Street, are properties zoned LAX and MR-1, which include a motel, a restaurant, and the LAX People Mover maintenance

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7 Ordinance No. 167,642, adopted by the City Council on February 21, 1992.

8 Ordinance No. 151,439, approved by the City Council on September 19,1978.

9 Based on email correspondence with the Department of City Planning on November 17, 2023, although the [T] symbol is present in the zoning, there are no [T] conditions associated with the Project Site.

10 City of Los Angeles, Coastal Transportation Corridor Specific Plan, effective September 22, 1993, amended June 28, 2019.

yard. The LAX People Mover is expected to have elevated tracks up to 50 feet in height running along 96th Street, and will connect the Metro K Line to the LAX Airport. It is currently under construction with completion expected in 2025.

## 3.3 DESCRIPTION OF PROJECT

### 3.3.1 Project Overview

As shown in Figure 3 and Figure 4 on page 13 and page 14 respectively, the Project would consist of one industrial building (Option 1), or three industrial buildings (Option 2). As detailed in Table 1 on page 15, under Option 1, the Project would be comprised of 355,390 square feet of warehouse floor area and 80,000 square feet of associated office floor area for a total floor area of 435,390 square feet with a FAR of approximately 0.6:1. As shown in Figure 5 on page 16, the industrial building under Option 1 would be 50 feet in height and comprised of one level with a 40,000 square foot office mezzanine level located above the ground level office use.

Under Option 2, the Project would be comprised of 320,056 square feet of warehouse floor area and 90,000 square feet of associated office floor area for a total floor area of 410,056 with a FAR of approximately 0.5:1. The industrial building on the northern portion of the Project Site (Building 1) would have a floor area of 117,930 square feet comprised of 87,930 square feet of warehouse floor area and 30,000 square feet of office floor area. The industrial building on the western portion of the Project Site (Building 2) would have a floor area of 154,083 square feet comprised of 124,083 square feet of warehouse floor area and 30,000 square feet of office floor area. The industrial building on the eastern portion of the Project Site (Building 3) would have a floor area of 138,043 square feet comprised of 108,043 square feet of warehouse floor area and 30,000 square feet of office floor area. As shown on Figure 6 through Figure 8 on pages 17 through 19, respectively, all three industrial buildings under Option 2 would be 46 feet in height comprised of one level with a 15,000 square foot office mezzanine level above the ground level office use.

The Project would include surface parking with 288 vehicle parking spaces and 90 trailer parking spaces under Option 1, and 369 vehicle parking spaces under Option 2. In addition, 96 bicycle spaces would be provided under Option 1, and 91 bicycle parking spaces would be provided under Option 2. A total of 37,860 square feet of existing commercial and industrial uses and associated surface parking areas would be demolished to accommodate the Project.

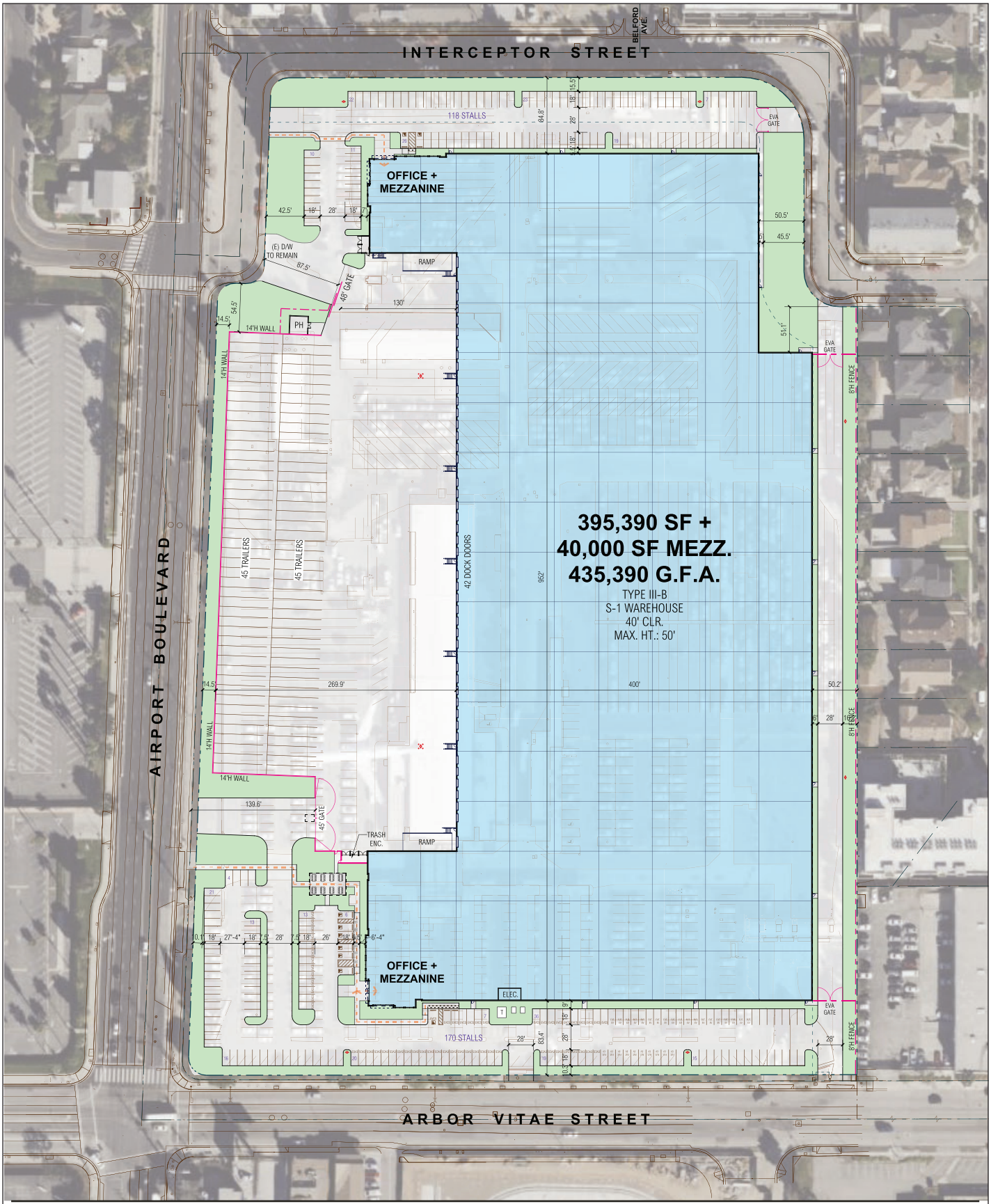



**Figure 3**

Conceptual Site Plan - Option 1

Source: RGA Office of Architectural Design, 2024.

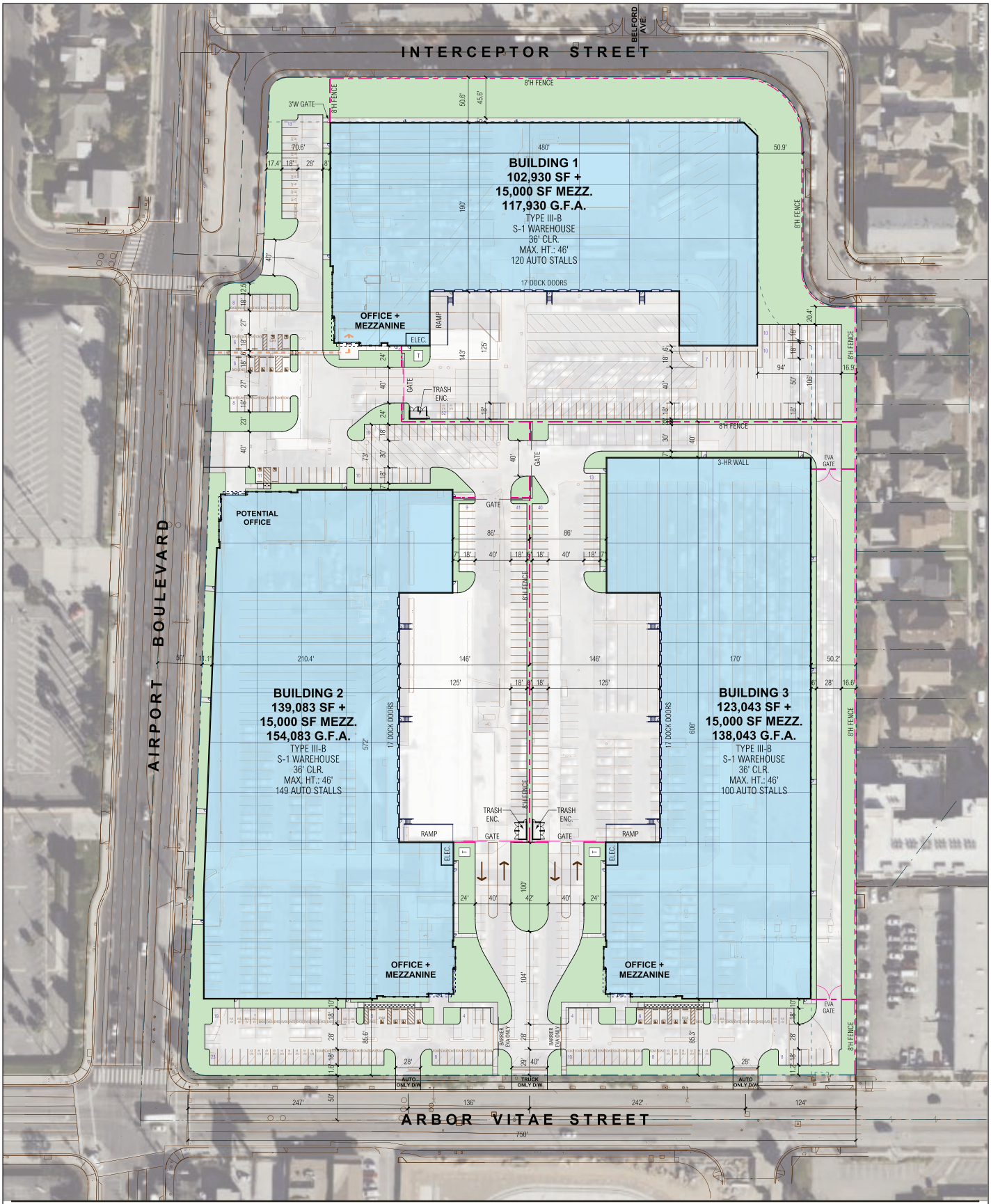



**Figure 4**

Conceptual Site Plan - Option 2

Source: RGA Office of Architectural Design, 2024.

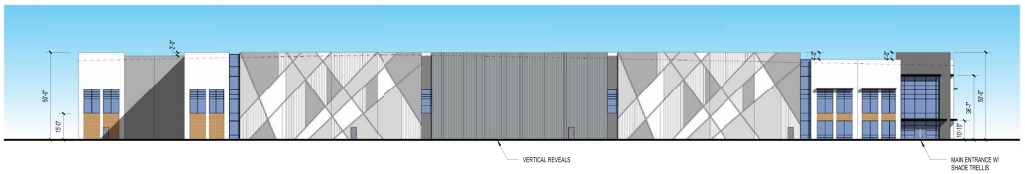
**Table 1**
**Summary of Existing and Proposed Floor Area**

| Land Use | Option 1 Floor Area | Option 2 Floor Area |
|---|---|---|
| **Existing (All to Be Removed)** | | |
| Rental Car Facility Structures | 37,860 sf | 37,860 sf |
| *Total Existing Floor Area to Be Removed* | *37,860 sf* | *37,860 sf* |
| **New Construction** | | |
| Industrial | 355,390 sf | 320,056 sf |
| Office | 80,000 sf | 90,000 sf |
| Total New Construction | 435,390 sf | 410,056 sf |
| **Total Floor Area Upon Completion** | **435,390 sf** | **410,056 sf** |

*sf = square feet*

[a] *Square footage is calculated pursuant to the LAMC definition of floor area for the purpose of calculating FAR. In accordance with LAMC Section 12.03, floor area is defined as "[t]he area in square feet confined within the exterior walls of a building, but not including the area of the following: exterior walls, stairways, shafts, rooms housing building-operating equipment or machinery, parking areas with associated driveways and ramps, space dedicated to bicycle parking, space for the landing and storage of helicopters, outdoor dining areas, and basement storage areas."*

*Source: Eyestone Environmental, 2024.*



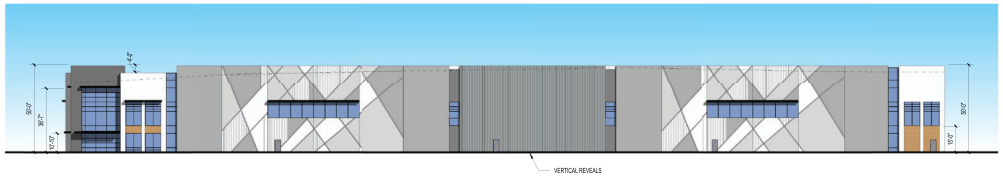

1 NORTH ELEVATION
1" = 30'-0"

1"=30'
0 15' 30' 60' 150'



2 EAST ELEVATION
1" = 30'-0"

1"=30'
0 15' 30' 60' 150'




3 SOUTH ELEVATION
1" = 30'-0"

1"=30'
0 15' 30' 60' 150'

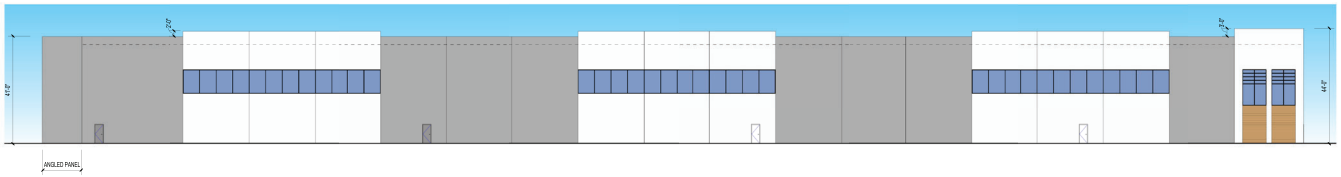



4 WEST ELEVATION
1" = 30'-0"

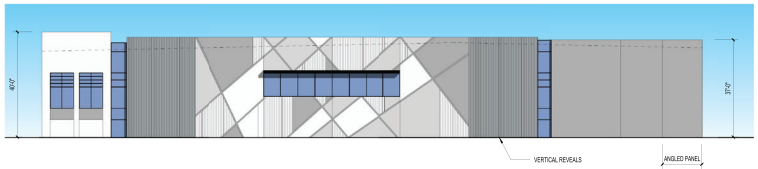
1"=30'
0 15' 30' 60' 150'

**Figure 5**
Conceptual Elevation – Option 1

Source: RGA Office of Architectural Design, 2024.



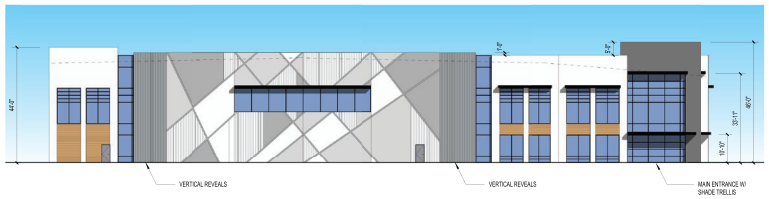

1 NORTH ELEVATION
1" = 20'-0"




2 EAST ELEVATION
1" = 20'-0"



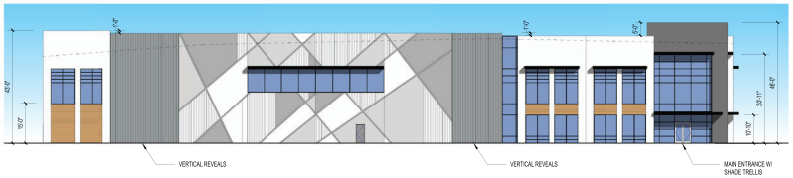

3 SOUTH ELEVATION
1" = 20'-0"



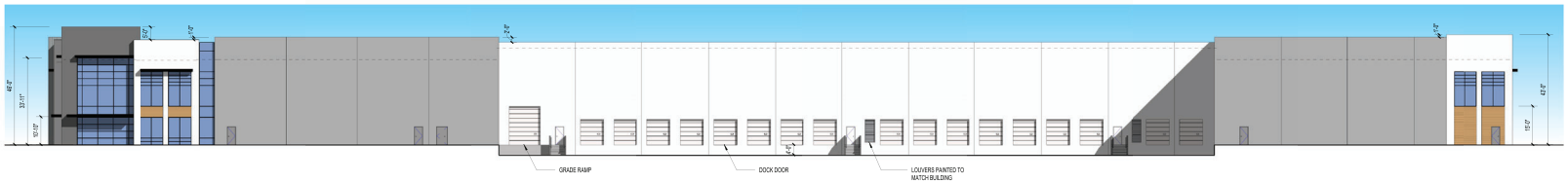

4 WEST ELEVATION
1" = 20'-0"

**Figure 6**
Conceptual Elevation – Option 2, Building 1

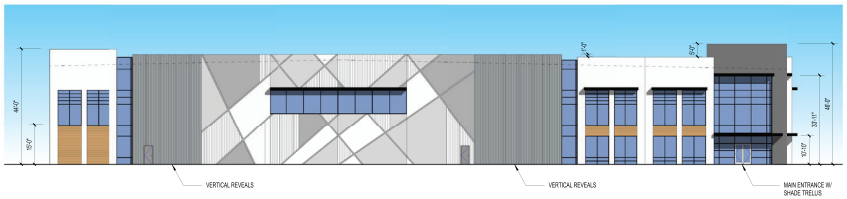
Source: RGA Office of Architectural Design, 2024.



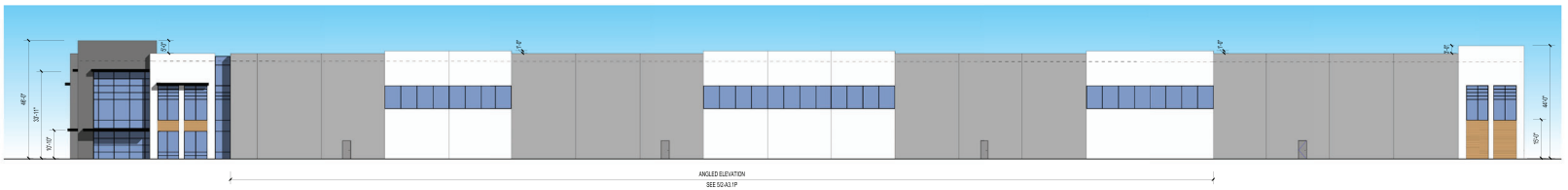

1 NORTH ELEVATION
1" = 20'-0"




2 EAST ELEVATION
1" = 20'-0"



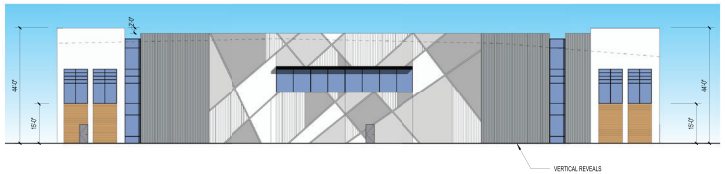

3 SOUTH ELEVATION
1" = 20'-0"




4 WEST ELEVATION
1" = 20'-0"

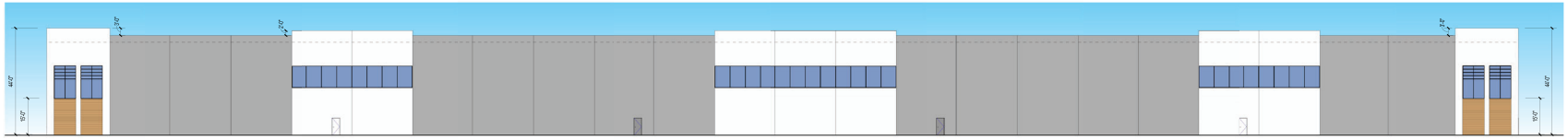
**Figure 7**
Conceptual Elevation – Option 2, Building 2

Source: RGA Office of Architectural Design, 2024.



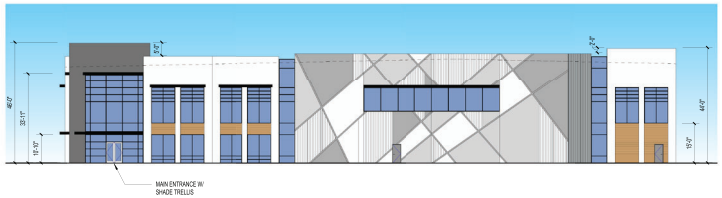

1 NORTH ELEVATION
1" = 20'-0"

1"=20'
0 10' 20' 40' 100'



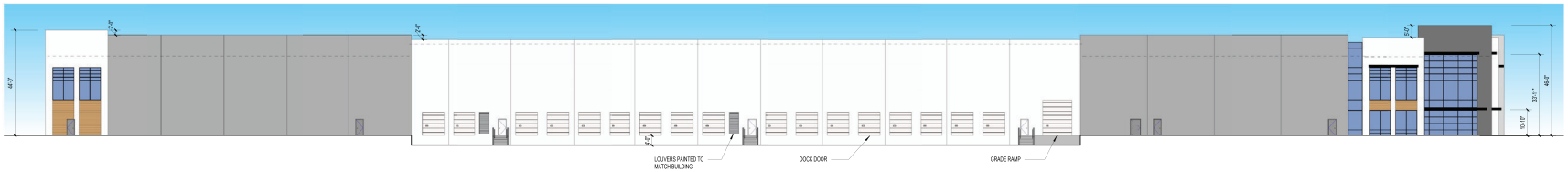
2 EAST ELEVATION
1" = 20'-0"

1"=20'
0 10' 20' 40' 100'




3 SOUTH ELEVATION
1" = 20'-0"

1"=20'
0 10' 20' 40' 100'




4 WEST ELEVATION
1" = 20'-0"

1"=20'
0 10' 20' 40' 100'

**Figure 8**
Conceptual Elevation – Option 2, Building 3

Source: RGA Office of Architectural Design, 2024.

### 3.3.2 Design and Architecture

Both Project options would include design features such as varied roof lines to break up the massing and create a more attractive and human-scale appearance. Additionally, both Project options would provide extensive landscaping along the street frontages which would enhance the pedestrian experience and act as a buffer between the industrial uses and the street. As shown in Figure 9 and Figure 10 on pages 21 and page 22 respectively, the Project would feature neutral colors, tinted glazing, and accent materials, and through the use of clerestory glazing and varied paint patterns, would further break up the mass of the building visually. The pedestrian walkways throughout the Project Site would be integrated with landscaped areas and pathways for employees while still providing for a space-efficient design for an active industrial warehouse center. Further, the Project would orient loading docks and vehicular circulation routes toward the central and western facing portions of the Project Site, and use the proposed building(s) and trees as buffers to the nearby residential uses.

As described above, the Project Site is subject to "Q" Conditions, which generally include provisions with regard to setbacks, noise conditions, light pollution reduction, and landscaping requirements. In compliance with the "Q" Conditions for the Project Site, the Project would minimize windows on portions of the Project Site that face residential uses and provide landscaping and building setbacks as shown in Table 2 on page 23.

### 3.3.3 Open Space and Landscaping

As an industrial development, the Project is not required to provide open space in accordance with the LAMC Section 12.21 G. Notwithstanding, the Project's landscaping plans have been designed to enhance the public realm and create more effective transitions between off-site and on-site uses. As shown in Figure 11 and Figure 12 on page 24 and page 25, respectively, landscaping elements would be used to unify the various buildings on the Project Site through a diverse plant palette to be used along the street frontages and throughout the Project Site. Plantings would include resilient, drought-tolerant, California native, and adaptive tree, shrub, and groundcover species, including shade trees.

For Option 1, a total of 94,400 square feet of landscaped areas are proposed. For Option 2, a total of 120,400 square feet of landscaped areas are proposed. Under both options, the Project would also enhance the public realm through streetscape improvements that would create a cohesive visual identity for the Project Site and enhance the pedestrian experience, while providing for the unique security needs of the warehouse buildings including integration of fencing with planting along the perimeter of the site. The Project would include new landscaping and maintenance of existing landscaping along Interceptor Street, Arbor Vitae Street, and Airport Boulevard as well as in the interior of the Project Site. These perimeter area and Project Site improvements would also include lighting, short-term bicycle parking, and wayfinding signage.

Under Option 1 the Project would remove 56 existing on-site trees and two street trees, and under Option 2, the Project would remove 57 existing on-site trees and five street trees. None of the trees that are proposed to be removed in either Project option are protected under the City's Protected Tree and Shrubs Ordinance No. 186,873. The Project would replace the removed on-site trees with approximately 90 new trees under Option 1 and 93 new trees under Option 2, including drought tolerant, disease resistant, and non-invasive California native species including, but not limited to Jacaranda, Crepe Myrtle, Fruitless Olive, and Canary Island Pine trees. The Project would also include



**Figure 9**
Conceptual Rendering—Option 1

Source: Rexford Industrial Realty, Inc 2024



**Figure 10**
Conceptual Rendering—Option 2

Source: Rexford Industrial Realty, Inc 2024

**Table 2**
**Proposed Project Setbacks**

| Required Minimum Setback | Option 1 Setbacks | Option 2 Setbacks |
|---|---|---|
| **Landscaped Setbacks**[a] | | |
| Interceptor Drive (north)—15 feet | 15.5 feet | 50.6 feet |
| Arbor Vitae Street (south)—10 feet | 10.3 feet | 11.2-11.6 feet |
| East Side of Project Site Adjacent to R3-1 Zone (east)—5 feet | 16.2 feet | 16.4 feet |
| Interceptor (east)—7 feet | 45.5 feet | 50.9 feet |
| Airport Boulevard (west)—10 feet | 14.5 feet | 11.1 feet |
| Interceptor Drive (west)—15 feet | 42.5 feet | 17.4 feet |
| **Building Setbacks**[b] | | |
| East Side—50 feet | 50.2 feet | 50.2 feet |
| North Side—50 feet | 84.8 feet | 50.6 feet |

*sf = square feet*

[a] *Landscaped setbacks are required pursuant to "Q" conditions No. 3 and No. 4 included in Section 2 of Ordinance No. 151,439.*

[b] *Building setbacks facing residential uses on the north and east of the Project Site are required pursuant to "Q" condition No. 15 included in Section 2 of Ordinance No. 151,439. As described therein, no building or structure to be built on the Project Site shall be located within 50 feet of the northerly or easterly property line adjacent to or across the street from an R3-1 zoned lot.*

*Source: Eyestone Environmental, 2024.*




**Figure 11**
Conceptual Landscape Plan—Option 1

Source: Conceptual Design and Planning Company, 2024.




**Figure 12**

Conceptual Landscape Plan—Option 2

Source: Conceptual Design and Planning Company, 2024.

non-invasive ground cover through various species of agaves and aloes. In addition, in accordance with City requirements, the Project would replace the removed street trees at a 2-to-1 ratio with four new street trees under Option 1, and ten new street trees under Option 2, including *Jacaranda mimosifolia*, *Lagerstroemia indica*, and *Magnolia grandiflora*.

### 3.3.4 Access, Circulation, and Parking

On September 22, 2022, Assembly Bill (AB) 2097 was adopted by the State of California and subsequently added to California Government Code Section 65863.2. AB 2097 prohibits a public agency from imposing or enforcing any minimum automobile parking requirement on any residential, commercial, or other development project that is within 0.5 miles of a Major Transit Stop.[11] A development project, for purposes of this bill, includes any project requiring a discretionary entitlement or building permit to allow the construction, reconstruction, alteration, addition, or change of use of a structure or land. Per AB 2097, the Project is not required to provide parking as it is a discretionary development project that is within 0.5 miles of the future expansion of the Metro K-Line LAX/Metro Transit Center station, a Major Transit Stop, and, thus, the Project is eligible for and will be utilizing AB 2097, and is therefore not subject to any minimum parking requirements. However, the Project would include surface parking, with 288 vehicle spaces and 90 trailer parking spaces under Option 1, and 369 vehicle parking spaces, inclusive of 20 tandem spaces, under Option 2.

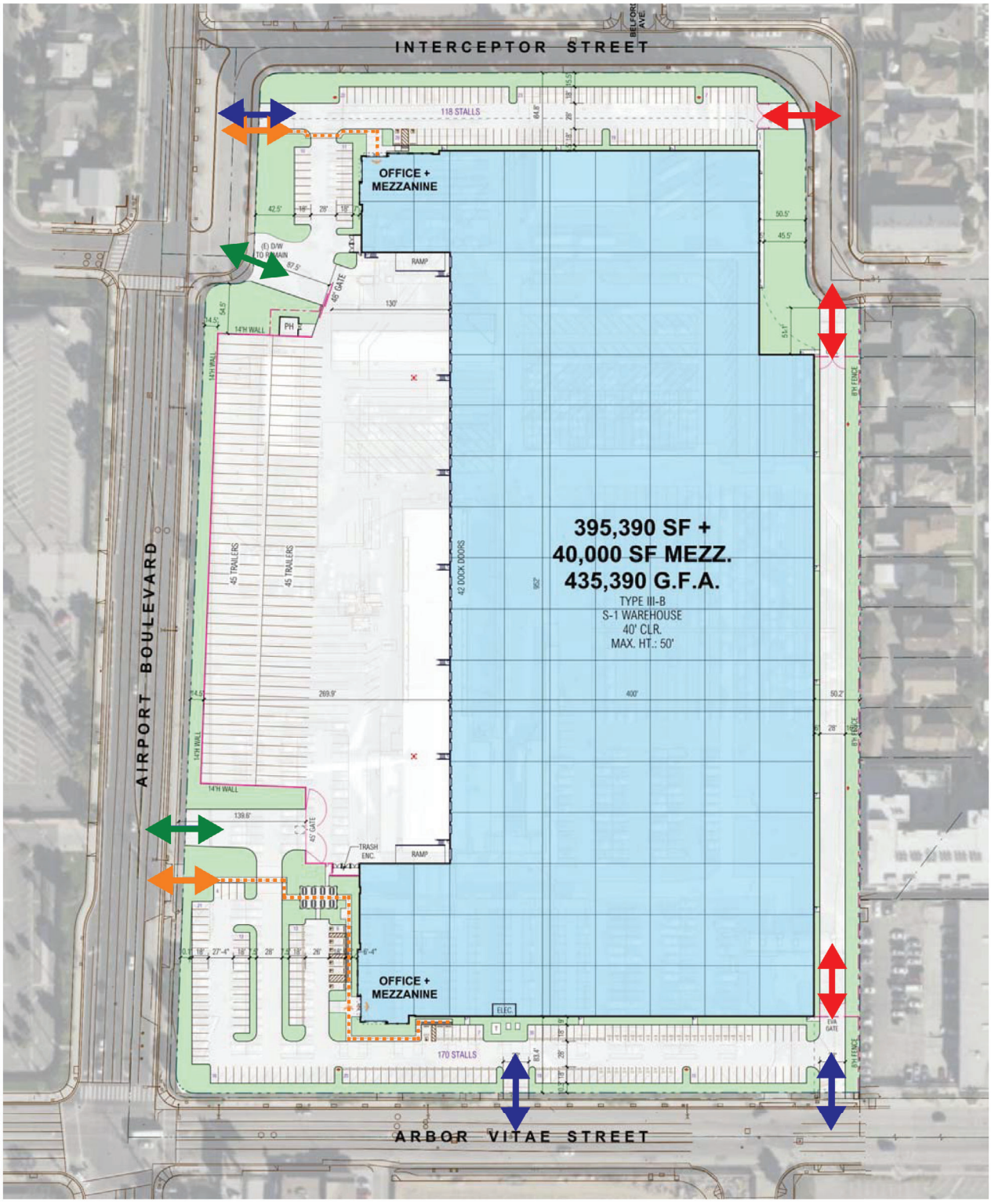
As shown in Figure 13 on page 27, for Option 1, vehicular access to the Project Site would be provided along the southern boundary on Arbor Vitae Street and along the western boundary on Airport Boulevard and Interceptor Street. Two emergency vehicle access (EVA) driveways would be located on the eastern portion of the Project Site on Arbor Vitae Street and on Interceptor Street. In addition to the surface parking areas, Option 1 would include 42 loading dock doors oriented toward Airport Boulevard to the west. In addition, 44 short-term and 52 long-term for a total of 96 bicycle parking spaces would be provided. Access for trash pickup would be provided via the driveway on Airport Boulevard on the southwestern portion of the Project Site.

As shown in Figure 14 on page 28 for Option 2, vehicular access to the Project Site would be provided via three driveways along Arbor Vitae Street, and two driveways along Airport Boulevard and Interceptor Street. An EVA access driveway would be located on the eastern portion of the Project Site along Arbor Vitae Street. In addition to the surface parking, Option 2 would include 17 loading dock doors at each building oriented toward the center of the Project Site. Further, 41 short-term and 50 long-term for a total of 91 bicycle parking spaces would be provided. Access for trash pickup would be provided via the driveway on Airport Boulevard for Building 1 and via the driveway on Arbor Vitae Street for Building 2 and Building 3.

For both options, pursuant to Ordinance No. 187,719 and Ordinance No. 186,485, 30 percent of the Project's parking spaces would be designated as Electric Vehicle (EV) spaces capable of supporting future electric vehicle supply equipment (EVSE) with 20 percent of the spaces equipped with EV Charging Stations.

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[11] PRC Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."

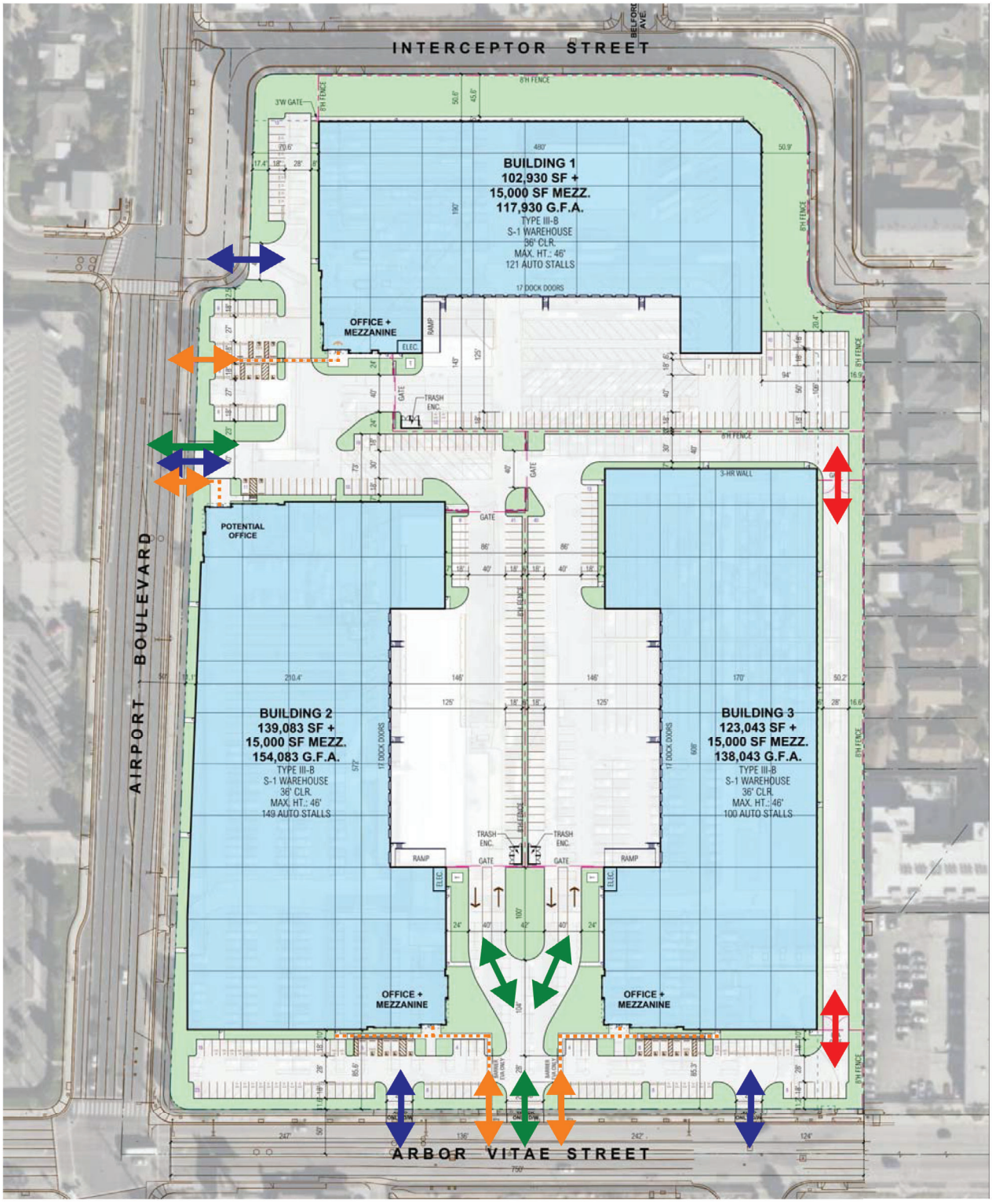



**Legend**

- Car Ingress/Egress
- Truck Ingress/Egress
- EVA Access Only
- Pedestrian Access
- Path of Travel

**Figure 13**
Access and Circulation Plan - Option 1

Source: RGA Office of Architectural Design, 2024.




**Legend**

- Car Ingress/Egress
- Truck Ingress/Egress
- EVA Access Only
- Pedestrian Access
- Path of Travel

**Figure 14**
Access and Circulation Plan - Option 2

Source: RGA Office of Architectural Design, 2024.

### 3.3.5 Lighting and Signage

For both options, all lighting would comply with current energy standards and code requirements while providing appropriate light levels needed to provide safety and to accent signage, architectural features, and landscaping elements. Light sources would be shielded and/or directed toward Project Site areas to minimize light spill-over to neighboring properties and the surrounding area while utilizing low-level exterior lights at the site perimeter, as needed, for aesthetic, security, and wayfinding purposes. Additionally, new street and pedestrian lighting within the public right-of-way would provide appropriate and safe lighting levels on both sidewalks and roadways, while minimizing light and glare on adjacent properties, in compliance with applicable City regulations and with approval by the Bureau of Street Lighting. Glass in building façades would be selected for qualities such as low reflectivity to reduce glare; energy efficiency to limit solar heat gain; high visibility for adequate light transmission; and acoustic performance to reduce noise from outside.

New signage would be integrated with and complement the overall aesthetic character of proposed on-site development and surroundings. Project signage could include general ground-level and wayfinding pedestrian signage around the Project Site perimeter, building identification signs, marquee and monument signs, pillar and pole signs, banners, and other sign types such as on-site wall signs, internal digital on-site signage, murals, and studio graphics that are typical on industrial warehouse buildings. Project signage may include both externally and internally lit signs, to which LAMC illumination regulations would apply.

### 3.3.6 Site Security

Project security would involve a combination of physical and operational strategies intended to achieve a secure and safe working environment. Fencing, walls, landscaping, and other elements would be used to create a physical barrier at the perimeter of the Project Site to maintain the privacy necessary for certain operational activities and to ensure pedestrian safety. In addition, points of entry would be secured by elements such as guard booths, key card passes, pedestrian and vehicular access controls, and site-wide lighting. Operational elements such as 24-hour security personnel, employee and visitor badging, and visual surveillance would further enhance the security and safety of the Project.

Office lobbies would also include security-controlled access. Additionally, the Project would be designed such that entrances to and exits from the buildings, open spaces around the buildings, and pedestrian walkways would be open and in view of surrounding sites. Further, building exteriors and walkways would be properly lit to provide for pedestrian orientation and clearly identify a secure route between parking areas and points of entry into buildings. Parking areas would also be sufficiently lit to maximize visibility and reduce areas of concealment.

### 3.3.7 Sustainability Features

The Project has been designed and would be constructed to incorporate environmentally sustainable building features equivalent to Gold certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Rating System for new construction, and environmentally sustainable building features and construction standards required by the Los Angeles Green Building Code (LAMC Chapter IX, Article 9) and the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11; referred to as the CALGreen Code), and the California Building Energy

Efficiency Standards (California Code of Regulations, Title 24, Part 6; California Energy Code). Both in compliance with and, in some cases, in exceedance of Code requirements, a number of specific sustainable design components would be incorporated into the Project, including but not limited to: Energy Star appliances; solar panels; continuous insulation and high-performance glazing to minimize heating and cooling loads; ultra-low flow plumbing fixtures and fittings that comply with the performance requirements specified in the Los Angeles Green Building Code; weather-based irrigation systems; water-efficient plantings with drought-tolerant species; shade trees in public areas; green walls in certain outdoor areas; vegetated roofs or cool roof systems to help reduce energy use; short- and long-term bicycle parking and related amenities; use of daylighting where feasible; and energy-efficient lighting. Additionally, the Project would provide preferential parking for carpools and low-emitting and zero emission vehicles, and 30 percent of the Project's parking spaces would be designated as EV spaces capable of supporting future EVSE, with 20 percent of the spaces equipped with EV Charging Stations. Such measures would support energy conservation and will be further defined in the EIR.

### 3.3.8 Anticipated Construction Schedule

Project construction would begin with the demolition of the existing rental car facility structures. The next phase would include grading and excavation, which would extend to a depth of approximately 10 feet below ground surface (bgs). The building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to commence in 2026 and be completed in 2027. For Option 1, no export would be required to be hauled off the Project Site and 9,612 cubic yards of import would be hauled to the Project Site. For Option 2, 4,850 cubic yards of export would be hauled off the Project Site and no import would be hauled to the Project Site.

## 3.4 REQUESTED PERMITS AND APPROVALS

The anticipated requests for approval of the Project are listed below. The Environmental Impact Report will analyze the potential impacts associated with the Project and will provide the environmental review sufficient for all necessary entitlements and public agency actions associated with the Project. The discretionary entitlements, reviews, permits and approvals required to implement the Project include, but are not necessarily limited to, the following:

- A **Vesting Class 2 Conditional Use Permit** for a Commercial Corner Development in an M zone, adjoining a R zoned lot, to allow:
  - Hours of operation outside the otherwise permitted hours of 7:00 A.M. to 11:00 P.M.;
  - A maximum building height of 50 feet in lieu of the otherwise permitted height of 45 feet;
  - Commercial tandem parking, as otherwise not permitted; and
  - Less than 50 percent of the exterior walls and doors of a ground floor fronting adjacent streets containing transparent windows.
- A **Vesting Class 3 Conditional Use Permit** for a Major Development Project in the M1 Zone which creates more than 250,000 square feet of warehouse floor area.

- A **Project Review** to permit the development of a project which creates or results in an increase of 50,000 square feet or more of nonresidential floor area.

- Other discretionary and ministerial permits that may be deemed necessary, including, but not limited to, temporary street closure permits, grading permits, excavation permits, foundation permits, building permits, and sign permits.

## 3.5 RESPONSIBLE PUBLIC AGENCIES

A Responsible Agency under CEQA is a public agency that proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or negative declaration (State CEQA Guidelines Section 15381). No responsible agency has been identified for the Project. A Trustee Agency under CEQA is a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (State CEQA Guidelines Section 15386). No trustee agencies have been identified for this Project.

# 4 ENVIRONMENTAL IMPACT ANALYSIS

## I. AESTHETICS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Except as provided in Public Resources Code Section 21099, would the project: | | | | |
| a. Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☒ | ☐ | ☐ | ☐ |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☒ | ☐ | ☐ | ☐ |

**a. Would the project have a substantial adverse effect on a scenic vista?**

**Less Than Significant Impact.** The City's General Plan Conservation Element defines scenic vistas or vistas as the "panoramic public view access to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features."[12] Panoramic views or vistas provide visual access to a large geographic area, for which the field of view can be wide and extend into the distance. Panoramic views are typically associated with vantage points looking out over a section of urban or natural areas that provide a geographic orientation not commonly available. Focal views are also relevant when considering this question from Appendix G of the CEQA Guidelines. Examples of focal views include natural landforms, public art/signs, historic buildings, and important trees. The Project is located within an urbanized portion of the City of Los Angeles.

The Project Site is bounded by South Interceptor Street to the north, West Arbor Vitae Street to the south, residential uses and surface parking to the east, and South Airport Boulevard to the west. The

[12] City of Los Angeles Department of City Planning, General Plan Conservation Element, originally adopted September 26, 2001.

Project Site is currently developed with an approximately 37,860-square-foot rental car facility. The Project Site currently has two single-story buildings used for maintenance facilities and office uses, as well as surface parking. Additionally, the Project Site contains accessory structures including a carwash, solar panel canopies, and fueling station canopies. As shown in Figure 2, on page 10, the Project Site is located in an urbanized area that includes a mix of low-rise buildings containing industrial, residential, and commercial uses. The existing buildings on the Project Site are not listed on the National Register of Historic Places, the California Register of Historical Resources, or as a County of Los Angeles Landmark or City of Los Angeles Historic-Cultural Monument. Therefore, the buildings would not be considered visual resources for purposes of this analysis. Panoramic views of visual resources are limited due to the predominantly flat terrain of the Project area and the relatively dense, intervening development that blocks such long-range, expansive views. Additionally, the Project would not block focal views of visual resources. Overall, due to the highly urbanized and built out surroundings, development of the Project would not substantially or adversely affect a scenic vista. Impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

**b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact.** The Project Site is not located along a state scenic highway. The nearest officially eligible state scenic highway is along Lincoln Boulevard (Route 1), approximately 4.8 miles northwest of the Project Site.[13] Therefore, the Project would not substantially damage scenic resources within a state scenic highway as no scenic highways are located adjacent to the Project Site. No impacts would occur, and no further evaluation of this topic in an EIR is required.

**c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

**Potentially Significant Impact.** The Project is located within an urbanized portion of the City of Los Angeles and would include removal of the existing on-site structures, and the construction of one or three warehouse buildings. Development of the Project would change the visual character and quality of public views of the Project Site. As such, further evaluation of the Project's potential to conflict with applicable zoning and other regulations governing scenic quality, including the LAMC and City's General Plan Framework, would be provided in an EIR.

**d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Potentially Significant Impact.** The Project is located within an urbanized portion of the City of Los Angeles and would include removal of the existing on-site structures, and the construction of one or three warehouse buildings which may introduce new sources of light and potential glare typically associated with architectural lighting, interior lighting, and security and wayfinding lighting. Therefore, further evaluation of the Project's potential light and glare impacts will be evaluated in the EIR.

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[13] California Department of Transportation, Scenic Highways, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed July 19, 2024.

# II. AGRICULTURE AND FOREST RESOURCES

*In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.*

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| 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))? | ☐ | ☐ | ☐ | ☒ |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

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

**No Impact.** The Project Site is located in an urbanized area of the City of Los Angeles. As discussed in Section 3, Project Description, of this Initial Study, the Project Site is currently developed with commercial uses as well as associated surface parking. No agricultural uses or operations involving farmland occur on-site or in the vicinity of the Project Site. Furthermore, the Project Site and surrounding area are not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide

Importance pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency Department of Conservation.[14,15] As such, the Project would not convert farmland to a non-agricultural use. No impacts would occur, and no further evaluation of this topic in an EIR is required.

**b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact.** The Project Site is zoned [T][Q]M1-1 (Tentative, Qualified Qualification, Limited Industrial, Height District No. 1). The Project Site is not zoned for agricultural use. Furthermore, no agricultural zoning is present in the surrounding area. Additionally, the Project Site and surrounding area are not enrolled under the California Land Conservation Act and are not subject to a Williamson Act Contract.[16] Therefore, the Project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. No impacts would occur, and no further evaluation of this topic in an EIR is required.

**c. Would the project 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))?**

**No Impact.** As previously discussed, the Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking areas. The Project Site does not include any forest land or timberland. In addition, as discussed above, the Project Site is not zoned for forest land and is not used as forest land.[17] Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland as defined by the Public Resources Code. No impacts would occur, and no further evaluation of this topic in an EIR is required.

**d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** As previously discussed, the Project Site is located in an urbanized area and does not include any forest land. Therefore, the Project would not result in the loss or conversion of forest land to non-forest use. No impacts would occur, and no further evaluation of this topic in an EIR is required.

**e. Would the project 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?**

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14 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

15 California Department of Conservation, California Important Farmland Finder, https://maps.conservation.ca.gov/DLRP/CIFF/App/index.html?marker=-118.29152006048791%2C34.02551004278704%2C%2C%2C%2C&markertemplate=%7B%22title%22%3A%22%22%2C%22longitude%22%3A-118.29152006048791%2C%22latitude%22%3A34.02551004278704%2C%22isIncludeShareUrl%22%3Atrue%7D&level=14, accessed July 19, 2024.

16 California Department of Conservation, The Williamson Act Status Report 2020–21, May 2022.

17 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4125-010-016 http://zimas.lacity.org/, accessed July 19, 2024.

**No Impact.** As discussed above, the Project Site is located in an urbanized area of the City and does not include farmland or forest land. Furthermore, the Project Site and surrounding area are not mapped as farmland or forest land, are not zoned for farmland/agricultural use or forest land, and do not contain any agricultural or forest uses.[18] As such, the Project would not result in the conversion of farmland to non-agricultural use or in the conversion of forest land to non-forest use. No impacts would occur, and no further evaluation of this topic in an EIR is required.

# III. AIR QUALITY

*Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations.*

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | ☒ | ☐ | ☐ | ☐ |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | ☒ | ☐ | ☐ | ☐ |
| c. Expose sensitive receptors to substantial pollutant concentrations? | ☒ | ☐ | ☐ | ☐ |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

### a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

**Potentially Significant Impact.** The Project Site is located within the 6,700-square-mile South Coast Air Basin (Basin). Within the Basin, the South Coast Air Quality Management District (SCAQMD) is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in some level of non-attainment (i.e., ozone, particulate matter less than 2.5 microns in size [$PM_{2.5}$], and lead[19]). SCAQMD's 2016 and 2022 Air Quality Management Plans (AQMPs) contain a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino,

[18] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

[19] Partial nonattainment designation for lead for the Los Angeles County portion of the South Coast Air Basin only. The Basin has an extreme nonattainment designation for Ozone under the NAAQS. The Basin has a serious nonattainment designation for $PM_{2.5}$ under the NAAQS.

and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development, and the environment.[20] With regard to future growth, SCAG has prepared their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the RTP/SCS are based on growth projections in local general plans for jurisdictions in SCAG's planning area. Construction and operation of the Project may result in an increase in stationary and mobile source air emissions. As a result, development of the Project could have a potential adverse effect on SCAQMD's implementation of the AQMP. Therefore, further evaluation of the Project's potential conflicts with the AQMP will be included in the EIR.

**b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

**Potentially Significant Impact.** As discussed above, construction and operation of the Project could result in the emission of air pollutants in the Basin, which is currently in non-attainment of federal air quality standards for ozone (extreme), $PM_{2.5}$ (serious), and lead (partial), and state air quality standards for ozone, particulate matter less than 10 microns in size ($PM_{10}$), and $PM_{2.5}$.[21] As a result, implementation of the Project could potentially contribute to air quality impacts, which could cause a cumulative impact in the Basin. Therefore, further evaluation of the Project's potential cumulative air pollutant emissions will be included in the EIR.

**c. Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Potentially Significant Impact.** As discussed above, the Project could result in increased short- and long-term air pollutant emissions from the Project Site during construction (short-term) and operation (long-term). Sensitive receptors located in the vicinity of the Project Site include residential uses. Therefore, further evaluation of the Project's potential to result in substantial adverse impacts to sensitive receptors will be included in the EIR.

**d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less Than Significant Impact.** No objectionable odors are anticipated as a result of either construction or operation of the Project. Specifically, construction of the Project would involve the use of off-road construction equipment and conventional building materials typical of construction projects of similar type and size. Any odors that may be generated during construction would be localized and temporary in nature and would not be sufficient to affect a substantial number of people. With respect to Project operation, according to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.[22] The Project would not involve operation of these types of uses. In addition, on-site trash receptacles would be contained,

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[20] SCAG serves as the federally designated metropolitan planning organization (MPO) for the Southern California region.

[21] SCAQMD, National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin, 2023.

[22] SCAQMD, CEQA Air Quality Handbook, 1993.

located, and maintained in a manner that promotes odor control, and would not result in substantially adverse odor impacts.

Construction and operation of the Project would also comply with SCAQMD Rules 401, 402, and 403, regarding visible emissions violations.[23] In particular, Rule 402 provides that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.[24]

Based on the above, the Project would not result in other emissions such as those leading to odors. Impacts during construction and operation of the Project would be less than significant, and no further evaluation of this topic in an EIR is required.

# IV. BIOLOGICAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☒ | ☐ |
| 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 Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |

[23] SCAQMD, Visible Emissions, Public Nuisance, and Fugitive Dust, www.aqmd.gov/home/rules-compliance/compliance/inspection-process/visible-emissions-public-nuisance-fugitive-dust, accessed July 19, 2024.

[24] SCAQMD, Rule 402, Nuisance, adopted May 7, 1976.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☒ | ☐ |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |

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

**Less Than Significant Impact.** The Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking. The Project Site is relatively flat with limited ornamental landscaping. The Project Site is not located in or adjacent to a Biological Resource Area or Significant Ecological Area as defined by the City of Los Angeles or County of Los Angeles.[25,26] In addition, there are no other sensitive natural communities identified by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) located in or adjacent to the Project Site. Rather, the Project Site and surrounding areas contain urbanized and disturbed land. Due to the urbanized and disturbed nature of the Project Site, species likely to occur on-site or in surrounding areas are limited to small terrestrial and avian species typically found in urbanized developed settings. Based on the lack of species habitat on the Project Site and in the surrounding areas, it is unlikely that any special status species listed by the CDFW[27] or by the USFWS[28] would be present on-site.

According to the Tree Inventory Report prepared for the Project included in Appendix IS-1 of this Initial Study, there are 146 non-protected trees on the Project Site and 14 non-protected street trees adjacent

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25 City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, Figure BR-1D—Biological Resources Areas (Coastal and Southern Geographical Area), January 19, 1995, p. 2-18-6.

26 County of Los Angeles, Department of Regional Planning, Los Angeles County General Plan Update, Final Environmental Impact Report, Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map, February 2015.

27 California Department of Fish and Wildlife, California Natural Diversity Database, Special Animals List, November 2023.

28 United States Fish and Wildlife Service, ECOS Environmental Conservation Online System, Listed species believed to or known to occur in California, https://ecos.fws.gov/ecp/report/species-listings-by-state?stateAbbrev=CA&stateName=California&statusCategory=Listed, November 15, 2023.

to the Project Site. Although unlikely, these trees could potentially provide nesting sites for migratory birds. However, the Project would comply with California Fish and Game Code Section 3503, which states that "[i]t is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." While the Project would require the removal of 58 existing trees (including 56 on-site trees and two street trees) under Option 1, and 62 existing trees (including 57 on-site trees and five street trees) under Option 2, which could potentially provide nesting sites for migratory birds, compliance with California Fish and Game Code Section 3503 and standard construction processes during nesting season would ensure that construction activities would not adversely affect nesting sites. In accordance with California Fish and Game Code Section 3503, with the implementation of BIO-PDF-1 tree removal activities associated with the Project would take place outside of the nesting season (February 1–August 31), to the extent feasible. Should vegetation removal activities occur during the nesting season, a biological monitor would be present during the removal activities to ensure that no active nests would be impacted. If active nests are found during removal activities, a buffer would be established until the fledglings have left the nest. The size of the required buffer area would vary with the species and local circumstances (e.g., presence of busy roads) and would be based on the professional judgment of the monitoring biologist, in coordination with the CDFW.

Therefore, with implementation of BIO-PDF-1 which includes compliance with California Fish and Game Code Section 3503, Migratory Bird Treaty Act (MBTA), and standard construction processes, including best management practices during nesting season, the Project would not have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFW. Impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

**Project Design Feature BIO-PDF-1:** The Project Applicant shall include on the Project plans an acknowledgement of the requirements to comply with the Migratory Bird Treaty Act and California Fish and Game Code Section 3503 and best management practices recommended by a Qualified Biologist to avoid impacts to active nests, including checking for nests prior to construction activities during nesting season (February 1 to August 31) and what to do if an active nest is found, including inadvertently during grading or construction activities. To the extent feasible tree removal would occur outside of nest season. Such best management practices shall include giving an adequate construction and grading buffer to avoid the active nest during construction, such as the following:

- **Pre-Construction Survey:** For any Project requiring tree or vegetation removal during the bird nesting season (February 1 to August 31), a pre-construction nesting bird survey of all suitable habitat shall be conducted no more than 10 days prior to the initiation of demolition or tree or vegetation removal to determine if nesting birds are present. The pre-construction nesting bird survey shall be conducted on foot within the Project Site boundaries by a Qualified Biologist.
- **Buffer for Active Nests:** If any active bird nest is found during a pre-construction nesting bird survey or is discovered inadvertently during construction related activities, a Qualified Biologist shall recommend an avoidance buffer which shall be no less than is necessary to protect the nest, eggs and/or fledglings, from damage or disturbance in consideration of the following factors: the bird species, the availability of suitable habitat within the immediate area, the proposed work activity, and existing disturbances

associated with surrounding land uses. The buffer shall be demarcated using bright orange construction fencing, flagging, or other means to mark the boundary of the buffer. All construction personnel shall be notified of the buffer zone and shall avoid entering the protected area. No ground disturbing activities or vegetation removal shall occur within this buffer area until the Qualified Biologist has confirmed that breeding/nesting is complete and the young have fledged the nest and/or that the nest is no longer an active nest.

**b. Would the project 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 Wildlife or U.S. Fish and Wildlife Service?**

**No Impact.** The Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking. No riparian or other sensitive natural community exists on the Project Site or in the immediate surrounding area.[29,30] Furthermore, the Project Site and surroundings are not located in or adjacent to a Biological Resource Area or Significant Ecological Area as defined by the City of Los Angeles or County of Los Angeles.[31,32] There are no other sensitive natural communities identified by the CDFW or the USFWS on the Project Site or its surrounding area.[33,34] Therefore, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impact would occur, and no further evaluation of this topic in an EIR is required.

**c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** As discussed in Checklist Question IV.a, the Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking areas. In addition, the surrounding area has been fully developed. No water bodies or state or federally protected wetlands exist on the Project Site.[35] As such, the Project would not have an adverse effect on state or federally protected wetlands No impact would occur, and no further evaluation of this topic in an EIR is required.

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29 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

30 United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/data/Mapper.html, accessed July 19, 2024.

31 City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, Figure BR-1D—Biological Resources Areas (Coastal and Southern Geographical Area), January 19, 1995, p. 2-18-6.

32 County of Los Angeles, Department of Regional Planning, Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map, February 2015.

33 California Department of Fish and Wildlife, Biogeographic Information and Observation System (BIOS), Hollywood Quad Species List, https://apps.wildlife.ca.gov/bios6/, accessed July 19, 2024.

34 California Department of Fish and Wildlife, CDFW Lands, https://apps.wildlife.ca.gov/lands/, accessed July 19, 2024.

35 United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/data/Mapper.html, accessed July 19, 2024.

**d. Would the project 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?**

**Less Than Significant Impact.** As described in Checklist Question IV.a, the Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking. In addition, the areas surrounding the Project Site are fully developed and there are no large expanses of open space areas within or surrounding the Project Site that provide linkages to natural open space areas which may serve as wildlife corridors. Furthermore, the Project Site is not located in or adjacent to a Biological Resource Area or Significant Ecological Area as defined by the City of Los Angeles or County of Los Angeles.[36,37]

According to the Tree Inventory Report prepared for the Project included in Appendix IS-1 of this Initial Study, and as previously described, while the Project would require the removal of 58 existing trees (including 56 on-site trees and two street trees) under Option 1, and 62 existing trees (including 57 on-site trees and five street trees) under Option 2. Although unlikely, these trees could potentially provide nesting sites for migratory birds. However, the Project would comply with the MBTA [38], which prohibits the take, possession, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The Project would further comply with the MBTA regulations by conducting tree or vegetation removal activities outside of the nesting season (February 1–August 31), to the extent feasible, and consistent with Project Design Feature BIO-PDF-1, if tree or vegetation removal activities occur during the nesting season, the Applicant would retain a biological monitor during the removal activities to ensure that no active nests would be impacted. If active nests are found, a buffer would be established until the fledglings have left the nest. The size of the buffer area varies with species and local circumstances (e.g., presence of busy roads) and is based on the professional judgement of the monitoring biologist, in coordination with the CDFW, as appropriate. Additionally, the Project would comply with the California Fish and Game Code Section 3503, which states that "[i]t is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." In addition, the Project would replace the removed street trees at a 2 to 1 ratio in accordance with the Bureau of Street Services, Urban Forestry Division's requirements and Street Tree Ordinance No. 153500, with four new street trees under Option 1 and ten new street trees under Option 2, including *Jacaranda mimosifolia*, *Lagerstroemia indica*, and *Magnolia grandiflora*.

Overall, in compliance with the MBTA and California Fish and Game Code Section 3503 which are ensured through Project Design Feature BIO-PDF-1, and standard construction processes during nesting season, and replacement of street trees in accordance with the Bureau of Street Services, Urban Forestry Division's requirements, the Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory

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36 City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, Figure BR-1D—Biological Resources Areas (Coastal and Southern Geographical Area), January 19, 1995, p. 2-18-6.

37 County of Los Angeles, Department of Regional Planning, Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map, February 2015.

38 United States Fish and Wildlife Service, Migratory Bird Treaty Act of 1918.

wildlife corridors or impede the use of native wildlife nursery sites. Impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

**e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?**

**Less Than Significant Impact.** The City of Los Angeles Protected Tree and Shrub Ordinance (Ordinance 186873, LAMC Chapter IV, Article 6) regulates the relocation or removal of all Southern California native oak trees (excluding scrub oak), Southern California black walnut trees, Western sycamore trees, California Bay trees, Mexican Elderberry shrubs, and Toyon shrubs of at least 4 inches in cumulative diameter at breast height or 4.5 feet above the ground level at the base of the tree or shrub. These tree and shrub species are defined as "protected" by the City of Los Angeles. Trees or shrubs that have been planted as part of a tree planting program are exempt from the City's Protected Tree and Shrub Ordinance and are not considered protected. The City's Protected Tree and Shrub Ordinance prohibits, without a permit, the removal of any regulated protected tree, including "acts that inflict damage upon the root system or other parts of the tree or shrub…" The protected tree or shrub must be replaced within the property by at least four specimens of a protected variety, except where the protected species is relocated pursuant to the LAMC. In addition, a protected tree shall only be replaced by other protected tree varieties and shall not be replaced by shrubs. A protected shrub shall only be replaced by other protected shrub varieties and shall not be replaced by trees, to the extent feasible as determined by the Advisory Agency, Board of Public Works, or a licensed or certified arborist.

According to the Tree Inventory Report prepared for the Project included in Appendix IS-1 of this Initial Study, there are 146 existing trees located within the Project Site. Surrounding the Project are 14 right-of-way trees, located along the perimeter of the Project Site. As part of the Project, a total of two existing street trees would be removed under Option 1 and five existing street trees would be removed under Option 2.[39] However, in accordance with the Bureau of Street Services, Urban Forestry Division's requirements and Street Tree Ordinance No. 153500, the Project would replace the removed street trees at a 2:1 ratio. On-site trees would be replaced at a 1:1 ratio. None of the on-site trees or street trees are considered protected by the City of Los Angeles' Tree Preservation Ordinance No. 186,873. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources including the City of Los Angeles' Tree Preservation Ordinance No. 186,873. Impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

**f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** As described in section IV.a, the Project Site is located in an urbanized area and is currently developed with commercial uses as well as associated surface parking. No Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the Project Site.[40] Thus, the Project would not conflict with the provisions of an adopted habitat conservation plan, natural

[39] The proposed street tree removal is subject to approval by the Bureau of Street Services, Urban Forestry Division.

[40] California Department of Fish and Wildlife, California Natural Community Conservation Plans, April 2019.

community conservation plan, or other related plans. No impact would occur, and no further evaluation of this topic in an EIR is required.

# V. CULTURAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5? | ☐ | ☐ | ☐ | ☒ |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | ☐ | ☐ | ☒ | ☐ |
| c. Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☐ | ☒ | ☐ |

The following analysis regarding archaeological resources is based on the Archaeological Resources Assessment prepared by SWCA Environmental Consultants, dated December 2023, included as Appendix IS-2 of this Initial Study.

**a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?**

**No Impact.** Section 15064.5 of the CEQA Guidelines generally defines a historical resource as a resource that is: (1) listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to PRC Section 5020.1(k)); or (3) identified as significant in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)). In addition, any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register. The local register of historical resources is managed by the Los Angeles Office of Historic Resources, which operates SurveyLA, a comprehensive program to identify significant historical resources throughout the City.

As previously discussed, the Project Site is currently developed with commercial uses as well as associated surface parking, and there are no historical buildings in or adjacent to the Project Site .The Project Site is not identified as individually listed in or formally determined to be eligible for listing in the National Register, the California Register, or identified in SurveyLA. Further, the Project Site does not

contain any extant buildings, structures, objects, sites, or districts with any historical associations or significance necessary for California Register eligibility. Therefore, the Project would not create any new significant impacts related to historical resources nor result in a substantial increase in a previously identified significant impact. No further analysis of this topic in an EIR is required.

**b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?**

**Less Than Significant Impact.** CEQA Guidelines Section 15064.5(a)(3)(D) generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community. The Project Site is located within an urbanized area of the City and has been subject to grading, excavation and fill activities, and development in the past. Based on a records search conducted by the South Central Coastal Information Center (SCCIC) for the Project Site, as referenced in the in Appendix IS-2 of this Initial Study, no archeological resources were identified within the Project Site. Specifically, results of the California Historical Resources Information System (CHRIS) records search from the SCCIC conducted on August 8, 2023, indicate that 18 cultural resource studies have been conducted within 0.5 miles of the Project Site; one of these studies intersect the Project Site. Further, on September 1, 2023, the Native American Heritage Commission (NAHC) submitted the results of a Sacred Lands File (SLF) search. The results of the SLF search were negative. In their response letter, the NAHC noted that the lack of recorded sites does not indicate the absence of resources within the Project Site and that the CHRIS and SLF are not exhaustive. However, as discussed in the Archaeological Resources Assessment, given the intensive modifications to the surface and subsurface within the Project Site, SWCA concluded that the Project Site has a low sensitivity for containing archaeological resources affiliated with Native Americans. Further discussion of impacts to tribal cultural resources is included under Section XVII, Tribal Cultural Resources.

SWCA's research focused on assessing historic period land uses through a review of available archival sources that included various types of written records, photographs, and maps. As discussed therein, the CHRIS records search identified one cultural resource (LAN-214) within a 0.5-mile radius of the Project site that does not intersect the Project site. The site record for LAN-214 states that the site was initially recorded in 1953 as having contained one or more Native American artifacts located 0.4 miles to 0.6 miles northwest of the Project Site. Further, SWCA's background research determined that the Project site appears to have been used for agricultural purposes and remained vacant until 1956, at which point it was developed with the Airport Junior High School campus. By 1980, construction had started on the extant car rental facility within the Project Site. SWCA finds the Project has a moderate potential for buried buildings materials, structural foundations, or individual pieces of refuse associated with the use as the Airport Junior High School from the mid-1950s to early 1970s. These types of historical archaeological resources would be unlikely to have any association with historically significant events or persons, and they would be unlikely to convey any distinctive characteristics in type, period, region, or method, and are not the focus of masterful design or artistry; therefore, Criteria 1, 2, and 3 of the CRHR are unlikely to be satisfied by these types of historical archaeological resources. Given the disturbances to the setting resulting from the demolition of the former Airport Junior High School campus, and when considering the existing historical information for this location and time period, these types of historical archaeological resources are also not likely to satisfy Criterion 4 of the CRHR or retain sufficient integrity. Lastly, there is no substantial evidence indicating that individual pieces of

refuse, fragmentary building materials, or remnants of building foundations would meet the criteria for designate as a unique archaeological resource. Therefore, although there is a moderate potential to encounter certain types of historical archaeological resources, these are not likely to be historical resources under CEQA, as described in Checklist Question V.a above.

If an archaeological resource were to be discovered during construction of the Project, work in the area would cease, and deposits would first be evaluated for historic significance in accordance with CEQA Guidelines Section 15064.5. Thus, the Project could have the potential to disturb previously undiscovered archaeological resources. Nevertheless, the City has established a standard condition of approval to address inadvertent discovery of archaeological resources. Should archeological resources be inadvertently encountered, this condition of approval provides for temporary halting of construction activities near the encounter so the find can be evaluated. An archaeologist shall then assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The Applicant shall then comply with the recommendations of the evaluating archaeologist, and a copy of the archaeological survey report shall be submitted to the Department of City Planning. Ground-disturbing activities may resume once the archaeologist's recommendations have been implemented to the satisfaction of the archaeologist. In accordance with the condition of approval, all activities would be conducted in accordance with regulatory requirements as set forth in CEQA Section 21083.2. Overall, with adherence to the City's condition of approval consistent with CEQA Section 21083.2, the Project would not cause a substantial adverse change in the significance of an archaeological resource. As such, impacts to archaeological resources would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

**c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

**Less Than Significant Impact.** The Project Site is located in an urbanized area and has been subject to previous grading and development. In addition, as discussed in Section 3, Project Description, of this Initial Study, the Project would require limited excavation, which would extend to a depth of approximately 10 feet. Nevertheless, if human remains were discovered during construction of the Project, work in the immediate vicinity of the construction area would be halted, and the County Coroner, construction manager, and other entities would be notified per California Health and Safety Code Section 7050.5. In addition, disposition of the human remains and any associated grave goods would occur in accordance with PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e), which require that work stop near the find until a coroner can determine that no investigation into the cause of death is required and if the remains are Native American. Specifically, in accordance with CEQA Guidelines Section 15064.5(e), if the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission who shall identify the person or persons they believe to be the most likely descendant(s) from the deceased Native American. The most likely descendent may make recommendations regarding the treatment of the remains and any associated grave goods in accordance with PRC Section 5097.98. Therefore, due to the low potential that any human remains are located on the Project Site, and because compliance with the statutory and regulatory requirements described above would ensure appropriate treatment of any potential human remains unexpectedly encountered during grading and excavation activities, the Project's impact related to human remains would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

# VI. ENERGY

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | ☒ | ☐ | ☐ | ☐ |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☒ | ☐ | ☐ | ☐ |

**a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**Potentially Significant Impact.** The Project would generate an increased demand for energy resources compared to existing conditions. While development of the Project would not be anticipated to cause wasteful, inefficient, and unnecessary consumption of energy resources due to compliance with existing regulations, further evaluation of the Project's demand on existing energy resources will be provided in the EIR.

**b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**Potentially Significant Impact.** First established in 2002 under SB 1078, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the country. The RPS program requires all electric load serving entities to procure 60 percent of its electricity portfolio from eligible renewable energy resources by 2030.[41] The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City. LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources.

Regarding energy efficiency, the California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction, system design, and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Title 24 standards, which became effective on January 1, 2023.[42] The 2022 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water

[41] CPUC, California Renewables Portfolio Standard (RPS) Program, www.cpuc.ca.gov/RPS_Overview/, accessed July 19, 2024.

[42] CEC, 2019 Building Energy Efficiency Standards, www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency, accessed July 19, 2024.

heating, and lighting and efficiency improvements to the non-residential standards, which include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1 2013 national standards.[43]

As previously described, the Project Site is currently developed with commercial uses as well as associated surface parking. The Project Site does not include any renewable energy sources used by LADWP. The Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen. While the Project would not be anticipated to conflict with or obstruct a state or local plan for renewable energy or energy efficiency, further evaluation of the Project's compliance with LADWP's plans for renewable energy, as well as the Project's compliance with California Building Energy Efficiency Standards, will be provided in the EIR.

# VII. GEOLOGY AND SOILS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | ☐ | ☐ | ☒ | ☐ |
| ii. Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ |
| iii. Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☒ | ☐ |
| iv. Landslides? | ☐ | ☐ | ☐ | ☒ |
| b. Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| c. Be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | ☐ | ☐ | ☒ | ☐ |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☒ | ☐ |

[43] CEC, 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, December 2018.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☒ | ☐ | ☐ | ☐ |

The following analysis regarding geology and soils is based on the Geotechnical Exploration Report Proposed Industrial Buildings prepared by Leighton, dated February 2024 and the Supplemental Percolation Study prepared by Leighton, dated September 2023, included as Appendix IS-3.1 and Appendix IS-3.2 of this Initial Study, respectively (Geotechnical Reports). All specific information on geology and soils conditions on the Project Site in the discussion below is based on the previously prepared reports referenced above unless otherwise noted.

**a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

**i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

**Less Than Significant Impact.** Fault rupture occurs when movement on a fault deep within the earth breaks through to the surface. Based on criteria established by the California Geological Survey (CGS), faults can be classified as active, potentially active, or inactive. Active faults are those having historically produced earthquakes or shown evidence of movement within the past 11,700 years (during the Holocene Epoch). Potentially active faults have demonstrated displacement within the last 1.6 million years (during the Pleistocene Epoch) while not displacing Holocene Strata. Inactive faults do not exhibit displacement within the last 1.6 million years. In addition, buried thrust faults, which are faults with no surface exposure, may exist in the vicinity of the Project Site; however, due to their buried nature, the existence of buried thrust faults is usually not known until they produce an earthquake.

CGS establishes regulatory zones around active faults, called Alquist-Priolo Earthquake Fault Zones (previously called Special Study Zones). These zones, which extend from 200 feet to 500 feet on each side of a known fault, identify areas where a potential surface fault rupture could prove hazardous for buildings used for human occupancy. Development projects located within an Alquist-Priolo Earthquake Fault Zone are required to prepare special geotechnical studies to characterize hazards from any potential surface ruptures. In addition, the City designates Fault Rupture Study Areas along the sides of active and potentially active faults to establish areas of potential hazard due to fault rupture.

Based on City data, the Project Site is not located within a City-designated Fault Rupture Study Area or an Alquist-Priolo Earthquake Fault Zone as mapped by CGS.[44] As discussed in the Geotechnical Reports, the closest known active fault zone is associated with the Newport-Inglewood Fault, mapped approximately 1.8 miles north of the Project Site.Therefore, no active faults are known to pass directly beneath the Project Site, and the potential for surface rupture due to faulting occurring beneath the Project Site is considered low. Thus, the Project would not directly or indirectly cause or exacerbate potential substantial adverse effects, including the risk of loss, injury, or death related to fault rupture. Impacts associated with surface rupture from a known earthquake fault would be less than significant, and no further evaluation of this topic in an EIR is required.

### ii. Strong seismic ground shaking?

**Less Than Significant Impact.** The Project Site is located in the seismically active Southern California region and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. As previously stated, no active faults with the potential for surface fault rupture are known to pass directly beneath the Project Site. The closest known active fault to the Project Site is the Newport-Inglewood Fault, mapped approximately 1.8 miles north of the Project Site.[45] While the Project Site is subject to moderate to strong ground shaking in the event of an earthquake, this hazard is common in Southern California and the effects of ground shaking can be addressed by seismic engineering design and construction in conformance with current building codes and engineering practices. State and local code requirements ensure that buildings are designed and constructed in a manner that would reduce the substantial risk of collapse, although the buildings may sustain damage during a major earthquake. Specifically, the state and City mandate compliance with numerous rules related to seismic safety, including the Alquist-Priolo Earthquake Fault Zoning Act, Seismic Safety Act, Seismic Hazards Mapping Act, the California Building Code, the City's General Plan Safety Element, and the Los Angeles Building Code. Pursuant to those laws, the Project must demonstrate compliance with the applicable provisions of these safety requirements before permits can be issued for construction of the Project. Accordingly, the design and construction of the Project would comply with all applicable existing regulatory requirements, the applicable provisions of the Los Angeles Building Code relating to seismic safety, and the application of accepted and proven construction engineering practices, including the specific geotechnical design recommendations set forth for the Project in the Geotechnical Reports.

Specifically, the Project would comply with the Los Angeles Building Code, which incorporates current seismic design provisions of the California Building Code with City amendments to minimize seismic impacts. The California Building Code incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and maximize earthquake safety. The Los Angeles Department of Building and Safety (LADBS) is responsible for implementing the provisions of the Los Angeles Building Code, and the Project would be required to comply with the plan review and permitting requirements of LADBS, including the recommendations provided in the Geotechnical Reports for the Project which would be subject to review and approval by the LADBS. The recommendations in the

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[44] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

[45] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

Project's Geotechnical Reports would be enforced by the LADBS for the construction of the Project. Through compliance with regulatory requirements and thesite-specific geotechnical recommendations contained in the Geotechnical Reports, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death related to strong seismic ground shaking. Thus, impacts related to strong seismic ground shaking would be less than significant, and no further evaluation of this topic is an EIR is required.

### iii. Seismic-related ground failure, including liquefaction?

**Less Than Significant Impact.** Liquefaction potential is greatest where the groundwater level is shallow, and submerged loose, fine sands occur within a depth of about 50 feet or less. Liquefaction potential decreases as grain size and clay and gravel content increase. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases. The Project Site is not located within an area identified by the City of Los Angeles or California Geological Survey as having a potential for liquefaction.[46,47] In addition, according to the Geotechnical Reports, the historical high groundwater level at the Project Site is mapped at a depth of approximately 40 feet and the native soils that exist on the Project Site consist of Quaternary-aged (late to middle Pleistocene) older alluvial deposits. These materials are generally not considered susceptible to liquefaction. Further, as discussed in Section 3, Project Description, of this Initial Study, the Project would require limited excavation, which would extend to a depth of approximately 10 feet. Therefore, the Project would not exacerbate existing conditions related to bringing development and people into an area affected by liquefaction, and with adherence to existing regulations and site-specific design recommendations contained in the Geotechnical Reports, impacts related to liquefaction would be less than significant. No further evaluation of this topic in an EIR is required.

### iv. Landslides?

**No Impact.** Landslides generally occur in loosely consolidated, wet soil and/or rocks on steep sloping terrain. The Project Site and surrounding area are fully developed and the Project Site is generally characterized by relatively level topography. Given the largely impervious (developed/paved) nature of the Project Site, large areas of exposed soil or rocks that could slide or become loose are not present. In addition, the Project Site is not located in a landslide area as mapped by the State, nor is the Project Site mapped as a landslide area by the City of Los Angeles.[48,49,50] Therefore, the Project would not directly or indirectly cause potential substantial adverse effects involving landslides. As such, no impact would occur, and no further evaluation of this topic in an EIR is required.

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46 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

47 California Geological Survey, Earthquake Zones of Required Investigation, https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed Jul 19, 2024.

48 Ibid.

49 City of Los Angeles, 2018 Local Hazard Mitigation Plan, West LA APC, Figure 11-12, Landslide Susceptibility Zones, p. 11-13.

50 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed Jul 19, 2024.

**b. Would the project result in substantial soil erosion or the loss of topsoil?**

**Less Than Significant Impact.** Development of the Project would require grading, excavation, and other construction activities that have the potential to disturb existing soils within the Project Site and expose these soils to rainfall and wind during construction, thereby potentially resulting in soil erosion. It is estimated that no export would be required to be hauled off the Project Site for Option 1 and 4,850 cubic yards of export would be hauled off the Project Site for Option 2. Exposed and stockpiled soils could be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to erosion and runoff. However, in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, the Project would implement a Stormwater Pollution Prevention Plan (SWPPP) adhering to the California Stormwater Quality Association Best Management Practices (BMP) Handbook. The SWPPP would set forth BMPs to be used during construction to manage and control stormwater and non-stormwater discharges, including, but not limited to, erosion control and sediment control with sandbags, storm drain inlets protection, stabilized construction entrance/exit, wind erosion control, and stockpile management, to minimize erosion and the discharge of pollutants in stormwater runoff during construction. Additionally, all grading activities would require grading permits from the City of Los Angeles Department of Building and Safety (LADBS), which would include requirements and standards designed to limit potential effects associated with erosion to acceptable levels. On-site grading and site preparation would comply with all applicable provisions of LAMC Chapter IX, Article 1, which addresses grading, excavations, and fills. Furthermore, the Project would be required to comply with the City's Low Impact Development (LID) ordinance[51] and implement standard erosion controls to limit stormwater runoff, which can contribute to erosion. Regarding soil erosion during Project operations, the potential for erosion is low since the Project Site would be fully developed and no soils would be left exposed. Therefore, with compliance with applicable regulatory requirements, the Project's potential impacts due to soil erosion or the loss of topsoil would be less than significant, and no further evaluation of this topic in an EIR is required.

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

**Less Than Significant Impact.** As discussed above, the Project Site is not located in a landslide area as mapped by the state, nor is the Project Site mapped as a landslide area by the City. In addition, the Project would not alter exposed soils on a hill, nor inject water into the soil upslope that could cause a landslide downhill. Therefore, no impact related to landslides would occur.

Liquefaction-related effects include lateral spreading. Since the Project Site is not located in an identified liquefiable area, the potential for lateral spreading would also be considered low. As such, the Project would not be located on a geologic unit or soil that is unstable, which could potentially result in lateral spreading. Impacts related to lateral spreading would be less than significant, and no further evaluation of this topic in an EIR is required.

[51] City of Los Angeles Department of Public Works, Bureau of Sanitation, Watershed Protection Division, Planning and Land Development for Low Impact Development (LID), Part B: Planning Activities, 5th Edition, May 2016.

Subsidence generally occurs when a large portion of land is displaced vertically, usually due to the rapid and intensive withdrawal of subterranean fluids such as groundwater or oil. As discussed in the Geotechnical Reports, the mapped historic high groundwater level beneath the Project Site is approximately 40 feet bgs. As discussed in Section 3, Project Description, of this Initial Study, construction activities for the Project would require excavation to a maximum depth of approximately 10 feet. Therefore, dewatering operations are not expected during construction. Moreover, no large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring, or is planned to occur on the Project Site. Therefore, there is little to no potential for ground subsidence due to withdrawal of fluid or gas at the Project Site. As such, the Project would not be located on a geologic unit or soil that is unstable, which could potentially result in subsidence. Impacts related to subsidence would be less than significant, and no further evaluation of this topic in an EIR is required.

As discussed above, the Project Site is not located within an area susceptible to liquefaction. As such, the Project would not be located on a geologic unit or soil that is unstable, which could potentially result in liquefaction. Impacts associated with liquefaction would be less than significant, and no further evaluation of this topic in an EIR is required.

Collapsible soils consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading.[52] According to the Geotechnical Reports, soils underlying the Project Site include soils that are medium dense to very dense silty sands and clayey sands with few interlayers of yellow-brown to orange-brown, moist, stiff to hard sandy clay and clay. Therefore, due to the type and density of the soils underlying the Project Site, the Project Site soils would not be considered collapsible soils. As such, the Project would not be located on and or exacerbate a geologic unit or soil that is unstable or that would become unstable as a result of the Project and potentially result in collapse. Impacts associated with collapsible soils would be less than significant, and no further evaluation of this topic in an EIR is required.

**d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

**Less Than Significant Impact.** Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. According to the Geotechnical Report, the on-site geological materials are in the very low expansive potential range. However, if moderately expansive soils are encountered, such soils would be addressed using standard geotechnical design practices (i.e., removal and replacement with non-expansive engineered fill). Furthermore, construction of the Project would be required to comply with the current California Building Code (CBC) and supplemental requirements of the LAMC, as enforced by the City through the building permit process. These requirements would include building foundation and other requirements appropriate to site-specific conditions that would be provided in a design-level geotechnical evaluation for the Project as required by the City. In addition, with implementation of the recommendations set forth in the design-level geotechnical evaluation for the Project, as required by the City, the Project would not exacerbate existing environmental conditions that could create substantial risk to life or property due to expansive soils. Thus, through compliance with regulatory requirements, potential

[52] ScienceDirect, Expansive Soils, www.sciencedirect.com/topics/engineering/expansive-soil, accessed Jul 19, 2024.

impacts associated with expansive soils would be less than significant. No further evaluation of this topic in an EIR is required.

**e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** The Project Site is located within a community served by existing wastewater infrastructure. As such, the Project would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, the Project would have no impact related to the ability of soils to support septic tanks or alternative wastewater disposal systems. No impact would occur, and no further evaluation of this topic in an EIR is required.

**f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Potentially Significant Impact.** No unique geologic features are located on-site. Paleontological resources are the fossilized remains of organisms that have lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil record represents the primary source of information on ancient life forms, since the majority of species that have existed on earth from this era are extinct. Although the Project Site has been previously graded and developed, the Project could require grading and excavation of the Project Site to maximum excavation depths of up to approximately 10 feet below existing grade, which could have the potential to disturb existing but undiscovered paleontological resources. Therefore, further evaluation of the Project's potential impacts to paleontological resources will be provided in the EIR.

## VIII. GREENHOUSE GAS EMISSIONS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☒ | ☐ | ☐ | ☐ |
| b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☒ | ☐ | ☐ | ☐ |

**a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Potentially Significant Impact.** Gases that trap heat in the atmosphere are called greenhouse gases (GHGs) since they have effects that are analogous to the way in which a greenhouse retains heat. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of

greenhouse gases in the atmosphere affects the earth's temperature. The State of California has undertaken initiatives designed to address the effects of GHG emissions and to establish targets and emission reduction strategies for greenhouse gas emissions in California. Activities associated with the Project, including construction and operational activities, could result in GHG emissions that may have a significant impact on the environment. Therefore, further evaluation of the Project's GHG emissions will be provided in the EIR.

**b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Potentially Significant Impact.** The Project would have the potential to emit GHGs. Therefore, further evaluation of Project-related emissions and associated emission reduction strategies to determine whether the Project conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs will be included in an EIR.

## IX. HAZARDS AND HAZARDOUS MATERIALS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☒ | ☐ | ☐ | ☐ |
| 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? | ☒ | ☐ | ☐ | ☐ |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☒ | ☐ |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment? | ☒ | ☐ | ☐ | ☐ |
| 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 or excessive noise for people residing or working in the project area? | ☒ | ☐ | ☐ | ☐ |

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

**a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Potential Significant Impact.** The types and amount of hazardous materials potentially used in connection with the construction and operation Project are anticipated to be typical of those used for industrial warehouse uses. Nonetheless, further analysis of this issue will be provided in the EIR.

**b. Would the project 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?**

**Potentially Significant Impact.** As discussed in Section 3, Project Description, of this Initial Study, the Project Site is currently developed with commercial uses as well as associated surface parking . Given the age of the existing structures and the previous uses, asbestos containing materials (ACM), lead-based paints (LBP), and/or other recognized environmental conditions may be present on site. Therefore, further evaluation will be included in the EIR to determine the Project's potential impacts with respect to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

**c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**Less than Significant Impact**. There are no LAUSD schools within a one-quarter mile radius of the Project Site nor are any schools proposed to be built within this radius. The nearest schools located in the vicinity of the Project Site include Carousel School (0.9 miles north of the Project Site); Westport Heights Elementary School (1.1 miles north of the Project Site); Oak Street Elementary School (1.5 miles east of the Project Site); and Open Magnet Charter School (1.5 miles north of the Project Site). If a school were to be built within the radius in the future, as discussed above, the types and amounts of hazardous materials that would be used in connection with construction of the Project would be typical of those used during construction of industrial developments and would include fuels, paints, solvents, and concrete additives. Similarly, the types and amounts of hazardous materials used during operation of the proposed uses would be typical of such developments and would include cleaning products, paints, and those used for landscaping maintenance. Furthermore, all materials used during both the construction and operation of the Project would be used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations including, but not limited to, federal and state OSHA requirements, and would not create a significant hazard to existing or future

nearby schools. As such, the Project's potential impacts associated with hazards emissions within 0.25 miles of an existing school would be less than significant, and no further evaluation of this topic in the EIR is required.

**d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?**

**Potentially Significant Impact**. Section 65962.5 of the California Government Code requires the California Environmental Protection Agency (CalEPA) to develop and update annually the Cortese List, which is a "list" of hazardous waste sites and other contaminated sites. While Section 65962.5 refers to the preparation of a "list," many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of multiple agencies including the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), and CalEPA. The Project Site may appear on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In addition, properties in the surrounding area have the potential to be listed on various environmental databases. Therefore, further evaluation of this issue will be included in the EIR.

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

**Potentially Significant Impact.** The Project Site is located within two miles of the Los Angeles International Airport, which is located adjacent to the western boundary of the Project Site. Given the distance between the Project Site and the nearest airport, the Project could expose people residing or working in the Project area to excessive noise levels. Therefore, impacts would potentially be significant, and further evaluation of this topic will be included in the EIR.

**f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less Than Significant Impact.** According to the City General Plan Safety Element, California Government Code Section 65302(g)(1) specifies the need to plan for swift evacuation in the event of a fire or other emergency. In response, the City includes a wide range of physical environments and dramatic differences in population density based on the time of day or day of the week. To better accommodate the variety of evacuation scenarios, the City has developed a dynamic approach to evacuation response, one that can respond to different conditions. As specified in the City EOP Evacuation Annex "primary evacuation routes consist of the major interstates, highways, and primary arterials within the City and Los Angeles County." [53] However, in response to a more localized emergency, such as a hillside wildfire, the Los Angeles Fire Department (LAFD) works in coordination with the Los Angeles Department of Transportation (LADOT) and Los Angeles Police Department (LAPD) to identify the most appropriate local egress option and direct individuals to those routes. Other routes are shared in real time depending on which disaster and suitable evacuation routes are

[53] City of Los Angeles Emergency Operations Plan, Evacuation Functional Support Annex, October 2020.

identified.[54] While it is expected that the majority of construction activities for the Project would be confined to the Project Site, off site construction activities would occur in adjacent street rights-of-way, which could potentially require temporary lane closures. However, if lane closures are necessary, the remaining travel lanes would remain open such that at least one travel lane in each direction would be available. In the event of an emergency during construction of the Project, the LAFD and the LAPD would instruct businesses and residents of the area as to the specific evacuation plan as set forth in the Safety Element. The Applicant and construction contractor would comply with all instructions of the LAFD and LAPD as to evacuation requirements. In addition, while operation of the Project would generate traffic in the Project Site vicinity and would result in some modifications to the Project Site's access, the Project would comply with LAFD access requirements and would not impede emergency access in the Project Site vicinity. Therefore, the Project would not physically interfere with or impair the implementation of an emergency evacuation plan. The Project's potential impacts would be less than significant, and no further evaluation of this topic in the EIR is required.

**g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

**Less Than Significant Impact.** The Project Site is located in an urbanized, generally flat area, and there are no wildlands or steep slopes located in the vicinity of the Project Site. The Project Site is not located within a City-designated Very High Fire Hazard Severity Zone, nor is it located within a City-designated fire buffer zone.[55,56] Furthermore, the Project would be developed in accordance with LAMC requirements pertaining to fire safety. In particular, LAMC Section 57.106.5.2 provides that the Fire Chief shall have the authority to require drawings, plans, and sketches as necessary to identify access points, fire suppression devices and systems, utility controls, and stairwells; LAMC Section 57.118 establishes LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects; and LAMC Section 57.507.3.1 establishes fire water flow standards. In addition, the Project's proposed office and industrial uses would not create a fire hazard that has the potential to exacerbate the current environmental condition relative to wildfires. Therefore, the Project would not expose people or structures, directly or indirectly, to a significant risk of loss, injury, or death as a result of exposure to wildland fires. As such, impacts would be less than significant, and no further evaluation of this topic in the EIR is required.

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54 Los Angeles Safety Element, November 2021, p. 23.

55 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016 http://zimas.lacity.org/, accessed July 19, 2024.

56 City of Los Angeles, 2018 Local Hazard Mitigation Plan, West Los Angeles APC, Figure 13-8, Wildlife Severity Zones, p. 282.

# X. HYDROLOGY AND WATER QUALITY

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| i. Result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| iii. 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; or | ☐ | ☐ | ☒ | ☐ |
| iv. impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

The following analysis is based on the Drainage Report prepared for the Project by Cannon, Corp., dated May 2024. All specific information on hydrology and water quality in the discussion below is from this report unless otherwise noted. The Drainage Report is included as Appendix IS-4 of this Initial Study.

**a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

**Less Than Significant Impact.** As discussed below, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

**Surface Water Quality**

**Construction**

As discussed in the Drainage Report, construction activities such as earth moving, maintenance of construction equipment, handling of construction materials, and dewatering, can contribute to pollutant loading in stormwater runoff. Additionally, on-site watering activities to reduce airborne dust could contribute to pollutant loading in stormwater runoff. However, as the construction site would be greater than one acre, the Project would be required to obtain coverage under the NPDES General Construction stormwater permit. In accordance with the requirements of this permit, the Project would implement a site-specific Stormwater Pollution Prevention Plan (SWPPP) that specifies BMPs and erosion control measures to be used during construction to manage runoff flows and prevent pollution. In addition, Project construction activities would occur in accordance with City grading permit regulations (Chapter IX, Division 70 of the LAMC) that require necessary measures, plans, and inspections to reduce sedimentation and erosion.

Based on the above, with compliance with NPDES requirements and City's grading permit regulations, construction of the Project would not result in discharges that would violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface water quality. Thus, temporary construction-related impacts on surface water quality would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

**Operation**

As discussed in the Drainage Report, the Project Site runoff leads into the Dominguez Channel Watershed. Constituents of concern listed for Dominguez Channel above Vermont Avenue under California's Clean Water Act Section 303(d) List includes indicator bacteria, zinc, copper toxicity, and lead. Listed pollutants with Total Maximum Daily Loads (TMDL) in Dominguez Channel above Vermont Avenue include zinc, copper toxicity, and lead. Constituents of concern listed for Dominguez Channel below Vermont Avenue under California's Clean Water Act Section 303(d) List includes polychlorinated biphenyls, benzo(a)pyrene, pyrene, phenanthrene, chrysene, benzo(a)anthracene, dieldrin (tissue), indicator bacteria, lead, benthic community effects, toxicity, chlordane (tissue), copper, and DDT (tissue and sediment). Listed pollutants with TMDL in Dominguez Channel below Vermont Avenue include polychlorinated biphenyls, benzo(a)pyrene, pyrene, phenanthrene, chrysene, benzo(a)anthracene, dieldrin (tissue), lead, benthic community effects, toxicity, chlordane (tissue) copper, and DDT (tissue and sediment).

As is typical of most urban developments, stormwater runoff from the Project Site has the potential to introduce pollutants into the stormwater system. Anticipated and potential pollutants generated by the Project include sediment, nutrients, pesticides, metals, pathogens, and oil and grease. Under Section 3.1.3 of the LID manual, post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs on-site for the volume of water produced by the 85th percentile storm event. The Project would incorporate appropriate LID BMPs in accordance with the City's LID Ordinance intended to control and treat

stormwater runoff in compliance with LID. As stated in the Drainage Report, it appears that the Project Site currently discharges without any means of treatment. As such, implementation of LID BMPs as part of the Project would improve existing site conditions. As such, with the implementation of LID BMPs in compliance with the City's LID Ordinance and LID Manual, operation of the Project would not result in discharges that would violate any surface water quality standards or waste discharge requirements. Impacts to surface water quality during operation of the Project would be less than significant, and no further evaluation of this topic in an EIR is required.

**Groundwater Quality**

**Construction**

As discussed in the Drainage Report, groundwater was not encountered when testing was extended to a depth of 50 feet and the historical high groundwater was reported at a depth of 40 feet. As discussed in Section 3, Project Description, of this Initial Study, the Project would require limited excavation, which would extend to a depth of approximately 10 feet. Based on the historically highest groundwater level and depth of proposed excavation, Project construction activities are not expected to encounter groundwater and temporary dewatering may not be required. In the event groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with all applicable NPDES requirements related to construction and discharges from dewatering operations.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous waste, would reduce the potential for the construction of the Project to release contaminants that could percolate into groundwater. In addition, construction activities would not be expected to affect existing wells due to distance and limited excavation activities at the Project Site. Thus, construction of the Project would not result in any substantial increase in groundwater contamination through hazardous materials releases. Therefore, construction of the Project would not result in discharge that would violate any water quality standard or waste discharge requirements or otherwise substantially degrade groundwater quality. Impacts to groundwater quality during operation of the Project would be less than significant, and no further evaluation of this topic is required in the EIR.

**Operation**

Operational activities which could affect groundwater quality include hazardous material spills and leaking underground storage tanks. No underground storage tanks are currently operated or will be operated by the Project. Compliance with all applicable existing regulations at the Project Site regarding the handling and potentially required cleanup of hazardous materials would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing regulatory water standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, operation of the Project would not require extraction from the groundwater supply based on the depth of excavation for the proposed uses and depth of groundwater below the Project Site. Additionally, the Project does not involve drilling to or through a clean or contaminated aquifer. Therefore, Project operations would not result in violations of any water quality standards or waste

discharge requirements or otherwise substantially degrade groundwater quality. The Project's potential impact on groundwater quality operation would be less than significant, and no further evaluation of this topic in an EIR is required.

**b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less Than Significant Impact.** As provided by the following analysis, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.

### Construction

No active water supply wells are located at the Project Site or within a one-mile radius of the Project Site that could be impacted by construction, nor would the Project include the construction of water supply wells.[57] As described in Section 3, Project Description, of this Initial Study, the Project would involve limited excavations approximately 10 feet below ground surface. As previously described, groundwater was not encountered when testing was extended to a depth of 50 feet and the historical high groundwater was reported at a depth of 40 feet. As the Project's proposed excavation would not be deeper than the historic high groundwater elevation, temporary dewatering is not expected during construction. If dewatering is required, the Project would comply with all relevant NPDES requirements related to construction and discharges from dewatering operations. Due to the operation of dewatering systems being temporary, local groundwater hydrologic conditions, including groundwater production wells or public active water supply wells within a one-mile radius of the Project Site[58], would not be affected by any unanticipated Project dewatering operations, and regional impacts to groundwater supplies and management of the basin would not be considered significant. Therefore, the Project's temporary construction activities would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. Impacts on groundwater supplies during construction of the Project would be less than significant, and no further evaluation of this topic in the EIR is required.

### Operation

As discussed in the Drainage Report, the Project Site is approximately 90 percent impervious. Project implementation would decrease the percentage of impervious area from 90 percent impervious to 88 percent under Option 1 and 85 percent under Option 2. With incorporation of BMPs to control and treat stormwater runoff, implementation of the Project could potentially increase groundwater recharge. The Project would not include the installation of water supply wells and there are no existing wells located at or within a one-mile radius of the Project Site.[59] Therefore, Project operations would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may

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[57] Drainage Report, Cannon, Corp., dated May 2024 Los Angeles County Groundwater Well Mapping Application Well 1314 (State ID 2S14W31H01) is approximately 500 ft away, but is inactive.

[58] Drainage Report, Cannon, Corp., dated May 2024 Los Angeles County Groundwater Well Mapping Application Well 1314 (State ID 2S14W31H01) is approximately 500 ft away, but is inactive.

[59] Drainage Report, Cannon, Corp., dated May 2024 Los Angeles County Groundwater Well Mapping Application Well 1314 (State ID 2S14W31H01) is approximately 500 ft away, but is inactive.

impede sustainable groundwater management of the basin. Impacts would be less than significant, and no further evaluation of this topic in the EIR is required.

**c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**i. Result in substantial erosion or siltation on- or off-site;**

**Less Than Significant Impact.**

**Construction**

Construction activities have the potential to temporarily alter existing drainage patterns and flows within the Project Site by exposing underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. Exposed and stockpiled soils could also be subject to erosion and conveyance into nearby storm drains during storm events. In addition, on-site watering activities to reduce airborne dust could contribute to erosion. However, as discussed above in Response to Checklist Question X.a, the Project would be required to obtain coverage under the NPDES Construction General Permit. In accordance with the requirements of this permit, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows. These BMPs are designed to contain stormwater or construction watering on the Project Site such that runoff does not impact off-site drainage facilities or receiving waters. In addition, Project construction activities would occur in accordance with City grading permit regulations (Chapter IX, Division 70 of the LAMC), such as the preparation of an erosion control plan, to reduce the effects of sedimentation and erosion. Thus, through compliance with all NPDES Construction General Permit requirements, including preparation of a SWPPP and implementation of BMPs, as well as compliance with applicable City grading permit regulations, construction activities for the Project would not substantially alter the Project Site drainage patterns in a manner that would result in substantial erosion or siltation on- or off-site. As such, construction-related impacts to erosion and siltation would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

**Operation**

As previously discussed, with implementation of the Project, the percentage of impervious area from the current condition of the Project Site would be reduced. The Project would develop one or three industrial warehouse buildings, surface parking, and landscape amenity spaces, which would create a post-Project condition of approximately 88 percent (Option 1) or 85 percent (Option 2) impervious surface area. As stated in the Drainage Report, included as Appendix IS-4 of this Initial Study, surface water runoff from the Project would be directed to the existing storm drain main that runs along Arbor Vitae Street. Furthermore, in accordance with requirements of the City's LID Ordinance, BMPs would be implemented throughout the operational life of the Project to reduce erosion. Therefore, operation of the Project would not substantially alter the Project Site's drainage patterns in a matter that would result in substantial erosion or siltation on- or off- site. Operational impacts related to erosion and siltation would be less than significant, and no further evaluation of this topic in the EIR is required.

**ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**

**Less than Significant Impact.**

**Construction**

As indicated above, there are no streams or rivers within or immediately surrounding the Project Site. Construction activities for the Project would involve removal of the existing commercial uses as well as associated surface parking, followed by grading and excavation. These activities have the potential to temporarily alter existing drainage patterns and flows on the Project Site by exposing underlying soils, modifying flow direction, and making the Project Site temporarily more permeable. As noted above, the Project would implement a SWPPP that specifies BMPs and erosion control measures to be used during construction to manage runoff flows from both stormwater and non-stormwater discharges. These BMPs would be designed to contain stormwater or construction watering on the Project Site such that runoff does not impact off-site drainage facilities or receiving waters. Thus, through compliance with applicable City grading permit regulations, construction activities for the Project would not substantially alter the Project Site drainage patterns in a manner that would result in increased runoff or flooding on- or off-site. As such, construction-related impacts associated with flooding from surface runoff would be less than significant, and no further evaluation of this topic in the EIR is required.

**Operation**

As previously discussed, with implementation of the Project, the percentage of pervious area from the current condition of the Project Site would be decreased. As detailed in the Drainage Report, a comparison of pre- and post-Project peak flow rates indicate a decrease in stormwater runoff from the Project Site. In addition, the Project would comply with the City's LID Ordinance, which requires that post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs on site for the volume of water produced by the greater of the 85th percentile storm event or the 0.75-inch storm event (i.e., "first flush"). Consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff that leaves the Project Site, the Project would include the installation of infiltration BMPs as established by the LID Manual. Therefore, with implementation of BMPs, the Project would not increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Operational impacts associated with flooding from surface runoff would be less than significant, and no further evaluation of this topic in an EIR is required.

**iii. 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; or**

**Less Than Significant Impact.** As detailed in the Drainage Report, a comparison of the pre- and post-Project peak flow rates indicates that the Project would not increase peak flows from 10-year and 50-year storm events. The BMPs implemented as part of the Project would control stormwater runoff and ultimately reduce or eliminate the discharge of potential pollutants from stormwater runoff. Furthermore, the Project would not cause flooding during a 50-year storm event or result in a permanent adverse change to the movement of surface water on the Project Site. Therefore, the Project would not 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. Impacts would be less than significant, and no further evaluation of this topic in the EIR is required.

### iv. Impede or redirect flood flows?

**No Impact.** The Project Site is not located within a 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA) or by the City.[60,61] Thus, the Project would not impede or redirect flood flows. No impacts would occur, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

### d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

**No Impact.** As discussed above, the Project Site is not located within a 100 year flood hazard area as mapped by FEMA or by the City. In addition, the Project Site is not located within a tsunami hazard area as mapped by the State.[62] Therefore, no tsunami or tsunami events would be expected to impact the Project Site and cause any discharge of pollutants. Additionally, there are no standing bodies of water near the Project Site that may experience a seiche, and therefore there is no significant risk that flows from a seiche could result in the discharge of any pollutants from the Project Site caused by the Project. No impacts due to inundation from a seiche, tsunami, or flood hazard are anticipated to occur. No further analysis of this topic in an EIR is required.

### e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

**Less Than Significant Impact.** Under Section 303(d) of the Clean Water Act, states are required to identify water bodies that do not meet their water quality standards. Biennially, the Los Angeles Regional Water Quality Control Board (LARWQCB) prepares a list of impaired waterbodies in that region, referred to as the 303(d) list. The 303(d) list outlines the impaired waterbody and the specific pollutant(s) for which it is impaired. All waterbodies on the 303(d) list are subject to the development of a TMDL. As discussed in the Drainage Report, the Project Site runoff leads into the Dominguez Channel Watershed. Constituents of concern listed for Dominguez Channel above Vermont Avenue under California's Clean Water Act Section 303(d) List includes indicator bacteria, zinc, copper toxicity, and lead. Listed pollutants with TMDL in Dominguez Channel above Vermont Avenue include zinc, copper toxicity, and lead. Constituents of concern listed for Dominguez Channel below Vermont Avenue under California's Clean Water Act Section 303(d) List includes polychlorinated biphenyls, benzo(a)pyrene, pyrene, phenanthrene, chrysene, benzo(a)anthracene, dieldrin (tissue), indicator bacteria, lead, benthic community effects, toxicity, chlordane (tissue) copper, and DDT (tissue and sediment). Listed pollutants with TMDL in Dominguez Channel below Vermont Avenue include polychlorinated biphenyls, benzo(a)pyrene, pyrene, phenanthrene, chrysene, benzo(a)anthracene, dieldrin (tissue), lead, benthic community effects, toxicity, chlordane (tissue) copper, and DDT (tissue

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60 Federal Emergency Management Agency, Flood Insurance Rate Maps, Panel Numbers 06037C1760F, effective September 26, 2008.

61 City of Los Angeles 2018 Local Hazard Mitigation Plan, Figure 10-7, Mapped Flood Areas in West Los Angeles APC, p. 10-14.

62 California Department of Conservation, Los Angeles County Tsunami Hazard Areas, www.conservation.ca.gov/cgs/tsunami/maps/los-angeles, accessed July 19, 2024.

and sediment).The County of Los Angeles, the City of Los Angeles, and all other cities in the Dominguez Channel Watershed are responsible for the implementation of watershed improvement plans or Enhanced Watershed Management Programs (EWMP) to improve water quality and assist in meeting the TMDL milestones. The City along with other agencies in the Dominguez Channel Watershed are currently developing an EWMP. The EWMP will identify the measures for compliance with all Dominguez Channel TMDLs and other water quality mandates, while maximizing potential benefits of stormwater for local water supply.[63]

Potential pollutants generated by the Project would be typical of office and industrial uses and may include sediment, nutrients, pesticides, trash and debris, oil and grease, and metals. The implementation of BMPs required by the City's LID Ordinance would target these pollutants that could potentially be carried in stormwater runoff. Since the existing Project Site does not have any structural or LID BMPs to treat or infiltrate stormwater, implementation of the LID features proposed as part of the Project would result in an improvement in surface water quality runoff as compared to existing conditions. As such, the Project would not introduce new pollutants or an increase in pollutants that could conflict with or obstruct any water quality control plans for the Dominguez Channel Watershed. With compliance with existing regulatory requirements and implementation of LID BMPs, the Project would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. Impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

## XI. LAND USE AND PLANNING

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Physically divide an established community? | ☐ | ☐ | ☒ | ☐ |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☒ | ☐ | ☐ | ☐ |

### a. Would the project physically divide an established community?

**Less Than Significant Impact.** The Project Site is located within the highly urbanized Westchester–Playa del Rey Community Plan area and is currently developed with commercial uses as well as associated surface parking. The Project Site does not currently contain residential uses. The area surrounding the Project Site is urbanized and includes a mix of low-rise buildings containing a variety of industrial, commercial, and residential uses.

[63] City of Los Angeles, LA Sanitation, Dominguez Channel, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-wp-ewmp-dc?_adf.ctrl-state=132119n0hg_5&_afrLoop=18283164496393533#!, accessed July 19, 2024

The Project proposes the demolition of the existing rental car facility and construction of either one or three industrial buildings. The Project Site would maintain its established zoning designation of [T][Q]M1-1 and the proposed uses on the Project Site would be consistent with the mix of uses located adjacent to and in the general vicinity of the Project Site. Additionally, all proposed development would occur within the boundaries of the Project Site and would not include the closure of any surrounding travel routes. Furthermore, the Project does not propose a freeway or other large infrastructure that could divide the existing surrounding community. Access to all surrounding properties would continue to be available upon buildout of the Project. Therefore, the Project would not physically divide an established community. Impacts related to the physical division of an established community would be less than significant, and no further evaluation of this topic in an EIR is required.

**b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**Potentially Significant Impact.** As discussed in Section 3, Project Description, of this Initial Study, the Project requires several discretionary approvals. Additionally, the Project could potentially conflict with land use plans, policies or regulations that were adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, further evaluation of this topic in an EIR is required.

## XII. MINERAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**a. Would the project 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?**

**No Impact.** No mineral extraction operations currently occur on the Project Site. Furthermore, the Project Site is not located within a City-designated Mineral Resource Zone or Surface Mining District where significant mineral deposits are known to be present or within a mineral producing area as classified by the California Geologic Survey.[64,65,66] The Project Site is also not located within a

[64] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995. Figure GS-1.

[65] State of California Department of Conservation, California Geologic Survey, Aggregate Sustainability in California, 2018.

[66] City of Los Angeles, Department of City Planning, Los Angeles General Plan Conservation Element, Exhibit A.

City-designated oil field or oil drilling area.[67] Therefore, the Project would not result in the loss of availability of a mineral resource or a mineral resource recovery site. No impact would occur, and no further evaluation of this topic in an EIR is required.

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

**No Impact.** Refer to Response to Checklist Question XII.a., Mineral Resources, above. No impact would occur, and no further evaluation of this topic in an EIR is required.

## XIII. NOISE

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project result in: | | | | |
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☒ | ☐ | ☐ | ☐ |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | ☒ | ☐ | ☐ | ☐ |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☒ | ☐ | ☐ | ☐ |

**a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Potentially Significant Impact.** During construction activities associated with the Project, the use of heavy equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) would generate noise on a short-term basis. In addition, noise levels from on-site sources may increase during operation of the Project. Furthermore, traffic attributable to the Project has the potential to increase noise levels along adjacent roadways. Therefore, further evaluation of this topic will be provided in the EIR.

[67] California Department of Conservation, CGS Information Warehouse: Mineral Land Classification, https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc , accessed July 19, 2024.

**b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?**

**Potentially Significant Impact.** Due to the proposed land uses and vibration characteristics (rapid attenuation based on distance from source), operation of the Project would not be anticipated to result in operational vibration impacts. Construction of the Project could generate groundborne noise and vibration associated with demolition, site grading and excavation, other clearing activities, the installation of building footings, and construction truck travel. As such, the Project would have the potential to generate excessive groundborne vibration and noise levels during short-term construction activities. Therefore, further evaluation of this topic will be provided in the EIR.

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

**Potentially Significant Impact.** The Project Site is located within two miles of the Los Angeles International Airport, which is located west of the Project Site. Given the distance between the Project Site and the nearest airport, the Project could expose people residing or working in the Project area to excessive noise levels. Therefore, impacts would potentially be significant, and further evaluation of this topic is required.

## XIV. POPULATION AND HOUSING

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Induce substantial unplanned 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)? | ☐ | ☐ | ☒ | ☐ |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☒ | ☐ |

**a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**Less Than Significant Impact.** As discussed in Section 3, Project Description, of this Initial Study, the Project does not include a housing component and thus would not directly introduce a new residential population that contributes to population growth in the vicinity of the Project Site or the Westchester–Playa del Rey Community Plan area.

While construction of the Project would create temporary construction-related jobs, the work requirements of most construction projects are highly specialized such that construction workers remain at a job site only for the time during which their specific skills are needed to complete a particular phase of the construction process. The Project would draw from the existing regional pool of construction workers who typically move from project to project as work is available. Project-related construction workers would not be anticipated to relocate their household's permanent place of residence as a consequence of working on the Project and, therefore, no new permanent residents are expected to be generated during construction of the Project. Accordingly, Project construction would not induce substantial population growth.

As discussed in Section 3, Project Description, of this Initial Study, the Project is comprised of two options that would each construct new industrial uses. Option 1 would develop a single building that would comprise of 80,000 square feet of office floor area and 355,390 square feet of warehouse floor area, and Option 2 would develop three individual buildings that would comprise 90,000 square feet of office floor area and 320,056 square feet of warehouse floor area. Based on employee generation factors from the City of Los Angeles Department of Transportation (LADOT)'s Vehicle Miles Traveled (VMT) Calculator, the Project is estimated to generate 637 net new employees to the Project Site under Option 1 and 642 net new employees to the Project Site under Option 2.[68,69] According to SCAG's 2024–2050 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2024 is approximately 1,974,725 employees.[70] In 2027, the projected buildout year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 2,005,813 employees.[71] Therefore, the projected employment growth in the City between 2024 and 2027 based on SCAG's 2024–2050 RTP/SCS is approximately 31,088 employees. Thus, under Option 1, the Project's estimated 637 net new employees would constitute 2.05 percent of the employment growth forecasted between 2024 and 2027. Under Option 2, the Project's estimated 642 net new employees would constitute 2.07 percent of the employment growth forecasted between 2024 and 2027.

While some new Project employees may be anticipated to relocate to the Project vicinity, many would not, nor would existing employees be expected to move as a result of redevelopment of the Project Site. Accordingly, the potential indirect increase in population would not be substantial. Specifically, some employment opportunities may be filled by people already residing in the vicinity of the Project

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68 LADOT and Los Angeles Department of City Planning (DCP), City of Los Angeles VMT Calculator Documentation, Version 1.3, May 2020. The employee generation rate 0.001 employee per square foot for "Light Industrial" land use is applied to the 37,860 square feet of rental car facility to be removed. The rate of 0.001 employee per square foot for "Light Industrial" land use is applied to the 355,390 square feet of industrial uses to be constructed under Option 1, and the 320,056 square feet of industrial uses to be constructed under Option 2. The rate of 0.004 employee per square foot for "General Office" land use is applied to the 80,000 square feet of office to be constructed under Option 1, and the 90,000 square feet of office to be constructed under Option 2. The existing structures to be removed produce approximately 38 employees (rental car facility 37,860 square feet * 0.001 = 38). Under Option 1, the Project would produce an estimated 675 employees (light industrial 355,390 square feet * 0.001 = 355) + (office 80,000 square feet * 0.004 = 320). Accounting for the existing uses to be removed, the Project would produce an estimated 637 net new employees. Under Option 2, the Project would produce an estimated 680 employees (light industrial 320,056 square feet * 0.001 = 320) + (office 90,000 square feet * 0.004 = 360). Accounting for the existing uses to be removed, the Project would produce an estimated 642 net new employees.

69 The existing occupied uses to be removed include a rental car facility.

70 The 2024 values for employment are calculated using SCAG's 2019 and 2035 values to find the average increase between years and then applying that annual increase to each year until 2024.

71 The 2027 values for employment are calculated using SCAG's 2019 and 2035 values to find the average increase between years and then applying that annual increase to each year until 2027.

Site, and other employees would be expected to commute to the Project Site from other communities both in and outside of the City, as occurs under existing conditions. Therefore, given that the Project would not directly contribute to substantial population growth in the Project area through the development of residential uses and since some of the employment opportunities generated by the Project could be filled by people already residing in the vicinity of the Project Site or others who would commute to the Project Site, the potential growth associated with Project employees who may relocate their place of residence would not be substantial. Further, as the Project would be located in an urbanized area with an established network of roads and other urban infrastructure, the Project would not require the extension of such infrastructure in a manner that would indirectly induce substantial population growth. Based on the above, the Project would not induce substantial population growth either directly or indirectly. Impacts would be less than significant, and no further evaluation of this topic is required in the EIR.

**b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**Less Than Significant Impact.** The Project Site is currently developed with a rental car facility. As no housing currently exists on the Project Site, the Project would not displace any existing persons or housing, or require the construction of replacement housing elsewhere. While some new employees may relocate to the vicinity of the Project Site, most would not, and the potential indirect increase in population would not be substantial. Specifically, employment opportunities would likely be filled be the large labor pool of people already residing in vicinity of the Project Site and other employees would commute to the Project Site from other communities both in and outside of the City, as occurs under existing conditions. Impacts related to the displacement of people or housing would be less than significant, and no further evaluation of this topic is required in the EIR.

## XV. PUBLIC SERVICES

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

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Fire protection? | ☐ | ☐ | ☒ | ☐ |
| b. Police protection? | ☐ | ☐ | ☒ | ☐ |
| c. Schools? | ☐ | ☐ | ☒ | ☐ |
| d. Parks? | ☐ | ☐ | ☒ | ☐ |
| e. Other public facilities? | ☐ | ☐ | ☒ | ☐ |

**a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?**

**Less Than Significant Impact.** The Project Site and the surrounding area are currently served by LAFD Fire Station No. 95 located at 10010 International Road (approximately 0.8 miles south of the Project Site). An additional station within two miles of the Project Site is LAFD Fire Station No. 5 located at 8900 Emerson Avenue (approximately 1.2 miles west of the Project Site).[72]

### Construction

Project construction could potentially impact the provision of LAFD services in the vicinity of the Project Site as a result of construction impacts to the surrounding roadways. While construction activities would primarily be contained within the boundaries of the Project Site, access to the Project Site and the surrounding vicinity could be impacted by temporary lane closures, roadway/access improvements, and the construction of utility line connections. Construction activities would also generate traffic associated with the movement of construction equipment, the hauling of soil and construction materials to and from the Project Site, and construction worker traffic. Thus, although construction activities would be short-term and temporary for the area, Project construction activities could temporarily increase response times along adjacent streets due to travel time delays caused by traffic during the Project's construction phase. However, construction-related traffic, including hauling activities and construction worker trips, would occur outside the typical weekday commuter morning and afternoon peak periods, thereby reducing the potential for traffic-related conflicts. In addition, a Construction Traffic Management (CTM) Plan would be implemented during Project construction to ensure that adequate and safe access remains available within and near the Project Site during construction activities. The Project would also employ temporary traffic controls, such as flag persons, to control traffic movement during temporary traffic flow disruptions. Traffic management personnel would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. Appropriate construction traffic control measures (e.g., detour signage, delineators, etc.) would also be implemented, as necessary, to ensure emergency access to the Project Site and traffic flow is maintained on adjacent rights-of-way. Furthermore, pursuant to California Vehicle Code Section 21806, the drivers of emergency vehicles are generally able to avoid traffic in the event of an emergency by using sirens to clear a path of travel or by driving in the lanes of opposing traffic. As such, emergency access to the Project Site and surrounding area would be maintained during operation of the Project. Since emergency access to the Project Site would remain unobstructed during construction of the Project, impacts related to LAFD emergency access would be less than significant.

### Operation

Based on employee generation rates provided by the City of Los Angeles VMT Calculator Documentation, the Project would generate approximately 638 employees under Option 1 and 642 under Option 2. Thus, the daytime population within Fire Station No. 95's service area would increase by approximately 637 persons under Option 1 and 642 under Option 2, as compared to existing conditions. This daytime population projected to be generated by the Project would increase the

[72] LAFD, Find Your Station, www.lafd.org/fire-stations/station-results, accessed July 22, 2024.

demand for LAFD fire protection and emergency medical services. However, the Project would comply with all applicable provisions set forth in the City Building Code and Fire Code regarding structural design, building materials, site access, fire flow, storage and management of hazardous materials, alarm and communications systems, etc., including as required by LAFD. Compliance with applicable City Building Code and Fire Code requirements would be demonstrated as part of LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, as set forth in LAMC Section 57.118, prior to the issuance of a building permit.

As discussed above, LAMC Chapter V, Article 7, Section 57.512.1 provides that response distances, which are based on land use and fire flow requirements, range from 0.75 miles for an engine company to two miles for a truck company. Where a site's response distance is greater than permitted, all structures must have automatic fire sprinkler systems. As set forth by the LAFD, based on LAMC criteria regarding response distance, the first-due Engine Company should be within 0.75 miles, and the first-due Truck Company within one mile. Based on the response distances from existing fire stations and the type of equipment available at the fire station nearest the Project Site, LAFD has concluded fire protection would be inadequate.[73] At present, LAFD has no immediate plans to increase staffing or resources in the area. However, the LAFD would be consulted during final building design to ensure adequate compliance with the Building and Fire Codes prior to the issuance of any construction permits. Compliance with applicable regulatory requirements, including LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, would ensure that adequate fire prevention features would be provided that would reduce the demand on LAFD facilities and equipment. Therefore, the Project would not result in the need for new or physically altered fire facilities.

With regard to emergency vehicle access during operation, as described in Section 3, Project Description, of this Initial Study, the Project does not propose the permanent closure of any local public streets and primary access to the Project Site would continue to be provided from the surrounding streets. The Project's driveways and internal circulation would be designed to meet all applicable City Building Code and Fire Code requirements regarding site access, including providing dedicated emergency vehicle access. Under Option 1, an emergency vehicle access (EVA) driveway would be located on the eastern portion of the Project Site on Arbor Vitae Street connecting to Interceptor Street and an additional EVA driveway would be located along the northern portion of the Project Site connecting the western portion of the Project Site via Interceptor Street to the east portion of the Project Site via Interceptor Street. Under Option 2, an EVA access driveway would be located on the eastern portion of the Project Site along Arbor Vitae Street. Compliance with applicable City Building Code and Fire Code requirements, including EVA, would be confirmed as part of LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, as set forth in Section 57.118 of the LAMC, and which are required prior to the issuance of a building permit. Furthermore, pursuant to California Vehicle Code Section 21806, the drivers of emergency vehicles are generally able to avoid traffic in the event of an emergency by using sirens to clear a path of travel or by driving in the lanes of opposing traffic. As such, emergency access to the Project Site and surrounding area would be maintained during operation of the Project.

Fire flow to the Project would be required to meet City fire flow requirements. As previously discussed, LAMC Section 57.507.3.1 establishes fire flow standards by development type. Based on fire flow

[73] Written correspondence from David Perez, Fire Marshal, Fire Marshall Bureau of Fire Prevention and Public Safety, Los Angeles Fire Department included as Appendix IS-5 of this Initial Study, May 20, 2024.

standards set forth in LAMC Section 57.507.3, LAFD has set the fire flow requirement for the Project at 12,000 gallons per minute (gpm) available to any block (where local conditions indicate that consideration must be given to simultaneous fires, an additional 2,000 to 8,000 gpm will be required). As discussed in the Water Infrastructure Assessment Report, included as Appendix IS-6 of this Initial Study, the IFFAR shows there would be sufficient capacity in the existing water infrastructure system under a 12,000 gpm fire flow with the installation of one new fire hydrant along Airport Boulevard as set forth in Project Design Feature WAT-PDF-1. With the implementation of Project Design Feature WAT-PDF-1, public water infrastructure would provide adequate water pressure to serve the Project Site's anticipated fire flow demand. In addition, the Project would install a fire sprinkler suppression system in the proposed building to reduce or eliminate the public hydrant demands.[74] Per LAMC 94.2020.0, which adopts by reference NFPA 14-2013, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building is 1,250 gpm. With the proposed fire sprinkler system and implementation of Project Design Feature WAT-PDF-1, adequate fire flow and fire suppression would be provided to the Project Site to serve the Project, and impacts would be less than significant.

Based on the above, the Project operation would not require the addition of a new fire station or the expansion of an existing facility in order to maintain service. Therefore, the Project would not result in the need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service. Impacts would be less than significant, and no further evaluation of this topic is required in the EIR.

**b. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?**

**Less Than Significant Impact.** Police protection services are provided to the Project Site and the surrounding area by the Los Angeles Police Department (LAPD). The Project Site is located in Reporting District 1488 within the jurisdiction of the LAPD's Central Bureau, and is served by the Pacific Community Police Station located at 12312 Culver Boulevard, approximately 4.6 miles northwest of the Project Site.[75] This station has a service area encompassing 25.74 square miles with a population of over 200,000 people.[76] As previously noted, the Project does not include the development of residential uses. Therefore, the Project would not directly affect the existing officer-to-resident ratio within LAPD's West Bureau. However, the Project would introduce a new employee and visitor population to the Project Site, which could result in an indirect demand for police services. These employment opportunities would include a range of full-time and part-time positions, which may be filled, in part, by employees already residing in the vicinity of the Project Site and who are already included in the residential population of the LAPD's West Bureau. Other positions may be filled by persons who would commute and who would not relocate their place of residence as a result of working at the Project Site.

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74 Cannon Group, Water Infrastructure Assessment Report, July 2024. Refer to Appendix IS-6 of this Initial Study.

75 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

76 Los Angeles Police Department, Pacific Community Police Station, https://www.lapdonline.org/lapd-contact/west-bureau/pacific-community-police-station/?zip=9000%20Airport%20boulevard%20Los%20Angeles%2090045, accessed July 19, 2024.

Overall, given the LAPD's metrics for evaluating service capacity based on residential population, the Project's increase in the police service population would not affect the officer-to-resident ratio for LAPD's West Bureau and the officer-to-resident ratio would remain at its current level.

However, the Project would incorporate security features to reduce the demand for police protection services. These features would include sufficient lighting throughout the Project Site to ensure safety and visibility and well illuminated entryways, walkways, and parking areas to eliminate areas of concealment. Additionally, prior to the issuance of a building permit, the Applicant would submit the Project plans to LAPD for review regarding the incorporation of feasible crime prevention features as well as access routes and other information that might facilitate police response. In addition to the implementation of these design features, which would help offset the Project-related increase in demand for police services, the Project would generate revenues to the City's General Fund (in the form of property taxes, sales revenue, etc.) that could be applied toward the provision of new police facilities and related staffing in the community, as deemed appropriate.

Furthermore, the Project would not impede police access to the Project Site. The Project would not result in the permanent closure of any local public streets, and access to the Project Site would continue to be provided from adjacent streets. Additionally, in accordance with California Vehicle Code (CVC) Section 21806, drivers of police vehicles have the ability to avoid traffic by using sirens and flashing lights to clear a path of travel or driving in the lanes of opposing traffic. Accordingly, Project operation would not cause a substantial increase in emergency response times due to traffic congestion.

Notwithstanding, consistent with the decision in City of Hayward v. Board of Trustees of California State University and the requirements of California Constitution Article XIII, Section 35(a)(2), the obligation to provide adequate police services is the responsibility of the City. LAPD will continue to monitor population growth and land development in the City and identify additional resource needs, including staffing, equipment, basic cars, other special apparatuses, and possibly station expansions or new station construction needs, that may become necessary to achieve the required level of service. Through the City's regular budgeting efforts, LAPD's resource needs will be identified and allocated according to the priorities at the time. At this time, LAPD has not identified the need for any new station construction in the area either because of this Project or other projects in the service area. If LAPD determines that new facilities are necessary at some point in the future, such facilities: (1) would occur where allowed under the designated land use; (2) would be located on parcels that are infill opportunities on lots that are between 0.5 and 1 acre in size; and (3) could qualify for a categorical exemption or Mitigated Negative Declaration under CEQA Guidelines Section 15301 or 15332 and would not be expected to result in significant impacts, and projects involving the construction or expansion of a police station would be addressed independently of the Project pursuant to CEQA. Further analysis, including of a specific location for a future police station, would be speculative and beyond the scope of this document.

Overall, the Project would not generate a demand for additional police protection services that would exceed the LAPD's capacity to serve the Project Site. Therefore, Project operations would not necessitate the provision of new or physically altered police facilities, the construction of which would cause significant environmental impacts, in order to maintain LAPD's capability to serve the Project Site. Impacts would be less than significant, and no further evaluation of this topic is required in the EIR.

**c. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools?**

**Less Than Significant Impact.** The Project Site is located within the boundaries of LAUSD, which is divided into seven local districts.[77] The Project Site is located in District 4 and is served by Westport Heights Elementary School, located 1.2 miles north of the Project Site, Orville Wright Middle School, located 2.1 miles northwest of the Project Site, Katherine Johnston STEM Academy, located 3.1 miles west of the Project Site, and Westchester Enriched Sciences Magnets, located 3.1 miles west of the Project Site.

### Construction

The Project would generate part-time and full-time jobs associated with construction of the Project between the start of construction and Project buildout. However, due to the employment patterns of construction workers in Southern California and the operation of the market for construction labor, which require construction workers to commute to job sites that change many times in the course of a year, construction workers are not likely to relocate their households as a consequence of the construction job opportunities presented by the Project. In addition, construction workers would be more likely to utilize schools near their places of residence. Therefore, the construction employment generated by the Project would not result in a notable increase in the resident population or a corresponding demand for schools in the vicinity of the Project Site. Impacts on school facilities during Project construction would be less than significant, and no further evaluation of this topic in an EIR is required.

### Operation

As previously discussed, the Project does not propose the development of residential uses. Therefore, implementation of the Project would not result in a direct increase in the number of students within the service area of LAUSD. In addition, the number of students that may be indirectly generated by the Project that could attend LAUSD schools serving the Project Site would not be anticipated to be substantial because not all employees of the Project are likely to reside in the vicinity of the Project Site. Furthermore, pursuant to Senate Bill 50, the Project Applicant would be required to pay development fees for schools to LAUSD prior to the issuance of building permits. Pursuant to Government Code Section 65995, the payment of these fees is considered full legal mitigation of Project-related school impacts. Thus, the Project would not result in the need for new or altered school facilities. Therefore, impacts on school facilities during Project operation would be less than significant, and no further evaluation of this topic in an EIR is required.

**d. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for park services?**

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[77] LAUSD, Board of Education Districts Maps 2022-2023, July 19, 2024.

**Less Than Significant Impact.** Parks and recreational facilities in the vicinity of the Project Site are primarily operated and maintained by the Los Angeles Department of Recreation and Parks. Nearby public parks and recreational facilities within a two-mile radius include Ashwood Park, located 1.7 miles northeast of the Project Site, and Siminski Park, located 1.8 miles southeast of the Project Site.

### Construction

Given the temporary nature of construction activities, construction of a project would not introduce a permanent population to an area which could result in an increase in the use of existing parks and recreational facilities that would result in the need for new parks and recreational facilities or the expansion of existing facilities. Additionally, the use of public parks and recreational facilities by construction workers would be expected to be limited, as construction workers are highly transient in their work locations and are more likely to utilize parks and recreational facilities near their places of residence. Additionally, due to the employment patterns of construction workers in Southern California and the operation of the market for construction labor, which require construction workers to commute to job sites that change many times in the course of a year, construction workers are not likely to relocate their households as a consequence of the construction job opportunities presented by the Project. Thus, construction of the Project would not generate a demand for park facilities that cannot be adequately accommodated by existing or planned facilities and services. Therefore, the construction workers associated with the Project would not result in a notable increase in the residential population within the vicinity of the Project Site, which would result in a corresponding permanent demand for parks in the vicinity of the Project Site. Impacts on parks during Project construction would be less than significant and no further evaluation of this topic in an EIR is required.

### Operation

As previously discussed, the Project does not propose the development of residential uses. Therefore, implementation of the Project would not result in on-site residents who would utilize nearby parks and/or recreational facilities. Additionally, the new employment opportunities that would be generated by the Project may be filled, in part, by employees already residing in the vicinity of the Project Site who already utilize existing parks and recreational facilities. Therefore, only a fraction of the new employees generated by the Project could create an additional demand for parks. While it is possible that some of these employees may utilize local parks and recreational facilities, such use would be anticipated to be limited due to work obligations and the amount of time it would take for employees to access off-site local parks. In addition, Project employees would be more likely to use parks near their homes during non-work hours.

As discussed in Section 3, Project Description, of this Initial Study, landscaping and open space elements would be used to unify the various buildings and day-to-day activities on the Project Site during operation of the Project through a cohesive plant palette to be used along the streetscape. As such, the Project's on-site outdoor areas would help to offset the demand for off-site parks and recreational facilities that could occur from the Project's net new employees. Thus, the Project would not result in the need for new or altered park facilities, or substantially increase the demand for parks. The Project's impacts on parks during Project operation would be less than significant, and no further evaluation of this topic in an EIR is required.

**e. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?**

**Less Than Significant Impact.** Other public facilities provided to the Project Site include library services. The Los Angeles Public Library (LAPL) provides library services to the City of Los Angeles through its Central Library, 72 branch libraries, as well as through Web-based resources.[78] The Project area is served by existing LAPL facilities within the Westchester-–Playa del Rey Community Plan area, including the Westchester – Loyola Village Branch Library, located 2.0 miles west of the Project Site and the Playa Vista Branch Library, located 3.3 miles northwest of the Project Site.[79]

### Construction

As previously discussed, construction of the Project would result in a temporary increase of construction workers on the Project Site. However, due to the employment patterns of construction workers in Southern California, and the operation of the market for construction labor, construction workers are not likely to relocate their households as a consequence of Project construction. In addition, construction workers would be more likely to use libraries near their places of residence during non-work hours. Therefore, Project-related construction workers would not result in a notable increase in the resident population within the service area of either library serving the Project Site or an overall corresponding demand for library services in the vicinity of the Project Site. As such, construction of the Project would not exceed the capacity of local libraries to adequately serve the existing residential population based on target service populations or as defined by the LAPL. Therefore, impacts on library facilities during Project construction would be less than significant, and no further evaluation of this topic in an EIR is required.

### Operation

As previously discussed, the Project does not propose the development of residential uses. Therefore, implementation of the Project would not result in a direct increase in the number of residents within the service population of the local LAPL facilities. In addition, Project employees would have internet access to LAPL and other web-based resources, decreasing the demand on library facilities. Furthermore, as Project employees would be more likely to use library facilities near their homes during non-work hours and given that some of the employment opportunities generated by the Project would be filled by people already residing in the vicinity of the Project Site, Project employees and the potential indirect population generation that could be attributable to those employees would generate minimal demand for library services. Therefore, impacts on library facilities during Project operation would be less than significant, and no further evaluation of this topic in an EIR is required.

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78 Los Angeles Public Library Strategic Plan, 2015–2020.

79 Los Angeles Public Library, Branch Map, https://lapl.org/branches?distance%5Bpostal_code%5D=90021&distance%5Bsearch_distance%5D=3&distance%5Bsearch_units%5D=mile, accessed July 19, 2024.

# XVI. RECREATION

| | Potentially Significant Impact | Less Than Significant with 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? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☐ | ☒ |

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

**Less Than Significant Impact.** As discussed above in Response to Checklist Question XV.d., the Project would not generate a new residential population that would regularly utilize nearby parks and recreational facilities, and any use of local parks and recreational facilities is anticipated to be limited. The new employment opportunities generated by the Project may be filled, at least in part, by employees presently residing in the vicinity of the Project Site who already utilize existing parks and recreational facilities. Therefore, only a fraction of new Project employees would be expected to create new demand for local parks and recreational facilities, and such use is anticipated to be limited due to work obligations and the travel time necessary to access off-site parks and recreational facilities. In addition, Project employees are often more likely to use parks and facilities near their homes during non-work hours. Furthermore, the Project proposes on-site outdoor areas and may include seating areas for Project employees, thus reducing the likelihood that employees would use local parks and recreational facilities. Therefore, impacts related to parks and recreational facilities would be less than significant, and no further analysis of this topic in the EIR is required.

**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?**

**No Impact.** The Project would not include the construction of recreational facilities or require the expansion of recreational facilities, as the Project does not include any residential uses and would not result in any direct substantial population growth that would increase use of existing recreational facilities. Therefore, no impact would occur and no further evaluation of this topic in an EIR is required.

# XVII. TRANSPORTATION

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | ☒ | ☐ | ☐ | ☐ |
| b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? | ☒ | ☐ | ☐ | ☐ |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☒ | ☐ | ☐ | ☐ |
| d. Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |

**a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

**Potentially Significant Impact.** The City requires the preparation and submission of a Transportation Assessment for projects that meet the following criteria:

- If the project is estimated to generate a net increase of 250 or more daily vehicle trips and requires discretionary action, a transportation assessment for a Development Project is required.
- If a project is likely to either: (1) induce additional vehicle miles traveled by increasing vehicle capacity; or (2) reduce roadway through-lane capacity on a street that exceeds 750 vehicles per hour per lane for at least two (2) consecutive hours in a 24-hour period after the project is completed, a transportation assessment is generally required.
- A transportation assessment is required by City ordinance or regulation.

As described in Section 3, Project Description, of this Initial Study, the Project would introduce new uses to the Project Site and would increase the floor area over existing conditions. As such, the Project may meet the above criteria for preparation of Transportation Assessment. A Transportation Assessment in accordance with LADOT's Transportation Assessment Guidelines (TAG) will be prepared for the Project. In accordance with the TAG and consistent with the City CEQA Transportation Thresholds (adopted July 30, 2019), the transportation assessment's CEQA-required analyses will include an assessment of whether the Project would result in potential conflicts with transportation-related plans, ordinances, or policies. Therefore, further evaluation of this topic will be included in the EIR.

**b. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?**

**Potentially Significant Impact.** SB 743, which went into effect in January 2014, requires the Governor's Office of Planning and Research to change the way public agencies evaluate transportation impacts of projects under CEQA. Under SB 743, the focus of transportation analysis has shifted from driver delay, which is typically measured by traffic level of service (LOS), to a new measurement that better addresses the State's goals on reduction of greenhouse gas emissions, creation of a multi-modal transportation, and promotion of mixed-use developments. CEQA Guidelines Section 15064.3 states that VMT is the most appropriate measure of transportation impacts, replacing LOS.

On July 30, 2019, the City adopted the CEQA Transportation Analysis Update, which sets forth the revised thresholds of significance for evaluating transportation impacts as well as screening and evaluation criteria for determining impacts. The CEQA Transportation Analysis Update establishes VMT as the City's formal method of evaluating a project's transportation impacts. In conjunction with this update, LADOT adopted its TAG, which defines the methodology for analyzing a project's transportation impacts in accordance with SB 743. The Project would develop one or three new industrial warehouse buildings on the Project Site. However, the Project Site is currently developed with an operating rental car facility that has a high rate of VMT at existing conditions. Therefore, further evaluation of this topic will be provided in the EIR.

**c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Potentially Significant Impact**. The Project Site is located in a highly urbanized area developed with roadways and infrastructure. The roadways adjacent to the Project Site are part of the urban roadway network and contain no sharp curves or dangerous intersections. In addition, the Project would not introduce hazards due to incompatible uses such as farm equipment. However, the Project would include new access improvements, including driveways to the Project Site that would be accessible to trailers and freight trucks. As such, further evaluation of this topic will be provided in the EIR.

**d. Would the project result in inadequate emergency access?**

**Less Than Significant Impact.** The Project Site is located in an established urban area that is well served by the surrounding roadway network. Emergency vehicular access to the Project Site would be maintained from all roadways surrounding the Project, including Airport Boulevard, Interceptor Street, and Arbor Vitae Street. According to the City's GeoHub system, the nearest disaster routes within the Project area are Manchester Boulevard, approximately 0.3 miles north of the Project Site and Interstate 405, approximately 0.8 miles east of the Project Site.[80] While it is expected that the majority of construction activities for the Project would be confined to the Project Site, limited off-site construction activities may occur in adjacent street rights-of-way during certain periods of the day, which could potentially require temporary lane closures. However, if lane closures are necessary, both directions of travel would continue to be maintained in accordance with standard construction traffic management plans that would be implemented to ensure adequate circulation and emergency access. With regard

[80] City of Los Angeles GeoHub, Disaster Routes, Disaster Routes (lacity.org) https://geohub.lacity.org/datasets/lacounty::disaster-routes-1/explore?location=34.260897%2C-118.302131%2C10.05, accessed July 19, 2024.

to operation, the Project would not require the permanent closure of any local public or private streets and would not impede emergency vehicle access to the Project Site or surrounding area. In addition, the Project would comply with LAFD access requirements, including required fire lane widths, turning radii, secondary access, etc., and plot plans would be submitted to LAFD for approval. Therefore, the Project would not result in inadequate emergency access. Impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

## XVIII. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. 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 | ☒ | ☐ | ☐ | ☐ |
| 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 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☒ | ☐ | ☐ | ☐ |

**a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object 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)?**

**b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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 the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

**Potentially Significant Impact (a and b).** Assembly Bill (AB) 52 established a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in PRC Section 21074. As specified by AB 52, a lead agency must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. In compliance with AB 52, the City mailed a consultation request letter to all applicable tribes on August 6, 2024.

As previously discussed, the Project would require excavations that extend approximately 10 feet below ground surface. As such, construction activities could potentially disturb any existing but undiscovered tribal cultural resources. Therefore, the potential exists for the Project to impact a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. Further analysis of this topic will be provided in the EIR.

## XIX. UTILITIES AND SERVICE SYSTEMS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| Would the project: | | | | |
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☒ | ☐ | ☐ | ☐ |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | ☐ | ☐ | ☒ | ☐ |
| c. 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? | ☐ | ☐ | ☒ | ☐ |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☒ | ☐ |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

The following analysis is based, in part, on the Water Infrastructure Assessment Report and Sewer Infrastructure Assessment Report prepared for the Project by Cannon Corp. dated July 2024, and included as Appendix IS-6 and IS-7 of this Initial Study, respectively. All specific information regarding historic and existing on-site conditions in the discussion below is from these reports unless otherwise noted.

**a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**Potentially Significant Impact (Energy Infrastructure)/Less Than Significant Impact (Water, Wastewater, Stormwater, Telecommunications Facilities, and Solid Waste).** Water, wastewater, electric power, and natural gas systems consist of two components: the source of the supply or place of treatment (for wastewater), and the conveyance systems (i.e., distribution lines and mains) that link the location of these facilities to an individual development site. Given the Project's increase in the amount of developed floor area on the Project Site and the potential corresponding increase in water, and energy demand, further analysis of this issue will be provided in the EIR. Water, wastewater, stormwater, and telecommunications facilities are analyzed below.

**Water**

With respect to water supply, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Conservative analysis for both fire suppression and domestic water flows were approved by LADWP. Refer to the Water Infrastructure Assessment Report included as Appendix IS-6 of this Initial Study for the IFFAR and Service Advisory Request (SAR).

Fire flow to the Project would be required to meet City fire flow requirements. As previously discussed, LAMC Section 57.507.3.1 establishes fire flow standards by development type. Based on fire flow standards set forth in LAMC Section 57.507.3, LAFD has set the fire flow requirement for the Project at 12,000 gallons per minute (gpm) available to any block (where local conditions indicate that consideration must be given to simultaneous fires, an additional 2,000 to 8,000 gpm will be required). As discussed in the Water Infrastructure Assessment Report, included as Appendix IS-6 of this Initial Study, the IFFAR shows there would be sufficient capacity in the existing water infrastructure system under a 12,000 gpm fire flow with the installation of one new fire hydrant along Airport Boulevard as set forth in Project Design Feature WAT-PDF-1. With the implementation of Project Design Feature WAT-PDF-1, public water infrastructure would provide adequate water pressure to serve the Project Site's anticipated fire flow demand. In addition, the Project would install a fire sprinkler suppression system in the proposed building to reduce or eliminate the public hydrant demands.[81] Per LAMC 94.2020.0, which adopts by reference NFPA 14-2013, the maximum allowable fire sprinkler demand for a fully or partially sprinklered building is 1,250 gpm. Because the SAR submitted to LADWP confirms there is sufficient

[81] Cannon Group, Water Infrastructure Assessment Report, July 2024. Refer to Appendix IS-6 of this Initial Study.

pressure to serve the Project, adequate water pressure is available to operate the proposed fire sprinkler suppression system.[82]

With respect to domestic water use, as shown in Table 3 on page 86, under Option 1, the Project would result in a net increase in average daily water demand of 21,532 gallons per day (gpd) and a total water demand of 23,425 gpd. Additionally, as shown in Table 4 on page 87, under Option 2, the Project would result in a net increase in average daily water demand of 22,603 gpd and a total water demand of 24,496 gpd.

Based upon the SAR and IFFAR results, the existing infrastructure is sufficient to meet the demands of the Project. Impacts would be less than significant and no further evaluation of this topic in an EIR is required.

**Project Design Feature WAT-PDF-1:** The Project will install one new fire hydrant that will connect to the existing water mains located along Airport Boulevard.

### Wastewater

The wastewater generated by the Project would be conveyed via the existing wastewater conveyance systems for treatment at the Hyperion Water Reclamation Plant (HWRP). The HWRP has a capacity of 450 million gallons per day (mgd), and current average wastewater flows are at approximately 275 mgd. Accordingly, the remaining available capacity at the HWRP is approximately 175 mgd.[83]

With respect to wastewater generation, as shown in Table 5 on page 88, under Option 1, the Project would result in a net increase in average daily wastewater generation of 18,369 gpd and a total wastewater generation of 20,262 gpd. Additionally, as shown in Table 6 on page 89, under Option 2, the Project would result in a net increase in average wastewater generation of 18,509 gpd and a total wastewater generation of 20,402 gpd.

The LAMC includes regulations that require the City to assure available sewer capacity for new projects. A Sewer Capacity Availability Report (SCAR) provides a preliminary assessment of the capacity of the existing municipal sewer system to safely convey a project's newly generated wastewater to the appropriate sewage treatment plant. Two SCARs for Option 1 and Option 2 (Attachment 3 of the Sewer Infrastructure Assessment Report included in Appendix IS-7 of this Initial Study) were submitted to evaluate the ability of the existing local wastewater conveyance system to accommodate the Project's estimated wastewater flow. In preparing the SCARs, LASAN analyzed the Project's wastewater demands in conjunction with existing conditions and forecasted growth, and approved the maximum allowable capacity of 20,262 gpd for Option 1 and 20,402 gpd for Option 2. In addition, Project-related sanitary sewer connections and on-site infrastructure would be designed and constructed in accordance with applicable LASAN and California Plumbing Code standards. Therefore, the Project would not cause a measurable increase in wastewater flows at a time when a sewer's capacity is already

[82] Cannon Group, Water Infrastructure Assessment Report, July 2024. Refer to Appendix IS-6 of this Initial Study.

[83] LASAN, Treatment Process, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp-tp?_adf.ctrl-state=1e9ltuxk0_5&_afrLoop=1690868518519671#!, accessed July 19, 2024.

**Table 3**
**Option 1: Estimated Project Water Consumption**

| Land Use | Floor Area (sf) | Water Consumption Rate (gpd/unit)[a] | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | **1,893** |
| **Proposed** [b] | | | |
| Warehouse | 355,390 | 0.03 | 10,662 |
| Office | 80,000 | 0.12 | 9,600 |
| Landscaping | | | 3,164 [c] |
| **Total Proposed** | | | **23,425** [d] |
| **Less Existing to be Removed** | | | **-1,893** |
| **Net Water Consumption (Proposed – Existing)** | | | **21,532 (24.13 AFY)** |

*gpd = gallons per day*

*sf = square feet*

*AFY = acre-feet per year*

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

[b] *The proposed development land uses will conform to City of Los Angeles Ordinance Nos. 186488 and 184248, the 2020 Los Angeles Plumbing Code, and the 2020 Los Angeles Green Building Code.*

[c] *Landscaping water demand provided by Conceptual Design and Planning Company, 2023.*

[d] *Total may not exactly add up due to rounding.*

*Source: Cannon Corp., 2024.*

constrained and it would not cause a sewer's capacity to become constrained. Impacts would be less than significant and no further evaluation of this topic in an EIR is required.

### Stormwater

As previously discussed under Checklist Question No. X, Hydrology and Water Quality, with implementation of the Project, the Project Site would reduce the overall percentage of impervious area from 90 percent to 88 percent under Option 1, and 85 percent under Option 2. In addition, the Project would comply with the City's LID Ordinance, which requires that post-construction stormwater runoff from new projects must be infiltrated, evapotranspirated, captured and used, and/or treated through high efficiency BMPs on site for the volume of water produced by the greater of the 85th percentile storm event or the 0.75-inch storm event (i.e., "first flush"). Consistent with LID requirements to reduce the quantity and improve the quality of rainfall runoff that leaves the Project Site, the Project would include the installation of infiltration BMPs as established by the LID Manual. As such, the Project would not require or result in the relocation or construction of new or expanded stormwater drainage. Impacts would be less than significant and no further evaluation of this topic in an EIR is required.

**Table 4**
**Option 2: Estimated Project Water Consumption**

| Land Use | Floor Area (sf) | Water Consumption Rate (gpd/unit)[a] | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | **1,893** |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9,602 |
| Office | 90,000 | 0.12 | 10,800 |
| Landscaping | | | 4,094 [c] |
| **Total Proposed** | | | **24,496** |
| **Less Existing to be Removed** | | | **-1,893** |
| **Net Water Consumption (Proposed – Existing)** | | | **22,603 (25.34 AFY)** |

*gpd = gallons per day*

*sf = square feet*

*AFY = acre-feet per year*

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

[b] *The proposed development land uses will conform to City of Los Angeles Ordinance Nos. 186488 and 184248, the 2020 Los Angeles Plumbing Code, and the 2020 Los Angeles Green Building Code.*

[c] *Landscaping water demand provided by Conceptual Design and Planning Company, 2023.*

*Source: Cannon Corp., 2024.*

### Telecommunications Facilities

The Project would require construction of new on-site telecommunications infrastructure to serve new buildings and potential upgrades and/or relocation of existing telecommunications infrastructure. Construction impacts associated with the installation of telecommunications infrastructure would primarily involve trenching in order to place the lines below surface. However, the Project would ensure vehicle and pedestrian access is maintained throughout construction. In addition, when considering impacts resulting from the installation of any required telecommunications infrastructure, all impacts are of a relatively short duration (i.e., months) and would cease to occur when installation is complete. Installation of new telecommunications infrastructure would be limited to on-site telecommunications distribution and minor off-site work associated with connections to the public system. No upgrades to off-site telecommunications systems are anticipated. Any work that may affect services to the existing telecommunications lines would be coordinated with service providers and the City as applicable. As such, the Project would not require or result in the relocation or construction of new or expanded telecommunications facilities. Impacts would be less than significant and no further evaluation of this topic in an EIR is required.

**Table 5**
**Option 1: Estimated Project Wastewater Generation**

| Land Use | Floor Area (sf) | Wastewater Generation Rate (gpd/unit)[a] | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | **1,893** |
| **Proposed** | | | |
| Warehouse | 355,390 | 0.03 | 10,662 |
| Office | 80,000 | 0.12 | 9,600 |
| **Total Proposed** | | | **20,262** |
| **Less Existing to be Removed** | | | **1,893** |
| **Net Wastewater Generation (Proposed – Existing)** | | | **18,369** |

*gpd = gallons per day*

*sf = square feet*

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

[b] *The proposed development land uses will conform to City of Los Angeles Ordinance Nos. 186488 and 184248, the 2020 Los Angeles Plumbing Code, and the 2020 Los Angeles Green Building Code.*

*Source: Cannon Corp., 2024.*

**Table 6**
**Option 2: Estimated Project Wastewater Generation**

| Land Use | Floor Area (sf) | Wastewater Generation Rate (gpd/unit)[a] | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | **1,893** |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9,602 |
| Office | 90,000 | 0.12 | 10,800 |
| **Total Proposed** | | | **20,402** |
| **Less Existing to be Removed** | | | **1,893** |
| **Net Wastewater Generation (Proposed – Existing)** | | | **18,509** |

*gpd = gallons per day*

*sf = square feet*

[a] *Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

[b] *The proposed development land uses will conform to City of Los Angeles Ordinance Nos. 186488 and 184248, the 2020 Los Angeles Plumbing Code, and the 2020 Los Angeles Green Building Code.*

*Source: Cannon Corp., 2024.*

**b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**Less Than Significant Impact.** Senate Bill 610 requires counties and cities to consider the availability of adequate water supplies for certain new large development projects as part of the CEQA process. Specifically, Senate Bill 610 requires that for certain projects subject to CEQA, the urban water supplier must prepare a water supply assessment (WSA) that determines whether the projected water demand associated with a project is included as part of the most recently adopted urban water management plan. In accordance with Water Code Section 10912, projects subject to CEQA requiring preparation of a WSA include the following:

- Residential developments of more than 500 dwelling units;
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plant, or industrial parks of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons;

- Mixed-use projects that include one or more of the above-identified categories; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling unit project.

As previously discussed, under Option 1, the Project would be comprised of approximately 355,390 square feet of industrial uses and approximately 80,000 square feet of office uses for a total floor area of approximately 435,390 square feet, with approximately 637 employees. Under Option 2, the Project would be comprised of approximately 320,056 square feet of industrial uses and approximately 90,000 square feet of office uses for a total floor area of approximately 410,056 square feet with approximately 642 employees. As the Project does not meet the criteria above, a WSA is not required.

Water is provided to the Project Site by the Los Angeles Department of Water and Power. Water is supplied to the City from the Los Angeles Aqueduct, local groundwater, through purchase from the Metropolitan Water District, and recycled water. LADWP's 2020 Urban Water Management Plan (UWMP) anticipates adequate water supplies would be available to serve its service area under normal, single-dry, and multi-dry year conditions through 2045.[84] Development of the Project would result in an increase in long-term water demand for consumption, operational uses, maintenance, and other activities on the Project Site. Consistent with LADWP's methodology, the analysis of the Project's impacts relative to water supply is based on a calculation of the Project's water demand by applying the sewage generation factors established by LASAN, which also serve to estimate water demand to the proposed uses. With respect to domestic water use, as shown in Table 3 on page 86, under Option 1, the Project would result in a net increase in average daily water demand of 21,532 or 24.13 acre feet per year (AFY). Additionally, as shown in Table 4 on page 87, under Option 2, the Project would result in a net increase in average daily water demand of 22,603 gpd or 25.34 AFY.

As outlined in its 2020 UWMP, LADWP is committed to providing a reliable water supply for the City.[85] The 2020 LADWP UWMP takes into account the realities of climate change and the concerns of drought and dry weather and notes that the City of Los Angeles will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling.[86] The 2020 LADWP UWMP also furthers the goals of the City's Executive Directive No. 5 and Sustainable City pLAn, addresses the current and future State Water Project (SWP) supply shortages, and concludes that MWD's actions in response to the threats to the SWP will ensure continued reliability of its water deliveries.[87] By focusing on demand reduction and alternative sources of water supplies, LADWP will further ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.[88] Additionally, as reaffirmed by L.A.'s Green New Deal, the City is committed to conserving and recycling water to help meet future water demands in the City.[89]

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84 LADWP, 2020 Urban Water Management Plan, May 2021.

85 LADWP, 2020 Urban Water Management Plan, May 2021.

86 LADWP, 2020 Urban Water Management Plan, May 2021.

87 LADWP, 2020 Urban Water Management Plan, May 2021.

88 LADWP, 2020 Urban Water Management Plan, May 2021.

89 City of Los Angeles, L.A.'s Green New Deal, Sustainable City pLAn, 2019.

Based on the above, LADWP would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be less than significant and no further evaluation of this topic in an EIR is required.

**c. Would the project 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?**

**Less Than Significant Impact.** The Hyperion Water Reclamation Plant, which provides water treatment for the Project Site, has a current remaining capacity of 175 mgd.[90] With respect to wastewater generation, as shown in Table 5 on page 88, under Option 1, the Project would result in a net increase in average daily wastewater generation of 18,369 gpd and a total wastewater generation of 20,262 gpd. Additionally, as shown in Table 6 on page 89, under Option 2, the Project would result in a net increase in average wastewater generation of 18,509 gpd and a total wastewater generation of 20,402 gpd. As estimated in the Wastewater Infrastructure Technical Report included in Appendix IS-5, this would represent approximately 0.011 percent of the available capacity of the Hyperion Water Reclamation Plant under both options. Therefore, based on the amount of wastewater expected to be generated by the Project, and future wastewater treatment capacity of the Hyperion Water Reclamation Plant, adequate wastewater treatment capacity would be available to serve the Project Site together with projected future demand and existing commitments. Impacts would be less than significant and no further analysis of this topic in an EIR is required.

**d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Less Than Significant Impact.** While the Los Angeles Sanitation and Environment (LASAN) generally provides waste collection services to single-family and some small multi-family developments, private haulers permitted by the City provide waste collection services for most multi-family residential, commercial and institutional developments within the City. Solid waste transported by both public and private haulers is either recycled, reused, or transformed at a waste-to-energy facility, or disposed of at a landfill. Landfills within the Los Angeles County are categorized as either Class III (e.g., landfills permitted to accept non-hazardous and non-designated solid waste) or inert waste landfills. Non-hazardous municipal solid waste is disposed of in Class III landfills, while inert waste, such as construction waste, yard trimmings, and earth-like waste, is disposed of in inert waste landfills.[91] Ten Class III landfills and one inert landfill are currently operating within the County.[92] In addition, there is one solid waste transformation facility within Los Angeles County (Southeast Resource Recovery

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90 LASAN, HWRP, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=6jxqihq40_254&_afrLoop=5327340718723642#!, accessed July 19, 2024.

91 Inert waste is waste which is neither chemically or biologically reactive and will not decompose. Examples include sand and concrete.

92 County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022. The ten Class III landfills serving the County include the Antelope Valley Landfill, Burbank Landfill, Calabasas Landfill, Chiquita Canyon Landfill, Lancaster Landfill, Pebbly Beach Landfill, San Clemente Landfill, Whittier (Savage Canyon) Landfill, Scholl Canyon Landfill, and Sunshine Canyon City/County Landfill. Azusa Land Reclamation is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.

Facility) that converts, combusts, or otherwise processes solid waste for the purpose of energy recovery.[93]

Based on the 2021 Countywide Integrated Waste Management Plan (CoIWMP) Annual Report, the most recent report available, the total remaining permitted Class III landfill capacity in the County is estimated at approximately 137 million tons, with a total estimated daily disposal rate of 36,971 tons per day, and the remaining lifespan of each landfill ranges from seven to 34 years.[94] The estimated remaining capacity for the County's Class III landfills open to the City of Los Angeles is approximately 127.44 million tons.[95] The estimated remaining capacity for the County's Class III open to the Project Site is approximately 122.93 million tons as of as of December 31, 2021.[96] In addition, the permitted inert waste landfill serving the County is Azusa Land Reclamation.[97] This facility has 50.77 million tons of remaining capacity and an average daily in-County disposal rate of 1,292 tons per day.[98] Los Angeles County continually evaluates landfill disposal needs and capacity through preparation of the CoIWMP Annual Reports. Within each annual report, future landfill disposal needs over the next 15-year planning horizon are addressed in part by determining the available landfill capacity.[99]

The following analysis quantifies the Project's construction and operational solid waste generation.

### Construction

As stated above, under Option 1, the Project would be comprised of 355,390 square feet of industrial uses and 80,000 square feet of office uses for a total floor area of 435,390 square feet, with 637 employees. Under Option 2, the Project would be comprised of 320,056 square feet of industrial uses and 90,000 square feet of office uses for a total floor area of 410,056 square feet with 642 employees.

Pursuant to the requirements of SB 1374,[100] the Project would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of its non-hazardous demolition and construction debris. In addition, pursuant to LAMC Sections 66.32.1 through 66.32.5 (Ordinance

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93 County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022.

94 County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022.

95 The Class III landfills open to the City of Los Angeles include Antelope Valley, Calabasas, Chiquita Canyon, Lancaster, and Sunshine Canyon.

96 County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022, Appendix E-2 Table 4. The Class III landfills open to the Project Site are those open to the City, not including the Calabasas landfill as the Project Site does not lie within the portion of the City served by this landfill.

97 As of 2021, according to the Los Angeles County Integrated Waste Management Plan 2021 Annual Report, the Azusa Land Reclamation facility is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.

98 County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022, Appendix E-2 Table 4.

99 County of Los Angeles, Department of Public Works. Los Angeles County Integrated Waste Management Plan 2021 Annual Report, December 2022.

100 Senate Bill 1374 requires that jurisdictions include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste. The legislation also required that CalRecycle adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition waste from landfills.

No. 181,519), the Project's construction contractor would be required to deliver all remaining construction and demolition waste generated by the Project to a certified construction and demolition waste processing facility. As discussed above, non-hazardous municipal solid waste is disposed of in Class III landfills, while inert waste, such as construction waste, yard trimmings, and earth-like waste, is disposed of in inert waste landfills. Thus, although the total diversion rate may ultimately exceed 75 percent, this analysis conservatively assumes a diversion rate of 75 percent.

Based on construction and debris rates established by the U.S. Environmental Protection Agency (USEPA) and after accounting for mandatory recycling, as shown in Table 7 on page 94, under Option 1 the Project would result in 945 tons of construction and demolition waste. This amount of construction and debris waste would represent approximately 0.0019 percent of the Azusa Land Reclamation Landfill's remaining disposal capacity of 50.77 million tons.[101] Under Option 2, after accounting for mandatory recycling, as shown in Table 8 on page 95, the Project would result in 933 tons of construction and demolition waste. This amount of construction and debris waste would represent approximately 0.0018 percent of the Azusa Land Reclamation Landfill's remaining disposal capacity of 50.77 million tons.[102] It should be noted that soil export is not included in the calculation of construction waste since soil is not disposed of as waste but, rather, is typically used as a cover material or fill at other construction sites requiring soils import. As reported above, the Azusa Land Reclamation landfill, the County's inert waste landfill, would be able to accommodate waste from the Project's construction activities.

Based on the above, for either option, Project construction would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and strategies identified in the ColWMP or by the City (refer to Response to Checklist Question XIX.e regarding consistency with City solid waste planning goals). Therefore, the Project's potential construction-related impacts on solid waste facilities would be less than significant, and no mitigation measures would be required.

### Operation

Under Option 1, as shown in Table 9 on page 96, based on solid waste generation factors from LASAN, the Project would generate a total net increase of 1,338 tons of solid waste per year. Under Option 2, as shown in Table 10 on page 97, based on solid waste generation factors from LASAN, the Project would generate a total net increase of 1,282 tons of solid waste per year. The estimated amount of solid waste is conservative because the waste generation factors do not account for recycling or other waste diversion measures. For example, the estimate does not account for AB 939, which requires California cities, counties, and approved regional solid waste management agencies responsible for enacting plans and implementing programs to divert 50 percent of their solid waste away from landfills. The estimate also does not account for compliance with AB 341, which requires California commercial enterprises and public entities that generate four or more cubic yards per week of waste, and multi-family housing with five or more units, to adopt recycling practices. Likewise, the analysis does not include implementation of the City's recycLA franchising system, which is expected to result in a

[101] (945 tons ÷ 50.77 million tons) * 100 = 0.0019 percent.

[102] (933 tons ÷ 50.77 million tons) * 100 = 0.0018 percent.

**Table 7**
**Option 1: Estimated Project Construction and Demolition Waste Generation and Disposal**

| Land Use | Size | Generation Rate (lbs/sf)[a] | Total (tons)[b] |
|---|---|---|---|
| **Construction Waste (Proposed Uses)** | | | |
| Warehouse | 355,390 sf | 3.89 lbs/sf | 691 |
| General Office | 80,000 sf | 3.89 lbs/sf | 156 |
| **Demolition Waste (Existing Uses to be Removed)** | | | |
| Rental Car Facility | 37,860 sf | 155 lbs/sf | 2,934 |
| | | | |
| **Total Construction and Demolition Waste** | | | **3,781** |
| **Total Disposal (After 75% Diversion)** | | | **945** |

*lbs = pound*

*sf = square feet*

[a] *U.S. Environmental Protection Agency, Report No. EPA530-98-010, Characterization of Building-Related Construction and Demolition Debris in the United States, June 1998, Table 4 and Table 6. Generation rates used in this analysis are based on an average of various non-residential building types.*

[b] *One ton is equal to approximately 2,000 pounds.*

*Source: Eyestone Environmental, 2024.*

reduction of landfill disposal Citywide with a goal of reaching a Citywide recycling rate of 90 percent by the year 2025.[103]

Under Option 1, the Project's estimated solid waste disposal of 316 net tons per year represents approximately 0.0003 percent of the remaining capacity (122.93 million tons) at the County's Class III landfills that serve the City.[104] Under Option 2, the Project's estimated solid waste disposal of 303 net tons per year represents approximately 0.0002 percent of the remaining capacity (122.93 million tons) at the County's Class III landfills that serve the City.[105] The Project's estimated solid waste generation for either option would therefore represent a nominal percentage of the remaining daily disposal capacity of those landfills. As such, Project operation would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals or strategies identified in the ColWMP or by the City (refer to Response to Question No. XIX.e regarding consistency with City solid waste planning goals). Therefore, the Project's potential construction impacts to solid waste facilities would be less than significant, and no mitigation measures would be required.

[103] City of Los Angeles Bureau of Sanitation, Solid Waste Integrated Resources Plan—A Zero Waste Master Plan, October 2013.

[104] (316 tons per year ÷ 122.93 million tons) * 100 = 0.0003 percent.

[105] (303 tons per year ÷ 122.93 million tons) * 100 = 0.0002 percent.

**Table 8**
**Option 2: Estimated Project Construction and Demolition Waste Generation and Disposal**

| Land Use | Size | Generation Rate (lbs/sf)[a] | Total (tons)[b] |
|---|---|---|---|
| **Construction Waste (Proposed Uses)** | | | |
| Warehouse | 320,414 sf | 3.89 lbs/sf | 623 |
| General Office | 90,000 sf | 3.89 lbs/sf | 175 |
| **Demolition Waste (Existing Uses to be Removed)** | | | |
| Rental Car Facility | 37,860 sf | 155 lbs/sf | 2,934 |
| | | | |
| **Total Construction and Demolition Waste** | | | **3,732** |
| **Total Disposal (After 75% Diversion)** | | | **933** |

*lbs = pound*

*sf = square feet*

[a] *U.S. Environmental Protection Agency, Report No. EPA530-98-010, Characterization of Building-Related Construction and Demolition Debris in the United States, June 1998, Table 4 and Table 6. Generation rates used in this analysis are based on an average of various non-residential building types.*

[b] *One ton is equal to approximately 2,000 pounds.*

*Source: Eyestone Environmental, 2024.*

**Table 9**
**Option 1: Estimated Project Operational Solid Waste Generation and Disposal**

| Building | Size | Employee Generation Rate per sf[a] | Estimated No. of Employees | Solid Waste Generation Rate[b] | Total Generation (tons/year) |
|---|---|---|---|---|---|
| **Existing** | | | | | |
| Rental Car Facility | 37,860 sf | 0.001 | 38 | 1.96 tn/emp/yr | 74 |
| *Total Existing* | | | | | *74* |
| **Proposed (Buildout)** | | | | | |
| Warehouse | 355,390 sf | 0.001 | 356 | 2.91 tn/emp/yr | 1,034 |
| General Office | 80,000 sf | 0.004 | 320 | 1.18 tn/emp/yr | 378 |
| *Total Project* | *435,390 sf* | | | | 1,412 |
| **Total Net Increase** | | | | | **1,338** |
| **Total Net Disposal (After 76.4-Percent Diversion)[c]** | | | | | **316** |

*sf = square feet*

*emp = employee*

*tn/emp/yr = tons per employee per year*

[a] *Project employee generation rates from Los Angeles Departments of Transportation and City Planning, City of Los Angeles VMT Calculator Documentation, Version 1.3, May 2020. Assumes light industrial for rental car facility and warehouse, and general office for office use.*

[b] *Solid waste generation rates from CalRecycle 2014 Waste Characterization Study. Assumes Retail Trade-Other for rental car facility, Durable Wholesale & Trucking for warehouse, and Services-Management, Administrative Support, and Social for office.*

[c] *The Zero Waste Progress Report 2013 conducted by the UCLA Engineering Extension's Municipal Solid Waste Management Program reported that the City of Los Angeles has achieved a recycling rate of 76.4 percent.*

*Source: Eyestone Environmental, 2024.*

**Table 10**
**Option 2 Estimated Project Operational Solid Waste Generation and Disposal**

| Building | Size | Employee Generation Rate per sf[a] | Estimated No. of Employees | Solid Waste Generation Rate[b] | Total Generation (tons/year) |
|---|---|---|---|---|---|
| **Existing Uses** | | | | | |
| Rental Car Facility | 37,860 sf | 0.001 | 38 emp | 1.96 tn/emp/yr | 74 |
| *Total Existing* | | | | | *74* |
| **Proposed Uses (Buildout)** | | | | | |
| Warehouse | 320,056 sf | 0.001 | 320 emp | 2.91 tn/emp/yr | 931 |
| Office | 90,000 sf | 0.004 | 360 emp | 1.18 tn/emp/yr | 425 |
| *Total Project* | *410,056 sf* | | | | 1,356 |
| **Total Net Increase** | | | | | **1,282** |
| **Total Net Disposal (After 76.4-Percent Diversion)[c]** | | | | | **303** |

*sf = square feet*

*emp = employee*

*tn/emp/yr = tons per employee per year*

[a] *Project employee generation rates from Los Angeles Departments of Transportation and City Planning, City of Los Angeles VMT Calculator Documentation, Version 1.3, May 2020. Assumes light industrial for rental car facility and warehouse, and general office for office use.*

[b] *Solid waste generation rates from CalRecycle 2014 Waste Characterization Study Assumes Retail Trade, Other for rental car facility, Durable Wholesale & Trucking for warehouse, and Services-Management, Administrative Support, and Social for office.*

[c] The Zero Waste Progress Report 2013 conducted by the UCLA Engineering Extension's Municipal Solid Waste Management Program reported that the City of Los Angeles has achieved a recycling rate of 76.4 *percent.*

*Source: Eyestone Environmental, 2024.*

### e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

**Less Than Significant Impact.** Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (AB 939), which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): (1) source reduction; (2) recycling and composting; and (3) environmentally safe transformation and land disposal. In addition, AB 1327 provided for the development of the California Solid Waste Reuse and Recycling Access Act of 1991, which requires the adoption of an ordinance by any local agency governing the provision of adequate areas for the collection and loading of recyclable materials in development projects. Furthermore, AB 341, which became effective on July 1, 2012, requires businesses and public entities that generate 4 cubic yards or more of waste per week and multi-family dwellings with five or more units, to recycle. The purpose of AB 341 is to reduce greenhouse gas emissions by diverting commercial solid waste from landfills and expand opportunities for recycling in California. In addition, in March 2006, the Los Angeles City Council adopted RENEW LA, a 20-year plan with the primary goal of shifting from waste

disposal to resource recovery within the City, resulting in "zero waste" by 2030.[106] The plan also calls for reductions in the quantity and environmental impacts of residue material disposed in landfills. In October 2014, Governor Jerry Brown signed AB 1826, requiring businesses to recycle their organic waste[107] on and after April 1, 2016, depending on the amount of waste generated per week. Specifically, beginning April 1, 2016, businesses that generate eight cubic yards of organic waste per week were required to arrange for organic waste recycling services. In addition, beginning January 1, 2017, businesses that generate four cubic yards of organic waste per week were required to arrange for organic waste recycling services.

The Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), which requires that development projects include an on-site recycling area or room of specified size.[108] The Project would also comply with AB 939, AB 341, AB 1826, and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. Since the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, impacts would be less than significant, and no further evaluation of this topic in an EIR is required.

## XX. WILDFIRE

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☐ | ☒ |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☐ | ☒ |

[106] City of Los Angeles, RENEW LA Five-Year Milestone Report, June 2011.

[107] Organic waste refers to food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

[108] Ordinance No. 171,687, adopted by the Los Angeles City Council on August 6, 1997.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ☒ |

**a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** As discussed above, the Project Site has a relatively flat topography, is currently developed, and is located in an urbanized area. The Project Site is not located within a City-designated Very High Fire Hazard Severity Zone or a City-designated fire buffer zone.[109,110] Therefore, the Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would not result in impacts related to impairing an adopted emergency response plan or emergency evaluation plan within a wildfire area. No impacts regarding wildfire risks or related post-fire conditions would occur, and no further evaluation of this topic in the EIR is required.

**b. Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**No Impact.** As discussed above, the Project Site is relatively flat and is not located within a City-designated Very High Fire Hazard Severity Zone or a City-designated fire buffer zone. In addition, as is also discussed above, the Project Site is a fully developed urban infill site that is currently 90 percent impervious and would be reduced to 88 percent impervious under Option 1 or 85 percent impervious under Option 2; there is no accumulation of dry vegetation within the Project Site to fuel wildfires, or wildlands or steep slopes located in the vicinity of the Project Site or frequent strong wind events to exacerbate wildfires. Therefore, as the Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones and due to the flat topography of the Project Site and surrounding area, the Project would not result in impacts related to exacerbating wildfire risks. No impacts regarding wildfire risks or related post-fire conditions would occur, and no further evaluation of this topic in the EIR is required.

**c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**No Impact.** As discussed above, the Project Site is located in an urbanized area, and is not located within a City-designated Very High Fire Hazard Severity Zone or a City-designated fire buffer zone. As

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[109] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APN 4125-010-016, http://zimas.lacity.org/, accessed July 19, 2024.

[110] City of Los Angeles, 2018 Local Hazard Mitigation Plan, West Los Angeles APC, Figure 13-8, Wildfire Severity Zones, p. 13-10.

the Project Site is not located within or near state responsibility areas or lands classified as very high fire hazard severity zones, the Project would not require the installation or maintenance of associated infrastructure such as roads, fuel breaks, or emergency water sources to assist with fire suppression in a wildfire area. Therefore, while the Project could require utility improvements to connect the new building(s) to the main infrastructure, such improvements would not be located within or near state responsibility areas or lands classified as very high fire hazard severity zones and would not be considered wildfire area associated infrastructure. No impacts regarding wildfire risks or related post-fire conditions would occur, and no further evaluation of this topic in the EIR is required.

**d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** As previously described, the Project Site is relatively flat and is not located within a City-designated Very High Fire Hazard Severity Zone or a City-designated fire buffer zone. Therefore, the Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. As such, a wildfire which could result in downstream flooding, landslides, runoff, or other post-fire instability after the wildfire has been extinguished could not occur at the Project Site as no such conditions exist on the Project Site. No impacts regarding wildfire risks or related post-fire conditions such as landslides or slope instability would occur, and no further evaluation of this topic in the EIR is required.

## XXI. MANDATORY FINDINGS OF SIGNIFICANCE

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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? | ☒ | ☐ | ☐ | ☐ |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | ☒ | ☐ | ☐ | ☐ |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☒ | ☐ | ☐ | ☐ |

**a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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?**

**Potentially Significant Impact.** As discussed above, the Project is located in a highly urbanized area and does not serve as habitat for fish or wildlife species. In addition, no sensitive plant or animal community or special status species occur on the Project Site. Therefore, the Project would not 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, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Further, the Project would also comply with applicable regulatory requirements with regard to archaeological regarding the inadvertent discovery of such resources to ensure the appropriate handling of such resources.

As discussed above, the Project's potential environmental impacts for the following subject areas will be further analyzed in the EIR: aesthetics; air quality; energy; geology and soils (paleontological resources); greenhouse gas emissions; hazards and hazardous materials; land use and planning; noise; transportation; tribal cultural resources; and utilities and infrastructure (energy infrastructure).

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

**Potentially Significant Impact.** The potential for cumulative impacts occurs when the impacts of the Project are combined with impacts from related development projects and result in impacts that are greater than the impacts of the Project alone. There may be other current and reasonably foreseeable projects located in the vicinity of the Project Site, the development of which, in conjunction with the Project, may contribute to potential cumulative impacts. Impacts of the Project on both an individual and cumulative basis will be addressed in the EIR for the following subject areas: aesthetics; air quality; energy; geology and soils (paleontological resources); greenhouse gas emissions; hazards and hazardous materials; land use and planning; noise; transportation; tribal cultural resources; and utilities and infrastructure (energy infrastructure). The Project would not contribute to cumulative impacts with regard to the following topics, which were determined to be less than significant in this Initial Study:

- **Aesthetics (Scenic Vistas and State Scenic Highways)** With regard to scenic vistas due to the highly urbanized and built out surroundings, development of the Project would not substantially or adversely affect a scenic vista. Further, no such resources are located on the Project Site or in the surrounding area. Additionally, the Project Site is not located along a state scenic highway. Impacts would be less than significant, and could not combine with other projects to result in cumulative impacts. As such, cumulative impacts would be less than significant.

- **Agriculture, Forest, and Mineral Resources**—With regard to agriculture, forest resources, and mineral resources, no such resources are located on the Project Site or in the

surrounding area. The Project would have no impact on these resources, and therefore could not combine with other projects to result in cumulative impacts. As such, cumulative impacts to agriculture, forest, and mineral resources would be less than significant.

- **Air Quality (Odors)**—Due to the site-specific nature, impacts related to other emissions (such as those leading to odors) adversely affecting a substantial number of people are typically assessed on a project-by-project basis. As previously discussed, any odors that may be generated during construction would be localized and temporary in nature and would not be sufficient to affect a substantial number of people. With respect to Project operation, the Project would not involve the operation of uses typically associated with strong odors. In addition, on-site trash receptacles would be contained, located, and maintained in a manner that promotes odor control, and would not result in substantially adverse odor impacts. Impacts would be less than significant, and could not combine with other projects to result in cumulative impacts. As such, cumulative impacts would be less than significant.

- **Biological Resources**—As it relates to biological resources, the Project vicinity is highly urbanized, and similar to the Project, other developments occurring in the vicinity would occur on previously disturbed land. The Project Site does not contain any sensitive biological resources, and there are no native or protected trees located on-site or within the adjacent rights-of-way. Like the Project, related projects involving tree removals would be required to comply with the Migratory Bird Treaty Act, California Fish and Game Code Section 3503, best management practices and standard construction processes during nesting season to ensure significant impacts to migratory birds do not occur. As such, the Project would not contribute to a cumulative effect associated with biological resources.

- **Cultural Resources—**The Project would not result in a cumulative impact to any historical resources. CEQA Section 15355 defines a cumulative impact as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." As analyzed above, the Project would not result in direct or indirect impacts on historical resources. Therefore, Project impacts to historical resources would not be cumulatively considerable, and cumulative impacts would be less than significant.

  For archaeological resources, all related projects would be subject to applicable regulations formulated to avoid significant archaeological resource impacts. In addition, as applicable, related projects would include CEQA mitigation and/or the City's standard Conditions of Approval (COA) for archaeological resources. Therefore, through adherence to applicable regulations, the Project and related projects would not result in significant cumulative impacts on archaeological resources.

  With regard to impacts related to human remains, if human remains were discovered during construction of any related projects, work in the immediate vicinity would be halted, the County Coroner, construction manager, and other entities would be notified per California Health and Safety Code section 7050.5, and disposition of the human remains and any associated grave goods would occur in accordance with PRC Section 5097.91 and 5097.98, as amended and CEQA Guidelines Section 15064.5(e). Therefore, compliance with the regulatory standards would ensure appropriate treatment of any potential human remains unexpectedly encountered during grading and excavation activities. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

- **Geology and Soils (except paleontological resources)**—Due to their site-specific nature, geology and soils impacts are typically assessed on a project-by-project basis or for a

particular localized area. Therefore, as with the Project, related projects would address site-specific geologic hazards through the implementation of site-specific geotechnical recommendations and/or mitigation measures. Thus, impacts would not be cumulatively considerable and would be less that significant.

- **Hydrology and Water Quality**—Related projects could potentially result in an increase in surface water runoff and contribute point and non-point source pollutants to nearby water bodies. However, as with the Project, the related projects would be subject to NPDES permit requirements for both construction and operation, including development of SWPPPs for construction projects greater than 1 acre and compliance with local requirements pertaining to hydrology and surface water quality. Related projects also would be evaluated on an individual basis by the City during both site plan review and CEQA review (if applicable) to determine appropriate BMPs and treatment measures to avoid significant impacts to hydrology and surface water quality. Lastly, as indicated in Checklist Question No. X.a, the Project would result in less than significant hydrology and water quality impacts. As also indicated in Checklist Question No. X.d, the Project is not proposed in a floodplain, would not impede/redirect flood flows, and would not be subject to inundation by 100-year flood flows, seiches or tsunamis. Therefore, the Project would not contribute considerably to cumulative hydrology and water quality impacts, and cumulative hydrology and water quality impacts would be less than significant.

- **Land Use and Planning (Physically divide an established community)**—As discussed above, the Project would be implemented within the boundaries of the Project Site, and would not involve the closure of any surrounding streets that could impede access to surrounding properties. As such, Project-level impacts related to physically dividing an established community would be less than significant, and therefore could not combine with other projects in the vicinity of the Project Site to result in cumulative impacts. Cumulative impacts would be less than significant.

- **Population and Housing**—Not all related projects would include residential uses. As discussed in the analysis above, the Project does not propose residential uses and thus would not directly contribute to population growth. As part of the environmental review processes for the related projects, it is expected that mitigation measures would be established as necessary to address potential impacts related to population and housing. Thus, any Project impacts related to population and housing would not be cumulatively considerable, and cumulative impacts would be less than significant.

- **Public Services**—With regard to fire protection, the increase in development and residential service populations from the Project, related projects, and other future development in the service areas of the above-mentioned fire stations would result in a cumulative increase in the demand for LAFD services. However, similar to the Project, the related projects and other future development projects in the Community Plan area would be reviewed by the LAFD to ensure that sufficient fire safety and hazards measures are implemented, would be required to comply with regulatory requirements related to fire protection services, and would be subject to the City's standard construction permitting process, which includes a review by LAFD for compliance with building and site design standards related to fire/life safety, as well as coordinating with LADWP to ensure that local fire flow infrastructure meets current code standards for the type and intensity of land uses involved. In addition, as with the Project, the related projects and other future development projects in the vicinity would also generate revenues to the City's General Fund (in the form of property taxes, sales revenue, etc.) that could be applied toward the provision of new fire station facilities and related staffing, as deemed appropriate. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

- With regard to police protection, it is anticipated that the Project in combination with the related projects would increase the demand for police protection services. This cumulative increase in demand for police protection services would increase demand for additional LAPD staffing, equipment, and facilities over time. Similar to the Project, other projects served by LAPD would implement safety and security features according to LAPD recommendations. LAPD would continue to monitor population growth and land development throughout the City and identify additional resource needs including staffing, equipment, vehicles, and possibly station expansions or new station construction that may become necessary to achieve the desired level of service. Through the City's regular budgeting efforts, LAPD's resource needs would be identified and monies allocated according to the priorities at the time. Any new or expanded police station would be funded via existing mechanisms (e.g., property and sales taxes, government funding, and developer fees) to which the Project and cumulative growth would contribute. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

  With regard to public services such as schools, parks/recreational facilities, and libraries, the Project would not generate a residential population that could increase the demand for schools, parks/recreational facilities, and libraries. Therefore, the Project would not contribute to an increased demand for these services. Other related projects could increase the demand for these services and facilities. However, the applicants for those projects would be required to pay mitigation impact fees for identified impacts under applicable regulatory requirements. Specifically, in the case of schools, the applicants for some related projects may be required to pay school impact fees, which would offset any potential impact to schools associated with the related projects. Similarly, in the case of parks and recreational facilities (i.e., existing neighborhood and regional parks), residential projects would be required by the LAMC to include open space and pay park fees (as required), which would help reduce the demand on neighborhood and regional parks, thereby reducing the likelihood that there would be substantial deterioration of parks. Employees generated by the non-residential related projects would be more likely to use parks and library facilities near their homes during non-work hours, as opposed to patronizing local facilities on their way to or from work or during their lunch hours. In addition, each related project would generate revenues to the City's General Fund (in the form of property taxes, sales tax, business tax, transient occupancy tax, etc.) that could be applied toward the provision of enhancing park facilities and library services in the City, as deemed appropriate. These revenues to the City's General Fund would help offset the increase in demand for park facilities and library services as a result of the Project and the related projects. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to schools, parks/recreational facilities, and libraries. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

- **Transportation (Emergency Access)**—As analyzed above, the Project would not result in inadequate emergency access. As with the Project, any driveway and/or circulation modifications proposed within or adjacent to the related project sites would be required to meet all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access. Compliance with applicable City Building Code and Fire Code requirements, including emergency vehicle access, would be confirmed as part of LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects, as set forth in LAMC Section 57.118, and which are required prior to the issuance of a building permit. Additionally, the additional traffic generated by the related projects would be dispersed throughout the area and would not be concentrated to a specific location. Furthermore, since modifications to access and circulation plans are

largely confined to a project site and the immediately surrounding area, a combination of project-specific impacts with those associated with other related projects that could lead to cumulative impacts is not expected. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

- **Utilities and Service Systems (Water, Wastewater, Telecommunications, Solid Waste)**—With regard to water infrastructure, as with the Project, related projects would be subject to LADWP review (e.g., preparation of an IFFAR and SAR) to ensure that the existing water infrastructure is adequate to meet the domestic and fire demands. Furthermore, in accordance with City requirements, prior to ground disturbance, related projects would be required to coordinate with LADWP to identify the locations and depths of all lines, and LADWP would be notified in advance of proposed ground disturbance activities to avoid disruption of water service associated with the related projects. As with the Project, related Projects would be required to ensure that adequate and safe access remains available within and near the related project sites during construction activities. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

  With respect to water supply, LADWP's 2020 UWMP accounts for existing development within the City, as well as projected growth through the year 2045. Implementation of the Project in combination with related projects along with other projects within the service area of LADWP, would generate demand for additional water supplies. The 2020 UWMP anticipates that the future water supplies would be sufficient to meet existing and planned growth in the City to the year 2045 (the planning horizon required of 2020 UWMPs) under wet and dry year scenarios. In addition, meeting certain criteria would have to prepare a WSA pursuant to SB 610 to be reviewed and certified by LADWP to demonstrate adequate water supply. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

  With respect to wastewater, since the HWRP is in compliance with the State's wastewater treatment requirements, and the wastewater generated by the related projects would be typical of urban uses, no industrial discharges into the wastewater system would occur that would exceed the wastewater treatment requirements of the LARWQCB. Additionally, there would be no need to construct new or expand wastewater treatment facilities, the construction of which could cause significant environmental effects. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to the wastewater treatment systems. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

  With regard to stormwater infrastructure, as with the Project, related projects would be required to comply with the requirements of the City's LID Ordinance. In accordance with the City's LID Ordinance, related projects would also implement BMPs to capture a specified amount of runoff within the Project Site and reduce the potential impact of increased runoff to existing drainage systems. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to stormwater infrastructure. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

  Development of the Project and related projects could require new or expanded telecommunications infrastructure. As with the Project, the installation of any required telecommunications infrastructure associated with the related projects would occur during a relatively short duration and would be limited to on-site telecommunications distribution and minor off-site work associated with connections to the public system. Therefore, the Project

and related projects would not result in significant cumulative impacts with respect to telecommunication infrastructure. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

The Project in conjunction with related projects would increase the need for solid waste disposal during their respective construction periods. However, unclassified landfills in the County do not generally have capacity concerns, and the inert landfill serving the Project and the related projects would have sufficient capacity to accommodate construction waste disposal needs. With regard to operational solid waste disposal needs, the increase in solid waste generated by the Project would be well within the capacity of existing landfills. In addition, with the implementation of solid waste policies and objectives intended to help achieve the requirements of AB 939 and the City's 90 percent diversion goal, it is expected that the Project and related projects would not substantially reduce the projected timeline for landfills within the region to reach capacity. Furthermore, the County of Los Angeles conducts ongoing evaluations to ensure that landfill capacity is adequate to serve the forecasted disposal needs of the region. Therefore, the Project would not contribute considerably to cumulative solid waste impacts, and cumulative solid waste impacts would be less than significant.

- **Wildfire**—The Project Site is located in an urbanized area, and there are no wildlands located in the vicinity of the Project Site. Therefore, the Project would not contribute to an increased wildfire risk. Moreover, the Project and related projects would be developed in accordance with LAMC requirements pertaining to fire safety. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to wildfire. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

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

**Potentially Significant Impact.** Based on the analysis contained in this Initial Study, the Project could result in potentially significant impacts with regard to the following topics: aesthetics; air quality; energy; geology and soils (paleontological resources); greenhouse gas emissions; hazards and hazardous materials; land use and planning; noise; transportation; tribal cultural resources; and utilities and infrastructure (energy infrastructure). As a result, these potential effects will be analyzed further in the EIR.

# Appendices

# Appendix IS-1

Tree Inventory Report

**PROJECT:**

REXFORD L.A.X. INDUSTRIAL
9000 Airport Boulevard
Los Angeles, California

**CLIENT:**

REXFORD INDUSTRIAL REALTY
11620 Wilshire Boulevard
Los Angeles, California 90025

**PROJECT TEAM:**

RGA Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618

Civil Engineer:
Cannon
16842 Von Karman Avenue, Suite 150
Irvine, CA 92606

**PREPAIRED BY:**

STEVE F. ANDRESEN / ARBORIST SERVICES
5516 Inspiration Drive
Riverside, California 92506

February 21, 2024

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# Steve F. Andresen / Arborist Services

5516 Inspiration Drive ISA WE-2170A
Riverside, CA 92506 Traq Qualified
(951) 768-9897 / (951) 288-3798 sa.arboristservices@gmail.com

October 19, 2023

Mr. Jim Baldovin
**Conceptual Design and Planning Group**
3195-C Airport Loop Drive / Studio One
Costa Mesa, Ca 92626

**Subject: Arborist tree survey and Report for Rexford LAX Industrial Project 9000 Airport Boulevard Los Angeles, California**

Dear Jim,

Thank you for the opportunity to assist with your design project. The purpose of the report is to survey all the trees at the site location with concerns for the City of Los Angeles protected tree ordinance as instructed by the LA Forestry Division. Also, in this report I will address trees that may be affected by future work should any tree need to be protected in place.

**Project location**

The project inspected and surveyed is located at 9000 Airport Boulevard in the City of Los Angeles, County of Los Angeles, State of California.

**Methods**

A site visit was conducted to the location in order collect the data needed to comply with the City of Los Angeles municipal tree codes. Information collected on the trees included trunk diameters, approximate height, canopy width and a visual inspection to assess the trees current health, condition, and note any defects found. Eric Peterson of CDPC Architectural assisted with tree location and affixing tree numbers to each tree in this report. The tree tags available started with number 301 and ended with tree number 461 totaling the tree inventory to 160 trees at the project location site.

The proposed project includes the development of a 435,390 square foot building including 80,000 square feet of office space with surface parking (Option#1) or the development of a warehouse campus comprised of three buildings, totaling 410,056 square feet, including a total of 90,000 square feet of office space with surface parking (Option #2) on an approximate 789,989 square foot site located within the Westchester-Playa del Rey Community plan area in the City of Los Angeles.

**Findings**

On Friday August 29, 2023, I made my site visit to locate and inspect the trees and assess their current health, condition, and location. The site is currently a large Hertz Rental Car return and car rental establishment on Airport Boulevard between Interceptor Street and Arbor Vitae Streets.

The site has 160 existing trees throughout the location (146 onsite and 14 street trees on W. Arbor Vitae Street) with 58 trees needing removal for option 1 (56 onsite and 2 street trees) and option 2 with 62 needing removal (57 onsite and 5 street trees) to accommodate future structures and entry points. The City of Los Angeles has a tree protection **Ordinance No. 186873** in place for Southern California native tree species. The Ordinance listed here is from the City of Los Angeles Code for Native Protected Trees.

No trees on site and any adjoining properties have trees listed in the ordinance or will be affected by future construction. The trees growing at the location consist of Shamel Ash, Queen Palms, Canary Pines, Weeping Figs, and Jacaranda.

**Conclusion**

I've listed tree preservation guidelines should any site trees wish to be preserved during future construction. Growing along Airport Boulevard there are 13 existing Australian Willow City owned Street trees that shall be protected during the construction process while ensuring the health and safety of all city street trees where encountered.

**Closing**

Thank you for the opportunity to provide my report. Should you have any questions or require additional information, please do not hesitate to contact me at (951) 768-9897 or (951) 288-3798.

**Tree preservation guidelines**

Tree protection zone 'TPZ'

The 'TPZ' is the space needed to preserve the tree roots and canopy. Ideally the Zone is at the tree drip line or fifteen (15) feet past the outer area of the tree canopy. It is of the utmost importance to follow the construction guidelines closely with regards to root cutting and pruning. Failure to do so will undermine the tree's stability and survival.

The following list of construction guidelines shall be always followed:

- Before beginning work, the contractor should meet with the consultant at the Property to review all work procedures, access routes, storage areas, and tree protection measures.

- Fences will be erected to protect trees from being preserved. Fences define a specific protection zone at the drip line or beyond for each tree or group of trees. Typical protection fences are four (4) foot tall plastic orange safety fencing.

- Fences are to remain until all sitework is completed. Fences may not be relocated or removed without the written permission of the consultant.

- Construction equipment and vehicles are always to remain outside of the Zone.

- No materials, spoils, waste, or washout water may be deposited or stored in the Zone.

- Any herbicides placed under paving materials must be safe for use around trees.

- Any roots encountered or damaged during construction or grading shall be exposed to sound tissue and cut cleanly with a saw. Roots larger the two (2) inches in size shall be tunneled under. If tunneling is not an option, the contractor shall consult with an arborist for recommendations on how to proceed.

- All underground utilities, drain or irrigation lines shall be routed outside the Zones. If lines must traverse the Zone, they shall be tunneled or bored under trees.

- Any tree pruning required for clearance shall be performed by a qualified arborist and not by construction personnel.

- If an injury should occur to any tree during construction, it should be evaluated as soon as possible by the consultant so appropriate treatments can be applied.

- Spoil from trenches or other excavations shall not be placed within the Zone, either temporarily or permanently.

## QUALIFICATIONS AND LIMITING CONDITIONS

I am a certified arborist in California # WE-2170A with the International Society of Arboriculture and qualified to make this report.

My inspection was a visual examination and based on the condition of the trees at the time of inspection.

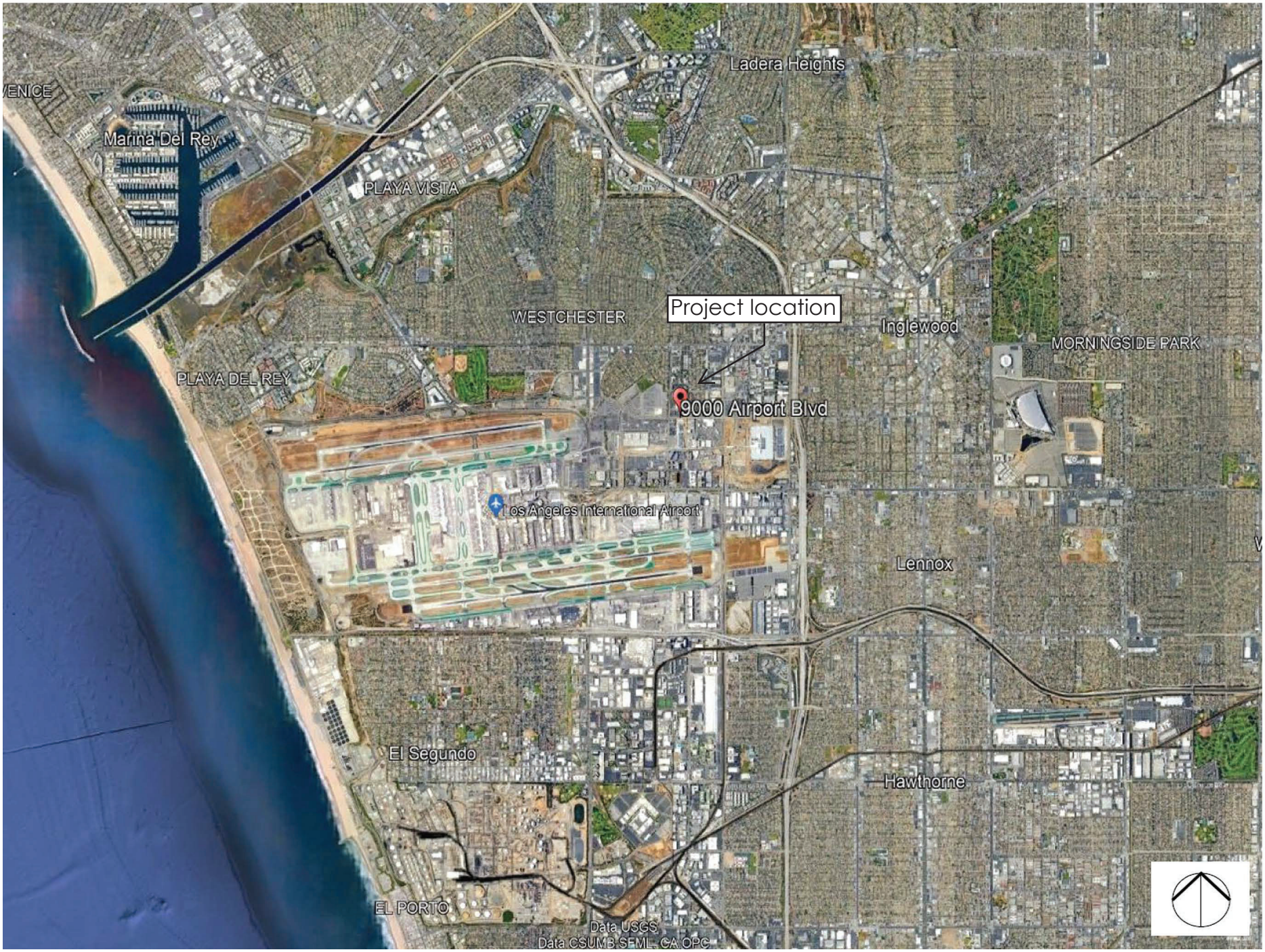
## QUESTIONS AND COMMENTS

Questions or comments can be directed to:

Steve F. Andresen / Arborist Services
5516 Inspiration Drive
Riverside, CA 92506
ISA WE-2170A (951) 288-3798
sa.arboristservices@gmail.com



**Steve F. Andresen** October 19, 2023
**Certified Arborist WE-2170A / TRAQ Qualified**




Regional Location Map

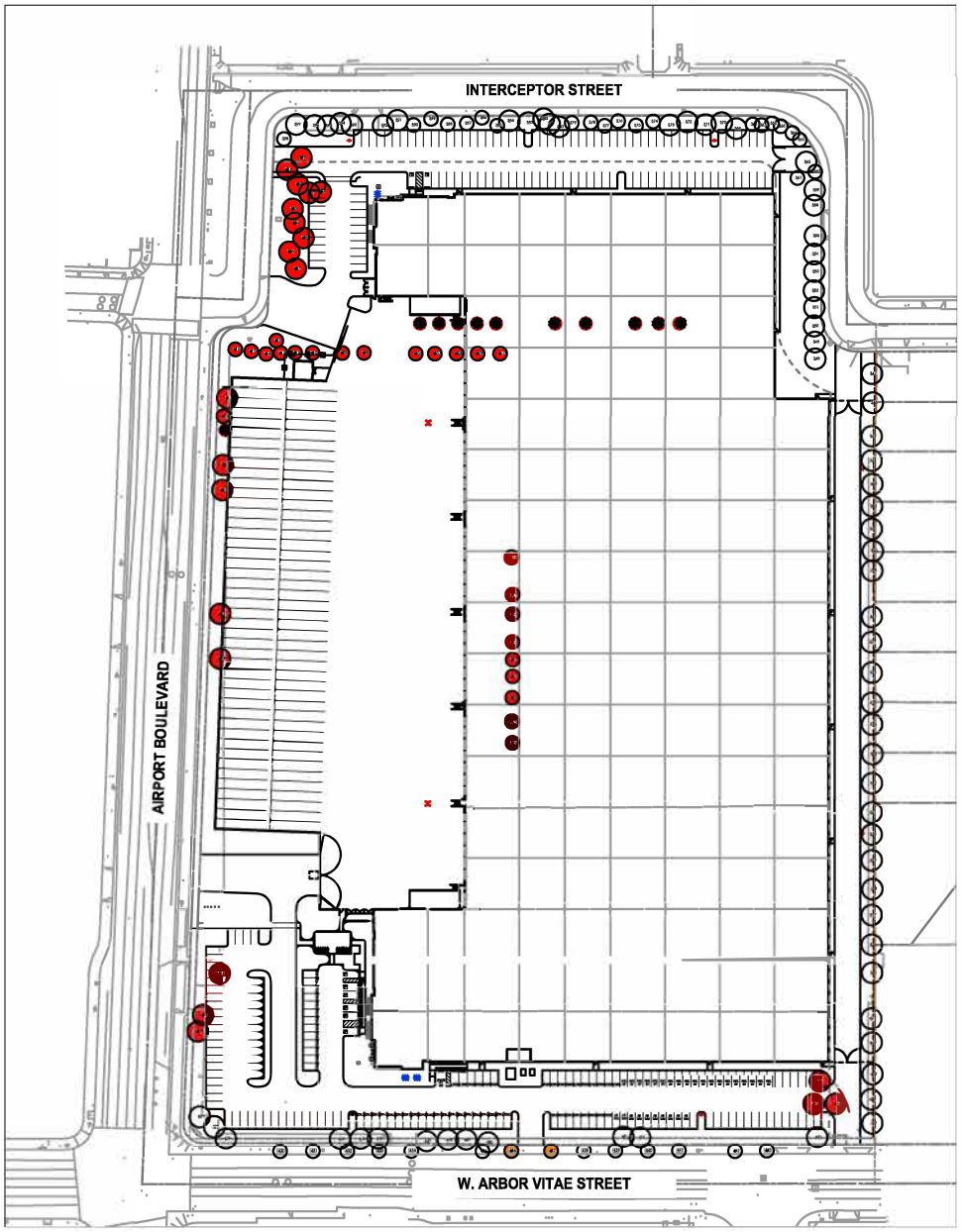
Arborist Services
WE-2170A




Tree location map / number tags affixed to each tree / August 2023

All tree locations are approximate to allow reader to locate and inspect specific trees growing at the project site

Tree varieties and locations done by Steve F Andresen / Certified Arborist WE-2170A / 2023

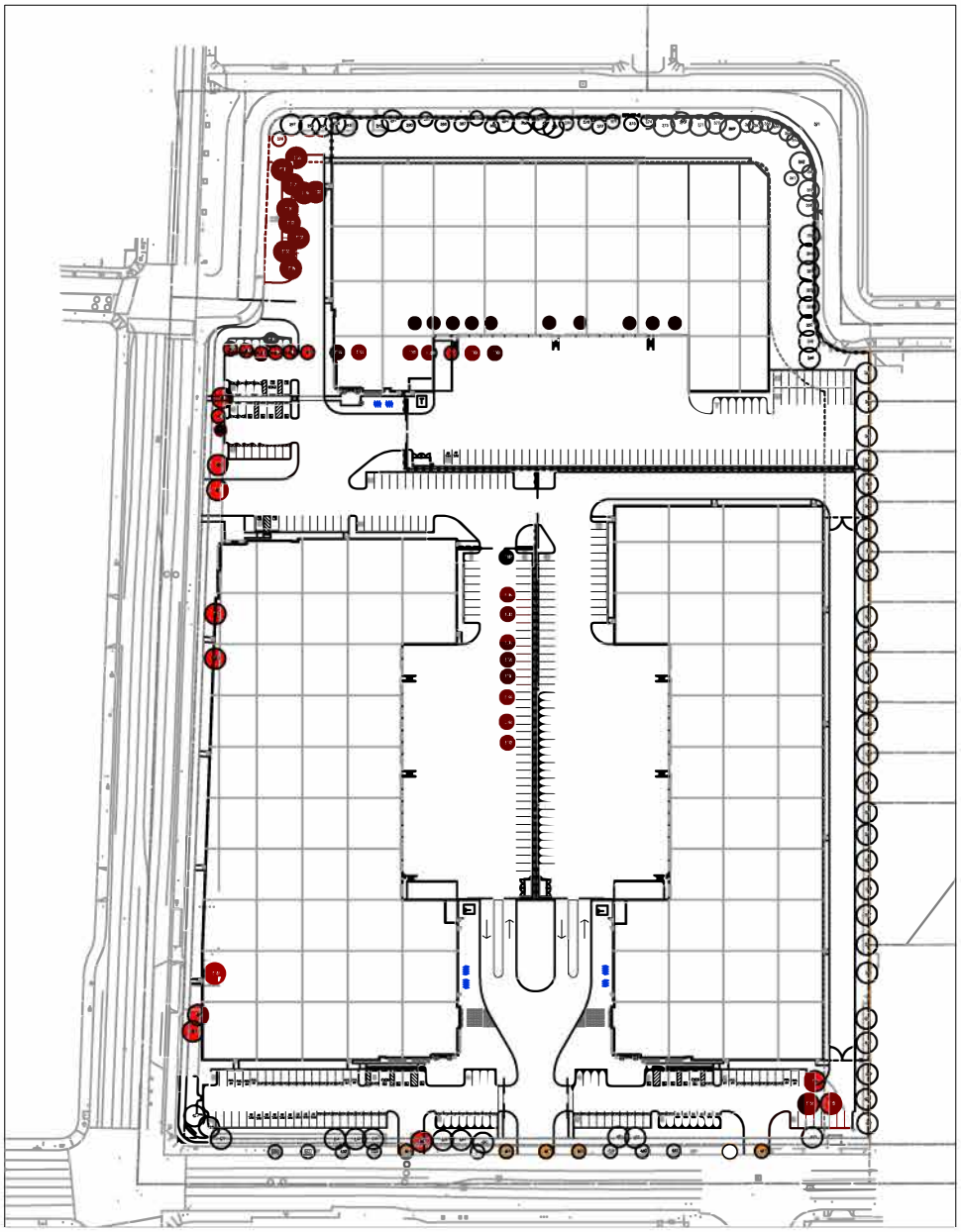



OPTION 1 PLAN

EXISTING TREES TOTAL = 160
(146) ONSITE
(14) STREET TREES ON W. ARBOR VITAE STREET

- (45) ONSITE TREES TO BE REMOVED
  - NO TREE REMOVAL RATIO
- (11) ONSITE PALMS TO BE REMOVED
  - NO TREE REMOVAL RATIO
  - REFER TO TREE TABLE FOR SPECIES TYPE

- (2) STREET TREES TO BE REMOVED (#436, 437)
  - TREE REMOVAL RATIO 2:1
  - REFER TO TREE TABLE FOR SPECIES TYPE



OPTION 2 PLAN

EXISTING TREES TOTAL = 160
(146) ONSITE
(14) STREET TREES ON W. ARBOR VITAE STREET

- (46) ONSITE TREES TO BE REMOVED
  - NO TREE REMOVAL RATIO
- (11) ONSITE PALMS TO BE REMOVED
  - NO TREE REMOVAL RATIO
  - REFER TO TREE TABLE FOR SPECIES TYPE

- (5) STREET TREES TO BE REMOVED (#434, 436, 437, 438, 443)
  - TREE REMOVAL RATIO 2:1
  - REFER TO TREE TABLE FOR SPECIES TYPE

**REXFORD L.A.X. INDUSTRIAL**
**9000 Airport, Los Angeles, CA**
**Tree Survey**

| ID # | SPECIES | COMMON NAME | HEIGHT FEET | SPREAD FEET | DIAMETER @ BREAST HEIGHT INCHES | HEALTH GRADE | AESTHETIC GRADE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 301 | *Syragrus romanzoffiana* | QUEEN PALM | 16, 14 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning. Multi trunk palm |
| 302 | *Syragrus romanzoffiana* | QUEEN PALM | 18 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning |
| 303 | *Syragrus romanzoffiana* | QUEEN PALM | 12 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning |
| 304 | *Syragrus romanzoffiana* | QUEEN PALM | 11 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning |
| 305 | *Syragrus romanzoffiana* | QUEEN PALM | 16,14 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning. Multi trunk palm |
| 306 | *Ficus benjamina* | WEEPING FIG | 25 | 25 | 20 | C | C | Average health and condition for species and growing location |
| 307 | *Liquidambar styraciflua* | SWEETGUM | 22 | 18 | 10 | C | C | Average health and condition for species and growing location |
| 308 | *Ficus benjamina* | WEEPING FIG | 25 | 23 | 20 | C | C | Good to average health and condition |
| 309 | *Liquidambar styraciflua* | SWEETGUM | 20 | 12 | 7.5 | C | C | Average health and condition for species and growing location |
| 310 | *Ficus benjamina* | WEEPING FIG | 18 | 16 | 18 | D | D | Stressed condition with die back and leaf drop |
| 311 | *Syragrus romanzoffiana* | QUEEN PALM | 18 | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning |
| 312 | *Syragrus romanzoffiana* | QUEEN PALM | 11,10 BT | NA | NA | F | D | Poor trunk condition due to penciling disease and over pruning. Multi trunk palm |
| 313 | *Syragrus romanzoffiana* | QUEEN PALM | 22, 20 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning. Multi trunk palm |
| 314 | *Syragrus romanzoffiana* | QUEEN PALM | 12 | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning |
| 315 | *Syragrus romanzoffiana* | QUEEN PALM | 26,24 BT | NA | NA | D | D | Poor trunk condition due to penciling disease and over pruning. Multi trunk palm |
| 316 | *Cupaniopsis anacardioides* | CARROTWOOD | 15 | 18 | 9 | C | C | Good to average health and condition |
| 317 | *Cupaniopsis anacardioides* | CARROTWOOD | 13 | 12 | 6 | C | C | Average health and condition for species and growing location |
| 318 | *Cupaniopsis anacardioides* | CARROTWOOD | 25 | 28 | 14 | C | C | Average health and condition for species and growing location |
| 319 | *Cupaniopsis anacardioides* | CARROTWOOD | 25 | 24 | 14 | C | C | Average health and condition for species and growing location |
| 320 | *Cupaniopsis anacardioides* | CARROTWOOD | 25 | 24 | 14 | C | C | Good to average health and condition |
| 321 | *Cupaniopsis anacardioides* | CARROTWOOD | 15 | 15 | 9 | C | C | Good to average health and condition |
| 322 | *Cupaniopsis anacardioides* | CARROTWOOD | 18 | 25 | 10 | C | C | Average health and condition for species and growing location |
| 323 | *Cupaniopsis anacardioides* | CARROTWOOD | 20 | 18 | 7 | D | C | Average health and condition for species and growing location |
| 324 | *Cupaniopsis anacardioides* | CARROTWOOD | 18 | 13 | 10 | D | C | Poor structural condition |
| 325 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 25 | 16 | C | C | Average health and condition for species and growing location |
| 326 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 20 | 18 | C | C | Average health and condition for species and growing location |
| 327 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 28 | 26 | D | C | Average health and condition for species and growing location. Some structural issues |
| 328 | *Fraxinus uhdei* | SHAMEL ASH | 20 | 25 | 15 | D | C | Average health and condition for species and growing location. Some structural issues |
| 329 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 20 | 16 | C | C | Average health and condition for species and growing location |
| 330 | *Fraxinus uhdei* | SHAMEL ASH | 25 | 20 | 18 | C | C | Average health and condition for species and growing location |
| 331 | *Fraxinus uhdei* | SHAMEL ASH | 20 | 30 | 20 | C | C | Trunk scars from large limb removal. Average for species and location |
| 332 | *Fraxinus uhdei* | SHAMEL ASH | 25 | 20 | 13 | C | C | Average health and condition for species and growing location |
| 333 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 20 | 16 | D | C | Stressed condition with die back and leaf drop |
| 334 | *Fraxinus uhdei* | SHAMEL ASH | 20 | 16 | 15 | D | D | Poor health and condition with die back and trunk wounding |
| 335 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 40 | 24 | C | C | Average health and condition for species and growing location |
| 336 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 30 | 24 | C | C | Average health and condition for species and growing location |
| 337 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 18 | 16 | D | C | Heavily pruned. Poor structure and stressed condition |

Prepared by:
Steve F. Andresen
WE-2170A

**REXFORD L.A.X. INDUSTRIAL**
**9000 Airport, Los Angeles, CA**
**Tree Survey**

| ID # | SPECIES | COMMON NAME | HEIGHT FEET | SPREAD FEET | DIAMETER @ BREAST HEIGHT INCHES | HEALTH GRADE | AESTHETIC GRADE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 338 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 30 | 18 | C | C | Average health and condition for species and growing location |
| 339 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 35 | 20 | C | C | Average health and condition for species and growing location |
| 340 | *Fraxinus uhdei* | SHAMEL ASH | 30 | 20 | 20 | C-D | C | Average health and condition for species and growing location. Some die back in canopy |
| 341 | *Fraxinus uhdei* | SHAMEL ASH | 25 | 30 | 18 | C | C | Average health and condition for species and growing location |
| 342 | *Washingtonia robusta* | MEXICAN FAN PALM | 9 BT | NA | NA | C | C | Average health and condition for species and growing location |
| 343 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 25 | 20 | C | C | Average health and condition for species and growing location. Ivy growing up trunk |
| 344 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 30 | 20 | C | C | Average health and condition for species and growing location |
| 345 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 30 | 24 | C | C | Average health and condition for species and growing location. Some die back in canopy |
| 346 | *Fraxinus uhdei* | SHAMEL ASH | 14 | 10 | N/A | F | F | Cut off stump with regrowth |
| 347 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 25 | 12 | C | C | Average health and condition for species and growing location |
| 348 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 15 | C | C | Average health and condition for species and growing location |
| 349 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 28 | C | C | Average health and condition for species and growing location |
| 350 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 17 | C | C | Average health and condition for species and growing location |
| 351 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 16 | C | C | Average health and condition for species and growing location |
| 352 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 23 | C | C | Average health and condition for species and growing location |
| 353 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 13 | C | C | Average health and condition for species and growing location |
| 354 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 19 | C | C | Average health and condition for species and growing location. Some structural issues |
| 355 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 22 | C | C | Average health and condition for species and growing location |
| 356 | *Pinus canariensis* | CANARY ISLAND PINE | 70-80 | 30 | 27 | C | C | Good to average health and condition for species and growing location |
| 357 | *Pinus canariensis* | CANARY ISLAND PINE | 70-80 | 30 | 19 | C | C | Good to average health and condition for species and growing location |
| 358 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 18 | C | C | Average health and condition for species and growing location |
| 359 | *Eucalyptus sideroxylon* | RED IRONBARK | 30-50 | 20-25 | 28 | C | C | Average health and condition for species and growing location |
| 360 | *Ficus microcarpa* | FLORIDA FICUS | 28 | 20 | 11 | C | C | Average health and condition for species and growing location |
| 361 | *Ficus microcarpa* | FLORIDA FICUS | 35 | 20 | 18 | C | C | Average health and condition for species and growing location. Some small branch die back |
| 362 | *Eucalyptus sideroxylon* | RED IRONBARK | 20 | 20 | 28 | C | C | Average health and condition for species and growing location |
| 363 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 17 | C-D | C-D | Stressed condition with branch die back and canopy thinning |
| 364 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 15 | C-D | C-D | Stressed condition with branch die back and canopy thinning |
| 365 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 18 | C-D | C-D | Stressed condition with branch die back and canopy thinning |
| 366 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 16 | C-D | C-D | Stressed condition with branch die back and canopy thinning |
| 367 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 17 | C | C | Stressed condition with branch die back and canopy thinning |
| 368 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 22 | C | C | Average health and condition for species and growing location |
| 369 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 16 | C | C | Average health and condition for species and growing location |
| 370 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Average health and condition for species and growing location |
| 371 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Average health and condition for species and growing location |
| 372 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 16 | C | C | Average health and condition for species and growing location |
| 373 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Average health and condition for species and growing location |
| 374 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 18 | C | C | Average health and condition for species and growing location |

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**REXFORD L.A.X. INDUSTRIAL**
**9000 Airport, Los Angeles, CA**
**Tree Survey**

| ID # | SPECIES | COMMON NAME | HEIGHT FEET | SPREAD FEET | DIAMETER @ BREAST HEIGHT INCHES | HEALTH GRADE | AESTHETIC GRADE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 375 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 13 | C | C | Average health and condition for species and growing location. |
| 376 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 11 | D | D | Poor health and condition with branch die back |
| 377 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 16 | C | C | Average health and condition for species and growing location. Leaning trunk condition |
| 378 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 15 | C | C | Average health and condition for species and growing location |
| 379 | *Ficus microcarpa* | FLORIDA FICUS | 20-28 | 20-30 | 15 | C | C | Average health and condition for species and growing location |
| 380 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 21 | C | C | Good to average |
| 381 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 12 | C | C | Good to average health and condition |
| 382 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 14 | C | C | Good to average health and condition |
| 383 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Good to average health and condition |
| 384 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Good to average health and condition |
| 385 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 24 | D | D | Poor health and condition with branch die back |
| 386 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 20 | D | D | Poor health and condition with branch die back |
| 387 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 20 | D | D | Poor health and condition with branch die back |
| 388 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 12 | D | D | Poor health and condition with branch die back |
| 389 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 18 | D | D | Poor health and condition with branch die back |
| 390 | *Ficus microcarpa* | FLORIDA FICUS | 20 | 20 | 20 | C | C | Average health and condition for species and growing location |
| 391 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 392 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 393 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 394 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 19 | C | C | Good to average health and condition |
| 395 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 17 | C | C | Good to average health and condition |
| 396 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 397 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 398 | *Liquidambar styraciflua* | SWEETGUM | 60 | 30 | 18 | F | F | Poor health and condition with branch die back |
| 399 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 18 | C | C | Good to average health and condition |
| 400 | | | | | | | | |
| 401 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 21 | C | C | Good to average health and condition |
| 402 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 19 | C | C | Good to average health and condition |
| 403 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Good to average health and condition |
| 404 | *Pinus canariensis* | CANARY ISLAND PINE | 60-70 | 20-30 | 15 | C | C | Good to average health and condition |
| 405 | *Ficus carica* | FIG | 25 | 30 | 10,9,8,5 M | C | C | Average health and condition for species and growing location |
| 406 | *Jacaranda mimosifolia* | BLUE JACARANDA | 20 | 18 | 6,6.5 m | D-F | D | Die back from stress and uplifting main root system |
| 407 | *Jacaranda mimosifolia* | BLUE JACARANDA | 20 | 18 | 8.5,6.5 m | d | d | Die back from stress. Poor health and condition |
| 408 | *Liquidambar styraciflua* | SWEETGUM | NA | NA | NA | E | E | Dead |
| 409 | *Ficus benjamina* | WEEPING FIG | 20 | 18 | 24 | C | C | Good to average condition for species, care and growing location |
| 410 | *Liquidambar styraciflua* | SWEETGUM | 20 | 16 | 12 | C | C | Good to average condition for species, care and growing location |
| 411 | *Ficus benjamina* | WEEPING FIG | 20 | 20 | 20 | C | C | Good to average condition for species, care and growing location |

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**Tree Survey**

| ID # | SPECIES | COMMON NAME | HEIGHT FEET | SPREAD FEET | DIAMETER @ BREAST HEIGHT INCHES | HEALTH GRADE | AESTHETIC GRADE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 412 | *Liquidambar styraciflua* | SWEETGUM | 25 | 18 | 9.5 | C | C | Good to average condition for species, care and growing location |
| 413 | *Lagerstroemia indicia* | CREPE MYRTLE | 17 | 25 | 11,2.5,4 M | C | C | Average health and condition for species and growing location |
| 414 | *Ficus benjamina* | WEEPING FIG | 20 | 18 | 16 | C | C | Average health and condition for species and growing location |
| 415 | *Liquidambar styraciflua* | SWEETGUM | 20 | 18 | 10 | C | C | Good to average condition for species, care and growing location |
| 416 | *Ficus benjamina* | WEEPING FIG | 20 | 18 | 16 | C | C | Good to average condition for species, care and growing location |
| 417 | *Pinus canariensis* | CANARY ISLAND PINE | 20 | 12 | 14 | C-D | C | Heavily topped to allow view of street billboard signage |
| 418 | *Prunus caroliniana* | CAROLINA CHERRY | 16 | 15 | 3,3,4,4 M | C | C | Good to average condition for species, care and growing location |
| 419 | *Washingtonia robusta* | MEXICAN FAN PALM | 16 | NA | NA | C | C | Good to average health and condition |
| 420 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 6,8,6,5 M | C | C | Good to average condition for species, care and growing location |
| 421 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,6,4 M | C | C | Good to average condition for species, care and growing location |
| 422 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 10,9 M | C | C | Good to average condition for species, care and growing location |
| 423 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 12 | C | C | Good to average condition for species, care and growing location |
| 424 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 8,7,5,6.5 M | C | C | Good to average condition for species, care and growing location |
| 425 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,6 M | C | C | Good to average condition for species, care and growing location |
| 426 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,8,9 M | C | C | Good to average condition for species, care and growing location |
| 427 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 10,11,9.5 M | C | C | Good to average condition for species, care and growing location |
| 428 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,8,7.5 M | C | C | Good to average condition for species, care and growing location |
| 429 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 9,12,8 M | C | C | Good to average condition for species, care and growing location |
| 430 | *Geijera parvifolia* | AUSTRALIAN WILLO | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 431 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 432 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 433 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 434 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 435 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 436 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 437 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 438 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 439 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 440 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 441 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 442 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 443 | *Geijera parvifolia* | AUSTRALIAN WILLOW | 12 | 6 | 3 | C-D | C-D | City Street Tree |
| 444 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18 | 18 | 8 | C | C | Average health and condition for species and growing location |
| 445 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,9,7 M | C | C | Average health and condition for species and growing location |
| 446 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 6,5,7,7 M | C | C | Average health and condition for species and growing location |
| 447 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 12,10,8,6 M | C | C | Average health and condition for species and growing location |
| 448 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 8,8.5 M | C | C | Average health and condition for species and growing location |

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**REXFORD L.A.X. INDUSTRIAL**
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**Tree Survey**

| ID # | SPECIES | COMMON NAME | HEIGHT FEET | SPREAD FEET | DIAMETER @ BREAST HEIGHT INCHES | HEALTH GRADE | AESTHETIC GRADE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 449 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,7,8,7.5,8.5 M | C | C | Average health and condition for species and growing location |
| 450 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 9,7,5 M | C | C | Average health and condition for species and growing location |
| 451 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 12 | C | C | Average health and condition for species and growing location |
| 452 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 7,5,6 M | C | C | Average health and condition for species and growing location |
| 453 | *Jacaranda mimosifolia* | BLUE JACARANDA | 18-25 | 20-30 | 6,4,6,5.5 M | C | C | Average health and condition for species and growing location. Leaning, some die back |
| 454 | *Melaleuca quinquenervia* | PAPER BARK | 18 | 15 | 7,8,10 M | C | C | Average health and condition for species and growing location |
| 455 | *Melaleuca quinquenervia* | PAPER BARK | 18 | 15 | 9.5,10 M | C | C | Average health and condition for species and growing location |
| 456 | *Melaleuca quinquenervia* | PAPER BARK | 18 | 15 | 9,6.5 M | C | C | Average health and condition for species and growing location |
| 457 | *Fraxinus uhdei* | SHAMEL ASH | 15 | 15 | 13 | D | D | Poor health and condition |
| 458 | *Fraxinus uhdei* | SHAMEL ASH | 19 | 20 | 15 | C-D | C | Average health and condition for species and growing location. Some branch die back |
| 459 | *Fraxinus uhdei* | SHAMEL ASH | 23 | 22 | 13 | C-D | C | Average health and condition for species and growing location. Some branch die back |
| 460 | *Fraxinus uhdei* | SHAMEL ASH | 26 | 28 | 19 | C-D | C-D | Average health and condition for species and growing location. Some branch die back |
| 461 | *Fraxinus uhdei* | SHAMEL ASH | 28 | 22 | 14 | C-D | C-D | Average health and condition for species and growing location. Some branch die back |

**Notes:** BT = Brown trunk

* Multi Trunk Tree

**LETTER GRADE LEGEND:**

A – Outstanding condition: Trees with an "A" grade will have excellent trunk and branch structure, vigorous new growth and healthy leaf color.

B – Good condition: Trees with a "B" grade will have good trunk and branch structure with some slight defects that will not adversely affect the tree long term condition. Leaf color and general health are good.
C – Average condition: Most trees growing in a landscape setting will be in average condition. Trees may have branching and trunk defects from improper pruning and maintenance. In general letter "C" grade trees are healthy and will continue to grow in the landscape.

D – Below average condition: Tree with a "D" grade will have poor trunk and branch structure, limb and leaf die back with stunted growth and overall plant stress.

E – Severe decline that should be removed: Some grade "E" trees may look healthy from a distance but will have major trunk or structural defects warranting removal.

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# Appendix IS-2

Archaeological Resources Technical Report

# Archaeological Resources Assessment for the 9000 Airport Boulevard LAX Industrial Development Project, Los Angeles, California

**DECEMBER 2023**

PREPARED FOR

**Eyestone Environmental**

REPARED BY

**SWCA Environmental Consultants**

# ARCHAEOLOGICAL RESOURCES ASSESSMENT FOR THE 9000 AIRPORT BOULEVARD PROJECT, LOS ANGELES, CALIFORNIA

Prepared for

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SWCA Project No. 83236

SWCA Cultural Resources Report No. 23-690

December 2023

Keywords: CEQA; Archaeological resources; Sensitivity assessment; City of Los Angeles Department of City Planning; Eyestone Environmental; Westchester; Los Angeles County; Township 2 South, Range 14 West, Section 31, San Bernardino Base Meridian; USGS Venice, California 7.5-minute Topographic Quadrangle

# MANAGEMENT SUMMARY

**Purpose and Scope:** Eyestone Environmental retained SWCA Environmental Consultants (SWCA) to prepare an archaeological resources assessment for the proposed 9000 Airport Boulevard Project (Project), located at 9000 Airport Boulevard in the Westchester neighborhood of Los Angeles, California. The proposed Project consists of the removal of an existing rental car facility and construction of new industrial warehouse buildings and office spaces. The Project is subject to review under the California Environmental Quality Act (CEQA), and the City of Los Angeles (City) Department of City Planning is the CEQA lead agency.

This study was conducted to analyze the potential for impacts to archaeological resources in the Project site in accordance with Section 15064.5 in Title 14 of the California Code of Regulations, and the significance thresholds in the Environmental Checklist included as Appendix G of CEQA Guidelines. This report documents the methods and results of a confidential records search of the California Historical Resources Information System (CHRIS), a search of the Sacred Lands File (SLF) through the California Native American Heritage Commission (NAHC), and archival research used to evaluate the presence or likelihood of archaeological resources within the Project site. Information about Native American archaeological resources not otherwise listed in the CHRIS or SLF can be identified during government-to-government consultation with California Native American tribes pursuant to Public Resources Code 21080.3.1. Because the need for tribal consultation under Public Resources Code 21080.3.1 has yet to be determined, the current analysis has not analyzed or otherwise considered information or recommendations put forward by tribal parties during consultation or any other outreach process.

**Dates of Investigation:** On August 8, 2023, SWCA requested a search of the CHRIS at the South Central Coastal Information System, located on the campus of California State University, Fullerton. SWCA received the results on September 20, 2023. The results of the SLF search were received from the NAHC on September 1, 2023.

**Summary of Findings:** The CHRIS record search identified 18 cultural resource investigations that have been previously conducted within a 0.5-mile buffer around the Project site; one of these studies intersected the present Project site. The record search identified one cultural resource (LAN-214) that has been previously recorded within 0.8 kilometer (km) (0.5 mile) of the Project site and no resources were documented within the Project site. The site record for LAN-214 states that the site was initially recorded in 1953 as having contained one or more Native American artifacts.

An SLF search was conducted by the NAHC with negative results. Background research for cultural resources did not identify any previously recorded archaeological sites in the Project site directly or within a 0.8-km (0.5-mile) buffer. SWCA's background research identified the Native American settlement of Waachnga in the vicinity, which is located approximately 4.4 km (2.7 miles) to the northwest. SWCA finds there is a **low potential for buried Native American archaeological resources within the Project site**. What potential exists would be in naturally deposited dune sediments beneath any mechanically altered strata associated with land uses from the nineteenth and early twentieth centuries.

The CHRIS records search results did not identify any historical archaeological resources recorded within a 0.8-km (0.5-mile) radius of the Project site and no historical archaeological resources were identified within the Project site. SWCA's background research determined that the Project site appears to have been used for agricultural purposes and remained vacant until 1956, at which point it was developed with the Airport Junior High School campus. By 1980, construction had started on the extant car rental facility within the Project site. SWCA finds there is a **moderate potential for buried historical archaeological resources within the Project site**.

**Conclusion:** There are no known archaeological resources recorded within the Project site. The Project site has moderate potential for encountering building materials, structural foundations, or individual pieces of refuse associated with the use of the Project site as the Airport Junior High School from the mid-1950s to early 1970s. Historical archaeological resources of this age and type do not typically satisfy the criteria for listing on the California Register of Historical Resources or to be considered a unique archaeological resource. Therefore, although there is a moderate potential to encounter certain types of historical archaeological resources, these are not likely to be historical resources under CEQA. The Project is subject to the City's Regulatory Compliance Measures (RCMs) that address the inadvertent discovery of archaeological resources and human remains.

If an archaeological resource were to be discovered during construction of the Project, work in the area would cease, and deposits would first be evaluated for historic significance in accordance with CEQA Guidelines Section 15064.5. As set forth in CEQA Guidelines Section 15064.5, if the City determines that the archaeological resource is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code. If an archaeological resource does not meet the criteria for historical resources but meets the definition of a unique archaeological resource, the resource shall be treated in accordance with the provisions of Section 21083.2.

Regarding the discovery of human remains, notification is required per California Health and Safety Code Section 7050.5. In addition, disposition of the human remains and any associated grave goods would occur in accordance with PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e), which requires that work stop near the find until a coroner can determine that no investigation into the cause of death is required and if the remains are Native American. Specifically, in accordance with CEQA Guidelines Section 15064.5(e), if the coroner determined the remains to be Native American, the coroner shall contact the Native American Heritage Commission who shall identify the person or persons it believes to be most likely descended from the deceased Native American. The most likely descendent may make recommendations regarding the treatment of the remains and any associated grave goods in accordance with PRC Section 5097.98.

Based on these RCMs, as implemented according to best practices incorporated into the Project, any potential impacts would be reduced to less than significant levels. Therefore, SWCA finds that the Project will have **less than significant impacts to archaeological resources and human remains interred outside a cemetery.**

**Disposition of Data:** The final archaeological resources report and any subsequent related reports will be filed with City Planning, Eyestone Environmental, SWCA's Pasadena office, and the South Central Coastal Information Center at California State University, Fullerton. All field notes, photographs, and records related to the current study are also on file at the SWCA Pasadena office.

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# INTRODUCTION

Eyestone Environmental retained SWCA Environmental Consultants (SWCA) to prepare an archaeological resources assessment for the proposed 9000 Airport Boulevard Project (Project), located at 9000 Airport Boulevard in the Westchester neighborhood of Los Angeles, California. The proposed Project consists of the removal of an existing rental car facility and construction of new industrial warehouse buildings and office spaces. The Project is subject to review under the California Environmental Quality Act (CEQA), and the City of Los Angeles (City) Department of City Planning is the CEQA lead agency.

This study was conducted to analyze the potential for impacts to archaeological resources in the Project site in accordance with Section 15064.5 in Title 14 of the California Code of Regulations (CCR), and the significance thresholds in the Environmental Checklist included as Appendix G of CEQA Guidelines. This report documents the methods and results of a confidential records search of the California Historical Resources Information System (CHRIS), a search of the Sacred Lands File (SLF) through the California Native American Heritage Commission (NAHC), and archival research used to evaluate the presence or likelihood of archaeological resources within the Project site. Information about Native American archaeological resources not otherwise listed in the CHRIS or SLF can be identified during government-to-government consultation with California Native American tribes pursuant to Public Resources Code (PRC) 21080.3.1. Because the need for tribal consultation under PRC 21080.3.1 has yet to be determined, the current analysis has not analyzed or otherwise considered information or recommendations put forward by tribal parties during consultation or any other outreach process.

SWCA archaeologist David Sayre, B.A., prepared the report, and senior archaeologist Chris Millington, M.A., Registered Professional Archaeologist, acted as principal investigator. Copies of the report are on file with SWCA's Pasadena office and the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Note to the reader: the CHRIS assigns primary and trinomial site numbers to all archaeological sites, which will be referenced herein first by their trinomial number, and for ease of reference, will exclude the "CA-" prefix. Sites that are not assigned a trinomial are referenced by their primary number.

# PROJECT DESCRIPTION AND LOCATION

The Project is a new industrial development proposed for an approximately 18.3-acre site (Project site) in the Westchester-Playa del Rey Community Plan Area of Los Angeles (Figure 1). The Project would demolish an existing rental car facility composed of several single-story commercial, accessory structures, and associated surface parking areas, and would construct one or more industrial warehouse buildings and office spaces. The Project would require rough grading and excavation to remove fill sediments and comply with engineering requirements. The total depth of excavation is estimated to be 3 meters (m) (10 feet) or less below the current grade across the full extent of the Project site.

The Project site is composed of the parcel designated as Los Angeles County Assessor Parcel Number 4125-010-016, which is associated with multiple street addresses abbreviated here as 9000 Airport Boulevard. The Project site measures approximately 225 × 345 m (738 × 1,132 feet). The Project site is bounded by Interceptor Street to the north, Ramsgate Avenue to the east, West Arbor Vitae Street to the south, and Airport Boulevard to the west, within the city of Los Angeles, California (Figure 2). The Project site is in Section 31, Township 2 South, Range 14 West, and is plotted on the U.S. Geological Survey (USGS) Venice, California, quadrangle (Figure 3).

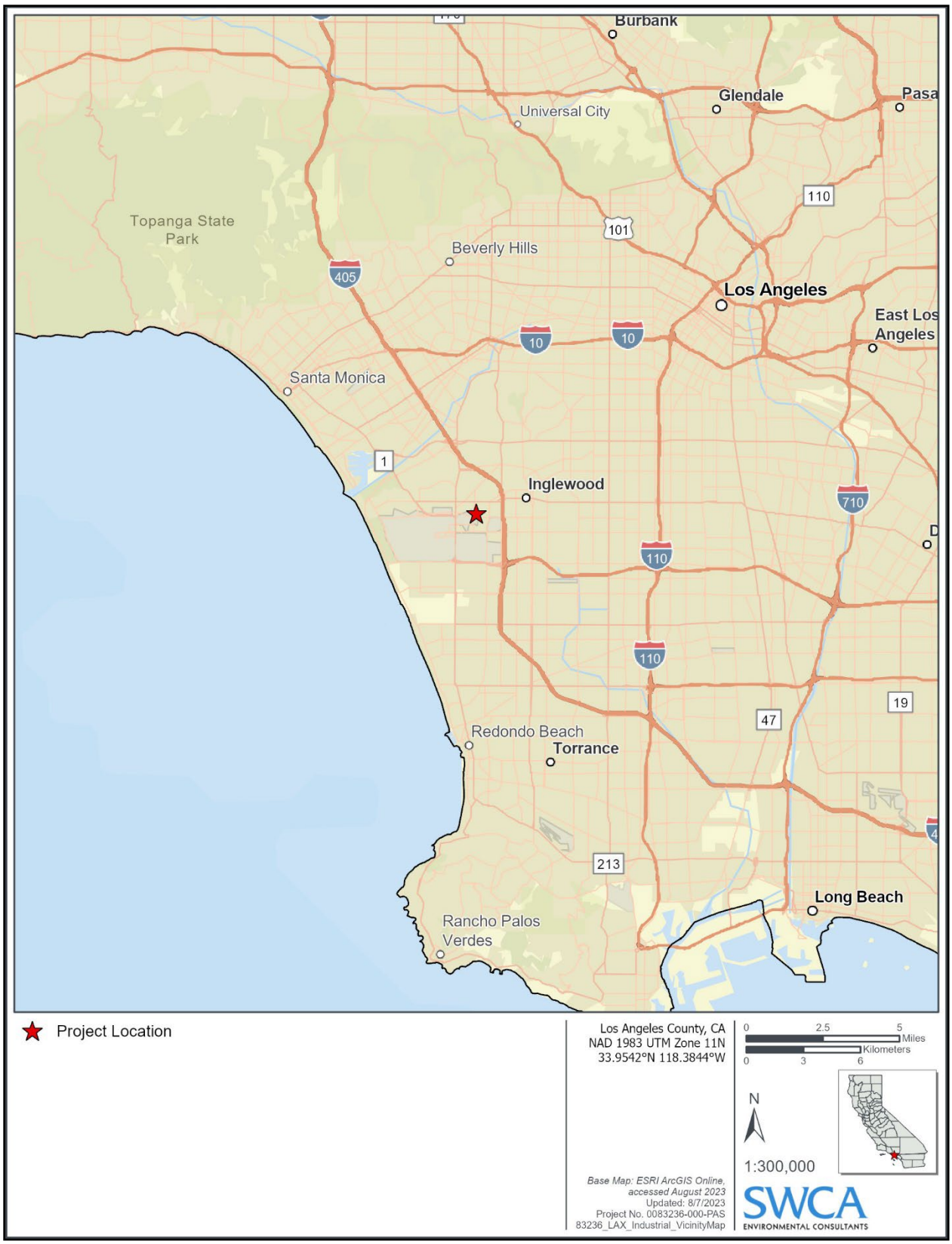



**Figure 1. Project vicinity map.**




**Figure 2. Aerial photograph (2020) showing the Project site.**

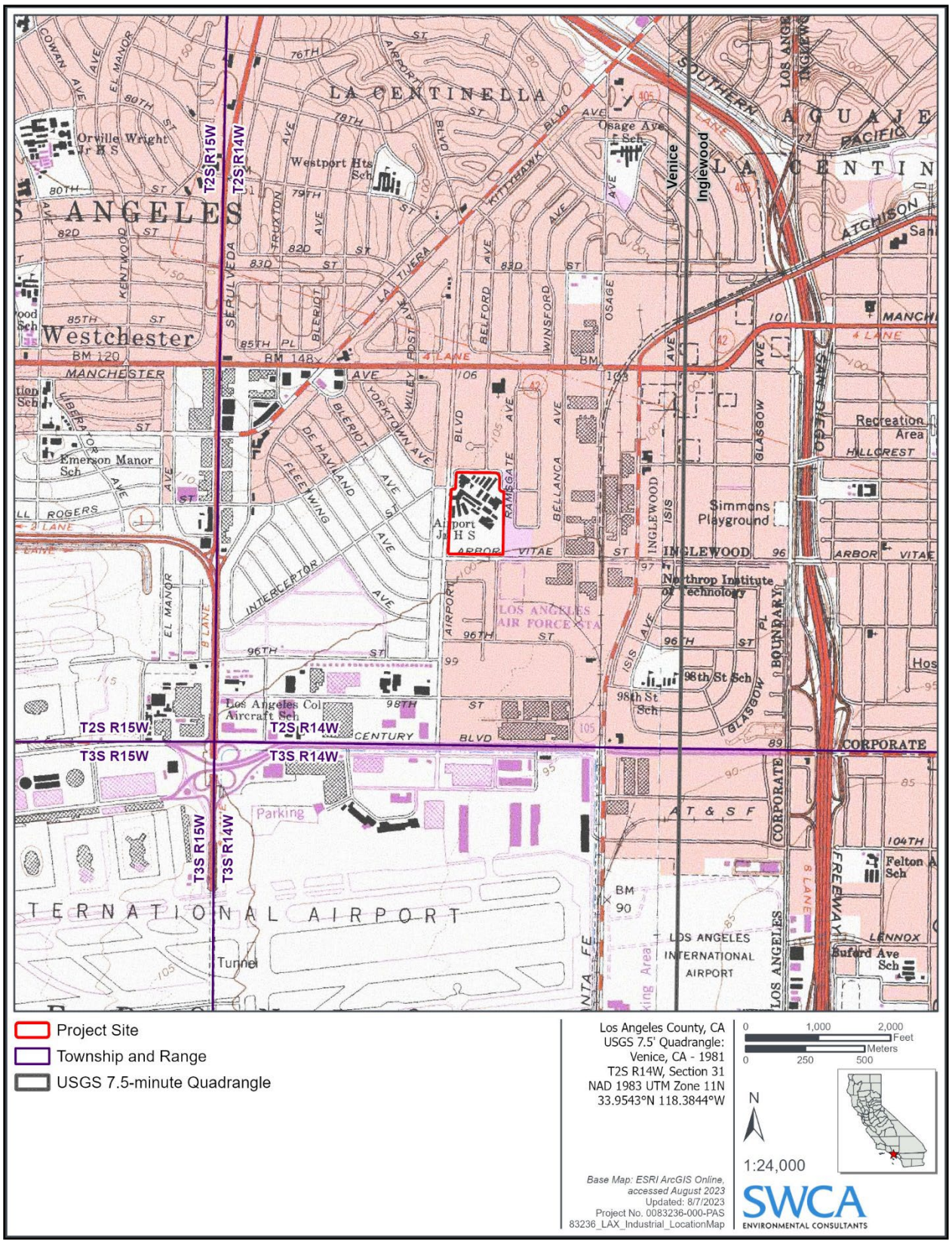



**Figure 3. Project site plotted on the USGS Venice, California, 7.5-minute quadrangle.**

# REGULATORY SETTING

## State Regulations

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, performs certain duties described in the California PRC and maintains the California Historic Resources Inventory and California Register of Historical Resources (CRHR). The state-level regulatory framework also includes CEQA, which requires the identification, and mitigation, if necessary, of substantial adverse impacts that may affect the significance of eligible historical and archaeological resources.

### *California Environmental Quality Act*

CEQA requires a lead agency to analyze whether historic and/or archaeological resources may be adversely affected by a proposed project. Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (PRC 21084.1). Addressing this issue is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

#### HISTORICAL RESOURCES

According to CEQA Guidelines Section 15064.5, for the purposes of CEQA, historical resources are:

- A resource listed in, or formally determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (PRC 5024.1, 14 CCR 4850 et seq.).
- A resource included in a local register of historical resources, as defined in PRC 5020.1(k), or identified as significant in a historic resources survey by meeting the requirements of PRC 5024.1(g).
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for listing on the CRHR (as defined in PRC 5024.1, 14 CCR 4852).

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet National Register of Historic Places (NRHP) criteria may still be eligible for listing in the CRHR.

According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey, shall not preclude the lead agency from determining that the resource may be a historical resource (PRC 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (CEQA Guidelines Section 15064.5(b)).

#### Substantial Adverse Change and Indirect Impacts to Historical Resources

CEQA Guidelines specify that a "substantial adverse change in the significance of an historical resource means 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). Material impairment occurs when a project alters in an adverse manner or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

### UNIQUE ARCHAEOLOGICAL RESOURCES

In terms of archaeological resources, PRC 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions, and that there is a demonstrable public interest in that information.
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

## *California Register of Historical Resources*

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC 5024.1(i), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

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

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR. Although all sites are evaluated according to all four of the CRHR criteria, the eligibility for archaeological resources is typically considered under Criterion 4.

Most Native American archaeological sites lack identifiable or important association with specific persons or events of regional or national history (Criteria 1 and 2), and/or lack the formal and structural attributes necessary to qualify as eligible under Criterion 3.

An archaeological site may be considered significant if it displays one or more of the following attributes (Office of Historic Resources [OHR] 1991): chronologically diagnostic, functionally diagnostic, or exotic artifacts; datable materials; definable activity areas; multiple components; faunal or floral remains; archaeological or architectural features; notable complexity, size, integrity, time span, or depth; or stratified deposits. Determining the period(s) of occupation at a site provides a context for the types of activities undertaken and may well supply a link with other sites and cultural processes in the region. Further, well-defined temporal parameters can help illuminate processes of culture change and continuity in relation to natural environmental factors and interactions with other cultural groups. Finally, chronological controls might provide a link to regionally important research questions and topics of more general theoretical relevance. As a result, the ability to determine the temporal parameters of a site's occupation is critical for a finding of eligibility under Criterion 4 (information potential). A site that cannot be dated is unlikely to possess the quality of significance required for CRHR eligibility or be considered a unique archaeological resource. The content of an archaeological site provides information regarding its cultural affiliations, temporal periods of use, functionality, and other aspects of its occupation history. The range and variability of artifacts present in the site can allow for reconstruction of changes in ethnic affiliation, diet, social structure, economics, technology, industrial change, and other aspects of culture.

## *Treatment of Human Remains*

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code 7050.5. More specifically, remains suspected to be Native American are treated under CEQA at CCR 15064.5; PRC 5097.98 illustrates the process to be followed if remains are discovered. If human remains are discovered during excavation activities, the following procedures shall be observed.

- Stop immediately and contact the County Coroner:

  1104 North Mission Road
  Los Angeles, California 90033
  (323) 343-0512 (8:00 a.m. to 5:00 p.m. Monday through Friday) or
  (323) 343-0714 (after hours, Saturday, Sunday, and holidays)

- If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC.
- The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased Native American.
- The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC.

# Local Regulations

## Los Angeles Historic-Cultural Monuments

Local landmarks in Los Angeles are known as Historic-Cultural Monuments (HCMs) and are under the aegis of the City's Department of City Planning, OHR. An HCM, monument, or local landmark is defined in the Cultural Heritage Ordinance as follows:

> [A] Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, State or local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age. (Los Angeles Municipal Code Section 22.171.7)

## City of Los Angeles General Plan

The *Conservation Element of the City of Los Angeles General Plan* (Conservation Element) (City of Los Angeles 2001), Chapter II, Section 3, defers to the State CEQA Guidelines regarding the identification, evaluation, and mitigation of impacts to archaeological resources. The Conservation Element recognizes that the City has the primary responsibility to protect significant archaeological resources and states the following:

> If it is determined that a development project may disrupt or damage such a site, the project is required to provide mitigation measures to protect the site or enable study and documentation of the site, including funding of the study by the applicant. The city's environmental guidelines require the applicant to secure services of a bona fide archaeologist to monitor excavations or other subsurface activities associated with a development project in which all or a portion is deemed to be of archaeological significance. Discovery of archaeological materials may temporarily halt the project until the site has been assessed, potential impacts evaluated and, if deemed appropriate, the resources protected, documented and/or removed. (City of Los Angeles 2001:II-3)

The Conservation Element gives the following objective and policy for archaeological and paleontological resources:

- **Objective:** protect the city's archaeological and paleontological resources for historical, cultural, research and/or educational purposes.
- **Policy:** continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.

# Regulatory Compliance Measures

State law addresses the inadvertent discovery of archeological resources and human remains. The City included the following Regulatory Compliance Measures (RCMs) to ensure that if any archaeological resources or human remains are found during construction of the proposed Project, they will be handled in compliance with State law such that any potential impacts would be reduced to less than significant levels.

**Inadvertent Discovery of an Archaeological Resource:** Before ground-disturbing activities are initiated on the site, the construction personnel who will be conducting the activities will be notified of the potential for archaeological resources and the protocols to be implemented in the event of a discovery. Ground-disturbing work includes activities such as excavation, grading, digging, trenching, plowing, drilling, tunneling, stripping, and clearing where the ground disturbance that occurs in sediments is designated as fill. In the event that an archaeological resource is observed during construction, all ground-disturbing work within 25 feet of the find should temporarily cease until a Qualified Archaeologist can evaluate the find as a historical resources pursuant to PRC Section 5024.1 and Title 14 California Code of Regulations, Section 15064.5 of the CEQA Guidelines. A Qualified Archaeologist is one who meets the Society for California Archaeology professional qualification standards for a principal investigator. The Qualified Archaeologist or an archaeologist working under their direction would have the authority to stop or divert construction excavation elsewhere on the site while the find is being assessed.

Upon discovery, the Project proponent will notify the City. As set forth in CEQA Guidelines Section 15064.5, if the City determines that the archaeological resource is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code. If an archaeological resource does not meet the criteria for historical resources but meets the definition of a unique archaeological resource, the resource shall be treated in accordance with the provisions of Section 21083.2. The found deposits would be treated in accordance with State and local guidelines, including those set forth in California PRC Section 21083.2. Significant archaeological resources shall be protected and preserved. If such resources cannot be preserved in place or left in an undisturbed state, the Qualified Archaeologist working at the direction of the Project proponent and in consultation with the City shall prepare plans for feasible mitigation of impacts to the find, pursuant to Section 15064.5 of the CEQA Guidelines. If the discovery is Native American in origin, then consultation and development of proposed mitigation will also be carried out in concert with any measures that address the inadvertent discovery as a tribal cultural resource, including consultation with one or more affiliated California Native American tribes. Personnel of the proposed Project shall not collect or move any archaeological materials and associated materials. Construction activity may continue in other portions of the Project site while any mitigation or treatment is being carried out.

**Inadvertent Discovery of Human Remains:** If human remains are encountered unexpectedly during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e), which requires that work stop near the find until a coroner can determine that no investigation into the cause of death is required and if the remains are Native American. Specifically, in accordance with CEQA Guidelines Section 15064.5(e), if human remains are discovered during excavation activities, the following procedure shall be observed:

- Stop immediately and contact the County Coroner:

  1104 North Mission Road
  Los Angeles, California 90033
  (323) 343-0512 (8:00 a.m. to 5:00 p.m. Monday through Friday), or
  (323) 343-0714 (after hours, Saturday, Sunday, and holidays)

- If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC.
- The NAHC will immediately notify the person it believes to be the most likely descendent (MLD) of the deceased Native American.
- The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC.

### *Best Practices*

As a means of fulfilling the RCMs, the following best practices have been incorporated into the Project that will be implemented by the Project applicant.

**Worker Training.** Prior to the commencement of ground-disturbing repair activities, at the Project kickoff, a Qualified Archaeologist or someone working under their direction will provide a training to construction crews to provide information on regulatory requirements for the protection of archaeological resources. As part of this training, construction crews will be briefed on proper procedures to follow should an archaeological resource or human remains be inadvertently discovered during construction. Workers will be shown examples of the types of archaeological resources that would require notification and be provided contact information and protocols to follow if an inadvertent discovery is made.

# METHODS

## California Historical Resources Information System Records Search

On August 8, 2023, SWCA requested a search of the CHRIS at the SCCIC, on the campus of California State University, Fullerton. SWCA received the results on September 20, 2023. The search included any previously recorded cultural resources and investigations within a 0.8-kilometer (km) (0.5-mile) radius of the Project site for archaeological resources. The CHRIS records search also included a review of the NRHP, the CRHR, California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list (OHR Directory of Historic Properties Data File), the City HCM list, and the California State Inventory of Historic Resources. A letter from the SCCIC summarizing the results of the records search is provided in Appendix A.

## Sacred Lands File Search

The NAHC is charged with identifying, cataloging, and protecting Native American archaeological resources, which include ancient places of special religious or social significance to Native Americans, and known ancient graves and cemeteries of Native Americans on private and public lands in California.

The NAHC's inventory of these resources is known as the SLF. The NAHC also maintains a list of tribal contacts affiliated with various geographic regions of California. The contents of the SLF are strictly confidential, and SLF search requests return positive or negative results in addition to a list of tribal contacts with affiliation to the specified location. SWCA requested an SLF search on August 8, 2023, and a letter from the NAHC summarizing the results of the records search is provided in Appendix B.

# Archival Research

Concurrent with the confidential CHRIS records search, SWCA reviewed property-specific historical and ethnographic context research to identify information relevant to the Project site. Research focused on a variety of primary and secondary materials relating to the history and development of the Project site, including historical maps, aerial and ground photographs, ethnographic reports, and other environmental data. Archival research focused on assessing the general sequence of developments within the Project site and vicinity during the nineteenth and twentieth centuries. Sources from the early to mid-nineteenth century were used to assess the environmental setting before development dramatically increased in the latter years of the nineteenth century, at which point the character of the landscape transitioned from rural open space and large agricultural properties to fully urban and industrial. Low-altitude aerial photographs were used to help assess the setting of the Project site. Sources consulted consisted of the following publicly accessible data sources: OHR (SurveyLA); David Historical Map Collection; Early California Cultural Atlas (Native American villages and placenames [Hackel et al. 2015]); Huntington Library Digital Archives; Library of Congress; Los Angeles Public Library Map Collection; USGS historical topographic maps; University of California, Santa Barbara Digital Library (aerial photographs); and University of Southern California Digital Library.

# Archaeological Sensitivity Factors

Generally, the location of an archaeological deposit is unpredictable in nature; however, combining information from different sources can allow for a qualitative assessment of the potential for an archaeological resource to be present in a given area. Accordingly, sensitivity assessments are qualitative or probabilistic in nature—ranging along a spectrum of increasing probability—which is designated here as low, moderate, and high sensitivity. The sensitivity assessment essentially combines two variables: indications of intensive use and preservation conditions. For areas in which there is a favorable setting for habitation or use, soil conditions capable of preserving buried material, and little to no disturbances, the sensitivity is high. Areas lacking these traits are considered to have low sensitivity. Areas with a combination of these traits are generally considered to have moderate sensitivity.

SWCA's sensitivity assessment considered the potential for archaeological components associated with Native American populations separately from those of non-Native American populations, which began with Spanish colonization. The first variable considered concerns the link between human behavior and material remains, i.e., whether there are any indications that a given area was the focus of past use such that any material remains, or physical evidence associated with those activities would have resulted. For Native American archaeological resources, questions about the environmental setting are particularly important. What was the environmental setting within the period of human occupation in Southern California beginning approximately 13,000 years ago? Based on what is known about past Native American lifeways, was the location favorable for habitation or other types of activities within this time span? For historical (i.e., non-Native American) archaeological resources, information obtained from archival sources can help to characterize the types of activities that occurred within the Project site.

Indicators of favorable habitability for Native Americans are proximity to natural features (e.g., perennial water source, plant or mineral resource, animal habitat) and other known Native American archaeological

sites, flat topography, prominent viewsheds, and relatively dry conditions. Access to permanent sources of fresh water, especially springs or spring-fed streams for inland settings, carried particular significance. Many and perhaps most streams in the Los Angeles Basin are seasonal or at least include substantial portions in which the water does not reach the surface and primarily remains below ground. Even if the streams themselves did not always provide perennial access to fresh water, stream courses often formed important habitat for plants and animals that were important to Native American subsistence and cultural practices, as did various types of wetland features that formed in patches across the landscape.

Also, as has been reported through oral history, stream courses provided navigable means of travel by foot, which is to say, streams were used as trails and would have been part of a network of travel corridors in the region. Native Americans who foraged for resources in the region would have accessed settlements and areas with natural resources using footpaths and trails. Foraging and other types of activities, including interring human remains, would have occurred intermittently along these routes, some of which would have produced archaeological deposits. Such deposits, typically described as open camps, tend to be characterized by less substantial deposits than what might be expected at a more permanently inhabited settlement or intensively used area. At least some of the primary thoroughfares within the contemporary street grid were likely established along some of these trails. For example, when the Portolá expedition passed through this part of the Los Angeles Basin, they were reportedly guided by Native Americans following along one such trail.

Thus, freshwater sources, stream courses, wetland features, and other areas of concentrated plant and animal communities were all important factors in Native American subsistence foraging practices and patterns in land use and settlement. Accordingly, proximity to any of these natural features is indicative of an area in which activities were more concentrated, and therefore more likely to produce physical evidence. However, within the urbanized setting that characterizes the Project site and its surroundings, there is little to no direct evidence identified that would allow for a reliable reconstruction of any such trails in a spatially explicit way. Therefore, in the absence of direct archaeological evidence associated with a specific stream, wetland feature, or vegetation community, the influence on Native American archaeological sensitivity is considered generalized at a local scale and is considered alongside other variables where it concerns the potential for archaeological sensitivity.

Because historical (i.e., non-Native American) archaeological resources can commonly be assessed using archival materials that are more easily tied to a specific geography, assessing the sensitivity is typically more explicit and precise than it is for Native American archaeological resources. Typical indicators of historical archaeological sensitivity include the following: presence of bricks, glass, and/or building materials in geotechnical bores; historically, documented occupation of a property, especially from before trash and sewer services were established; and multiple episodes of construction and demolition of historical structures.

The next consideration given is whether the Project site is conducive to the preservation of any such material remains that may have once been present. Assessing the preservation conditions considers the following types of questions. Is there a potential for shallow or deeply buried deposits? What kinds of land uses have occurred within the region and have there been any alterations to the physical setting within the Project site? What is the age of the sediments and is there evidence of high- or low-energy deposition or erosion during the period of human occupation and historical land uses? Did the physical alterations result from natural causes, such as flooding or erosion, or from more recent historical land developments, such as mechanical grading, and how have these processes influenced the potential for preserving buried materials? In other words, is there evidence that physical alterations to the subsurface setting may have eroded, displaced, or otherwise destroyed any potential archaeological resources that may have once been present?

To assess these variables, SWCA considers archaeological, ethnographic, historical, environmental, and other archival data sources. Archaeological site data include those identified in the CHRIS records search and supplemental background research. The CHRIS data are also analyzed in greater detail to identify any sample bias in the identification of sites, which is to say, to what degree the absence of archaeological site information is because no resources were identified or because an archaeological investigation never occurred. For assessing Native American archaeological sensitivity, the information obtained through background research is reviewed to determine whether the general location is described in ethnographic studies and oral histories, and whether the historical ecological conditions of the Project site are much like the physical setting in which other Native American archaeological sites have been identified. The sensitivity assessment considers proximity to a given feature, such as a previously recorded archaeological site, former village, settlement, placename, or environmental feature; however, there is no universal measure of sensitivity as a function of distance, and there is no consistent depth above or below which buried resources can occur in all circumstances. These variables are assessed on a case-by-case basis and the conclusions incorporate a degree of professional judgment based on industry standards and best practices for archaeology.

# ENVIRONMENTAL SETTING

The Project site is in the Los Angeles Basin, a broad, level plain defined by the Pacific Ocean to the west, the Santa Monica Mountains and Puente Hills to the north, and the Santa Ana Mountains and San Joaquin Hills to the south. This extensive alluvial wash basin is filled with Quaternary alluvial sediments. It is drained by several major watercourses, including the Los Angeles, Rio Hondo, San Gabriel, and Santa Ana Rivers. The Project site and vicinity are within a fully urbanized setting on an open-aspect plain at an elevation of 31 to 33 m (101–108 feet) above mean sea level. This location is 5.3 km (3.3 miles) northeast of the current shoreline of the Pacific Ocean and 2.9 km (1.8 miles) southeast of Ballona Creek. Ballona Creek includes an extensive wetland (Ballona Wetlands), which was referred to in the late nineteenth and early twentieth centuries by several names including Port Ballona, Ballona Lagoon, and Ballona Lake. The Spanish term *ballona* was historically used to describe a type of wetland environment characterized by freshwater marshes with dense vegetation and permanently saturated soils. Historical records, photographs, and accounts from Gabrieleno and early non-Native inhabitants describe what was once an active ecosystem characterized by freshwater marshes, dense vegetation, and permanently saturated soils amid sand bars and in basins and troughs that form between sand dunes.

Prior to 1825, the Los Angeles River discharged into the wetland, along what is now the approximate course of Ballona Creek, rather than the current course emptying into the harbor near San Pedro (Gumprecht 2001:137–143). Now Ballona Creek is a perennial southwest-flowing stream that serves as a major drainage for the Ballona Valley Watershed, fed by water from the Baldwin Hills and Santa Monica Mountains. Since it was channelized with a concrete lining beginning in 1935 (Gumprecht 2001:206), the creek no longer discharges into the Ballona Lagoon and instead flows directly into the ocean. Using historical maps (e.g., historical topographic maps) and other sources, Dark et al. (2011) reconstructed features of the wetland as they would have existed in the nineteenth century. In their work, Dark et al. (2011) documented 174 unique wetland features classified into five wetland types (in order of total surface area): alkali meadow, valley freshwater wet meadow, valley freshwater marsh, brackish to salt marsh/tidal marsh, and alkali flat. In addition to these environments, the authors also note that freshwater seeps and springs and vernal pools were common features (Dark et al. 2011).

Interstate 405 approximates the former course of Centinela Creek. Additional reconstructions of the Ballona Wetlands and related features, including Centinela Creek, were completed by Statistical Research, Inc. (SRI) in association with the Admiralty Site and Playa Vista Project (Altschul et al. 1992; Altschul et al. 2003:77–85; Homburg et al. 2014). Through a series of in-depth studies and detailed

reports, SRI's team of researchers developed a chronological sequence through the Holocene showing the wetlands' development, illustrated in a series of seven frames. Their work demonstrates that up to 8,500 years before present (B.P.) (uncalibrated[1]) what is now Marina del Rey was primarily a terrestrial environment. After fluctuations in sea levels and periodic river flooding, the character of a wetland would gradually take shape, and conditions varied between freshwater, brackish, and salt water. Through this developmental sequence there was relatively little change along the course of Centinela Creek or the position of the dune field.

The wetland setting in the basin north of the Project site but including areas along Centinela Creek would have supported a variety of plant and animal species that were used throughout the early historic period by Gabrielino communities. An intensive survey of vegetation in the Ballona region conducted in 1981 identified three habitats and six plant communities that would have existed prehistorically. Altschul et al. (2003:81) note that "pickleweed saltmarsh, mudflat, and saltflat plant communities of the estuary contrast sharply with the freshwater willow and marsh habitat, and the coastal dune and coastal sage plant communities that dominate terrestrial landscapes." A rich variety of faunal remains represented in archaeological assemblages was uncovered along Centinela Creek during SRI's work for the Playa Vista Archaeological and Historical Project (Altschul et al. 2003; Altschul et al. 2007; Douglass et al. 2016). Remains from the site are considered representative of those that would have been available within the Project site. These include vertebrate species (mammals, bony fish, reptiles, birds) and invertebrates (gastropods, clams, mussels, oyster, and scallop).

The Project site is located within a geologic area known as the El Segundo Sand Hills, which are characterized by rolling hills that run parallel to the coast and extend from Ballona Creek in the north to Palos Verdes in the south. The sediments that form the dune complex are estimated to have been predominantly deposited in the late Pleistocene to Holocene. The Project site is mapped within a surficial geologic unit defined by Bedrossian et al. (2012) as old eolian and dune deposits (Qoe), which formed during the late to middle Pleistocene. Saucedo and colleagues (2016:17) describe this unit as composed of poorly consolidated eolian (wind-blown) deposits of dense to very dense, well-sorted, fine- to coarse-grained sand and silty sand. The Qoe unit was formed as a massive accumulation of these sediments within an approximately 21-km-long (13-mile-long) area along the coastline, and the Project site is situated at its northeast end (Figure 4). The eastern edge of the Qoe unit abuts a surficial deposit of Quaternary alluvium (Qoa), which formed in the basins at the same time. The Qoa unit is described as dissected clay, silt, sand, and gravel deposited along stream valleys and alluvial flats of larger rivers (Saucedo et al. 2016:16–17).

Leighton Consulting, Inc. (Leighton) conducted a geotechnical investigation within the Project site that included eight hollow-stem auger borings (LB-1 through LB-6, LP-1, and LP-2) that measured 20 centimeters (8 inches) in diameter (Pflueger and Kim 2023). LB-1 through LB-6 were excavated to a depth of 9.6 m (31.5 feet) and LP-1 and LP-2 were excavated to a depth of 3 m (10 feet). This work revealed that artificial fill is present in the upper 0.9 to 2.3 m (3.0–7.5 feet) and is consistently underlain by naturally deposited Quaternary-aged (late to middle Pleistocene) old eolian and dune deposits. The artificial fill sediments consist primarily of clayey sand and silty clayey sands and the old eolian and dune deposits generally consist of yellow brown to reddish brown, slightly moist to moist, medium dense to very dense sand, silty sand, and clayey sand with few interlayers of yellow-brown to orange-brown, moist, stiff to hard sandy clay and clay.

[1] Dates presented as years B.P. (years before AD 1950) are assumed to be uncalibrated radiocarbon years. Calibrated dates will be notated as cal B.P.

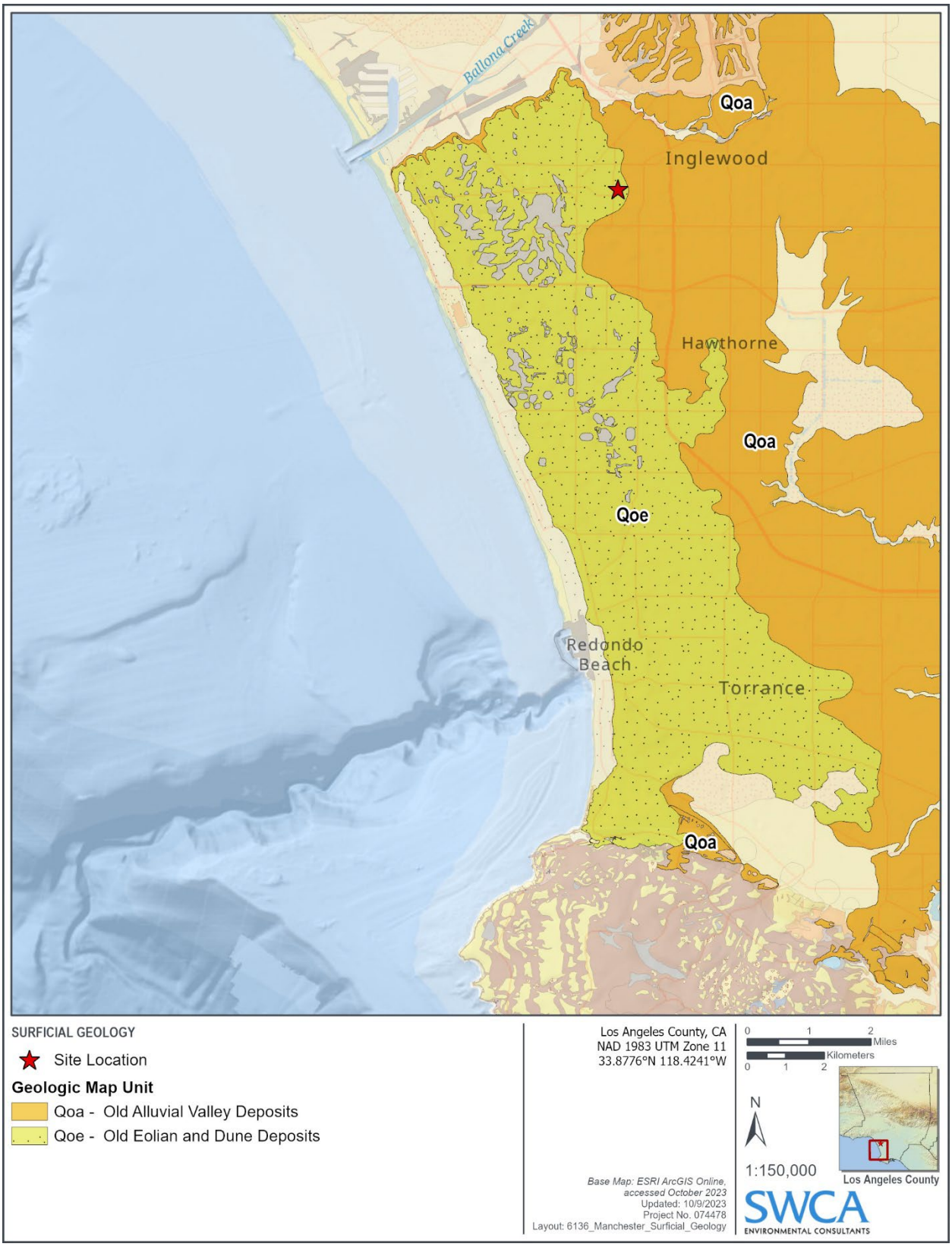



**Figure 4. Surficial geology from Bedrossian et al. (2012) emphasizing quaternary units composed of eolian and dune deposits along the coastline (Qoe) and alluvium in basins (Qoa).**

# CULTURAL SETTING

## Native American Archaeological Record

Over the years, researchers have devised numerous chronological sequences to aid in understanding cultural changes at various scales (regional vs. local patterning) in Southern California, as demonstrated in the archaeological record. The Native American archaeological record for California is generally divided into three broad temporal periods (Paleoindian, Archaic, and Emergent periods; see Fredrickson [1973, 1974, 1994]) that reflect similar cultural characteristics throughout the state and were generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic period. Numerous chronological sequences were also devised to characterize cultural changes on a smaller scale, within the subregion of Southern California specifically.

Building on early studies and focusing on data synthesis and artifact types, Wallace (1955, 1978) developed a chronology of Native American archaeology for the Southern California coastal region that is still widely used today and is applicable to near-coastal and some inland areas. Wallace's (1955, 1978) chronology for Southern California was composed of four sequential horizons: Horizon I, Early Man; Horizon II, Milling Stone; Horizon III, Intermediate; and Horizon IV, Late Prehistoric (Late Period). Wallace's 1955 synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984:159) but this situation has been alleviated in the past several decades by the availability of thousands of radiocarbon dates obtained by Southern California researchers (Byrd and Raab 2007:217). Consequently, several revisions have been made to Wallace's 1955 synthesis using radiocarbon dates and projectile point assemblages, resulting in more refined chronologies and sequences (e.g., Koerper and Drover 1983; Koerper et al. 2002; Mason and Peterson 1994; see also Moratto 1984).

Additional primary syntheses for organizing the Native American archaeological record in California were developed by Warren (1968) and King (1981, 1990), which used the growing archaeological data sets of specific subregions within Southern California to define increasingly localized cultural sequences. Using the concepts of cultural ecology and cultural tradition, Warren (1968) proposed a series of six "traditions." Three of these traditions—the San Dieguito Tradition, Encinitas Tradition, and Campbell Tradition—correlated with Wallace's Horizons I, II, and III. The Chumash Tradition, Takic Tradition (formerly "Shoshonean"), and Yuman Tradition are represented in Wallace's Horizon IV. These ecologically based traditions are applicable to specific regions within Southern California.

More recently, there have been several syntheses of chronologies from before Spanish colonization for Southern California (Byrd and Raab 2007; Sutton 2009; Sutton and Koerper 2009). Extensive mitigation-driven excavations have further refined a local chronology for the Ballona Wetlands area, which integrates data from more than 200 radiocarbon date ranges (Douglass et al. 2016). The Ballona Wetlands area is also in the northwestern Los Angeles Basin, several miles southwest of the Project site, and thus directly relevant to the cultural context for this Project. The Ballona chronology is included alongside the more general Southern California chronologies in Figure 5, which provides a reference point for the primary periods and cultural traditions discussed below along with chronologies denoted by years before present (B.P.) and calendar ages (B.C. and A.D.).[2]

[2] Elsewhere in this report, uncalibrated radiocarbon ages are presented as radiocarbon years B.P., and their calibrated dates are expressed as cal B.P.

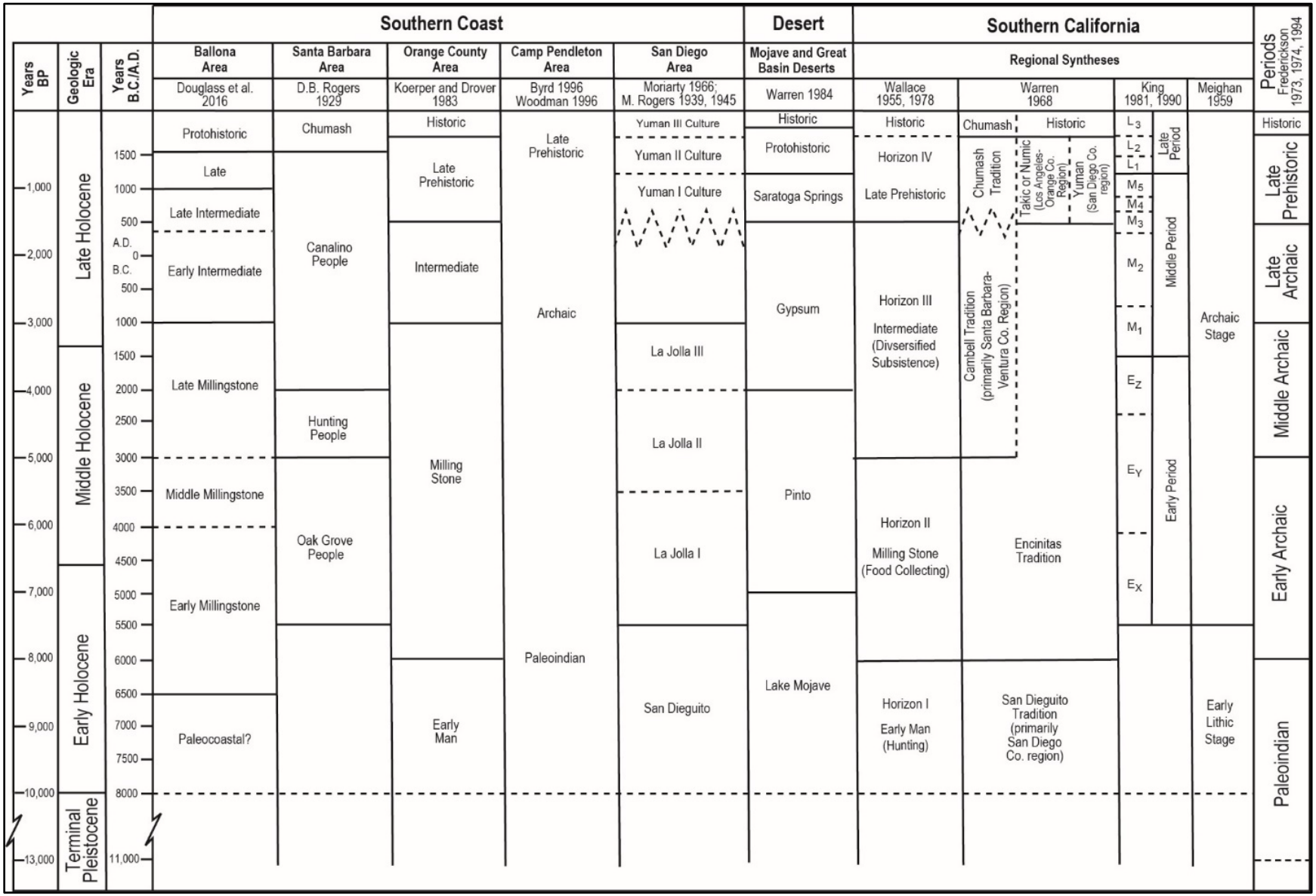



**Figure 5. Chronological frameworks for Southern California and Los Angeles Basin cultural traditions and archaeological contexts.**

## *Terminal Pleistocene: Paleoindian/Paleocoastal Tradition*

Any discussion of human occupation of coastal areas during the Terminal Pleistocene must be prefaced with an understanding that sea level rise during this period of severely shifting climate inundated many kilometers of shoreline worldwide and along Southern California coastlines specifically, submerging an unknown number of archaeological sites (Reeder-Myers et al. 2015). Therefore, any evidence that we do have of human occupation in what are now coastal settings is likely only a small fraction of what originally existed (Erlandson et al. 2007; Erlandson et al. 2015). Recent studies using offshore core samples have made important progress in reconstructing paleoshorelines and the paleoenvironment of Southern California's Terminal Pleistocene coast (Gusick et al. 2022).

The earliest evidence for human occupation in Southern California is found on the northern Channel Islands, where multiple Terminal Pleistocene sites have been identified and dated in the past couple decades, firmly establishing the presence of early coastal-adapted people in the region (Erlandson and Braje 2008; Erlandson and Colton 1991; Erlandson et al. 1996; Erlandson et al. 2011; Erlandson et al. 2020; Gusick and Erlandson 2019). On Santa Rosa Island, human remains from the Arlington Springs site have been dated to approximately 13,000 years ago (Johnson et al. 2002). Recent excavations and radiometric dating of multiple archaeological assemblages on San Miguel, Santa Rosa, and Santa Cruz Islands document Paleoindian technologies, subsistence strategies, and seasonality of site occupation during the latter part of the Terminal Pleistocene (ca. 11,700 B.P.), with similarities to the Western Stemmed Tradition found across much of western North America (Braje et al. 2013; Erlandson 2013; Erlandson and Braje 2008; Erlandson et al. 1987; Erlandson et al. 2011; Erlandson et al. 2020; Jew et al. 2013; Rick et al. 2013).

Well-crafted chipped stone crescents like those recorded on the northern Channel Islands as part of the Paleocoastal toolkit were also found in surficial contexts on San Nicolas Island, suggesting an earlier occupation for the southern Channel Islands as well (Davis et al. 2010). It is possible that similarly early sites were present on the mainland California coast as well; however, the rate and degree of development beginning with Spanish colonization and continuing to the present has likely destroyed most early sites along the California mainland coast. Nevertheless, three fluted points representing the Clovis culture have been found in Southern California mainland coastal areas, including one in Santa Barbara County (Erlandson et al. 1987), one in Los Angeles County near Malibu (Stickel 2000), and one in El Morro Canyon, in what is now Crystal Cove State Park in Orange County (Fitzgerald and Rondeau 2012). Additionally, numerous fluted projectile points of the Clovis and Folsom Traditions have been reported from inland contexts in central and Southern California (e.g., Davis 1975; Dillon 2002; Moratto et al. 2011; Riddell and Olsen 1969; Rondeau 2006; Yohe and Gardner 2016).

### PALEOCOASTAL OCCUPATION OF THE BALLONA AREA

Two sites, LAN-61 and LAN-63, in the Ballona area are believed to include occupations from this time based on diagnostic artifacts (crescents and stemmed points) (Lambert 1983; Van Horn 1987). However, recent data recovery excavations and analyses, including numerous radiocarbon dates, failed to provide incontrovertible evidence that people were using this area during the Paleocoastal period (Douglass et al. 2005), although this lack of radiocarbon dates does not necessarily negate the possibility that an earlier occupation occurred and might be uncovered in the future.

# *Early Holocene (ca. 11,500 to 7000 B.P.)*

## HORIZON I: EARLY MAN

During the early twentieth century, several sensationalized finds were thought to be evidence of "Early Man" in the Los Angeles Basin; however, subsequent analyses have not held up as hoped. First, in 1914, human remains were found in direct association with extinct Pleistocene fauna at the La Brea Tar Pits (LAN-159/H) (Merriam 1914). Although early estimates suggested that this find extended up to 34,000 years ago, radiocarbon dating has since shown these remains to have an estimated age range of approximately 9000 to 4450 B.P. (Berger et al. 1971; Payen 1970), with the most recent redating using accelerator mass spectrometry providing a calibrated date range of ca. 10,200 cal B.P. (Fuller et al. 2016), placing this individual at the transition between the Paleoindian/Paleocoastal period and the Millingstone period.

A second early discovery at Angeles Mesa in Baldwin Hills (the Haverty, or Angeles Mesa Site, LAN-171) included partially mineralized skeletal remains of several individuals found in depths up to 7 m (23 feet) below surface (Brooks et al. 1990; Stock 1924). Issues, however, with the various methods used to date these bones remain unresolved and have returned estimated dates of more than 50,000 years ago based on amino acid racemization (AAR) (Taylor et al. 1985) and radiocarbon date ranges that span 15,900 ± 50 to 3870 ± 350 B.P., representing an unacceptably large margin of error for a single individual (Berger et al. 1971; Brooks et al. 1990). The wide range of dates suggested problems with the methods used in the radiocarbon dating and calibration, especially concerning the use of AAR, and subsequent revisions to the estimates found a revised date range of between 7900 and 4050 B.P. (Taylor et al. 1985:137).

There are similar concerns related to the age of remains referred to as "Los Angeles Man"—designated LAN-172 (Lopatin 1940)—which were discovered in a similar depositional context less than 3.2 km (2 miles) from the Haverty Site in 1936 (Brooks et al. 1990; Erlandson et al. 2007:54). The remains at LAN-172 consisted of skull fragments and a broken humerus that were described as having been found in the same stratigraphic setting as mammoth bones, suggesting late Pleistocene antiquity, although neither of the discoveries were conducted as controlled excavation and the mammoth discovery was made approximately 370 m (1,213 feet) away. Subsequent dating using AAR could only yield a date of more than 23,600 B.P. (Berger et al. 1971:47), but revised estimates based on radiocarbon and AAR yielded a more much more recent date of 3560 B.P. (Taylor et al. 1985:137).

Mainland sites attributed to Horizon I generally indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and a greater emphasis on inland large-game hunting. Fundamental elements of lithic tool technology described by Wallace (1955) for this period include numerous scrapers, choppers, chipped and notched crescents, and large blades and points. Wallace (1955) also describes clamshell and bone beads, along with an absence of seed-grinding implements from the site type for this period, Malaga Cove. Several sites in Orange and San Diego Counties contain components that date to between 9,000 and 10,000 years ago (Byrd and Raab 2007:219; Macko 1998a:41; Mason and Peterson 1994:55–57; Sawyer and Koerper 2006), and radiocarbon dates from the Goleta Slough area in Santa Barbara County indicate occupations spanning ca. 9300 to 8400 cal B.P. (ca. 7300–6400 B.C.) with a primary subsistence focus on lagoon/bay shellfish (Owen et al. 1964).

## HORIZON II: MILLINGSTONE

The Millingstone horizon corresponds to the Early Holocene when rising sea levels continued to encroach on coastlines, although global climate was slowly stabilizing. Set during a warmer and drier climatic

regime than the previous horizon, the Millingstone horizon is characterized by subsistence strategies centered on collecting plant foods and small animals, although in coastal areas where archaeological assemblages have been preserved, there is also ample evidence of marine resource use during this time (Connolly et al. 1995; Rick et al. 2001). The importance of seed processing is apparent in the dominance of stone grinding implements in archaeological assemblages from this period, namely milling stones (metates) and hand stones (manos) (Erlandson 1991, 1994; Moriarty 1966; Warren 1967). The variety of site types from this period indicate a mobile settlement pattern, and later research indicated that Millingstone horizon food procurement strategies varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions (Byrd and Raab 2007:220).

Millingstone assemblages are characterized by the extensive use of milling implements (particularly manos and metates) and mullers along with scraper planes, choppers, and core tools and a general lack of meticulously crafted projectile points, although leaf-shaped points believed to be darts are present. The general lack of faunal remains along with bone and shell tools at some sites dated to this period have led researchers to suggest a stronger reliance of plant food resources (i.e., seeds) with only a minor focus on hunting. Several sites have been described for this horizon throughout Southern California, including Little Sycamore in Ventura, Porter Ranch in San Fernando, and the La Jolla shell mounds in San Diego. Los Angeles County sites with Millingstone components include Malaga Cove (Level 2, LAN-138; Walker 1952), the Tank Site (LAN-1) in Topanga Canyon (Heizer and Lemert 1947; Treganza and Bierman 1958), the La Brea Tar Pits Site (LAN-159; Salls 1986), the Zuma Creek Site (LAN-174; Wallace 1955; see also Ascher 1959), the Sweetwater Mesa Site (LAN-267; King 1967), the Shobhan Paul Site (LAN-958; Porcasi and Porcasi 2002; Salls 1995); and the Parker Mesa site (LAN-215; King 1962). Primary sites with Millingstone components in Orange County include Bolsa Chica (ORA-83; Herring 1961, 1968), ORA-64 (Drover et al. 1983; Macko 1998b), and the Landing Hill Site (Cleland et al. 2007).

## *Middle Holocene (ca. 7000 to 4000 B.P.)*

### HORIZON III: INTERMEDIATE

This horizon corresponds with the Middle Holocene and early Late Holocene time periods geologically and marks the point when current shorelines were established in most parts of the world. Consequently, evidence for marine resource use appears to have increased after 5,000 to 6,000 years ago.
The Intermediate horizon is characterized by important changes in almost all aspects of culture, including settlement patterns, economic activities, mortuary practices, and technology (Byrd and Raab 2007). During this period, economic practices shifted toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. An increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites from this horizon along the California coast. Related chipped stone tools suitable for hunting, including side-notched projectile points, are more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment and signaling a shift away from the processing and consuming of hard-shelled seed resources to the increasing importance of fleshier fruits like the acorn (e.g., Glassow et al. 1988; True 1993). Bow and arrow technology is first seen toward the end of the Intermediate period (ca. 1500–1000 B.P.) when it appears to have spread to the Southern California coast from the north and east.

Technological markers described for this horizon consist of basket-hopper mortars, mortars and pestles, diverse and plentiful chipped stone assemblages with greater numbers and a wider variety of projectile point types, and bone and antler tools, which are present to some degree but not in the quantity seen during later phases, along with occasional use of bitumen (asphalt) and steatite (Byrd and Raab 2007;

Johnson 1966; Wallace 1955). Faunal assemblages often include terrestrial mammals representing wild game, along with some marine mammal bones and often high densities of shellfish remains.

The Middle Holocene also marks a time of cultural innovation in the archaeological record of California. Significant cultural developments are seen in the increasing formation of larger settlements, the intensification of long-distance trade networks including distinct cultural spheres throughout western North America, and the elaboration of art and personal aesthetics (e.g., shell and stone pendants and increasing variety of shell bead types and styles) (Erlandson and Glassow 1997; Glassow 1997; Howard and Raab 1993; Jenkins and Erlandson 1996; King 1990; Raab and Howard 2002; Vellanoweth 2001).

There is also evidence suggesting migrations into coastal Southern California by desert peoples from the east during the Intermediate period based on changes in mortuary practices (i.e., cremations), the presence of desert tanged projectile points, and increased numbers of stone as opposed to shell beads. This question has been discussed by several archaeologists (Koerper 1979; Kowta 1961; Kroeber 1925; Moratto 1984; True 1966; Van Horn 1987, 1990) with most suggesting an arrival date of ca. 1500 cal B.P., although some argue for a much earlier migration at around 3500 cal B.P., which coincides with the Millingstone/Intermediate period transition (Sutton 2009). Of course, it is possible, and even likely, that multiple migrations of various scales occurred over the course of hundreds, or thousands, of years.

## INTERMEDIATE PERIOD IN THE BALLONA AREA

The Intermediate period in the Ballona area is well documented, with five bluff-top sites containing large middens dated to within this period, in addition to four sites along the creek and one site situated on what was likely a small island in the middle of the lagoon (see Douglass et al. 2016:42 and references therein). There was a pronounced increase in settlement and use of this area during the Intermediate period, which some researchers attribute to the incursion of people from the desert areas to the east based on several new cultural traits. These include an increase in stone beads in funerary contexts in conjunction with an unusual paucity of shell beads in burial features at some sites along with a general lack of shell artifacts, the presence of tanged projectile points associated with desert cultures from this period, and the introduction of cremation, all of which are evident at several sites in the Ballona area with Intermediate components (see discussion in Douglass et al. 2016:42–43). Van Horn and Murray (1985) suggested a cultural tradition unique to the Ballona area based on analysis of the microlithic industry and the presence of desert-type projectile points.

Our understanding of settlement trends in the Ballona area during the Intermediate period is based on detailed analyses from three sites (LAN-63, LAN-64, and LAN-206) that demonstrate a high degree of diversity in subsistence activities, suggestive of more permanent occupations (Douglass et al. 2005). Extensive excavations also revealed that intra-site space at some of these bluff-top mesa sites was significantly structured and segregated, indicating the increased sedentary nature of habitation sites during the Intermediate period and a degree of site structure not previously seen in the area. Investigations identified discrete activity areas, including inhumation clusters composed of large numbers of broken or "killed" ground stone artifacts and sometimes large numbers of mostly stone beads along with fragmentary cremated human bone, suggesting discrete burial locales for various families or social groups, specific plant procurement and plant processing areas, communal refuse areas, and demarcated ritual spaces (Altschul et al. 2007; Douglass et al. 2005; see also Douglass et al. 2016). Data from extensive data recovery excavations at LAN-63 distinguish this site as containing more evidence of highly structured use areas and ritual activity than any other contemporaneous site; however, it is possible that this is a factor of sampling bias in that this site underwent larger-scale data recovery and was entirely exposed due to planned development (Douglass et al. 2005; Douglass et al. 2016). Although there were earlier debates, current information indicates that settlement along the lagoon and creek, as well as on top

of the bluff, was contemporaneous, with occupants of all sites performing similar activities and some sites representing specialized food-collecting and processing locales (Douglass et al. 2016).

## *Late Holocene (ca. 3000 B.P. to Spanish Colonization)*

### HORIZON IV: LATE PREHISTORIC

The Late Prehistoric period extended from the end of the Intermediate period (ca. A.D. 500) until Spanish colonization, marked by the Cabrillo expedition in A.D. 1542. This period is characterized by extensive population growth and a large increase in the number and types of sites along the Southern California coast. During this period, there was a significant increase in the population of Native peoples in Southern California accompanied by the advent of larger, more permanent villages (Wallace 1955:223), particularly at the mouths of large mainland coastal canyons and drainages with year-round water supplies (McLendon and Johnson 1999). Large populations, and in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages in which people resided year-round, although the populations of these villages may have also increased seasonally. The development of social differentiation is indicated during this period by the complexity of site layouts with numerous complex features and the highly variable nature of mortuary treatments and burial grounds (Byrd and Raab 2007).

During the Late Prehistoric period, there was an increase in the use of plant food resources in addition to an increase in terrestrial and marine mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric horizon, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely flaked projectile points suggests increased use of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Steatite cooking vessels and containers are also present in sites from this time, and there is an increased presence of composite bone gorges and circular shell fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments such as beads made from shell, bone, and stone. Olivella shell bead styles include a variety of wall and callus beads in addition to the previous spire-lopped and cup beads. There was also an increased use of asphaltum, or bitumen, for waterproofing basketry and caulking canoes and as an adhesive.

Technological markers of this horizon include the increased use of the bow and arrow, stemless points with concave or convex bases, steatite containers, widespread use of asphaltum as adhesive, and increased abundance and types of bone tools, as well as shell, bone, and stone ornaments (Byrd and Raab 2007; Wallace 1955). Wallace (1955) also describes notable distinctions between northern and southern groups during this period, including less pottery north of Orange County, where steatite vessels were more prevalent, and the presence of portable mortars and pestles and basket-hopper slabs in the north with bedrock mortars and milling stones being more prevalent in the San Diego area.

By A.D. 1000, fired clay smoking pipes and ceramic vessels were being used at some sites (Drover 1971, 1975; Meighan 1954; Warren and True 1961). The scarcity of pottery in coastal and near-coastal sites implies that ceramic technology was not well developed, or that occupants were trading with neighboring groups to the south and east for ceramics. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry that was caulked with bitumen (asphaltum) and functioned in the same capacity as ceramic vessels.

In Warren's (1968) cultural ecological scheme, the period between A.D. 500 and European colonization, which occurred as early as 1542, is divided into three regional patterns: Chumash/Canaliño (Santa Barbara and Ventura Counties), Takic/Numic (Los Angeles, Orange, and western Riverside Counties), and Yuman (San Diego County). The seemingly abrupt introduction of cremation, pottery,

and small triangular arrow points (Cottonwood Triangular points) in parts of modern-day Los Angeles, Orange, and western Riverside Counties at the beginning of the Late Prehistoric period is thought to be the result of a Takic migration to the coast from inland desert regions within the past few thousand years. Modern Gabrielino, Juaneño, and Luiseño people in this region are considered the descendants of the Uto-Aztecan, Takic-speaking populations that settled along the California coast during this time (see discussion in Byrd and Raab 2007).

### LATE PREHISTORIC PERIOD IN THE BALLONA AREA

Settlement patterns in the Ballona area are in stark contrast to the rest of Southern California in that, rather than an increase in the number of sites occupied during the Late Prehistoric period, there was a sharp decline in the number of sites that were occupied during this time (Douglass et al. 2016). Only five sites in the Ballona area contain evidence of Late Prehistoric period occupation, with three sites along the edge of the wetlands (LAN-47, LAN-62, and LAN-211) containing evidence of more consistent but likely seasonal occupations during this time and two sites on the adjacent bluffs (LAN-61 and LAN-63) that contain isolated and ephemeral evidence of use during the Late Prehistoric period evidenced by the presence of diagnostic Canaliño and Cottonwood Triangular points (Douglass et al. 2005; Douglass et al. 2016; Hull and Douglass 2005). Faunal data from LAN-47 indicate people were primarily subsisting on plant and animal resources found in the adjacent salt marsh environments, including shellfish, waterfowl, fish that inhabit brackish environments, and small mammals, along with a variety of berries and seeds (Altschul et al. 1992). This site appears to represent a series of temporary camps along the edge of the lagoon at various times during the year depending on when different resources were available. Lithic technology during this period ranged broadly from well-crafted points to expediently produced flaked tools that were manufactured from an equally broad range of lithic materials.

Deposits from LAN-67 and LAN-211 were more disturbed than others assessed by SRI in the Ballona area but excavations at LAN-62 revealed the development of a specified burial area. Interments appear to have been placed in a more scattered and unorganized manner during previous occupations in the Ballona area. However, during Late Prehistoric period occupations of LAN-62, people began concentrating burials within a specified part of the midden (demarcated as Locus A/B) beginning a cultural practice that continued during subsequent Mission period occupations when the burial space was further restricted and confined to an even smaller area.

Climatic reconstruction for the area suggests a return to drier conditions by around 1,000 years ago (Wigand 2005). The Los Angeles River appears to have shifted its course away from Ballona during this time as well, further lessening the freshwater input to the lagoon and likely resulting in an expansion of the salt marshes. These localized deteriorating terrestrial conditions likely prompted the shift in settlement as people directed their focus to the more reliable salt marsh resources (Altschul et al. 2007).

## Gabrielino Ethnography

The Project site is in an area historically occupied by the Gabrielino (Bean and Smith 1978:538; Kroeber 1925:Plate 57). Surrounding Native groups included the Chumash and Tataviam/Alliklik to the north, the Serrano to the east, and the Luiseño/Juaneño to the south (Figure 6). The interaction between the Gabrielino and many of their neighbors in the form of intermarriage and trade was regularly documented in ethnographic accounts. The name “Gabrielino” (also spelled Gabrieleno and Gabrieleño) denotes those people who were associated with Mission San Gabriel, whereas those who were associated with the nearby Mission San Fernando were referred to as Fernandeño. In the Mission and Rancho periods, Mission San Gabriel included Natives of the greater Los Angeles area, as well as members of surrounding groups such as Kitanemuk, Serrano, and Cahuilla.




**Figure 6. Native American territorial boundaries based on ethnographic and tribal sources.**

There is little evidence that the people we call Gabrielino had a broad term for their group (Dakin 1978:222). Instead, these people seem to have identified themselves as inhabitants of a specific community with locational suffixes. For example, a resident of Yaanga was called a Yabit, which Johnston likened to the way that a resident of New York is called a New Yorker (Johnston 1962:10). Native words suggested as labels for the broader group of Native Americans in the Los Angeles region include Tongva (or Tong-v) (Merriam 1955:7–86) and Kizh (Kij or Kichereno) (Heizer 1968:105), and many present-day descendants have taken on their preferred group name. The term Gabrielino is used in the remainder of this report to designate Native people of the Los Angeles Basin and their descendants.

The Gabrielino subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the people used resources in mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal eco-niches. Like that of most Native Californians, acorns were the staple food (an established industry by the time of the Early Intermediate period). Inhabitants supplemented acorns with the roots, leaves, seeds, and fruits of a variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

The Gabrielino used a variety of tools and implements to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Groups residing near the ocean used oceangoing plank canoes and tule balsa canoes for fishing, travel, and trade between the mainland and the Channel Islands (McCawley 1996:7). Gabrielino people processed food with a variety of tools, including hammer stones and anvils, mortars, and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was consumed from a variety of vessels including soapstone bowls and Catalina Island steatite was used to carve ollas and cooking vessels (Blackburn 1963; Kroeber 1925:629; McCawley 1996:129–138).

At the time of Spanish colonization, the basis of Gabrielino religious life was the ceremonies and rituals connected with the figure of Chinigchinich, who was the last in a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions and taught the people how to dance as a form of religious practice. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The origins of the practices connected to Chinigchinich are somewhat unclear as it seems to have been relatively new when the Spanish arrived. It was spreading south into the southern Takic groups even as Christian missions were being built and may represent a mixture of Native and Christian belief and practices (McCawley 1996:143–144).

Deceased Gabrielino were either buried or cremated, with inhumation more common on the Channel Islands and the neighboring mainland coast, and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996:157). Remains were buried in distinct burial areas, either directly associated with villages or without apparent village association (Altschul et al. 2007). Cremation ashes have been found in archaeological contexts buried within stone bowls and in shell dishes (Ashby and Winterbourne 1966:27), as well as scattered among broken ground stone implements (Cleland et al. 2007). Archaeological data such as these correspond with ethnographic descriptions of an elaborate mourning ceremony that included a variety of offerings, including seeds, stone grinding tools, otter skins, baskets, wooden tools, shell beads, bone and shell ornaments, and projectile points and knives. Offerings varied with the sex and status of the deceased (Dakin 1978:234–365; Johnston 1962:52–54; McCawley 1996:155–165).

For more than 2,500 years, the Gabrielino and their predecessors practiced the *kotuumot kehaay*, or mourning ceremony, an important community ritual by which the living assisted the soul of the deceased

on its journey to the land of the dead (Hull 2011, 2012; Hull et al. 2013). It was not only an act of loving remembrance—the Gabrielino believed that the spirits of the deceased were dangerous and must be treated properly lest they molest the living (Boscana 1978). Observed every 1 to 4 years to commemorate those who had died since the previous iteration, the 8-day mourning ceremony was either conducted in late summer or in the same month as the person to be honored had died. The ceremony included four primary rites: ritual clothes washing, clothes burning, image burning, and a distribution of the property of the dead. It took place within an approximately 5-m-diameter (16-foot-diameter) circular brush enclosure called a yovaar, which was decorated with poles at cardinal directions topped with figures, or around an approximately 12- to 15-m-tall (40- to 50-foot-tall) central kotuumut pole that was painted in various colors representing body parts and erected in a pit in the ground surrounded by offerings of food, clothing, baskets, beads, and money. It included a hosted feast, paid dancers, and the ritual destruction and burial of valuable goods (McCawley 1996:161–165; Merriam 1955).

Hugo Reid, a Scottish immigrant married to a Gabrielino woman and owner of San Gabriel Mission in the 1840s, described the post-burial treatment of grave goods by the Gabrielino in his 1852 letters:

> When a person died, all the kin collected to lament and mourn his or her loss. After lamenting a while a mourning dirge was sung. If the deceased were the head of the family, or a favorite son, the hut in which he died was burned up, as likewise all of his personal effects, reserving only some article or another, or a lock of hair. This reservation was not as a memento of the deceased, but to make a feast with on some future occasion, generally after the first harvest of seeds and berries. (Dakin 1978:235)

Discussing the culmination of the ceremony itself, Reid continued:

> On the eighth day the…old women were employed to make more food than usual, and when the sun was in its zenith, it was distributed, not only among the actors, but to the spectators likewise. After eating, a deep hole was dug, and a fire kindled in it, when the articles reserved at the death of relatives were committed to the flames; at the same time, baskets, money, and seeds were thrown to the spectators, as in the marriage ceremony. During the burning process, one of the seers, reciting mystical words, kept stirring up the fire to ensure the total destruction of the things. The hole was then filled up with earth and well trodden down. The feast was over. (Dakin 1978:242–243)

This mourning ceremony has deep roots in Southern California, predating the period of Spanish colonization (1769–1834) by at least 2,000 years (Hull et al. 2013). It was also reportedly practiced in mid-nineteenth century Gabrielino communities in San Fernando, Piru, and Saticoy (Blackburn 1976:232), in neighboring Luiseño- and Cahuilla-speaking regions, including the greater Los Angeles area (Dietler et al. 2018; Morris et al. 2016).

## *Continuity After Colonization*

The traditional way of life for Indigenous people was dramatically altered by the Spanish mission system and later Mexican and Euro-American settlement in this part of Southern California. The dissolution of cultural practices alienated Native Americans from their traditional subsistence patterns, social customs, and marriage networks. European diseases, against which they had no immunity, reached epidemic proportions, and Gabrielino populations were rapidly decimated (Johnson 1987). The increase in agriculture and the spread of grazing livestock into their collecting and hunting areas made maintaining traditional lifeways increasingly difficult. Although many Gabrielino were eventually subsumed by the mission system, some refused to give up their traditional existence and escaped into the interior regions of the state, where they survived as refugees living with other tribes.

Many researchers have brought attention to the role of Native American labor in developing and sustaining colonial settlements by providing crucial services and highly skilled roles across multiple types of industry (Akins and Bauer 2021; Anderson 2005:81–82; Hackel 1998, 2005:272–320; Phillips 2010; Silliman 2001).

> The involvement of Native American groups in any of the standard colonial institutions in the Americas—missions, ranchos, trade outposts, presidios, forts, and secular towns—revolved around labor, even in contexts of frequent interethnic marriage. Sometimes colonial groups forced labor on native societies; other times, indigenous peoples found colonial labor opportunistic and capitalized on it. In either case, labor constituted one of the primary and most influential interpersonal and intercultural relations in pluralistic colonial communities. (Silliman 2001:379–384)

Gabrielino acquired equestrian skills used in herding, corralling, and branding cattle, and they routinely conducted the work of killing and skinning livestock. They demonstrated an aptitude for the engineering needed to create irrigation systems—finding grades, laying out ditches, and managing watering regimes. Irrigation was crucial for supplying domestic supplies and agriculture, especially wine making, which also relied on Gabrielino to plant the grapevines. Native women and children provided crucial household chores within the ranchos across the Los Angeles Basin: "Most of those (Indians) who left the missions remained close by, often in their traditional tribal homeland, and worked on ranchos" (Akins and Bauer 2021:112).

During the early American period, Native Americans found work in citrus groves and other large-scale agricultural operations. During the twentieth century, Native Americans affiliated with tribes from outside the region increasingly came to Los Angeles, some out of necessity or in pursuit of new opportunities, and others because of the federal government's termination and relocation policies (Akins and Bauer 2021:266). Native American workers made important contributions to several important industries such as aviation and film during the early and middle parts of the twentieth century.

Although the contribution of Native American labor is clearly critical to an account of local history, Phillips (2010) offers an important consideration in terms of the motivation for taking this perspective.

> By examining how Indians adjusted to the new work regime and by describing how many became efficient workers, the focus remains on Indians themselves. Recognizing adaptation and efficiency, however, is far different from approving the system in which they were achieved…. The missions radically altered Indian culture, but they did not destroy Indian people. Even secularization—the systematic breakup of the mission system in the 1830s—was not designed to destroy Indians. In fact, Indians played an important role in this crucial event in California history, a role downplayed by some historians. (Phillips 2010:17–19)

It is estimated that several thousand Gabrielino descendants currently live in the Los Angeles area, although no reservation or rancherias were ever set aside (Bean 1995) and no Gabrielino tribal organizations have been federally recognized. Gabrielino descendants are represented by the following tribal organizations who actively strive to maintain their cultural legacy: Gabrielino-Tongva Indians of California Tribal Council, the Gabrielino-Tongva Indian Tribe, the Gabrielino/Tongva Nation, the Gabrielino/Tongva San Gabriel Band of Mission Indians, and the Gabrieleño Band of Mission Indians – Kizh Nation.

## Locating Former Gabrielino Settlements

In general, it has proven difficult to establish the precise location of Native American settlements occupied immediately preceding and following Spanish arrival in California approximately 250 years ago (McCawley 1996:31–32). Many of the settlements and so-called villages had long since been abandoned

by the time ethnographers, anthropologists, and historians attempted to document any of their locations, at which point Native American lifeways had been irrevocably changed. McCawley (1996) quotes Kroeber (1925:616) in his remarks on the subject, writing that "the opportunity to prepare a true map of village locations 'passed away 50 years ago'" (McCawley 1996:32).

Several factors have confounded efforts at locating former Native American settlements. Firstly, many settlements were recorded with alternative names and spellings. Second, there have been conflicting reports on the meaning and locational reference of the placenames. In addition to differences in the interpretation of a given word, some of the placenames refer to a site using relatively vague terms that could fit several possible locations, or the word may reference a natural feature that no longer exists such as a type of plant that once grew in an area now fully urbanized. Third and perhaps most importantly, Native American placenames recorded in historical records and reported in oral histories did not necessarily represent a continually occupied settlement within a discrete location, which is how the term "village" is commonly understood today. Instead, in at least some cases, the settlements were represented by several smaller camps scattered throughout an approximate geography, shaped by natural features that were subject to change over generations (Ciolek-Torello and Garraty 2016; Johnston 1962:122). Furthermore, the criteria for what constitutes a village site has been especially lacking in consistency and specificity, even within a strictly academic context (see summary by Ciolek-Torello and Garraty [2016:69]). Much of the debate in this regard concerns whether sites were occupied on a permanent or temporary basis, and archaeological data do not always provide unequivocal evidence to make a reliable classification for a given site.

Still, within the range of terms put forth to characterize different types of Native American settlements, there are conventions and core insights shared among scholars. Prehistoric sites in coastal California, for example, are commonly referenced in archaeological sources as residential sites, habitation sites, and seasonal camps, whereas the term village is more often used to reference Mission period settlements such as the Chumash site of Humaliwo, Helo', and Muwu, or Luiseño sites such as Topomai (Ciolek-Torello and Garraty 2016:69). These Spanish and Mexican period sites are also sometimes referred to as rancherias—a term with connotations for a more permanent settlement and often used synonymously with village. The convention was established by Hugo Reid in 1852 who published the first list of Native American placenames in the Los Angeles area, which was by no means comprehensive (Stoll et al. 2016:387–389). The more generic terms of *settlement* and *site* will be used in this report and refer to places where Native American communities were once gathered. Native American sites may also refer to locations where archaeological materials, including human remains, have been identified. Such locations may consist of one or more known Native American archaeological resources or a general area in which a Native American archaeological resource could exist.

## Native American Communities in the Project Vicinity

Several named Native American sites and suspected settlements are identified by historical maps and ethnographic accounts northwest of the Project site within a 14.8-km (9.2-mile) radius (Figure 7). The named sites include Waachnga (alternately spelled or referred to as Guaspet, Guasna, Guashna, Guachpet, or Guashpet, 4.4 km [2.7 miles] to the northwest), Kuruvunga (12.1 km [7.5 miles] to the northwest) and Comicrabit (14.8 km [9.2 miles] to the northwest). The La Brea Tar Pits, located 12.4 km (7.7 miles) north of the Project site, were known to have provided valuable resources to Native American groups. The closest named Native American village to the Project site is known as Waachnga (Guaspet), which has been identified through historical and ethnographic sources and was likely located within the Ballona Wetlands, northwest of the Project site. When Rancho de Sausal Redondo was granted in 1836, the governor referred to the land as "Sausal Redondo and Guaspita," indicating that the site may have been located within these rancho boundaries (Tatum 1969:277). Stoll et al. (2009) offer a detailed discussion of the history of its reference as a place name and potential locations (see also Douglass et al. 2016). While

some debate may still exist, all accounts of Waachnga point to an area either on the bluffs to the south of Ballona Creek or in the lowlands near the creek (Douglass et al. 2016:416; McCawley 1996:61–63), approximately 4.0 km (2.5 miles) to the northwest of the Project site (see Figure 7). The village is referenced on historical maps and diseño (map), including Kirkman (1938), who refers to a village site Guacho. This spelling is also seen on the original diseño drawn around 1840 for what was then referred to as Rancho del Paso de las Carretas ("Wagon Pass"), later Rancho La Ballona. For his 1962 map of Gabrielino sites, Weltz (1962) used the name Sa'angna, though this likely refers to a different site located farther upstream along Ballona Creek.

The precise location of most Native American villages in the Los Angeles Basin is subject to much speculation. Most maps depicting villages throughout the greater Los Angeles area show these sites along rivers or streams, and several maps have been produced throughout the twentieth century depicting this settlement pattern. This pattern of settlements concentrated along the Los Angeles River appears in Johnston (1962:x) and George Kirkman's (1938) map of historical sites ca. 1860–1937, which places the Native American village of Waachnga approximately 4.4 km (2.7 miles) northwest of the Project site along the Ballona Creek. These maps convey a general sense of significant historical areas but are intended as a representational depiction of these locations rather than explicit geographic points.




**Figure 7. Native American village sites, place names, and sites described in ethnographic literature.**

# Mission and Rancho Period (1769 to 1848)

Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Mission period in California begins with the establishment in 1769 of a settlement at San Diego by the Spanish and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican era of governance within California, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, signals the beginning of the American period, when California became a territory of the United States.

Spanish explorers made sailing expeditions along the coast of Southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríquez Cabrílllo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrílllo explored the shorelines of present-day Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present-day California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabrílllo and Vizcaíno (Bancroft 1886:96–99; Gumprecht 2001:35).

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July 1769, while Portolá was exploring Southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823.

The Portolá expedition first reached the present-day boundaries of Los Angeles in August 1769, thereby becoming the first Europeans to visit the area. Father Juan Crespí, a member of the expedition, named the campsite by the river Nuestra Señora la Reina de los Angeles de la Porciúncula or "Our Lady the Queen of the Angels of the Porciúncula." Two years later, Fr. Junípero Serra returned to the valley to establish a Catholic mission, the Mission San Gabriel Arcángel, on September 8, 1771 (Engelhardt 1927). In 1781, a group of 11 Mexican families traveled from Mission San Gabriel Arcángel to establish a new pueblo called El Pueblo de la Reyna de Los Angeles ("the Pueblo of the Queen of the Angels"). This settlement consisted of a small group of adobe-brick houses and streets and would eventually be known as the Ciudad de Los Angeles ("City of Angels").

A major emphasis during the Spanish period in California was the construction of missions and associated presidios to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish period, only two of which were successful and remain as California cities (San José and Los Angeles). Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the Indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants.

Extensive land grants were established in the interior while California was under the control of the Mexican government, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. The Project site is within the original boundaries of Rancho La Brea, which was granted to Antonio Jose Rocha in 1828 (Seaman 1914).

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. This was largely the case for Rancho La Brea, which was situated in the vast, open space between Los Angeles and the Pacific Ocean. Cattle hides became a primary Southern California export, providing a commodity to trade for goods from the East and other areas in the United States and Mexico. The number of non-Native inhabitants increased during this period because of the influx of explorers, trappers, and ranchers, contributing to the rise of diseases foreign to the Native American population with no immunities.

# American Period (1848 to Present)

War in 1846 between Mexico and the United States began at the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area. This battle was a defeat for the Americans and bolstered the Californios' resolve against American rule, emboldening them to continue the offensive in later battles at Dominguez Field and in San Gabriel (Beattie 1942). However, this early skirmish was not a sign of things to come, and the Americans were ultimately the victors of this 2-year war. The Mexican–American War officially ended with the Treaty of Guadalupe Hidalgo in 1848, which resulted in the annexation of California and much of the present-day Southwest, ushering California into its American period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. territories. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through 1850s. The Gold Rush began in 1848; with the influx of people seeking gold, cattle were no longer desired mainly for their hides, but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains when available. The cattle boom ended for Southern California as neighbor states and territories drove herds to Northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 1941).

On April 4, 1850, only 2 years after the Mexican–American War and 5 months prior to California achieving statehood, Los Angeles was officially incorporated as an American city. Settlement of the Los Angeles region continued steadily throughout the Early American period. Los Angeles County was established on February 18, 1850, one of 27 counties established in the months prior to California acquiring official statehood in the United States. At that time, the city was bordered on the north by the Los Felis and the San Rafael Land Grants and on the south by the San Antonio Luge Land Grant. Many of the ranchos in the area now known as Los Angeles County remained intact after the United States took possession of California; however, a severe drought in the 1860s resulted in many of the ranchos being sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

Ranching retained its importance through the mid-nineteenth century, and by the late 1860s, Los Angeles was one of the top dairy production centers in the country (Rolle 2003). By 1876, the county had

a population of 30,000 (Dumke 1944:7). Los Angeles maintained its role as a regional business center, and the development of citriculture in the late 1800s and early 1900s further strengthened this status (Caughey and Caughey 1977). These factors, combined with the expansion of port facilities and railroads throughout the region, contributed to the impact of the real estate boom of the 1880s on Los Angeles (Caughey and Caughey 1977; Dumke 1944). By the late 1800s, government leaders recognized the need for water to sustain the growing population in the Los Angeles area. Irish immigrant William Mulholland personified the city's efforts for a stable water supply (Dumke 1944; Nadeau 1997). By 1913, the City of Los Angeles had purchased large tracts of land in the Owens Valley, and Mulholland planned and completed the construction of the 386-km (240-mile) aqueduct that brought the valley's water to the city (Nadeau 1997).

Los Angeles continued to grow in the twentieth century, in part due to the discovery of oil in the area and its strategic location as a wartime port. The county's mild climate and successful economy continued to draw new residents in the late 1900s, with much of the county transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood's development into the entertainment capital of the world and Southern California's booming aerospace industry were key factors in the county's growth in the twentieth century.

## Los Angeles: From Pueblo to City

On September 4, 1781, 44 settlers from Sonora, Mexico, accompanied by the governor, soldiers, mission priests, and several Native Americans, arrived at a site along the Rio de Porciúncula (later renamed the Los Angeles River), which was officially declared El Pueblo de Nuestra Señora de los Angeles de Porciúncula, or the Town of Our Lady of the Angels of Porciúncula (Ríos-Bustamante 1992; Robinson 1979:238; Weber 1980). The site chosen for the new pueblo was elevated on a broad terrace 0.8 km (0.5 mile) west of the river (Gumprecht 2001). By 1786, the area's abundant resources allowed the pueblo to attain self-sufficiency, and funding by the Spanish government ceased.

Efforts to develop ecclesiastical property in the pueblo began as early as 1784 with the construction of a small chapel northwest of the plaza. Though little is known about this building, it was at the pueblo's original central square near the corner of present-day Cesar Chavez Avenue and North Broadway (Newcomb 1980:67–68; Owen 1960:7). Following continued flooding, however, the pueblo was relocated to its current location on higher ground, and the new town plaza soon emerged.

Alta California became a state in 1821, and the town slowly grew as the removal of economic restrictions attracted settlers to Los Angeles. The population continued to expand throughout the Mexican period and the city of Los Angeles was formally incorporated in 1850. Los Angeles maintained its role as a regional business center in the early American period and the transition of many former rancho lands to agriculture, as well as the development of citriculture in the late 1800s, further strengthened this status (Caughey and Caughey 1977). As previously mentioned, the development of agriculture in the region coupled with key infrastructure expansions at the time helped usher in the real estate boom of the 1880s in Los Angeles (Caughey and Caughey 1977; Dumke 1944).

Newcomers poured into the city, nearly doubling the population between 1870 and 1880, resulting in an increased demand for public transportation options. As the city neared the end of the nineteenth century, numerous privately owned passenger rail lines were in place. Though early lines were horse and mule drawn, they were soon replaced by cable cars in the early 1880s, and by electric cars in the late 1880s and early 1890s. Many of these early lines were subsequently consolidated into Henry E. Huntington's Los Angeles Railway Company (LARy) in 1898, which reconstructed and expanded the system into the twentieth century and became the main streetcar system for central Los Angeles, identified by their iconic "yellow cars." During this period, Huntington also developed the much larger Pacific Electric system

(also known as the "red cars") to serve the greater Los Angeles area. Just as the horse-and-buggy street cars were replaced by electric cars along the same routes, gas-powered buses (coaches) eventually served former yellow car routes. Both the red cars and LARy served Los Angeles until they were eventually discontinued in the early 1960s.

Los Angeles continued to grow outward from the city core in the twentieth century in part due to the discovery of oil and its strategic location as a wartime port. The military presence led to the growth in the aviation and eventually aerospace industries in the city and region. Hollywood became the entertainment capital of the world through the presence of the film and television industries and continues to tenuously maintain that position. With nearly 4 million residents, Los Angeles is the second largest city in the United States (by population), and it remains a city with worldwide influence that continues to struggle with its population's growth and needs.

## Westchester

The Project site is located in the northern portion of the former rancho lands of Rancho Sausal Redondo, a 22,458-acre Mexican land grant in present-day Los Angeles County. The land grant was given by Governor Juan Alvarado to Antonio Ygnacio Ávila in 1837. Following the Mexican–American War and the Treaty of Guadalupe Hidalgo of 1848, which allowed for the previous Mexican land grants to be honored, the claim for the Rancho Sausal Redondo was filed with the Public Land Commission in 1852 and the grant was patented to Antonio Ygnacio Ávila in 1855. Antonio Ygnacio Ávila died in 1858 and Ávila's heirs were forced to sell the rancho to pay the probate costs in 1868. The Rancho was sold to Sir Robert Burnett of Scotland, who had previously acquired Rancho Aguaje de la Centinela to the north; the combined property was named Centinela Ranch. Centinela Ranch was used for sheep and cattle raising.

The Mexican–American War and the influx of new people brought many changes to the ranchos of Los Angeles. As the population of the greater Los Angeles area expanded greatly, the price of beef rose dramatically, and crime increased throughout the area (Scott 2004:32). The change in government also led to logistical problems for rancho owners who were forced to engage in difficult and lengthy legal processes in order to resecure the title of their land under American authorities. All these issues, coupled with a floundering cattle business, forced many rancho owners to sell off their land by the late nineteenth and early twentieth century (Scott 2004:34).

The Westchester neighborhood is in west Los Angeles, west of Inglewood, south of Del Rey and Marina del Rey, and east of Playa del Rey. During the Mexican period, Westchester was located within parts of Rancho Sausal Redondo and Rancho Aguaje de la Centinela. The first major development in the area came when the Santa Fe Railroad attempted to build a harbor in the Ballona. Work to achieve this goal began in 1887 with the construction of a railroad, the dredging of the wetland, and the construction of two wharfs (Dillon 1996:28). This investment in infrastructure led to the birth of several towns in the area; however, the initial venture was a failure, the town and port were never built, and dredging was halted because of its impracticality (Basten 1974:12; Dillon 1996:28). This episode represents the first stage of failure for the Ballona Wetlands, which were decimated by further development in the area during the end of the nineteenth and the beginning of the twentieth century.

From the late nineteenth until the early twentieth century Westchester was largely devoted to farming. However, the 1920s brought a new type of development to the area through the growth of the aviation industry (Friends of the Ballona Wetlands 2017; Masters 2014). The current site of Los Angeles International Airport (LAX), approximately 0.8 km (0.5 mile) south of the Project site, was initially developed as an airplane landing strip during this time. Known as Mines Field in the early 1920s, the modest landing strip was chosen as the site for Los Angeles' airport in 1928 (Starr 2002:133). Though the

aeronautics industry took a hit during the Great Depression, it came back in full force in the years before the United States entered World War II. The factories at this time had big orders to fill—in 1940, President Roosevelt asked the aircraft industry to produce 50,000 planes a year for the war effort. Though a seemingly innocuous number by today's standards, at the time the President was asking the industry to produce as many planes in one year as had been manufactured in America since planes were invented. The aircraft companies and their employees, however, were up to the task; many, such as the Douglas Aircraft Company in nearby Venice, began to operate 24/7, and several others switched to similar multiple shift schedules (Starr 2002:133–134).

This boom in industry caused a corresponding boom in employment; however, the boom in housing did not occur until Congress passed Title VI of the Housing Act in 1941. This legislation created more incentives for builders to concentrate on single-family homes, restricted in areas where critical housing shortages were predicted (Architectural Resources Group [ARG] 2013). Developers at the time were further incentivized to build houses for workers because at the time there was a ban on nonessential construction; one of the few authorized projects included homes for war workers, included those in the aeronautics industry (ARG 2013). Westchester quickly became a planned community and between 1941 and 1944 a group of developers created a planned community of 10,000 people in an 8-square-km (5-square-mile) area. Houses were quickly sold to defense workers (ARG 2013). By the 1950s, the area had been completely built out, resembling its present-day state. Airport Junior High School was constructed around 1956 and was removed in 1975.

# RESULTS

# CHRIS Records Search

## *Previously Conducted Studies*

SWCA received the results of the CHRIS records search from the SCCIC on September 20, 2023. Results of the records search indicate that 18 cultural resources studies have been conducted within 0.8 km (0.5 mile) of the Project site (Table 1). Of the studies conducted within the records search boundary, one previous study intersects the Project site: LA-11973. LA-11973 included the entirety of the Project site and consisted of the Crenshaw/LAX Transit Corridor Project Final Environmental Impact Report, which was a management/planning project and did not include an intensive cultural resources survey.

**Table 1. Prior Cultural Resources Studies within a 0.8-km (0.5-mile) Radius of the Project Site**

| Report Number | Title | Author (Affiliation) | Year | Proximity to Project Site |
|---|---|---|---|---|
| LA-01975 | *Cultural Resource Survey and Clearance Report for the Proposed American Telephone and Telegraph Los Angeles Airport Central Office to the Santa Monica Central Office Fiberoptic Communication Route* | Neuenschwander, Neal J. (Peak & Associates, Inc.) | 1989 | Outside |
| LA-01982 | *Los Angeles International Airport Series Volume 1 Draft Environmental Impact Statement* | Leonard, Nelson N. III (Los Angeles Department of Airports / FAA) | 1976 | Outside |
| LA-03673 | *Historic Property Survey Report North Outfall Relief Sewer (NORS)* | Anonymous (Myra L. Frank & Associates) | 1987 | Outside |
| LA-03912 | *Historic Property Survey Airport Boulevard - Manchester Avenue to N/o 98th Street* | Anonymous (Unknown affiliation) | 1977 | Outside |

| Report Number | Title | Author (Affiliation) | Year | Proximity to Project Site |
|---|---|---|---|---|
| LA-04836 | *Phase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project* | Anonymous (Science Applications International Corporation) | 2000 | Outside |
| LA-04910 | *Paleontological and Archaeological Resources Reconnaissance of the Los Angeles International Airport(lax) Property, Los Angeles County, California* | Raschke, Rod (RMW Paleo Associates, Inc.) | 1995 | Outside |
| LA-05564 | *A Neighborhood History and Predictions of Archaeological Potential the Archaeology of Los Angeles XL 197l* | Verity, Sue (Unknown) | 1999 | Outside |
| LA-07713 | *Cultural Resource Assessment for AT&T Wireless Facility 950-004-132 Located at 8530 Airport Boulevard City of Los Angeles Los Angeles County, California* | Kyle, Carolyn E. (Kyle Consulting) | 2004 | Outside |
| LA-07715 | *Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate El-014-03 (Neutrogena Property) 5705 West 98th Street, Los Angeles, Los Angeles County, California* | Bonner, Wayne H. (Michael Brandman Associates) | 2005 | Outside |
| LA-08255 | *Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II* | Arrington, Cindy and Nancy Sikes (SWCA Environmental Consultants) | 2006 | Outside |
| LA-10732 | *Cultural Resources Records Search, Site Visit Results, and Direct APE Historic Architectural Assessment for Clearwire Candidate CA-LOS2038/CA6587, 9750 Airport Boulevard, Los Angeles, California* | Bonner, Wayne and Kathleen Crawford (Michael Brandman Associates) | 2010 | Outside |
| LA-10857 | *Final - LAX Master Plan Mitigation Monitoring & Reporting program- Archaeological Treatment Plan* | Smith, Brian F. (Earth Tech) | 2005 | Outside |
| LA-11973 | *Crenshaw/LAX Transit Corridor Project Final Environmental Impact Report/Final Environmental Impact Statement* | Unknown (Metro) | 2011 | Within |
| LA-11974 | *Abandonment Exemption, BNSF Railway Company, Milepost 7.95 to Milepost 13.25, Los Angeles, Los Angeles County, CA* | Morell, Karl (Ball Janick LLP) | 2012 | Outside |
| LA-12265 | *Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA03057F (Four Points Hotel) 9750 Airport Boulevard, Los Angeles, California* | Bonner, Wayne H. and Kathleen A. Crawford (MBA) | 2013 | Outside |
| LA-12437 | *Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LA0034 (Airport SBC Building), 8530 Airport Boulevard, Los Angeles, Los Angeles County, California* | Bonner, Wayne H. and Kathleen A. Crawford (Environmental Assessment Specialists, Inc.) | 2013 | Outside |
| LA-12728 | *Cultural Resources Records Search and Site Visit Results for Verizon Wireless Candidate East LAX, 5705 West 98th Street, Los Angeles, Los Angeles County, California, EBI Job No. 61141090* | Wills, Carrie D. and Diane F. Bonner (MBA) | 2014 | Outside |
| LA-13443 | *Los Angeles Department of Water and Power Century Trunk Line Project, City of Los Angeles, California, Phase I Cultural Resources Study* | Ortiz, Vanessa, Chris Taylor, Chris Lockwood, and Candace Ehringer (ESA) | 2018 | Outside |

## *Previously Recorded Archaeological Resources*

The CHRIS records search identified one cultural resource (LAN-214) within a 0.8-km (0.5-mile) radius of the Project site and this resource does not intersect the Project site.

### *LAN-214*

The site record for LAN-214 site was filed in 1953 by Hal Eberhart who worked for the Archaeological Survey at the University of California, Los Angeles (UCLA). The record is based on the description by William Deane, who was an amateur collector/archaeologist. Eberhart's recording describes the site area as "small," consisting of "chipped stone points" (i.e., lithic projectile points), and that it was located approximately 61 m (200 feet) south of Manchester Avenue, and 122 m (400 feet) southwest of the intersection between Manchester Avenue and La Tijera Boulevard. Meanwhile, the SCCIC has the site plotted as approximately 253 m (830 feet) south of Manchester Avenue and approximately 274 m (900 feet) southeast of the Manchester Avenue and La Tiera intersection. This plotted location is approximately 0.4 km (0.25 mile) northwest of the Project site, whereas Deane's description places it approximately 1 km (0.6 mile) northwest of the Project site.

William Arthur Deane was born in 1923 in Los Angeles and had lived in Inglewood, California, from at least the time he was a teenager to the point he enlisted in World War II. Notably, Deane served as a tail gunner in a B-17, was shot down in 1942 and spent 22 months as a prisoner of war in Austria. After returning home, Deane moved to Torrance, got married and worked for Union Oil. Researchers at SRI report that Deane's brother worked as a grading contractor for Hughes Aircraft Company and had regularly informed him of archaeological discoveries on the Hughes property (Garraty et al. 2016:263). During the late 1940s and early 1950s, Deane collected artifacts and conducted unauthorized excavations on several Native American sites in the area, focused primarily around Ballona Creek. Marlys Thiel, a student at UCLA, conducted interviews with Deane and photographed portions of his collection, which she compiled into a report focused on the site identified at the Hughes Aircraft Company (Thiel 1953). In the same year, Eberhart prepared several site records based strictly on Deane's description, likely taken from the records compiled by Thiel, and because Deane did not keep detailed records, the site forms included only basic information concerning the contents and location.

In 1953, Eberhart filed nine site records in which he references the source of the information coming from William Deane, presumably based strictly on Thiel's interviews: one site near the coastline, south of Ballona Creek; five sites along the bluffs marking the south side of Ballona Creek; two sites along the southern margin of Centinela Creek; and LAN-214. It is unlikely that Eberhart ever visited these sites, and he appears to have calculated geographic coordinates for the sites based on the reported distances from streets.

The location of the site boundary for LAN-214 that is on file with the SCCIC matches the boundary recorded in an updated site record prepared in 1995 by R. Raschke and R. Bissell of RMW Paleo Associates. The record was prepared as part of a study assessing archaeological and paleontological resources on portions of Los Angeles International Airport (LA-4910). The 1995 record and current boundary on file with the CHRIS shows the site plotted approximately 274 m (900 feet) to the southeast of the intersection between Manchester Avenue and La Tijera Boulevard, not 122 m (400 feet) southwest as originally recorded. It is unclear whether Raschke and Bissell's preparation of the site record produced the erroneously plotted boundary, or if they had reported the boundary on file in the CHRIS.

## Sacred Lands File Search

On September 1, 2023, the NAHC submitted the results of an SLF search in response to SWCA's request; the results are provided as an attachment (see Appendix B). The results of the SLF search were negative. In the response letter, the NAHC noted that the lack of recorded sites does not indicate the absence of Native American archaeological resources within the Project site, and that the CHRIS and SLF are not exhaustive. The NAHC's response to SWCA's request included a list of 11 Native American contacts

representing seven tribal organizations who may have knowledge of cultural resources in or near the Project site (Table 2).

**Table 2. NAHC's Native American Contact List Included with the SLF Results**

| Name, Title | Affiliation |
|---|---|
| Christina Swindall Martinez, Secretary | Gabrieleño Band of Mission Indians - Kizh Nation |
| Andrew Salas, Chairperson | Gabrieleño Band of Mission Indians - Kizh Nation |
| Anthony Morales, Chairperson | Gabrielino/Tongva San Gabriel Band of Mission Indians |
| Sandonne Goad, Chairperson | Gabrielino/Tongva Nation |
| Christina Conley, Cultural Resource Administrator | Gabrielino Tongva Indians of California Tribal Council |
| Robert Dorame, Chairperson | Gabrielino Tongva Indians of California Tribal Council |
| Sam Dunlap, Cultural Resource Director | Gabrielino-Tongva Tribe |
| Charles Alvarez, Chairperson | Gabrielino-Tongva Tribe |
| Lovina Redner, Tribal Chair | Santa Rosa Band of Cahuilla Indians |
| Jessica Valdez, Cultural Resource Specialist | Soboba Band of Luiseno Indians |
| Joseph Ontiveros, Tribal Historic Preservation Officer | Soboba Band of Luiseno Indians |

# Archival Research

The land-use history for the Project site is described below and was ascertained through a review of historical maps and aerial photographs.

## *Map Review (1868 to 1980)*

Around the turn of the twentieth century, the land surrounding the Project site still retained a pastoral character with very few permanent residents. Historical topographic maps and aerial photographs show that the Project site was undeveloped at the beginning of the twentieth century. An 1896 topographic map depicts the Project site in an undeveloped area west of the Atchison Topeka and Santa Fe (AT&SF) Railroad and southwest of Inglewood (Figure 8). By 1924, Inglewood has expanded farther to the south and to the west toward the Project site (see Figure 8). The Project site remains undeveloped on topographic maps and by 1948, the urbanized portion of Westchester has grown and is depicted as ending just northwest of the Project site (Figure 9); by 1950, almost the entire vicinity of the Project site has been developed (see Figure 9). Airport Junior High School is depicted within the Project site on a 1964 topographic map and the area is entirely encompassed by the urban area of Westchester.

Aerial photographs from the early and mid-twentieth century provide more clarity regarding the development of the Project site. The first aerial photograph depicting the Project site is dated 1928 and shows the Project site within an undeveloped area west of the AT&SF Railroad within an area that appears to have undulating small hills and depressions (Figure 10). An unpaved road that would become Arbor Vitae Street can be seen along the southern edge of the Project site and an unpaved north-south-trending road is shown to bisect the Project site. Another unpaved road heads northeast toward present-day Florence Avenue just north of the Project site. By 1934, the Project site and surrounding area remain undeveloped and the area west and southwest of the Project site appears to show the layout of a grove on an aerial photograph (see Figure 10). A 1941 aerial photograph does not show any roads visible within the Project site and the groves west and southwest of the Project site are no longer visible (Figure 11). By 1952, the area surrounding the Project site has been developed with suburban residences with the

exception to the south of the Project site (see Figure 11). The parcels directly to the south have several structures but they still have undeveloped areas. An unpaved road can be seen transecting the Project site from its northwest corner to its southeast corner and another unpaved road is shown to transect the northern portion of the Project site in an east-west direction. The northeastern portion of the Project site is partitioned off with vegetation and the southwest corner of a large square structure can be seen within the Project site and several small unpaved roads are also visible in the northeast corner of the Project site.

By 1956, Airport Junior High School is situated within the Project site with over 20 buildings and walkways (Figure 12). The buildings are concentrated in the northern three-quarters of the Project site and the remaining southern third of the Project site appears to be the school's athletic field. The area south of the Project site also exhibits additional development. Development south of the Project site continues until 1962 (see Figure 12), when the entire area around the Project site has been developed. No major changes to the Project site are visible in 1962, 1971 (Figure 13), and 1974 aerial photographs. By 1980, an aerial photograph shows the buildings of the junior high school have been removed and construction activities associated with the present-day car rental business are shown within the Project site. The present-day car rental facility can be seen on a 2017 aerial photograph (see Figure 13). The existing structures within the Project site include at least four buildings, paved parking lots, and covered parking areas with roofs containing solar panels.

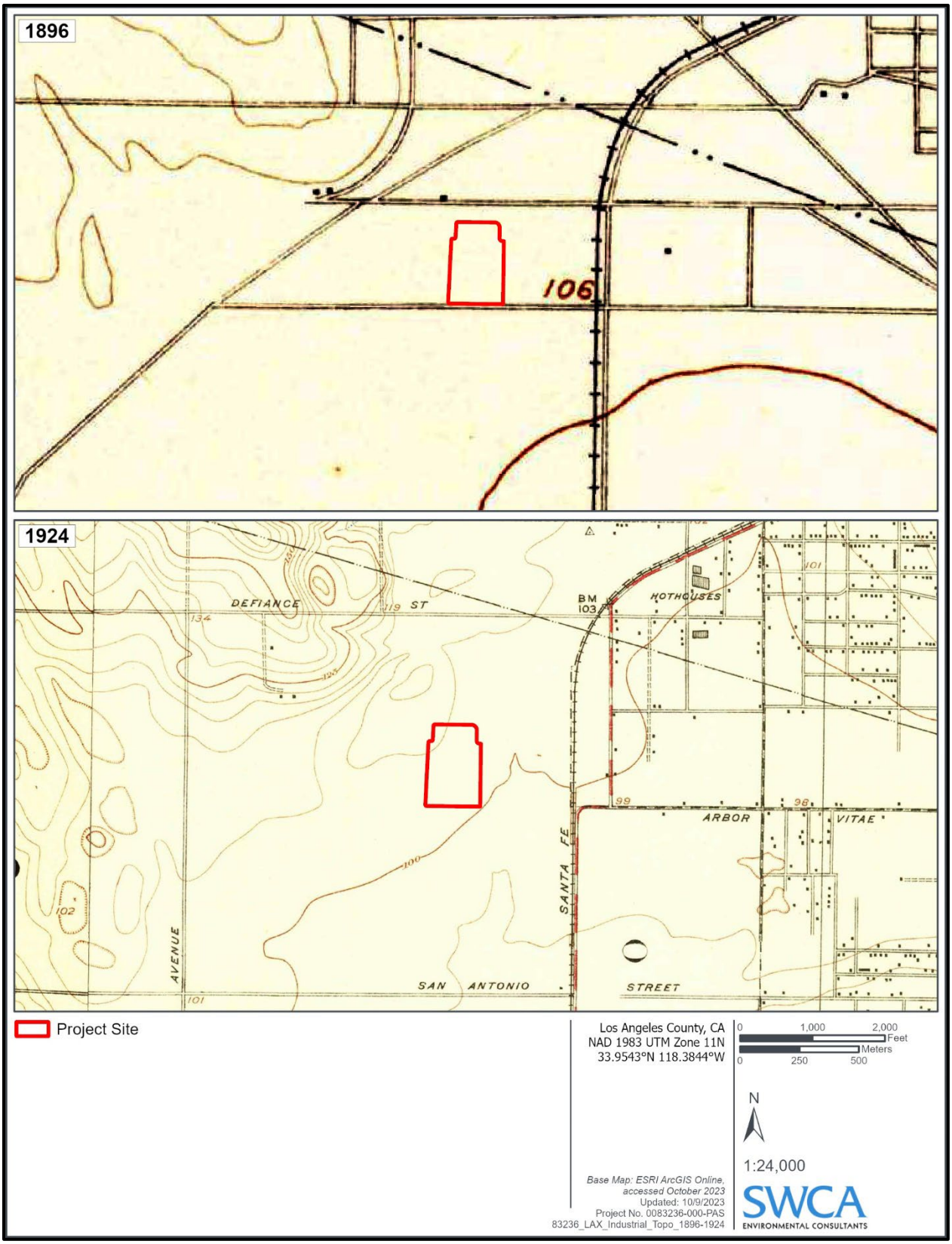



**Figure 8. Project site depicted on USGS topographic maps from 1896 (top) and 1924 (bottom).**

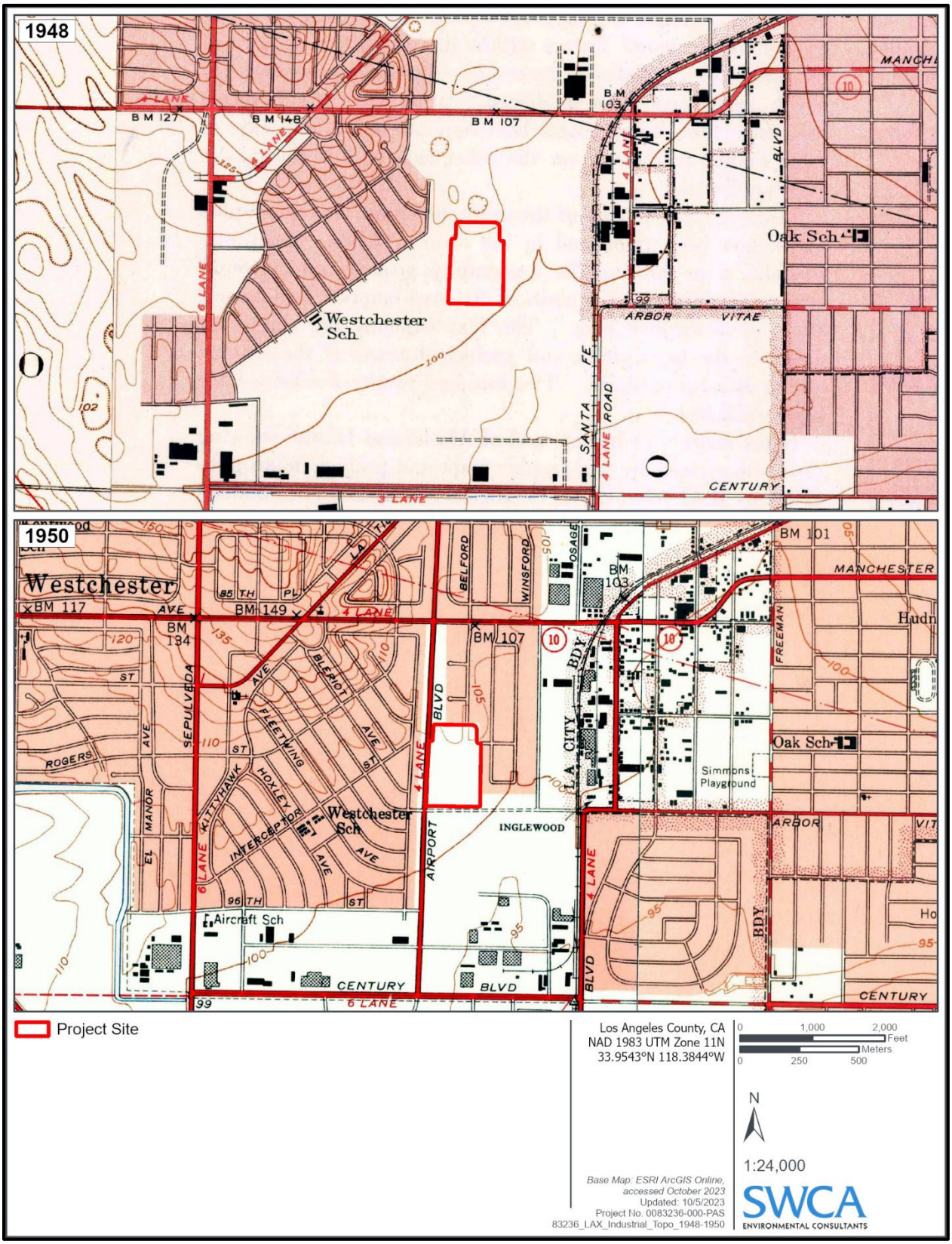



**Figure 9. Project site depicted on USGS topographic maps from 1948 (top) and 1950 (bottom).**

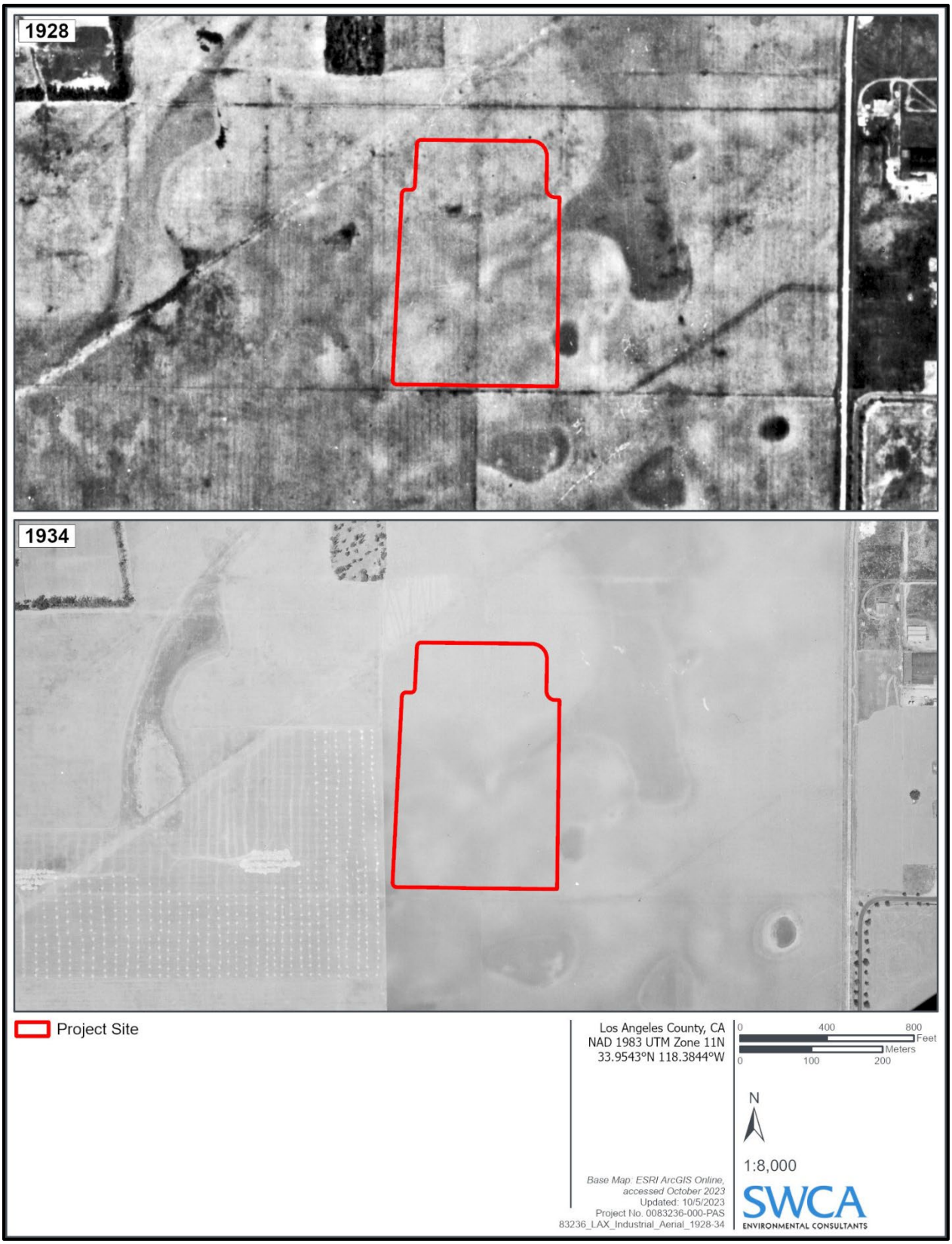



**Figure 10. Project site depicted on aerial photographs from 1928 (top) and 1934 (bottom).**




**Figure 11. Project site depicted on aerial photographs from 1941 (top) and 1952 (bottom).**




**Figure 12. Project site depicted on aerial photographs from 1956 (top) and 1962 (bottom).**

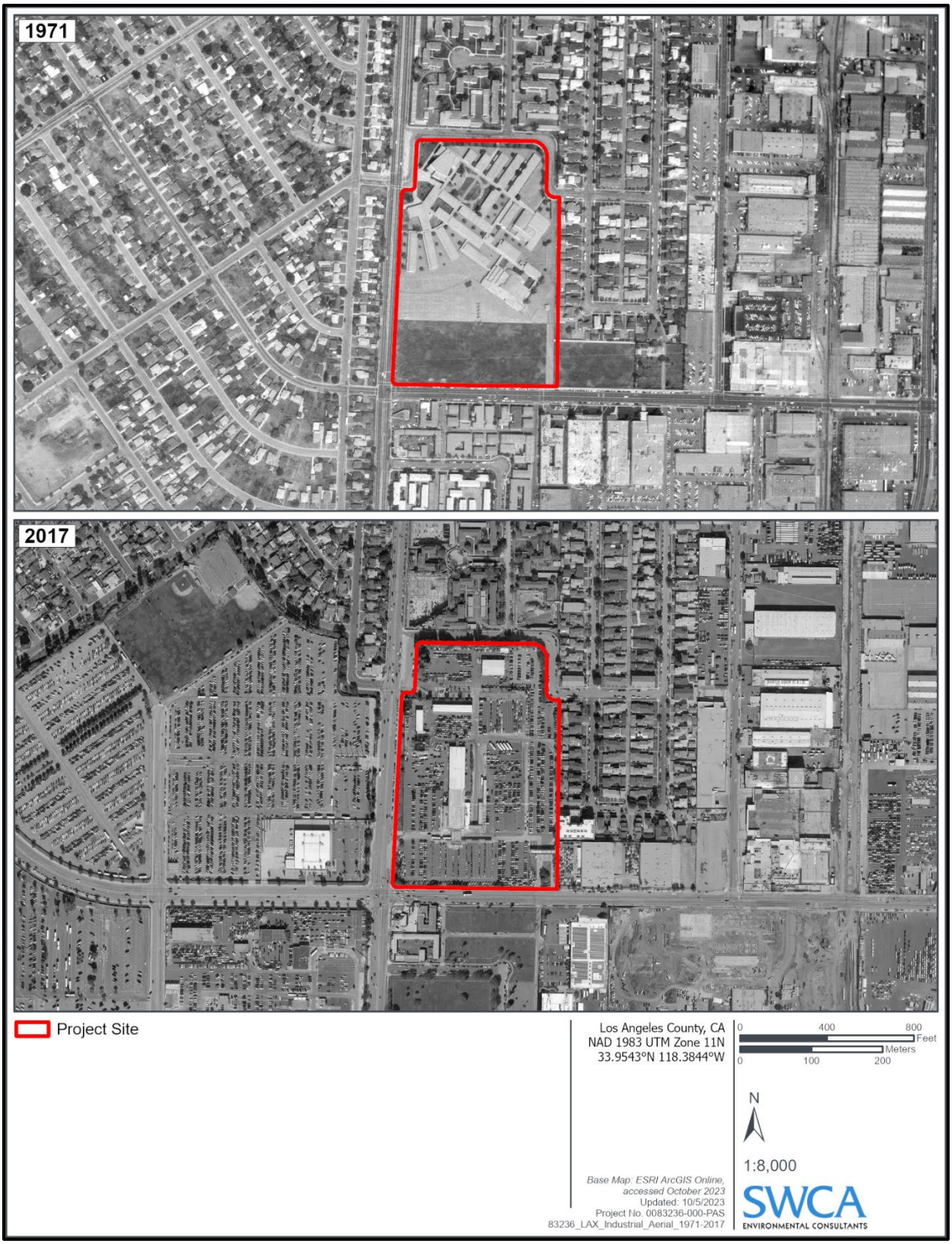



**Figure 13. Project site plotted on aerial photographs from 1971 (top) and 2017 (bottom).**

# Archaeological Sensitivity Assessment

## *Native American Archaeological Sensitivity*

The NAHC's SLF search returned negative results for the Project site. The CHRIS search returned one archaeological site: LAN-214. The site record for LAN-214 states that the site was initially recorded in 1953 as having contained one or more Native American artifacts described only as "points," located in a small area located 61 m (200 feet) south of Manchester Avenue and 122 m (400 feet) southwest of the intersection with La Tijera Boulevard. As to the accuracy of the location, if the streets and bearings and even approximate distances are to be trusted, LAN-214 is closer to at least 0.8 km (0.5 mile) northwest of the Project site.

The nearest ethnographically documented Native American village to the Project site is known as Guaspet (also known as Waachnga), located approximately 4.4 km (2.7 miles) to the northwest. In both prehistoric and historic periods, particularly after about 3000 B.P. as marshland conditions gave way to coastal plain, the wetland environment of the Ballona Creek area provided a highly favorable habitat for plant and animal species, many of which are known to have been important resources for Native Americans (Altschul et al. 1992:19; Altschul et al. 2003:77–85; Homburg et al. 2014). The Ballona area contains several substantial archaeological sites, some of which include multiple Native American burials. Several of these sites were also visited by Deane in the 1940s and 1950s.

Several prominent Native American sites exist in the Project site vicinity (e.g., the La Brea Tar Pits and Kuruvungna Springs) and Native Americans who occupied these settlements and foraged for resources in the area would have accessed the different locations using footpaths. Foraging and other types of activities, including interring human remains, would have occurred intermittently along these routes, some of which would have produced archaeological deposits. Such deposits, typically described as open camps, tend to be characterized by less substantial deposits, like that described for LAN-214, at least when compared with what is expected in an area whose use was greater in duration and frequency. At least some of the primary thoroughfares within the contemporary street grid were likely established along some of these trails. However, within the urbanized setting that characterizes the Project site and its surroundings, there is little to no direct evidence identified that would allow for a reliable reconstruction of any such trails in a spatially explicit way. Therefore, the influence on Native American archaeological resource sensitivity must be considered similarly generalized.

The closest known freshwater source to the Project site is Centinela Creek, located approximately 1.6 km (1.0 mile) to the northeast. The Pacific Ocean shoreline is located approximately 5.3 km (3.3 miles) to the west. As mentioned above, the ridge overlooking the Ballona wetland area was intensively occupied by multiple generations of Native American communities. Proximity to a freshwater source and marine resources is a strong indicator of potential for concentrated Native American activity and an increased likelihood that material components were deposited, and where preservation conditions are favorable, there is an increased sensitivity for Native American archaeological resources. Given the distance from the Project site to the coastline, major streams, and other major Native American settlements, there is little indication that the artifacts reported for LAN-214 were part of a more substantial settlement.

As noted above, only one recorded Native American archaeological site is located within 0.8 km (0.5 mile) of the Project site, and no documented reports of Native American archaeological materials in the Project site are known. The Project site lies within the El Segundo dune complex—mapped as Pleistocene old eolian deposits (Saucedo et al. 2016)—that consists of wind-blown sand. However, because no reliable source of fresh water is in or near the Project site, there were comparatively few plants and animals able to live and thrive in the semi-arid dunes. In contrast, areas with fresh water were present around the dunes where richer habitats could support a more diverse array of plants and animals.

Thus, compared with the dunes, areas with water were more attractive and preferrable places for repeated Native American use and sustained settlement over time. This assessment indicates the sensitivity for Native American sites is low in the Project site.

Furthermore, assuming that archaeological materials were ever present in the parcel, they would be associated with the soil that formed at or near the surface of the older dune deposits, which are now below at least 0.9 to 2.4 m (3–8 feet) of undocumented artificial fill (Pflueger and Kim 2023). However, given the nature and extent of the historical and modern land use within the parcel, the previous earth disturbances likely disturbed and/or destroyed the integrity of any intact archaeological materials and related deposits. This suggests the archaeological preservation potential is low in the parcel. Finally, because the dunes had formed and stabilized before widespread Native American use and occupation of the area, the potential for them to contain buried archaeological resources at greater depths is low.

In summary, this assessment finds that **there is a low potential for buried Native American archaeological resources in the Project site**. As such, no further archaeological research, identification, or field efforts appear to be warranted at this time as they pertain to Native American archaeological resources.

## *Historical Archaeological Sensitivity*

No historical archaeological sites (i.e., those not affiliated with Native Americans) were identified in the CHRIS search conducted within a 0.8-km (0.5-mile) radius of the Project site. The Project site was originally used for agricultural lands and was first developed for the Airport Junior High School in the mid-1950s. Aerial photographs taken between 1928 and 1971 capture the development of the Project site and surroundings in the conversion from an agricultural property into the present-day urbanized setting. An aerial photograph taken in 1928 shows the Project site as undeveloped but part of a larger agricultural field. The Project site appears to have been used for agricultural purposes and remained vacant until 1956, at which point it was developed with the Airport Junior High School campus. By 1980, construction had started on the extant car rental facility within the Project site. Based on the inspection of the aerial photographs, the school campus appears to have mostly been paved, which significantly reduces the likelihood for substantial deposits of historical materials to have accumulated during the period in which the school was used. The construction of the campus would have likely destroyed any material evidence of its use as an agricultural field such as farming equipment, discarded tools, or irrigation components.

Sediment profiles produced from the geotechnical investigation identified undocumented artificial fill between 0.9 to 2.4 m (3–8 feet) deep. The description of the fill omits any mention of specific building materials or items such as glass and wood that could indicate buried refuse or structural remains, which are of an age that would be considered a historical archaeological resource. There was no evidence identified indicating whether sediments were imported either during construction of the school or the extant facility that succeeded it. The consistent presence of the fill across the Project site and its relative thickness compared with fill commonly observed in other urban settings within the Los Angeles Basin suggests the demolition of the school involved substantial mechanical excavation and grading.
The demolition process very likely removed not only the above grade and at grade buildings, structures, and hardscaping, but also the foundations.

It is possible that during the period in which the school was in operation, miscellaneous personal items (e.g., school materials, buttons, hair clips, coins, fragments of beverage bottles) were discarded and shallowly buried. Such items are commonly found as historical archaeological deposits. However, because most of the campus was paved, it is highly unlikely such deposits would have accumulated in substantial quantities or concentrations in the first place. Furthermore, whatever materials may have been discarded and shallowly buried would have been destroyed or otherwise dislocated during the demolition

and would now be effectively randomly distributed as isolated items throughout the stratum designated as undocumented artificial fill.

Based on these findings, SWCA finds that the undocumented artificial fill represents a zone in which there is a **moderate potential for isolated pieces of refuse and building materials from the middle twentieth century**.

# DISCUSSION OF RESOURCE SIGNIFICANCE AND IMPACT ANALYSIS

## Resource Significance

No previously recorded archaeological resource has been identified within 0.8 km (0.5 mile) of the Project site. The depth of excavation for the Project is assumed to extend to a depth of 3 m (10 feet) below ground surface. The potential for unidentified archaeological resources within the Project site was assessed based on available evidence and is found to include areas of low and moderate sensitivity, particularly for archaeological resources associated with mid-twentieth century residential and school land use. The specific types of archaeological resources most likely to be encountered during ground disturbance (designated as moderate sensitivity) are building materials and structural remains from the former Airport Junior High School campus, constructed in the mid-1950s and demolished by the early 1970s. There is at least some potential for discarded personal items from this period to be preserved as isolated items that have been redistributed anywhere within the stratum designated as undocumented artificial fill. Although the significance of any archaeological resource that may be preserved as a buried deposit within the Project site cannot be evaluated until it is encountered, this section considers the typical considerations given to the historical archaeological resources assessed as being most likely to occur.

Significance for historical archaeological deposits is typically found under Criterion 4, but significance can also be found under Criteria 1 and 2 where the archaeological materials can be correlated with a historically significant event or person. Establishing the significance of an archaeological deposit under Criteria 1 and 2 would depend on the nature of the materials and additional background research that make the associations more explicit. The nature of historical refuse scatters and building foundations are such that they are not commonly found eligible for the CRHR under Criterion 3, i.e., refuse scatters and buildings foundations do not typically convey any distinctive characteristics in type, period, region, or method, and are not the focus of masterful design or artistry. As such, considerations under Criterion 3 are omitted from the discussion below.

Determining the integrity and the extent (horizontal and vertical) of any identified archaeological remains is an important component of CRHR eligibility evaluation. Information on the horizontal distribution and vertical depth of the cultural material provides baseline data about the site (e.g., size, presence or absence of subsurface components, discrete activity areas) that contribute to a determination of the site's integrity. For an archaeological site to be considered CRHR eligible, it must be considered significant under the CRHR criteria for evaluation and possess the quality of integrity (location, design, setting, materials, workmanship, feeling, and association). The integrity of an archaeological site, particularly the elements of location, setting, and association, can be seriously impacted by disturbance due to natural or cultural transformations.

**CRHR Criteria 1 and 2.** An archaeological site can be found significant where a direct association can be demonstrated with a historically significant event (Criterion 1) or person (Criterion 2). No known historically significant events or persons were identified that have direct associations with the location

of the Project site. Additional archival research would be required to assess whether any archaeological materials identified in the Project site (if present) are significant under Criteria 1 and 2. The same integrity considerations described under Criterion 4 would equally apply when determining CRHR eligibility under Criteria 1 and 2. For any refuse deposits or building foundations identified in the Project site, the CRHR eligibility under Criteria 1 and 2 is considered to be unlikely compared to Criterion 4, but cannot be categorically ruled out.

**CRHR Criterion 4.** Resources that are significant under Criterion 4 have yielded, or have the potential to yield, information important to the history of the local area, California, or the nation. The Project site was used as a junior high school beginning in the middle twentieth century. There is a substantial body of literature and information already available concerning the history of Los Angeles from this period, including details concerning educational institutions. The archaeological record can provide opportunities to investigate specific research topics and contribute important historical information beyond what is already known. When historical archaeological investigations integrate both archival and archaeological data sets, they are even better positioned to meet this data potential. Archaeological materials could provide these data, although certain types of data have the potential to answer some research questions better than others.

Fragmentary building materials, structural foundations, and isolated pieces of refuse are the most likely archaeological resources to exist as a buried deposit in the Project site. Structural remains could provide data on the location of buildings and construction methods. While structural blueprints or detailed drawings of the former school were not obtained for the current study, the presence of building materials or structural foundations is not likely to contribute to our understanding of important historical topics and rise to the level of significance under Criterion 4. The evidence from the sediment profiles showing a relatively thick stratum of fill strongly suggests the integrity of any such materials is likely to be poor, further reducing the likelihood that any building materials or structural remains would qualify for CRHR listing.

In addition to structural remains and building materials, there is a potential for personal items to be present as isolated artifacts. Such items in the aggregate have the potential to reveal information about economic status, religious or ethnic affiliations, or other demographic information that could be of use in investigating various historical research topics. However, there is no evidence identified to suggest that these are likely to occur in high concentrations or even in high overall quantities. Furthermore, as with the building materials and structural foundations, the demolition of the former school campus has very likely compromised the integrity of any items below the level needed to establish the eligibility of these items under Criterion 4.

To summarize, evaluations under Criterion 4 should consider whether the archaeological data can contribute to important historical research topics, which for the Project site could be patterns in demography at educational institutions in the middle twentieth century. This evaluation should factor in existing documentary evidence and integrity of the archaeological remains identified. Given the disturbances to the setting resulting from the demolition of the former Airport Junior High School campus, and after considering the substantial body of existing historical information for this location and time period, the types of archaeological resources most likely to occur in the Project site are not likely to satisfy Criterion 4 of the CRHR or retain sufficient integrity to be considered a historical resource under CEQA.

**Unique archaeological resource.** For a historical archaeological refuse scatter or building foundation to be considered a unique archaeological resource, it must contain information needed to answer important scientific research questions of public interest, possess a unique quality such as being the oldest or best example of a resource type, or be directly associated with a scientifically recognized important historic

event or person. A historic archaeological site that does not meet the significance threshold for any CRHR eligibility criteria is unlikely to be considered a unique archaeological resource.

# Impact Analysis

## Archaeological Resources

The Project requires the excavation and removal of soils up to at least 3 m (10 feet) within the Project site, which likely will contain up to 2.4 m (8 feet) of undocumented artificial fill, as well as underlying alluvial sediments below the current grade. The potential for Native American archaeological resources is found to be low. Assuming that Native American archaeological materials were ever present in the parcel, they would be associated with the soil that formed at or near the surface of the older dune deposits, which are now beneath the fill. Given the nature and extent of the historical and modern land use within the Project site, the previous disturbances have likely disturbed and/or destroyed the integrity of any intact archaeological materials or related deposits associated with Native American uses. Further, because the dunes had formed and stabilized before widespread Native American use and occupation of the area, the potential for them to contain buried archaeological resources at greater depths is low.

Regarding historical archaeological resources, there is moderate sensitivity within the fill stratum. Specifically, there is a potential to encounter individual pieces of refuse, building materials, and structural remains associated with the Airport Junior High School campus that existed in the Project site from the mid-1950s to the early 1970s. However, these types of archaeological resources are unlikely to be found significant under CEQA because they typically lack the historical associations or attributes necessary to meet CRHR criteria. Furthermore, the sediment profiles and review of the land use history strongly suggests that the physical and spatial integrity of any such deposits, if present at all, has been compromised to the point that any material remains associated with the former school are incapable of conveying their historical significance.

Thus, the potential for encountering archaeological resources cannot be fully ruled out, but the available evidence suggests the resources most likely to be preserved would be contained within the fill and are not likely to be considered a historical resource under CEQA. The Project is subject to RCM CUL-1, which addresses the inadvertent discovery of archaeological resources as set forth in the environmental impact report. RCM CUL-1 requires that ground-disturbing work be stopped within a 50-foot radius in the event an archaeological resource is inadvertently discovered during grading, excavation, or other soil-disturbing activities within the Project site. Once discovered, the resource would be formally evaluated for significance based on its eligibility for the CRHR and as a unique archaeological resource. Based on RCM CUL-1, as implemented according to best practices incorporated into the Project, any potential impacts would be reduced to less than significant levels. Therefore, SWCA finds that the Project will have **less than significant impacts to archaeological resources**.

## Human Remains

There was no evidence identified to indicate there are human remains interred in the Project site, but the discovery of human remains is always a possibility during ground disturbances. The Project is subject to RCM CUL-2, which addresses the inadvertent discovery of human remains and is in substantial conformance with the California Health and Safety Code Section 7050.5 and California PRC Section 5097.98. By adhering to these existing regulations, SWCA finds the Project will have **less than significant impacts to human remains interred outside a cemetery**.

# SUMMARY AND CONCLUSION

As discussed above, there are no known archaeological resources recorded within the Project site. The Project site has moderate potential for encountering building materials, structural foundations, or individual pieces of refuse associated with the use of the Project site as the Airport Junior High School from the mid-1950s to early 1970s. Historical archaeological resources of this age and type do not typically satisfy the criteria for listing on the CRHR or to be considered a unique archaeological resource. Therefore, although there is a moderate potential to encounter certain types of historical archaeological resources, these are not likely to be historical resources under CEQA.

The Project is subject to RCMs that address the inadvertent discovery of archaeological resources and human remains. If an archaeological resource were to be discovered during construction of the Project, work in the area would cease, and deposits would first be evaluated for historic significance in accordance with CEQA Guidelines Section 15064.5. As set forth in CEQA Guidelines Section 15064.5, if the City determines that the archaeological resource is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code. If an archaeological resource does not meet the criteria for historical resources but meets the definition of a unique archaeological resource, the resource shall be treated in accordance with the provisions of Section 21083.2.

Regarding the discovery of human remains, notification is required per California Health and Safety Code Section 7050.5. In addition, disposition of the human remains and any associated grave goods would occur in accordance with PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e), which requires that work stop near the find until a coroner can determine that no investigation into the cause of death is required and if the remains are Native American. Specifically, in accordance with CEQA Guidelines Section 15064.5(e), if the coroner determined the remains to be Native American, the coroner shall contact the Native American Heritage Commission who shall identify the person or persons it believes to be most likely descended from the deceased Native American. The most likely descendent may make recommendations regarding the treatment of the remains and any associated grave goods in accordance with PRC Section 5097.98.

Based on these RCMs, as implemented according to best practices incorporated into the Project, any potential impacts would be reduced to less than significant levels. Therefore, SWCA finds that the Project will have **less than significant impacts to archaeological resources and human remains interred outside a cemetery.**

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# ATTACHMENT A

## South Central Coastal Information Center
## Records Search Results

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Archaeological and other heritage resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. This document contains sensitive information regarding the nature and location of archaeological sites, which should not be disclosed to the general public or unauthorized persons pursuant to California Government Code 6254(r) and 6254.10.

Information regarding the location, character, or ownership of a cultural resource is exempt from the Freedom of Information Act pursuant to 54 USC 307103 (National Historic Preservation Act) and 16 USC Section 470(h) (Archaeological Resources Protections Act)

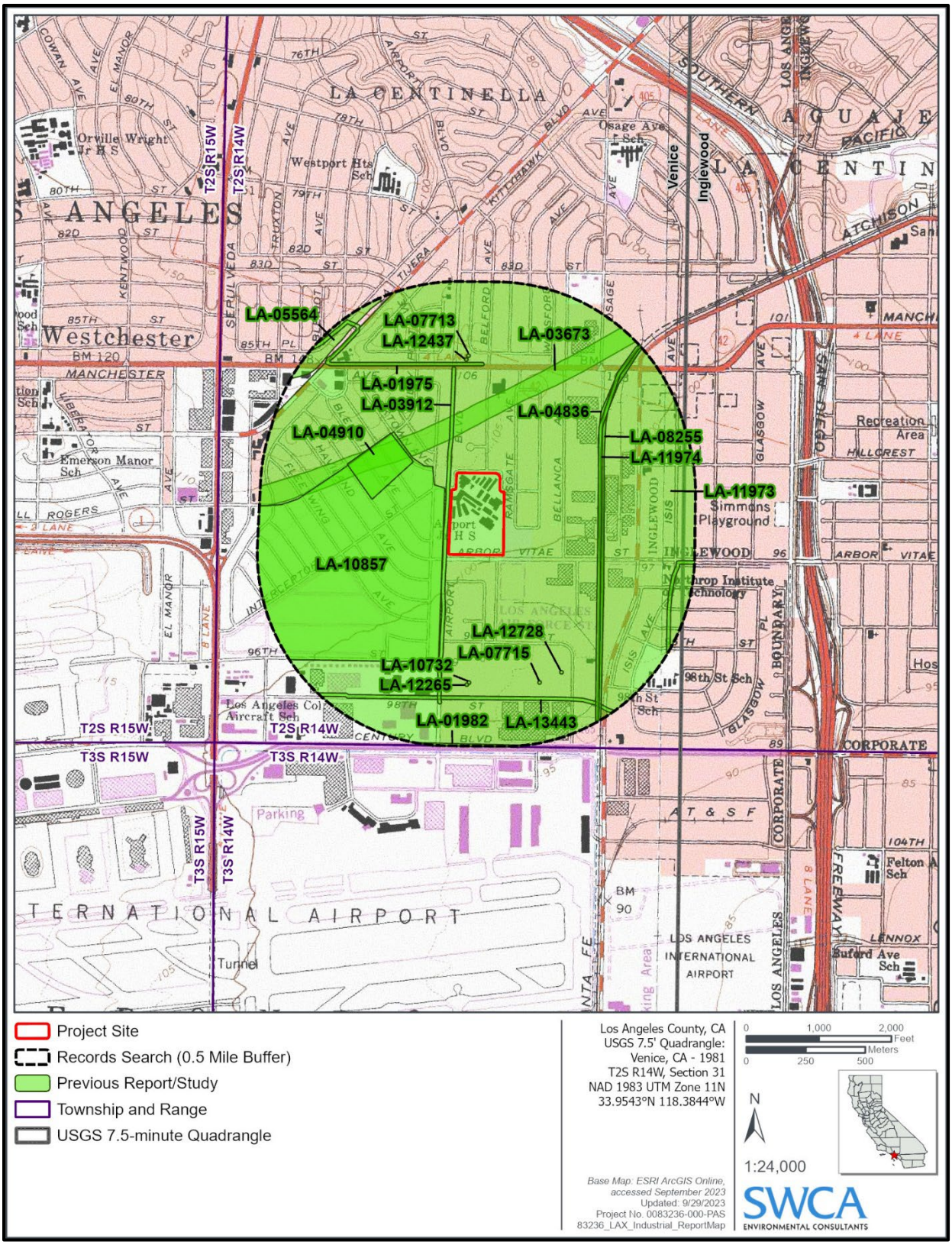



**Figure A-1. CHRIS records search results: reports and studies.**

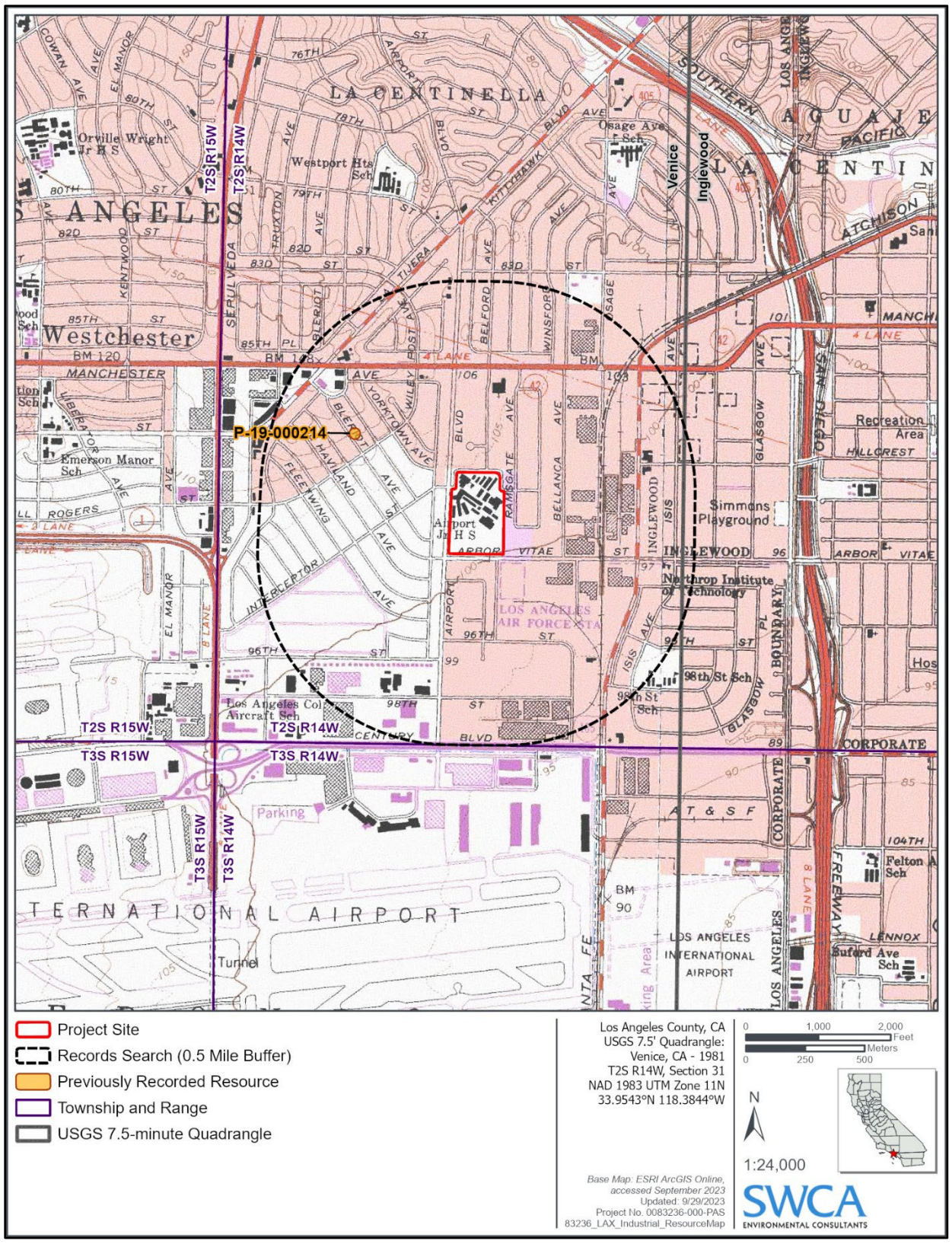



**Figure A-2. CHRIS records search results: resources.**

# ATTACHMENT B

## Sacred Lands File Search Results

# NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
**Reginald Pagaling**
*Chumash*

VICE-CHAIRPERSON
**Buffy McQuillen**
*Yokayo Pomo, Yuki, Nomlaki*

SECRETARY
**Sara Dutschke**
*Miwok*

PARLIAMENTARIAN
**Wayne Nelson**
*Luiseño*

COMMISSIONER
**Isaac Bojorquez**
*Ohlone-Costanoan*

COMMISSIONER
**Stanley Rodriguez**
*Kumeyaay*

COMMISSIONER
**Vacant**

COMMISSIONER
**Vacant**

COMMISSIONER
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**NAHC HEADQUARTERS**
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Suite 100
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(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 1, 2023

David Sayre
SWCA Environmental Consultants

Via Email to: david.sayre@swca.com

**Re: LAX Industrial Development at 9000 Airport Boulevard Project, Los Angeles County**

Dear Mr. Sayre:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

# Appendix IS-3

Geotechnical Reports

# Appendix IS-3.1

Geotechnical Investigation

# GEOTECHNICAL EXPLORATION REPORT
# PROPOSED INDUSTRIAL DEVELOPMENT
# 9000 AIRPORT BOULEVARD
# CITY OF LOS ANGELES, CALIFORNIA

Prepared For

**REXFORD INDUSTRIAL REALTY & MANAGEMENT, INC.**
11620 WILSHIRE BOULEVARD, SUITE 610
LOS ANGELES, CALIFORNIA 90025

Prepared By

**LEIGHTON CONSULTING, INC.**
2600 MICHELSON DRIVE, SUITE 400
IRVINE, CALIFORNIA 92612

Project Number 13837.001

February 22, 2024

Leighton
a verdantas company

Leighton Consulting, Inc.

February 22, 2024

Project No. 13837.001

Rexford Industrial Realty & Management, Inc.
11620 Wilshire Boulevard, Suite 610
Los Angeles, California 90025

Attention: Mr. Brian Garcia

**Subject: Geotechnical Exploration Report**
**Proposed Industrial Development**
**9000 Airport Boulevard**
**City of Los Angeles, California**

Per your request and authorization, Leighton Consulting, Inc. (Leighton) has prepared this geotechnical exploration report for the subject project. We understand two development concepts are being considered for the project site: a single new industrial building concept or an alternate with three (3) new industrial buildings. The proposed one-story industrial buildings will be constructed at-grade and will include dock-high truck loading, surface parking, and Los Angeles Fire Department access around the buildings. Ancillary improvements likely consist of utility infrastructure, pavement, flatwork, and landscaping.

The purpose of our geotechnical exploration was to evaluate subsurface conditions at the site, identify potential geologic and seismic hazards that may affect the project, and provide geotechnical recommendations for design and construction of the proposed improvements as currently planned.

The project is considered feasible from a geotechnical standpoint. The results of our exploration and conclusions and recommendations are presented in this report.

We appreciate the opportunity to be of service to you on this project. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; or specifically at the phone extensions or e-mail addresses listed below.







Respectfully submitted,

LEIGHTON CONSULTING, INC.

Jeffrey M. Pflueger, PG, CEG 2499
Associate Geologist
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ECB/JW/JMP/CCK/lr

Distribution: (1) Addressee

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Important Information About Your Geotechnical Engineering Report Rear of Text

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Appendix A – Exploration Logs
Appendix B – Percolation Test Data
Appendix C – Laboratory Test Results
Appendix D – Earthwork and Grading Guide Specifications

# 1.0 INTRODUCTION

## 1.1 Site Description and Proposed Development

The project site is located at 9000 South Airport Boulevard in the city of Los Angeles, California. The site location (latitude 33.9544°, longitude -118.3843°) and immediate vicinity are shown on Figure 1, *Site Location Map.*

The project site is irregular in shape and covers approximately 18 acres. The site is bordered by Airport Boulevard to the west, Interceptor Street to the north and northeast, existing residential and industrial properties to the east, and West Arbor Vitae Street to the south. Access to the site is via two driveways along Airport Boulevard on the west and two driveways along West Arbor Vitae Street on the south. The site is currently occupied by an existing and active rental car facility (Hertz) with several industrial buildings throughout the site, solar canopies, and asphalt concrete (AC) and Portland cement concrete paved parking and access throughout the site.

The project site is relatively flat with surface drainage generally directed to the south. Review of the United States Geological Survey (USGS) 7.5-Minute Venice Quadrangle (USGS, 1982) indicates the site is at approximately Elevation (El.) +100 to +110 feet mean sea level (msl).

Based on review of historic aerial photographs (NETR, 2023), the project site appears to have been vacant undeveloped land in 1952. Between approximately 1952 and 1963, the site was developed as Airport Junior High School and contained several buildings located in the northern portion of the site and an athletic field in the southern portion of the site. By approximately 1980, the previous school improvements and buildings were removed and the existing site development was under construction. By approximately 1985, most of the existing structures and site improvements were constructed, including a structure located in the northwestern portion of the site that was removed between approximately 2000 and 2003. In addition, covered parking was constructed in the southern portion of the property between approximately 1992 and 1993, and was improved to include solar panels between approximately 2010 and 2012.

Based on review of the *Preliminary Site Plan – Option 1* (Sheet A1-1) for the project, dated September 22, 2023, we understand one option for the proposed development of the site consists of one (1) new one-story industrial building constructed at-grade with a total building area of 435,390 square feet. The

proposed building is planned to include dock-high truck loading on the western side of the building, surface parking in the northern and southern portions of the site, truck trailer parking in the western portion of the site, and Los Angeles Fire Department access around the entire building. The proposed development Option 1 is shown on Figure 2A, *Exploration Location Map*.

Based on review of the *Preliminary Site Plan – Option 2* (Sheet A1-1) for the project dated February 8, 2024, we understand a second option for the proposed development of the site consists of three (3) new one-story industrial buildings constructed at-grade with total building areas of 117,930 square feet (Building 1), 139,093 square feet (Building 2), and 138,043 square feet (Building 3). The proposed buildings are planned to include dock-high truck loading facing the central portion of the site with associated surface parking, and Los Angeles Fire Department access throughout the site. The proposed development Option 2 is shown on Figure 2B, *Exploration Location Map*.

Ancillary improvements will likely consist of utility infrastructure, pavement, flatwork, and landscaping. Preliminary structural loading information was not yet available at the time this memorandum was prepared.

## 1.2 Purpose and Scope

The purpose of our geotechnical exploration was to evaluate the subsurface conditions at the site relative to the proposed development concept and provide geotechnical recommendations to aid in the design and construction for the project as currently planned. The scope of this geotechnical exploration included the following tasks:

- *Background Review* – We reviewed readily available in-house geotechnical reports, literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 5.0, *References*.

- *Pre-Field Exploration Activities* – A site visit was performed by a member of our technical staff to mark the proposed exploration locations. Dig Alert (811) was notified to locate and mark existing underground utilities prior to our subsurface exploration.

- *Field Exploration* – Our subsurface exploration was performed on February 28, 2023 which included drilling, logging, and sampling of six (6) hollow-stem auger borings (designated LB-1 through LB-6) to a depth of approximately 31½ feet below the existing ground surface (bgs). Two (2) additional borings (designated LP-1 and LP-2) were drilled to an approximate depth of 10 feet bgs and converted to temporary wells for subsequent percolation testing. Eight (8) cone penetrometer test (CPT) soundings (CPT-1 through CPT-8) were also advanced at the site to depth ranging between approximately 26 and 50 feet bgs. Refusal was encountered in CPT-1 and CPT-5 at depths of 29 feet bgs and 26 feet bgs, respectively, prior to reaching the target depth. The approximate locations of the explorations are shown on Figures 2A and 2B, *Exploration Location Map.* Logs of the borings and CPTs are presented in Appendix A, *Exploration Logs.*

  During drilling of the borings, bulk and drive samples were obtained from the borings for geotechnical laboratory testing. Driven ring samples were collected from the borings using a Modified California ring-lined sampler conducted in accordance with ASTM Test Method D 3550. Standard Penetration Tests (SPTs) were also performed within the borings in accordance with ASTM Test Method D 1586. Samples were collected at 2½-foot to 5-foot intervals throughout the depth of exploration. In both test methods, the sampler is driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the “blowcount” or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. The number of blows per 6 inches of penetration was recorded on the boring logs, see Appendix A.

  The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, the borings were backfilled to the ground surface with soils generated during the exploration and patched with cold-mix asphalt concrete to match existing surface conditions. Excess soil cuttings from the borings were placed in 55-gallon drums for offsite disposal after completion of analytical testing.

- *Percolation Testing* – Borings LP-1 and LP-2 (Figures 2A and 2B) were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch slotted (0.020") PVC well casing surrounded by #3 Monterey Sand placed in the annulus of the well within the test zone. In-situ percolation testing was performed on March 2, 2023, in general accordance with the County of Los Angeles Department of Public Works (LADPW) *Guidelines for Geotechnical Investigation* and Reporting, *Low Impact Development Stormwater Infiltration* (LADPW, 2021). The results of the percolation testing are presented in Appendix B, *Percolation Test Data*. Refer to the discussion of infiltration rate presented in Section 2.4.1, *Infiltration*. Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface with cold-mix asphalt concrete to match existing site conditions.

- *Laboratory Testing* – Laboratory tests were performed on selected soil samples obtained from the borings during our field investigation. The laboratory testing program was designed to evaluate the physical and engineering characteristics of the onsite soil. Tests performed during this investigation include:

  - In- situ Moisture Content and Dry Density (ASTM D 2216 and ASTM D 2937);
  - Direct Shear (ASTM D 3080);
  - Consolidation (ASTM D 2435);
  - Maximum Dry Density (ASTM D 1557);
  - Expansion Index (ASTM D 4829);
  - R-value; and
  - Corrosivity Suite – pH, Sulfate, Chloride, and Resistivity (California Test Methods 417, 422, and 532/643).

  Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix C, *Laboratory Test Results*

- *Engineering Analysis* – The data obtained from our background review and field exploration were evaluated and analyzed to develop recommendations for the proposed development.

- *Report Preparation* – This report presents our findings, conclusions, and preliminary recommendations for the proposed warehouse development.

# 2.0 GEOTECHNICAL FINDINGS

## 2.1 Regional Geologic Setting

The site is located in the Los Angeles Basin in the northwestern portion of the Peninsular Ranges Geomorphic Province of Southern California. The Peninsular Ranges province extends approximately 900 miles southward from the Santa Monica Mountains to the tip of Baja California (Yerkes, et al., 1965) and is characterized by elongated, northwest-trending mountain ridges and sediment-floored valleys. The province includes numerous northwest trending fault zones, most of which either gradually truncate, merge with, or are terminated by faults that form the southern margin of the Transverse Ranges province. These northwest-trending fault zones include the San Jacinto, Whittier-Elsinore, Palos Verdes, and Newport-Inglewood fault zones.

Approximately 65 million years ago (at the end of the Cretaceous Period) a deep, structural trough existed off the current coast of southern California (Yerkes, 1972). Over time, sedimentation would slowly fill the trough with tremendous amounts of sediments. About 7 million years ago, as sedimentation continued, an eastward shift of the boundary between the Pacific and North American plates to its present position would begin shaping the Los Angeles basin from this deep trough. Today the Los Angeles basin refers to the area defined by the Santa Monica, Whittier and Palos Verdes faults, and San Joaquin Hills. Basin depth is limited to the sediments deposited over the basement rock in the last 7 million years (Wright, 1991). The deepest part of the Los Angeles basin contains Tertiary to Quaternary-aged (65 million years and younger) marine and nonmarine sedimentary rocks that are about 24,000 feet thick (Yerkes, et al, 1965; Wright, 1991). During the Pleistocene epoch (the last two million years), the region was flooded as sea level rose in response to the worldwide melting of the Pleistocene glaciers.

## 2.2 Surficial Geology

More specifically, the site is located approximately 3.4 miles inland from the Pacific Ocean and to the east of the El Segundo Sand Hills, which extend from Baldwin Hills to Palos Verdes Hills. The project area is geologically mapped to be underlain by Quaternary-age (late to middle Pleistocene) old eolian and dune deposits (Qoe) generally consisting of slightly to moderately consolidated wind-blown sand and silty sand (Dibblee, 1981; Roffers and Bedrossian, 2010; Saucedo et al., 2016). The surficial geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

## 2.3 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by a layer of undocumented artificial fill materials (Afu) overlying Quaternary-aged (late to middle Pleistocene) old eolian and dune deposits (Qoe). The artificial fill encountered in our borings at the explored locations varies in thickness across the site up to approximately 7½ feet, likely associated with existing and previous site improvements. As encountered in our borings, the fill soils consist primarily of clayey sand and silty clayey sands. Localized thicker accumulations of the fill materials should be anticipated between explored locations during future earthwork construction, in particular beneath the existing and former building locations. Since there is no documentation for the placement, compaction and testing of the existing fill onsite, the artificial fill is considered undocumented and unsuitable for structural support in its current condition.

Below the artificial fill materials, Quaternary-aged (late to middle Pleistocene) old eolian and dune deposits (Qoe) were encountered in the explorations performed at the site to the maximum depth explored of approximately 50 feet bgs. The older alluvial sediments encountered generally consist of yellow-brown to reddish-brown, slightly moist to moist, medium dense to very dense sand, silty sand, and clayey sand with few interlayers of yellow-brown to orange-brown, moist, stiff to hard sandy clay and clay.

Detailed descriptions of the subsurface soils encountered in the borings are presented on the logs included in Appendix A. Some of the engineering properties of these soils are described in the following sections. The locations of the borings are shown on Figures 2A and 2B. *Exploration Location Map.*

### 2.3.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

Three (3) near-surface bulk soil samples obtained during our subsurface exploration were tested for expansion potential. The test results indicate Expansion Index (EI) values of 1, 14, and 18 (“very low” potential for

expansion). The Expansion Index laboratory test results are included in Appendix C of this report.

Expansive soils will likely not impact the proposed construction. Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading and excavation to confirm the expansion potential presented in this report. For purposes of this report and based upon visual characterization of alluvial materials at approximate foundation depth, very low expansion potential of site materials may be considered to support design and verified upon completion of earthwork grading.

### 2.3.2 Soil Corrosivity

Three (3) near-surface bulk soil samples of the onsite soils recovered as a part of our subsurface exploration was tested for corrosivity to assess corrosion potential to buried concrete. The chemical analysis test results for the onsite soil from our geotechnical exploration are included in Appendix C of this report.

The test results indicate soluble sulfate concentrations ranging between 115 and 272 parts per million (ppm), a chloride content of 100 ppm, pH values ranging between 7.73 and 8.11, and minimum resistivity values ranging between 1,670 and 2,930 ohm-cm.

The results of the resistivity tests indicate the underlying soil is moderately to severely corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate contents from the soil samples, concrete in contact with the soil is expected to have negligible to moderate exposure to sulfate attack per ACI 318 (ACI, 2014). The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

### 2.3.3 Soil Compressibility and Collapse

Six (6) samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these materials under assumed loads representative of anticipated structural bearing stresses. The results of testing indicate these soils exhibit a low to moderate compressibility potential. In addition, the results of the testing

indicate negligible swell or collapse potential when inundated with water. The results of testing performed as a part of this study are presented in Appendix C.

### 2.3.4 Shear Strength

Evaluation of the shear strength characteristics of the soils included laboratory direct shear testing of six (6) samples of the onsite soils recovered from the borings. The results of testing are included in Appendix C as well as summary graphs that provide values of angle of internal friction (ø) and cohesion (c) for use in geotechnical analysis.

### 2.3.5 Excavation Characteristics

Based on our subsurface explorations performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate the onsite artificial fill and alluvial materials can generally be excavated using conventional excavation equipment in good operating condition.

## 2.4 Groundwater Conditions

Groundwater was not encountered in any of the explorations performed at the site to the maximum depth explored of 50 feet bgs. Based on review of available information from the California Geological Survey (CGS, 1998), the historically shallowest groundwater depth at the site is reported to be greater than 40 feet bgs.

Based on these findings, groundwater is not expected to pose a constraint during or after construction. Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and following the rainy seasons or periods of locally intense rainfall or storm water runoff, or from stormwater infiltration.

### 2.4.1 Infiltration

Field percolation testing was performed within temporary percolation wells installed in borings LP-1 and LP-2 located in the western portion of the site for a test zone at a depth approximately 5 to 10 feet bgs to evaluate the infiltration characteristics of subsurface soils. The percolation tests were conducted in general accordance with the County of Los Angeles Department of Public Works (LADPW) *Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration*

(LADPW, 2021). Results of the percolation testing are presented in Appendix B, *Percolation Test Data*. The test locations and zones tested are shown on Figures 2A and 2B, *Exploration Location Map*.

A boring percolation test is useful for field measurements of the infiltration rate of soils and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to general depths anticipated for the invert of typical near-surface infiltration devices.

A falling-head test method was employed for testing, in which the volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the slotted pipe section of the test well. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area.

Per County of Los Angeles Guidelines (LADPW, 2021), the design infiltration rate incorporates a reduction factor for the test procedure, site variability, number of tests, thoroughness of subsurface investigation and long-term siltation, plugging and maintenance. As such, we have applied an appropriate reduction factor to the small-scale infiltration rates measured at test wells LP-1 and LP-2 for use in design of the system(s) according to County of Los Angeles Guidelines (LADPW, 2021). In addition, based on the variability of the results and the unknown location and depth of the planned stormwater infiltration device(s), additional testing may be required.

Detailed results of the field testing data, measured infiltration rate and design infiltration rate for the tests performed are presented in Appendix B, *Percolation Test Data*. The test results are summarized in the table below:

**Table 1 – Infiltration Rate**

| Test Well Designation | Approximate Depth of Test Zone (feet bgs) | Measured Infiltration Rate (inch per hour) | Design Infiltration Rate (inch per hour) |
|---|---|---|---|
| LP-1 | 5 to 10 | 0.03 | 0.01 |
| LP-2 | 5 to 10 | 0.01 | 0.00 |

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.03 inch per hour (LP-1) and 0.01 inches per hour (LP-2), respectively.

Per County of Los Angeles *Guidelines for Geotechnical Investigation and Reporting – Low Impact Development Stormwater Infiltration* (LADPW, 2021), the minimum possible reduction factor for the boring percolation test procedure is 3. As such, a reduction of the measured small-scale infiltration rate measured at test wells LP-1 and LP-2 using a minimum factor of safety of 3 should be used for design of the system(s). According to the County of Los Angeles Guidelines, the design infiltration rate at tested locations and depths do **not** meet the minimum feasibility criteria of 0.3 inch per hour. Therefore, based on the results of the testing presented above, stormwater infiltration is not feasible at the project site.

## 2.5 Surface Fault Rupture

Our review of available literature indicates that no known active faults have been mapped across the site, and the site is **not** located within a currently established *Alquist-Priolo Earthquake Fault Zone* (CGS, 2018; Bryant and Hart, 2007). Therefore, a surface fault rupture hazard evaluation is not mandated for this site and the potential for surface fault rupture at the site is expected to be low.

The location of the closest active faults to the site was evaluated using the United States Geological Survey (USGS) Earthquake Hazards Program National Seismic Hazard Maps (USGS, 2008). The closest active faults to the site with the potential for surface fault rupture are the Newport-Inglewood fault, Palos Verdes fault and Santa Monica fault, located approximately 1.8 miles, 6.8 miles, and 7.3 miles from the site, respectively. The San Andreas fault, which is the largest active fault in California, is approximately 43 miles northeast of the site on the north side of the San Gabriel Mountains. Major regional faults with surface expression in proximity to the site are shown on Figure 4, *Regional Fault and Historic Seismicity Map*.

## 2.6 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California (Figure 4). The intensity of ground shaking at a given

location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics.

Accordingly, design of the project should be performed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117A (CGS, 2008). The 2022 edition of the California Building Code (CBC) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following code-based seismic parameters should be considered for design under the 2022 CBC:

**Table 2 – 2022 CBC Based Ground Motion Parameters (Mapped Values)**

| Categorization/Coefficient | Code-Based |
|---|---|
| Site Latitude | 33.9544° |
| Site Longitude | -118.3843° |
| Site Class | D |
| Mapped Spectral Response Acceleration at Short Period (0.2 sec), $S_S$ | 1.857 g |
| Mapped Spectral Response Acceleration at Long Period (1 sec), $S_1$ | 0.652 g |
| Short Period (0.2 sec) Site Coefficient, $F_a$ | 1 |
| Long Period (1 sec) Site Coefficient, $F_v$ | 1.7[1] |
| Adjusted Spectral Response Acceleration at Short Period (0.2 sec), $S_{MS}$ | 1.857 g |
| Adjusted Spectral Response Acceleration at Long Period (1 sec), $S_{M1}$ | 1.109[1] |
| Design Spectral Response Acceleration at Short Period (0.2 sec), $S_{DS}$ | 1.238 g |
| Design Spectral Response Acceleration at Long Period (1 sec), $S_{D1}$ | 0.739[1] |
| Site-adjusted geometric mean Peak Ground Acceleration, $PGA_M$ | 0.876 g |

[1]See Section 11.4.8 of ASCE 7-16. A site-specific ground motion hazard analysis in accordance with Section 21.2 of ASCE 7-16 is required for this site. Per Supplement 3 to ASCE 7-16, a site-specific ground motion hazard analysis is not required where the value of the parameters $S_{M1}$ and $S_{D1}$ in the table are increased by 50%.

## 2.7 Liquefaction Potential

The term liquefaction is generally referenced to loss of strength and stiffness in soils due to build-up of pore water pressure when subject to cyclic or monotonic loading. Both sandy and clayey soils are susceptible to loss of strength and stiffness. Because of the difference in strength characteristic and methods for evaluating

strength loss potential for granular and clayey soils, the term liquefaction is used for granular soils while cyclic softening is used for fine-grained soils (i.e., clays and plastic silts).

In general, adverse effects of liquefaction or cyclic softening include excessive ground settlement, loss of bearing support for structural foundations, and seismically-induced lateral ground deformations such as lateral spreading. Depending upon the relative thickness of the liquefied strata with respect to overlying non-liquefiable soils, other potentially adverse effects such as ground oscillation and ground fissuring may occur.

As shown on Figure 5, *Seismic Hazard Zones* map for the Venice Quadrangle (CGS, 1999), the site is **not** located within a liquefaction hazard zone as delineated by the State of California (Figure 5, *Seismic Hazard Map*). In addition, the historically shallowest groundwater depth at the site is reported to be greater than 40 feet bgs and the native soil that exist at the site consist of Quaternary-aged (late to middle Pleistocene) older alluvial deposits (Saucedo et al., 2016). These materials are generally not considered susceptible to liquefaction. Therefore, based on this information, the potential for liquefaction at the site is considered low.

## 2.8 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater). These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

Based on our evaluation of the alluvial site soils, the total seismically-induced settlement is estimated to be less than ½ inch. The differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

## 2.9 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since liquefaction is not considered a hazard at the site and the site is relatively constrained laterally, earthquake-induced lateral spreading is also not considered a hazard at the site.

## 2.10 Earthquake-Induced Landsliding

As shown on the *Seismic Hazard Zones* map for Torrance Quadrangle (CGS, 1999), the site is **not** mapped within a seismically-induced landslide hazard zone identified by the State of California (Figure 5, *Seismic Hazard Map*). In addition, due to project site being relatively flat, it is our opinion that the potential for seismically-induced landslide hazard at the site is negligible.

## 2.11 Flooding

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2008), the project site is located within a flood hazard area identified as "Zone X", which is defined as an area of minimal flood hazard. Regionally, storm runoff flow is generally directed to the south. As shown on Figure 6, *Flood Hazard Zone Map*, the site is **not** located within a 100-year or 500-year flood hazard zone.

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. As shown on Figure 7, *Dam Inundation Map*, the site is **not** mapped within an inundation zone. Therefore, the risk of seismically-induced flooding due to dam failure is considered low.

## 2.12 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

## 2.13 Methane

Based on review of State of California Geologic Energy Management Division (CalGEM) records, the project site is **not** located within a documented oil field and there are no documented oil wells onsite (CalGEM, 2023). The nearest documented oil field to the site is the Potrero oil field (abandoned), located approximately 5,900 feet northeast of the site, and the nearest documented oil well to the site (Cleveland Oil Company, Well No. 1) is located approximately 2,700 feet southwest of the site (Union Oil Company of California, Union-Standard-Westchester E.H. Lease, Well No. 1) and is reported as plugged (CalGEM, 2023). In addition, the project site is not located within a methane zone or methane buffer

zone as mapped by the City of Los Angeles (City of Los Angeles, 2004). Based on these findings, methane is not considered a hazard at the site.

## 2.14 Regional Subsidence

Regional ground subsidence generally occurs due to rapid and intensive removal of subterranean fluids, typically water or oil. It is generally attributed to the consolidation of sediments as the fluid in the sediment is removed. The total load of the soils in partially or fully saturated deposits is born by their granular structure and the fluid. When the fluid is removed, the load is born by the sediment alone and it settles. No reports on regional subsidence due to fluid removal have documented subsidence in the site vicinity, and the project would not involve the removal of water or oil at the site, making the potential for ground subsidence related to fluid removal not a geologic hazard.

## 3.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

Based on the results of this study, we conclude that the proposed development for the subject site is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are properly incorporated in design and construction.

Based on our review of available site-specific geotechnical data and our professional experience, the earth materials on the site are suitable for support of the proposed industrial building, provided they are subjected to a phase of remedial rough grading. The purpose of the grading would be to establish conditions suitable for the use of a conventional shallow foundations (spread footings).

The proposed structure may be supported on shallow spread-type foundations established in engineered fill or undisturbed natural soils. The floor slab may be supported directly on grade. There may be existing underground utilities that will also be impacted. Information on these utilities should be provided to Leighton for evaluation.

All existing undocumented fill at the site is recommended to be removed from the proposed building/structure footprint areas prior to placement of engineered fill. Based on our explorations performed at the site, the existing undocumented artificial fill soils encountered at the site recommended to be removed and replaced as engineered fill are generally on the order of approximately 3 to 7½ feet in thickness. Localized areas in the unexplored portions of the site should be anticipated to require deeper removals.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. Additional exploration and/or evaluation may be required in the future once more detailed development plans become available. The recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to determine the effect upon the recommendations subsequently presented. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the City of Los Angeles, and other governing agencies.

Leighton should review the grading and foundation plans and project specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans for this project.

## 3.1 Site Grading

Earthwork for the project is expected to consist of removal of unsuitable soil materials, excavation, and placement of compacted fill. We recommend that earthwork on the site be performed in accordance with the recommendations presented in this report and the project specifications as prepared by others. The *Earthwork and Grading Guide Specifications* included in Appendix D may be used for guidance in developing the project specifications. If conflict arises, the recommendations in Appendix D shall be superseded by the project specifications, recommendations contained in this report and/or the City of Los Angeles requirements, whichever is more stringent. All site grading should be performed in accordance with the applicable local codes and in accordance with the project specifications that are prepared by the appropriate design professional.

### 3.1.1 Site Preparation

Prior to construction, the site should be cleared of any vegetation, trash, and/or debris within the area of proposed grading. These materials should be removed from the site. Any underground obstructions onsite should be removed. Efforts should be made to locate any existing utility lines to be removed or rerouted where interfering with the proposed construction. Any resulting cavities should be properly backfilled and compacted. After the site is cleared, the soils should be carefully observed for the removal of all unsuitable deposits. All undocumented fill or man-made debris, unsuitable native soils and former foundation remnants should be excavated and removed from the proposed building/structure footprint areas prior to placement of engineered fill.

### 3.1.2 Removals and Overexcavations

To provide uniform foundation support and reduce the potential for excessive static settlement, all existing undocumented fill and any unsuitable soil, as deemed by the geotechnical engineer, should be removed to expose suitable native soils and replaced as engineered fill below the proposed building and other structural improvements. Based on our field exploration, we estimate removals of existing undocumented fill could range between approximately 3 to 7½ feet below existing grades across the site. Localized areas may require deeper removals as determined during grading by a representative of the geotechnical engineer depending on observed subsurface conditions. Unexplored portions of the site including areas beneath existing buildings and

in areas of existing utilities, and areas disturbed during demolition of existing buildings and improvements may also require deeper removals. The lateral extent of removals or overexcavation beyond foundations should be equal to the depth of removals below the proposed foundation elements.

The depth of overexcavation in non-structural areas planned for new pavement construction is recommended to be 2 feet below the current grade or planned subgrade elevation to develop a suitable bearing subgrade for pavement support. Deeper overexcavations in localized areas may be recommended during grading by a representative of the geotechnical engineer depending on observed subsurface conditions. Preparation limited to 2 feet of overexcavation below subgrade may result in the need for increased pavement maintenance and periodic repairs where existing undocumented fill is left in place below the recommended overexcavation depth of 2 feet. Alternatively, removals can be performed such that all undocumented fill is removed to expose suitable natural soils (alluvium) and replaced as engineered fill.

### 3.1.3 Excavation Bottom Preparation

All excavation or removal bottoms should be observed by a representative of the geotechnical engineer prior to placement of fill or other improvements to determine that geotechnically suitable soil is exposed. Excavation bottoms observed to be suitable for fill placement or other improvements should be scarified to a depth of at least 8 inches, moisture-conditioned as necessary to achieve a moisture content within 2 percentage points of the optimum moisture content, and then compacted to a minimum of 90 percent of the laboratory derived maximum density as determined by ASTM Test Method D 1557 (Modified Proctor).

Clayey natural soils with high moisture content were encountered below fill soils in some areas. If the subgrade soils are wet and soft, stabilizing the subgrade soils using crushed rock or crushed rock with geogrid to provide a competent base for construction activities and the compaction of the required fill may be necessary. It is necessary for the geotechnical consultant to evaluate the subgrade conditions during grading in order to provide specific subgrade stabilization methods and recommendations prior to placement of engineered fill.

### 3.1.4 Fill Materials

On-site soil that is free of construction debris, organics, cobbles, boulders, rubble, or rock larger than 6 inches in largest dimension is suitable to be used as fill for support of structures. Any imported fill soil should be approved by the geotechnical engineer prior to import or use onsite.

### 3.1.5 Fill Placement and Compaction

Fill soils should be placed in thin, loose lifts, moisture-conditioned to within 2 percentage points of optimum moisture content and compacted using appropriate equipment and methods to achieve a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557. Aggregate base should be compacted to a minimum of 95 percent relative compaction.

When grading is interrupted by heavy rains, fill operations should not be resumed until the moisture content and the dry density of the placed fill are satisfactory.

### 3.1.6 Shrinkage

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Field and laboratory data used in our calculations included laboratory-measured maximum dry density for the general soil type encountered at the subject site, the measured in-place densities of near surface soils encountered and our experience.

Based upon the results of the in-place density and the moisture-density relationship exhibited by representative bulk samples of the near surface soils, recompaction of the soils is anticipated to result in volume shrinkage in the range of 10 to 15 percent. The estimated shrinkage does not include material losses due to removal of organic material or other unsuitable bearing materials (debris, rubble, oversize material greater than 6-inches) and the actual shrinkage that occurs during grading may vary throughout the site.

### 3.1.7 Reuse of Concrete and Asphalt Rubble

If encountered during site clearing and/or during preparation activities, construction rubble (i.e., Portland cement concrete and asphalt concrete) may be incorporated in the proposed development. For use as structural fill, the processed material should be crushed to develop a relatively well-graded mixture with a maximum particle size of 3-inch nominal diameter. Concrete rubble should be free of rebar and processed asphalt pavement rubble may be used if mixed with the existing base course (where present). Crushed material may be used as structural fill if uniformly mixed with onsite soils in proportion of 1 part crushed material to 3 parts soil. For use as pavement base course, crushed material should satisfy gradation requirements of Section 200-2.4 of the *Standard Specifications for Public Works Construction* (Greenbook). Such materials must be free of and segregated from any hazardous materials and/or organic material of any kind.

## 3.2 Foundation Design

Conventional spread footings established in engineered fill or undisturbed natural soils may be used to support the proposed building. Footings should be embedded a minimum 18 inches below the lowest adjacent grade. An allowable soil bearing pressure of 3,000 pounds per square foot (psf) may be used for footings with a minimum width of 12 inches for continuous footings and 18 inches for isolated footings.

A one-third increase in the bearing value for short duration loading, such as wind or seismic forces may be used. The ultimate bearing capacity can be taken as 9,000 psf, which does not incorporate a factor of safety. A resistance factor of 0.45 should be used for initial bearing capacity evaluation with factored loads.

The recommended bearing values are net values, and the weight of concrete in the mat foundation can be taken as 50 pounds per cubic foot (pcf); the weight of soil backfill can be neglected when determining the downward loads.

The allowable bearing capacity for shallow footings is based on a total static settlement of ½ inch. Differential settlement can be taken as half the total settlement over a horizontal distance of 30 feet.

For static loading, 50 pounds per cubic inch (pci) may be assumed as the modulus of subgrade reaction (*k*). For seismic loading, a *k* value of 150 pci may be assumed.

Since settlement is a function of footing size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Once developed by the structural engineer, we should review total dead and sustained live loads for each column including plan location and span distance, to evaluate if differential settlements between dissimilarly loaded columns will be tolerable. Excessive differential settlement can be mitigated with the use of reduced bearing pressures, deeper footing embedment, possibly changing overexcavation schemes and using imported base material under spread footings, or possibly other methods.

Resistance to lateral loads will be provided by a combination of friction between the soil and structure interface and passive pressure acting against the vertical portion of the footings. For calculating lateral resistance, a passive pressure of 250 psf per foot of depth to a maximum of 2,500 psf and a frictional coefficient of 0.3 may be used. Note that the passive and frictional coefficients do not include a factor of safety. The frictional resistance and the passive resistance of the soils can be combined without reduction in determining the total lateral resistance.

## 3.3 Slabs-on-Grade

Unloaded concrete slabs may be designed using a modulus of subgrade reaction of 100 pci provided the subgrade is prepared as described in Section 3.1. From a geotechnical standpoint, we recommend slab-on-grade be a minimum 5 inches thick with No. 3 rebar placed at the center of the slab at 24 inches on center in each direction. The structural engineer should design the actual thickness and reinforcement based on anticipated loading conditions. Where moisture-sensitive floor coverings or equipment is planned, the slabs should be protected by a minimum 10-mil-thick vapor barrier between the slab and subgrade. A coefficient of friction of 0.35 can be used between the floor slab and the vapor barrier.

Minor cracking of concrete after curing due to drying and shrinkage is normal and should be expected; however, concrete is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and

moisture fluctuations can also be expected. The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Additionally, our experience indicates that the use of reinforcement in slabs and foundations can generally reduce the potential but not eliminate for concrete cracking.

To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.

## 3.4 Cement Type and Corrosion Protection

Based on the results of laboratory testing, concrete structures in contact with the onsite soil are expected to have negligible to moderate exposure to water-soluble sulfates in the soil. Common Type II cement may be used for concrete construction onsite and the concrete should be designed in accordance with CBC 2022 requirements. However, concrete exposed to recycled water should be designed using Type V cement.

Based on our laboratory testing, the onsite soil is considered moderately to severely corrosive to ferrous metals. Ferrous pipe should be avoided by using high-density polyethylene (HDPE) or other non-ferrous pipe when possible. Ferrous pipe, if used, should be protected by polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from onsite soils.

## 3.5 Retaining Walls

Recommended lateral earth pressures are provided as equivalent fluid unit weights, in psf/ft. or pcf. These values do not contain an appreciable factor of safety, so the structural engineer should apply the applicable factors of safety and/or load factors during design.

On-site soils are likely suitable to be used as retaining wall backfill due to its very low expansion potential. However, field and laboratory verification are recommended before use. Site soils can be variable in composition, clast size and expansive characteristics. Should site soil for reuse behind retaining walls should be tested to ensure Expansion potential is less than 20 (EI<20). Recommended lateral earth pressures for retaining walls backfilled with sandy soils with drained conditions as shown on Figure 8, *Retaining Wall Backfill and Subdrain Detail* are as follows:

**Table 3 – Retaining Wall Design Earth Pressures**

| Retaining Wall Condition (Level Backfill) | Equivalent Fluid Pressure (pounds-per-cubic-foot)* |
|---|---|
| Active (cantilever) | 40 |
| At-Rest (braced) | 60 |
| Passive Resistance (compacted fill) | 250 |
| Seismic Increment (add to active pressure) | 30 |

*Only for level and drained properly compacted backfill

Walls that are free to rotate or deflect may be designed using active earth pressure. For basement walls or walls that are fixed against rotation, the at-rest pressure should be used. For seismic condition, the pressure should be distributed as an inverted triangular distribution and the dynamic thrust should be applied at a height of 0.6H above the base of the wall.

### 3.5.1 Sliding and Overturning

Total depth of retained earth for design of walls and for uplift resistance, should be measured as the vertical height of the stem below the ground surface at the wall face for stem design, or measured at the heel of the footing for overturning and sliding. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of the soil over the wall footing, if drained, or 60 pcf if submerged, for properly compacted backfill.

### 3.5.2 Drainage

Adequate drainage may be provided by a subdrain system positioned behind the walls (Figure 8). Typically, this system consists of a 4-inch minimum diameter perforated pipe placed near the base of the wall (perforations placed downward). The pipe should be bedded and backfilled with pervious backfill material described in Section 300-3.6 of the *Standard Specifications for Public Works Construction* (Greenbook), 2021 Edition. This pervious backfill should extend at least 2 feet out from the wall and to within 2 feet of the outside finished grade. This pervious backfill and pipe should be wrapped in filter fabric, such as Mirafi 140N or equivalent, placed as described in Section 300-8.1 of the *Standard Specifications for Public Works Construction* (Greenbook), 2021 Edition. The subdrain outlet should be connected to a free-draining outlet or sump.

Miradrain, Geotech Drainage Panels, or Enkadrain drainage geocomposites, or similar, may be used for wall drainage as an alternative to the Class 2 Permeable Material or drain rock backfill, particularly where horizontal space is limited adjacent to shoring (where walls are cast against shoring). These drainage panels should be connected to the perforated drainpipe at the base of the wall.

## 3.6 Paving

To provide support for paving, the subgrade soils should be prepared as recommended in the Section 3.1. Compaction of the subgrade, including trench backfills, to at least 90 percent of the maximum dry density as determined by ASTM Test Method D 1557, and achieving a firm, hard, and unyielding surface will be important for paving support. The preparation of the paving area subgrade should be performed immediately prior to placement of the base course.

Adequate drainage (both surface and subsurface) should be provided such that the subgrade soils and aggregate base materials are not allowed to become wet. Landscape areas must be separated from pavements with concrete curbs and/or edge drains. Excessive over-irrigation will have an adverse impact on adjacent pavements. Irrigation adjacent to pavements, without a deep curb or other cutoff to separate landscaping from paving, will result in premature pavement failure.

### 3.6.1 Asphalt Concrete

The required paving and base thicknesses will depend on the expected wheel loads and volume of traffic (Traffic Index or TI). Assuming that the paving subgrade will consist of engineered fill with an R-value greater than 20, which will need to be verified after the completion of site grading, the minimum recommended paving thicknesses are presented in the following table. Results of R-value testing on near surface samples of existing onsite soils indicate values of 14, 25 and 50.

**Table 4 – Asphalt Concrete Pavement Sections**

| Traffic Index | Asphalt Concrete (inches) | Base Course (inches) |
|---|---|---|
| 5 | 3 | 7½ |
| 6 | 4 | 8½ |
| 7 | 4 | 12 |
| 8 | 5 | 13½ |
| 9 | 6 | 15 |

The asphalt paving sections were determined using the Caltrans design method. We can determine the recommended paving and base course thicknesses for other Traffic Indices if required. Careful inspection is recommended to verify that the recommended thicknesses or greater are achieved, and that proper construction procedures are followed.

### 3.6.2 Portland Cement Concrete Paving

We have assumed that such a subgrade will have an R-value of at least 20, which will need to be verified after the completion of site grading.

Portland cement concrete (PCC) paving sections were determined in accordance with procedures developed by the Portland Cement Association. Concrete paving sections for a range of Traffic Indices are presented in the following table. We have assumed that the Portland cement concrete will have a compressive strength of at least 4,000 pounds per square inch.

**Table 5 – PCC Pavement Sections**

| Traffic Index | PCC (inches) | Base Course (inches) |
|---|---|---|
| 5 | 7 | 4 |
| 6 | 7 | 4 |
| 7 | 7½ | 4 |
| 8 | 8 | 4 |
| 9 | 9 | 4 |

The paving should be provided with control joints or expansion joints at regular intervals no more than 15 feet in each direction. Load transfer devices, such as dowels or keys, are recommended at joints in the paving to reduce possible offsets. The paving sections in the above table have been developed based on the strength of unreinforced concrete. Steel reinforcing may be added to the paving to reduce cracking and to prolong the life of the paving.

### 3.6.3 Base Course

The base course for both asphalt concrete and Portland cement concrete paving should meet the specifications for Class 2 Aggregate Base as defined in Section 26 of the latest edition of the State of California, Department of Transportation, Standard Specifications. Alternatively, the

base course could meet the specifications for untreated base as defined in Section 200-2 of the latest edition of the *Standard Specifications for Public Works Construction* (Greenbook). The base course should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM Test Method D 1557.

## 3.7 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations, and foundation excavations should be performed in accordance with project plans, specifications, and all OSHA requirements. Excavations 4 feet or deeper should be laid back or shored in accordance with OSHA requirements before personnel are allowed to enter.

No surcharge loads should be permitted within a horizontal distance equal to the height of cut or 5 feet, whichever is greater from the top of the cut, unless the cut is shored appropriately. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structure.

Temporary excavations should be treated in accordance with the State of California version of OSHA excavation regulations, Construction Safety Orders for Excavation General Requirements, Article 6, Section 1541, effective October 1, 1995. The sides of excavations should be shored or sloped in accordance with OSHA regulations. OSHA allows the sides of unbraced excavations, up to a maximum height of 20 feet, to be cut to a ¾H:1V (horizontal:vertical) slope for Type A soils, 1H:1V for Type B soils, and 1½H:1V for Type C soils.

During construction, the soil conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor shall be responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination between the competent person and the geotechnical engineer should be maintained to facilitate construction while providing safe excavations.

## 3.8 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1 and 306-6 of the *Standard Specifications for Public Works Construction*, (Greenbook), 2021 Edition. Utility trenches can be backfilled with onsite sandy material free of rubble, debris, organic and oversized material up to (≤) 3-inches in

largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

(1) **Sand:** A uniform, sand material that has a Sand Equivalent (SE) greater-than-or-equal-to (≥) 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer), water densified in place, or

(2) **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the *Standard Specifications for Public Works Construction,* (Greenbook), 2021 Edition. CLSM should not be jetted.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. Native and clean fill soils can be used as backfill over the pipe bedding zone, and should be placed in thin lifts, moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D 1557 laboratory maximum density.

## 3.9 Drainage and Landscaping

Building walls below grade should be waterproofed or at least damp proofed, depending upon the degree of moisture protection desired. Surface drainage should be designed to direct water away from foundations and toward approved drainage devices. Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without overwatering.

## 3.10 Additional Geotechnical Services

Leighton should review the grading plans, foundation plans, and specifications when they are available to verify that the recommendations presented in this report have been properly interpreted and incorporated.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- Subgrade Preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;

- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When any unusual conditions are encountered.

## 4.0 LIMITATIONS

This geotechnical exploration does not address the potential for encountering hazardous soil at this site. In addition, this report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is, by necessity, incomplete. Please also refer GBA's *Important Information About Your Geotechnical Report* (included at the rear of the text), presenting additional information and limitations regarding geotechnical engineering studies and reports. The nature of many sites is such that differing soil or geologic conditions can be present within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions, and recommendations presented in this report are only valid if Leighton Consulting, Inc. has the opportunity to observe subsurface conditions during grading and construction, to confirm that our data are representative for the site. Leighton Consulting, Inc. should also review the construction plans and project specifications, when available, to comment on the geotechnical aspects.

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing at this time in Los Angeles County. We do not make any warranty, either expressed or implied.

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# Important Information about This

# Geotechnical-Engineering Report

**Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.**

**While you cannot eliminate all such risks, you can manage them. The following information is provided to help.**

**The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.**

## Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

## Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

*Do not rely on this report* if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

## Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

## You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

*responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

## Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

## This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

## This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

## Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for information purposes only.* To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

## Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

## Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

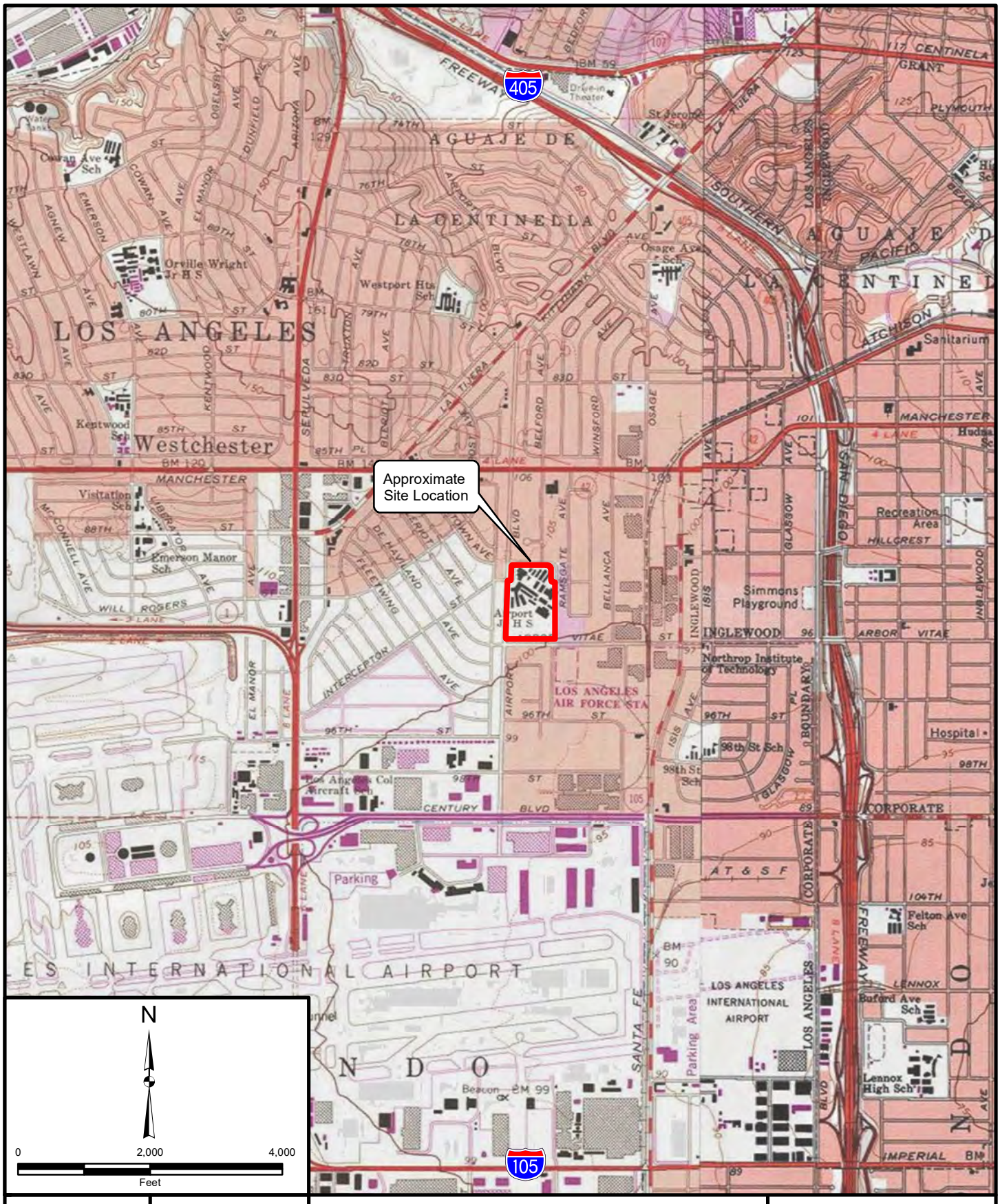
## Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, ***proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration*** by including building-envelope or mold specialists on the design team. ***Geotechnical engineers are not building-envelope or mold specialists.***

GEOPROFESSIONAL BUSINESS ASSOCIATION

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| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 2,000 ' | Date: March 2023 |

Reference: Copyright:© 2013 National Geographic Society, i-cubed

# SITE LOCATION MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

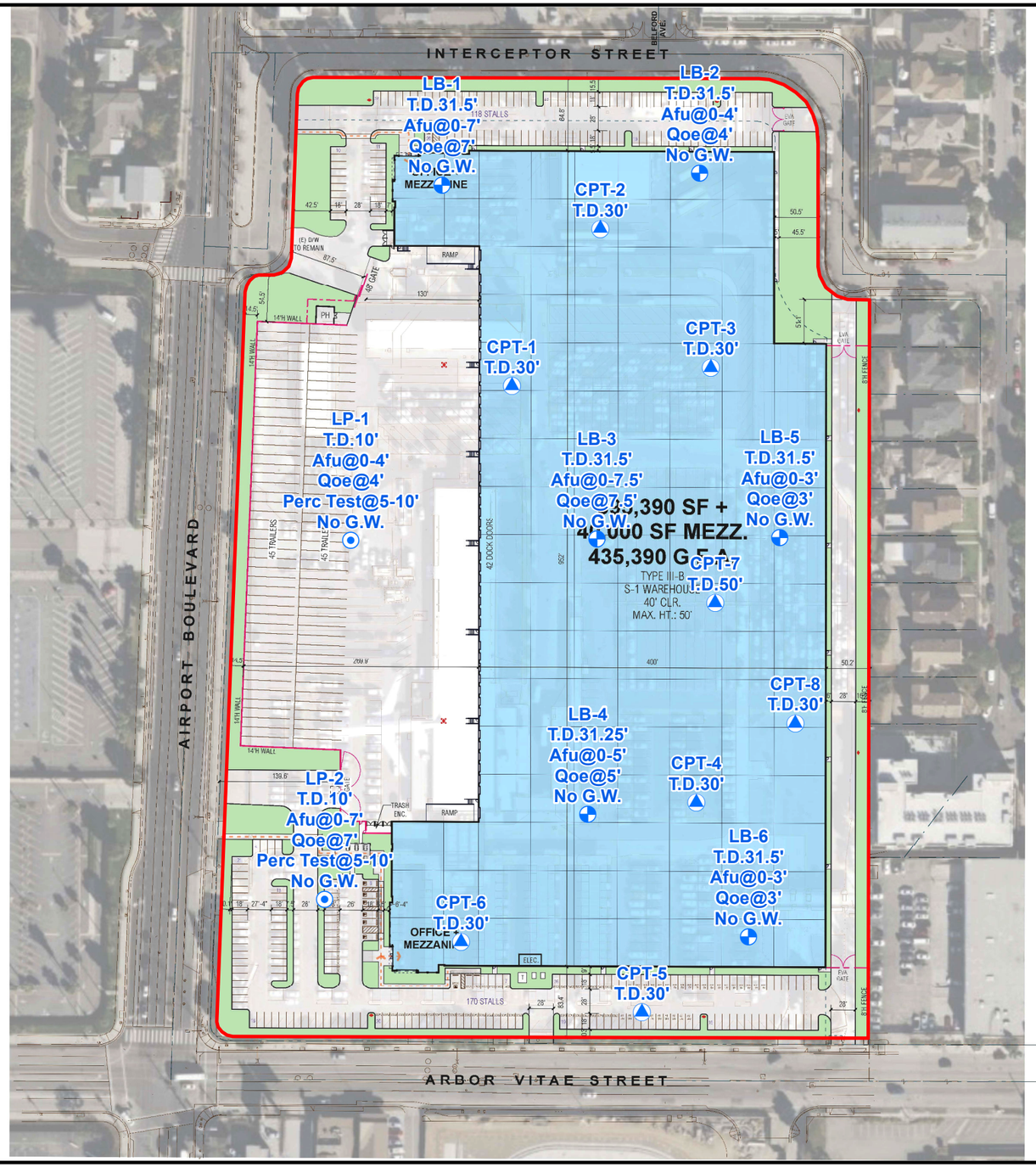
**FIGURE 1**

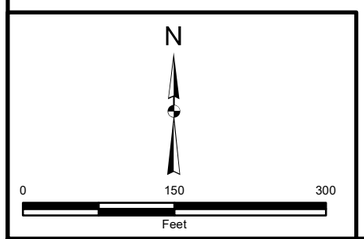
Leighton

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## LEGEND

| | |
|---|---|
| LB-6 | Approximate location of hollow-stem auger boring showing total depth (T.D.), depth to groundwater (G.W.) and depth to earth units in feet below existing grade |
| LP-2 | Approximate location of percolation test showing total depth (T.D.), depth to groundwater (G.W.), depth to earth units and depth of percolation test in feet below existing grade |
| CPT-8 | Approximate location of cone penetrometer test (CPT) showing total depth (T.D.) |
| Afu | Artificial Fill, Undocumented |
| Qoe | Old Eolian Dune Deposits |
| | Approximate Site Boundary |




| | |
|---|---|
| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 150 ' | Date: February 2024 |

Reference: Preliminary Site Plan - Option 1
Sheet A1-1 by RGA/Rexford Industrial

# EXPLORATION LOCATION MAP

Proposed Industrial Building - Option 1
9000 Airport Boulevard
City of Los Angeles, California

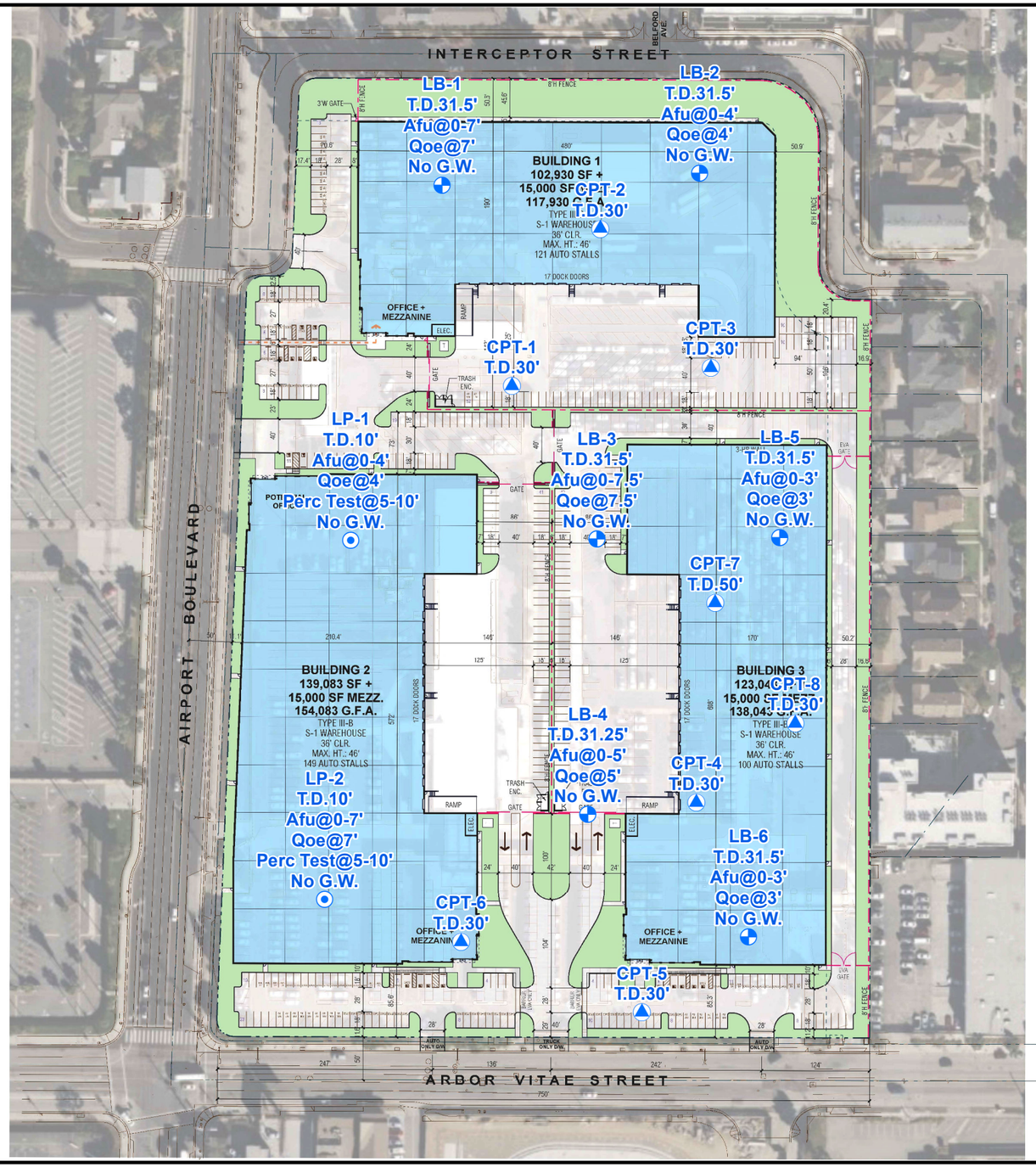
**FIGURE 2A**

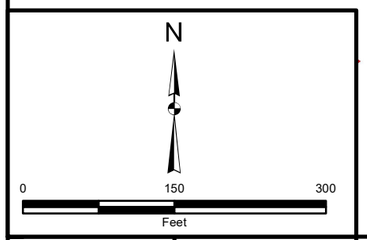
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## LEGEND

| | |
|---|---|
| LB-6 | Approximate location of hollow-stem auger boring showing total depth (T.D.), depth to groundwater (G.W.) and depth to earth units in feet below existing grade |
| LP-2 | Approximate location of percolation test showing total depth (T.D.), depth to groundwater (G.W.), depth to earth units and depth of percolation test in feet below existing grade |
| CPT-8 | Approximate location of cone penetrometer test (CPT) showing total depth (T.D.) |
| Afu | Artificial Fill, Undocumented |
| Qoe | Old Eolian Dune Deposits |
| | Approximate Site Boundary |




| | |
|---|---|
| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 150 ' | Date: February 2024 |

Reference: Preliminary Site Plan - Option 2
Sheet A1-1 by Rexford Industrial

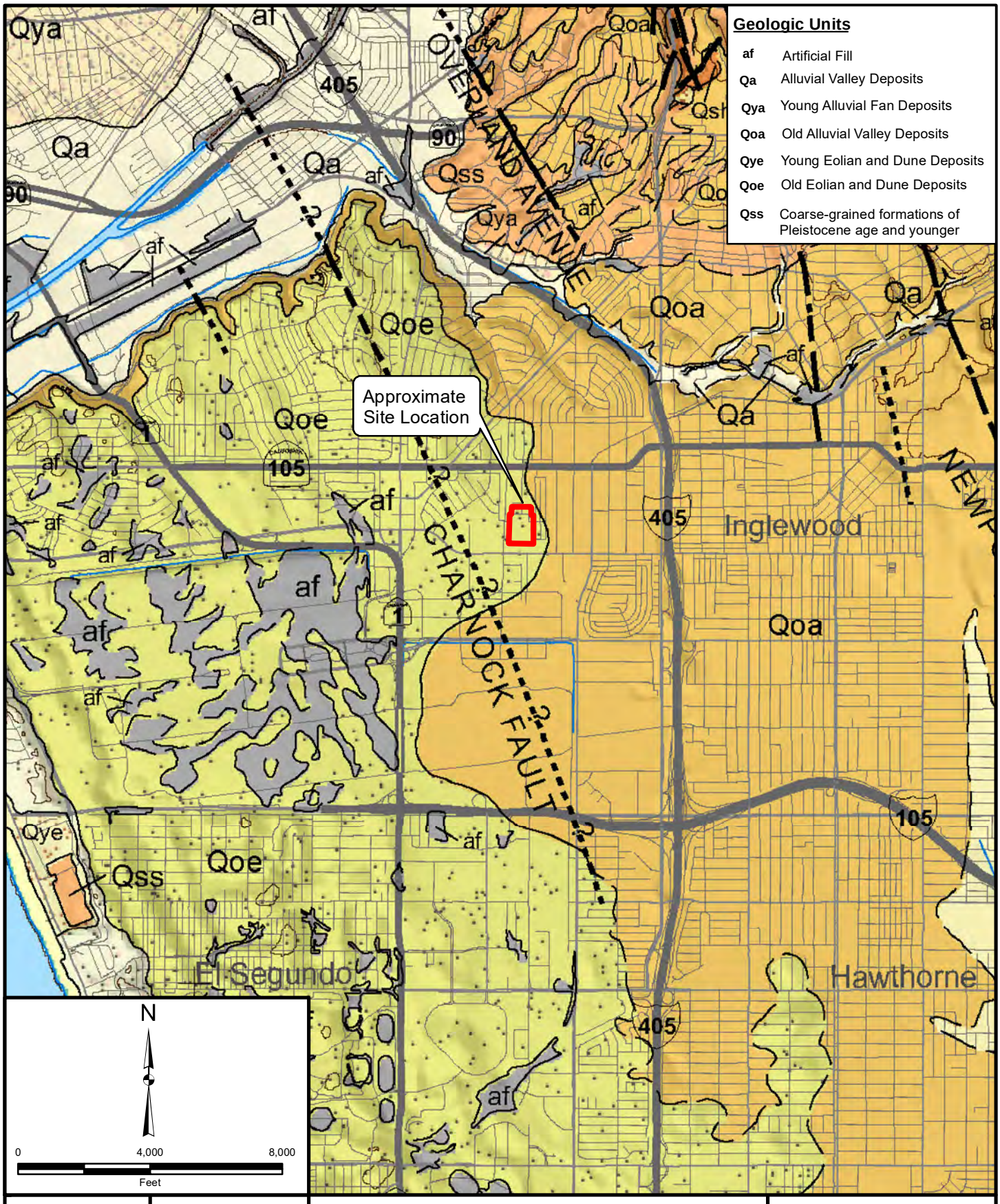
# EXPLORATION LOCATION MAP

Proposed Industrial Building - Option 2
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 2B**

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| Scale: 1 " = 4,000 ' | Date: March 2023 |

Reference:
Geologic Compilation of Quaternary Surficial Deposits in Southern California, Onshore Portion of The Long Beach by Bedrossian, July 2010

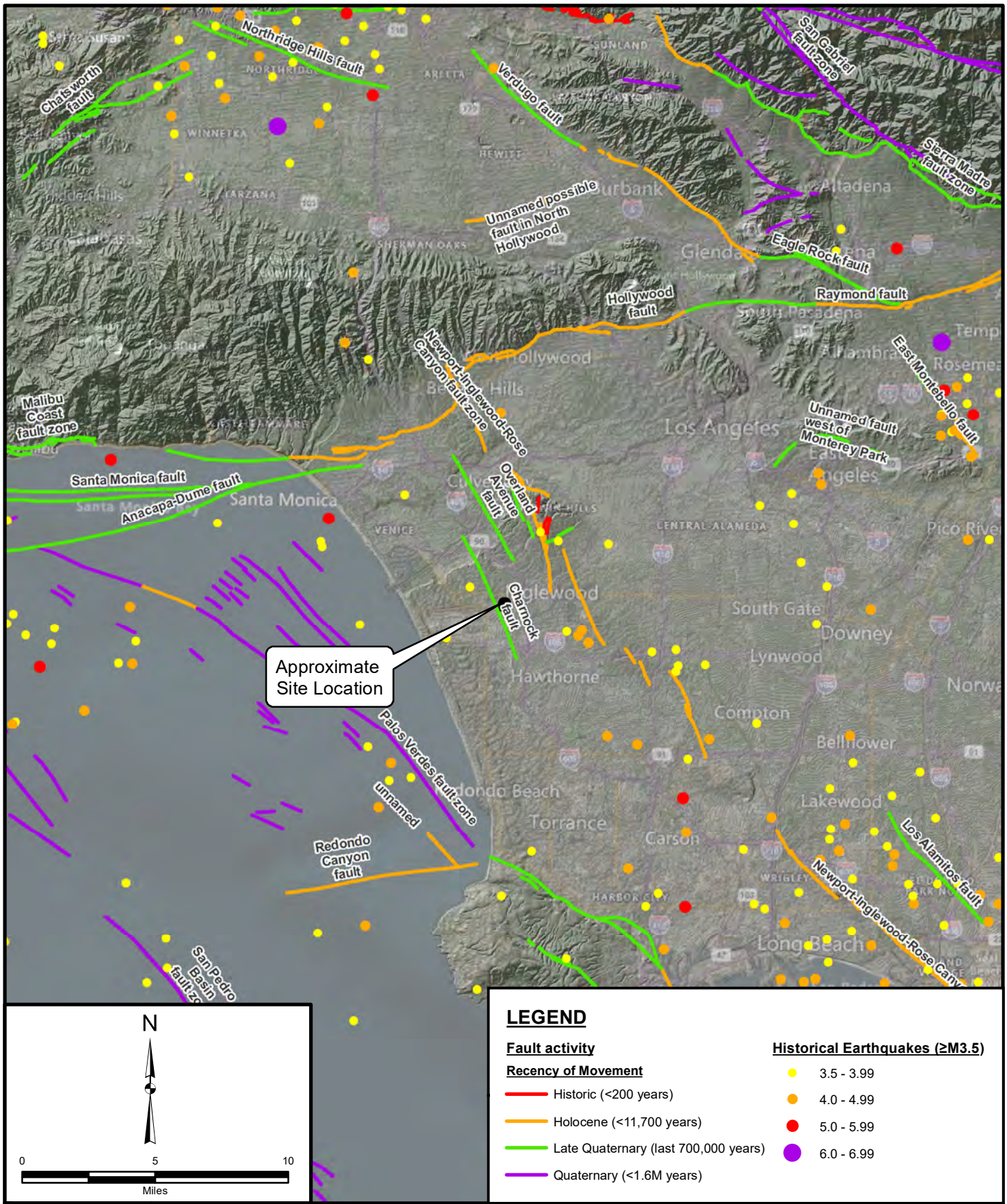
# REGIONAL GEOLOGY MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 3**

Leighton

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| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 5 miles | Date: March 2023 |

Basemap Reference: © 2023 Microsoft Corporation
Earthstar Geographics SIO © 2022 TomTom
Seismicity Data Reference: maps.conservation.ca.gov

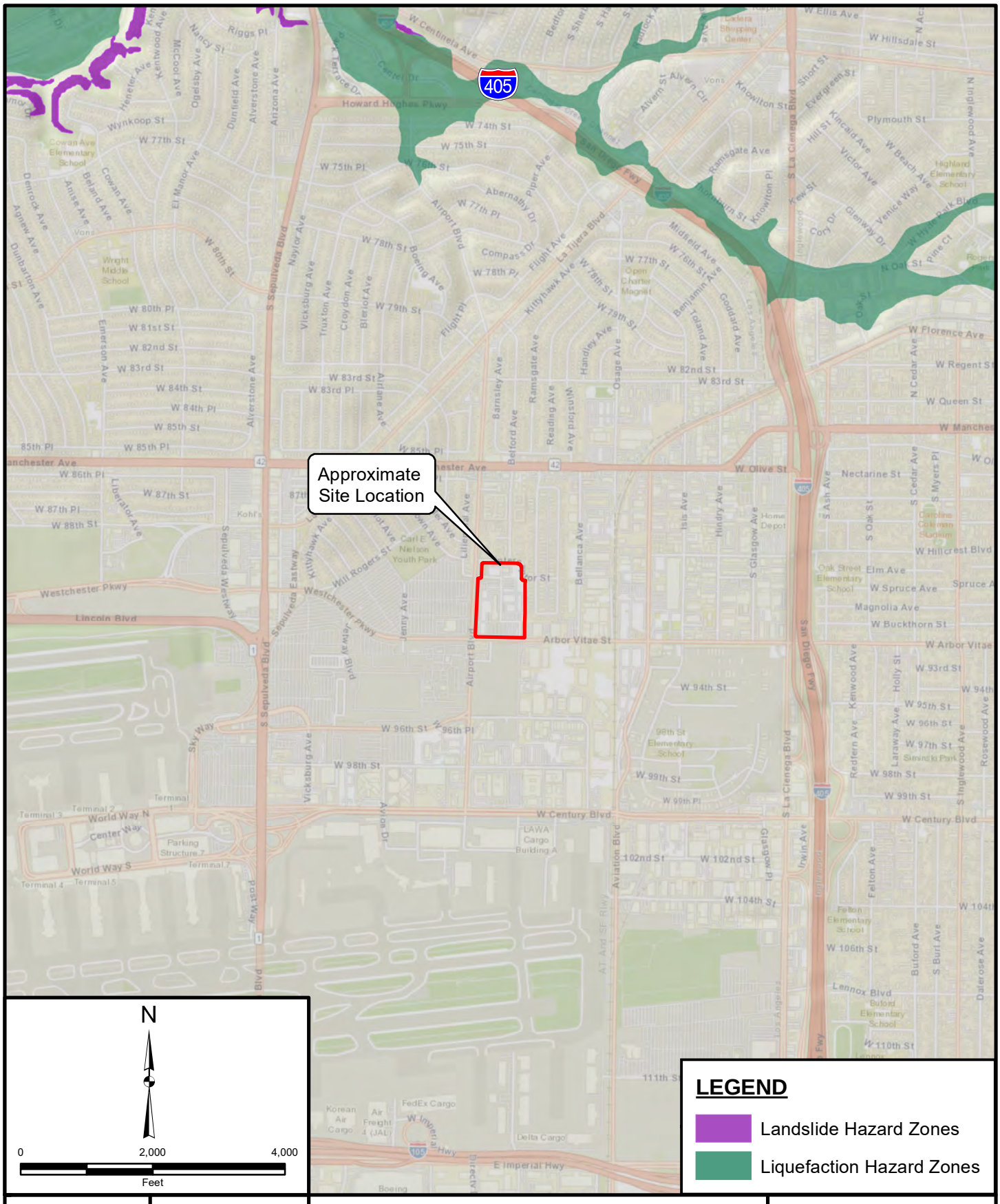
# REGIONAL FAULT AND HISTORIC SEISMICITY MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 4**

Leighton

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|---|---|
| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 2,000 ' | Date: March 2023 |

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

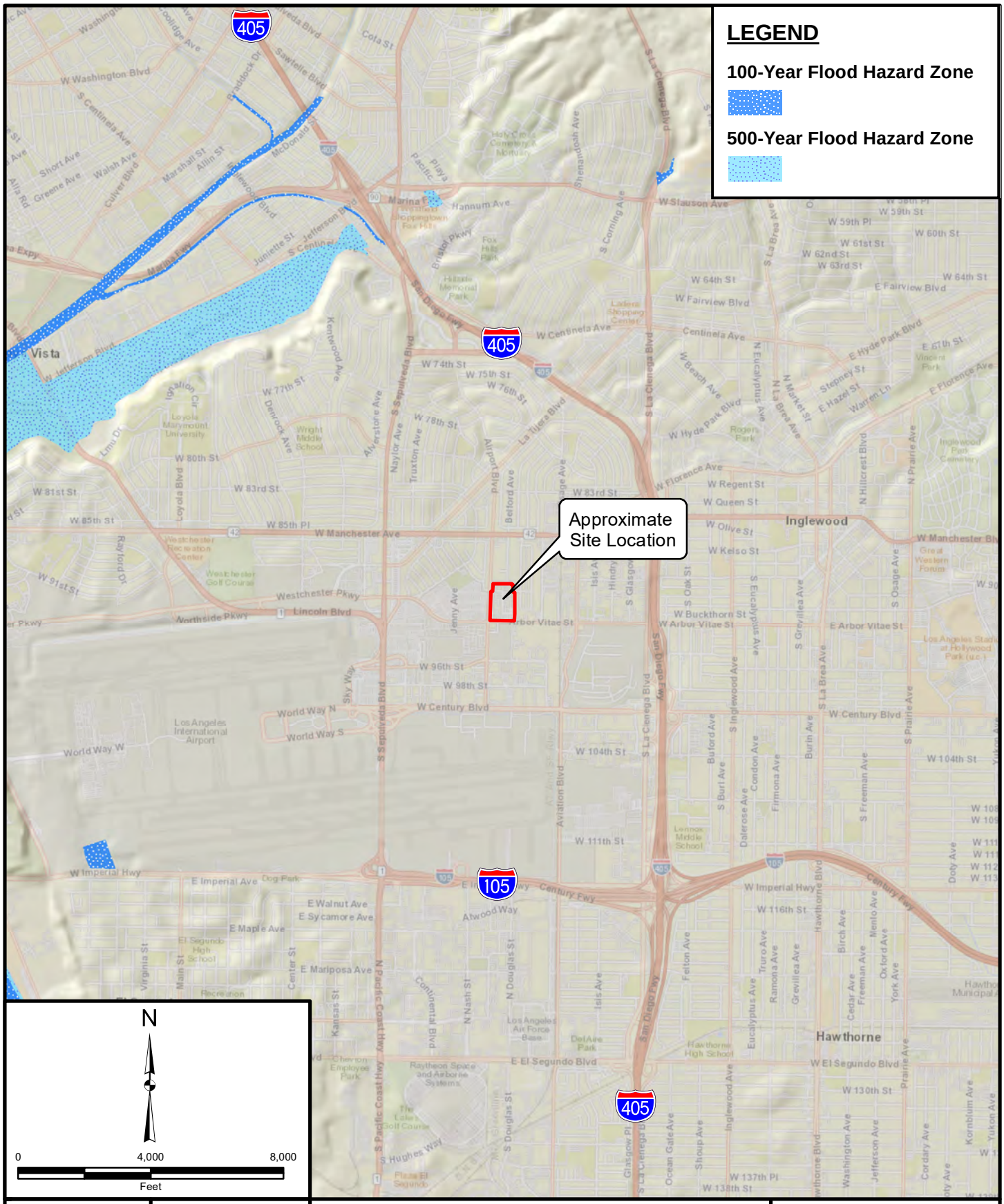
# SEISMIC HAZARD MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 5**

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Map Saved as J:\Drafting\13837\001\Maps\13837-001_F05_SHM_2023-03-03.mxd on 3/2/2023 10:50:13 AM Author: KVM (btran)




| | |
|---|---|
| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 4,000 ' | Date: March 2023 |

Reference: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
FEMA (http://www.fema.gov/index.shtm), DWR (http://www.dwr.ca.gov)

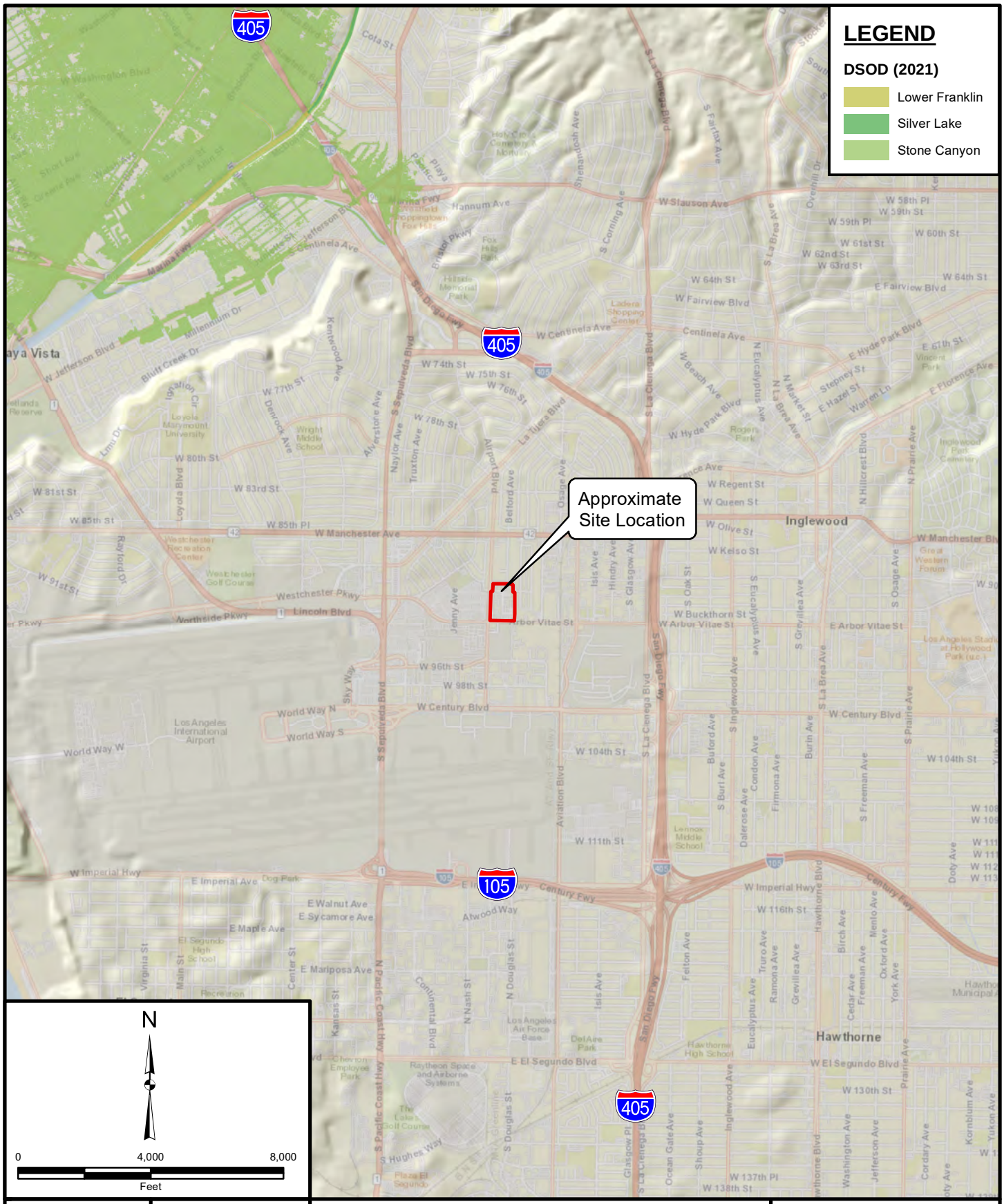
# FLOOD HAZARD ZONE MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 6**

Leighton

Map Saved as J:\Drafting\13837\001\Maps\13837-001_F06_FHZM_2023-03-03.mxd on 3/2/2023 10:52:07 AM Author: KVM (btran)




| | |
|---|---|
| Project: 13837.001 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 4,000 ' | Date: March 2023 |

Base Map: ESRI ArcGIS Online 2023
Reference: Office of Emergency Services (2007),
Dept of Safety of Dams (2021)
National Inventory of Dams, Army Corps of Engrs (2021)

# DAM INUNDATION MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

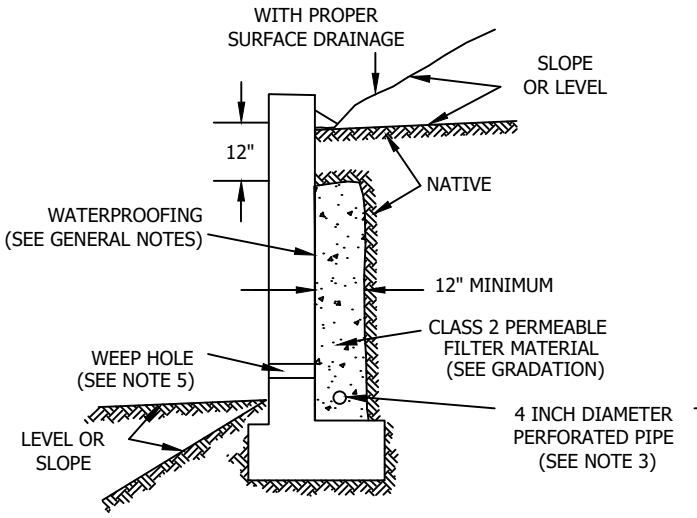
**FIGURE 7**

Leighton

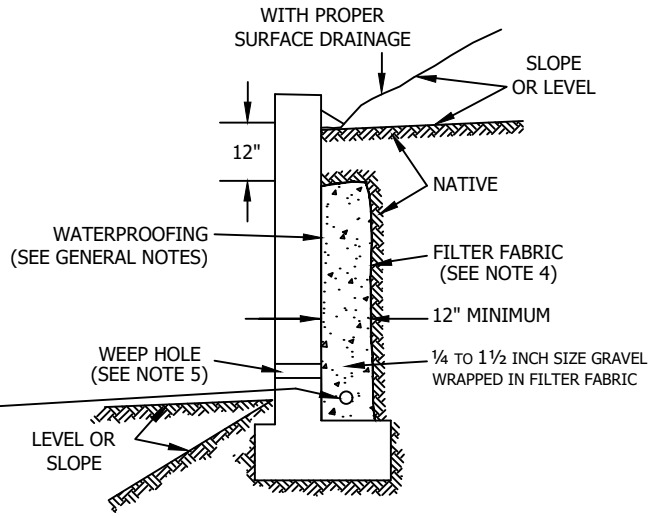
Map Saved as J:\Drafting\13837\001\Maps\13837-001_F07_DIM_2023-03-03.mxd on 3/2/2023 10:54:18 AM Author: KVM (btran)

## SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL




OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC




Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

| Sieve Size | Percent Passing |
|---|---|
| 1" | 100 |
| 3/4" | 90-100 |
| 3/8" | 40-100 |
| No. 4 | 25-40 |
| No. 8 | 18-33 |
| No. 30 | 5-15 |
| No. 50 | 0-7 |
| No. 200 | 0-3 |

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

# RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

## WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

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Figure 8

V:\DRAFTING\TEMPLATES\STANDARD-FIGURES\WALL-STANDARD-FIGURES.DWG (09-02-21 9:07:35AM) Plotted by bbain

# APPENDIX A

# EXPLORATION LOGS

# GEOTECHNICAL BORING LOG LB-1

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 110' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N / S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| 110 | 0 | | | | | | | | @Surface: 1.5-inch asphalt concrete over 12-inch aggregate base | |
| | | | | B-1 | | | | SM | **Artificial Fill, Undocumented (Afu)**<br>@1.1': Silty SAND with gravel, reddish brown, moist, fine to medium sand, approximately 40% medium subrounded to subangular gravel (field estimate)<br>@3': decreasing gravel percentage with depth | MD,DS, EI,CN, RV,CR |
| 105 | 5 | | | R-1 | 7<br>11<br>9 | 117 | 9 | | @5': Silty SAND, brown, mottled reddish brown/yellow brown, moist, medium dense, fine to coarse sand, some fine to medium subrounded gravel, medium dense | |
| | | | | S-2 | 6<br>7<br>12 | | 5 | SM | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@7.5': Silty SAND, reddish brown, moist, medium dense, mostly fine sand, laminated, trace poorly graded gravel | |
| 100 | 10 | | | R-3 | 18<br>22<br>26 | 117 | 8 | SC | @10': Clayey SAND, reddish brown, moist, dense, fine to medium grained sand, homogeneous, trace coarse sand, low plasticity | |
| 95 | 15 | | | S-4 | 9<br>15<br>16 | | 7 | SM | @15': Silty SAND, reddish brown, moist, dense, mostly fine grained sand, laminated, uniform | |
| 90 | 20 | | | R-5 | 22<br>50/6" | 105 | 8 | SP | @20': Poorly-graded SAND, yellowish brown, moist, very dense, mostly fine sand, FeO specs, uniform, homogeneous | |
| 85 | 25 | | | S-6 | 12<br>15<br>19 | | 7 | SP-SM | @25': Poorly-graded SAND with silt, yellowish brown, moist, dense, mostly fine sand, oxidized specs/blebs, silt laminations | |
| 80 | 30 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-1

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 110' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 80 | 30 | | | R-7 | 16<br>31<br>50/5.5" | 104 | 4 | SP | @30': Poorly-graded SAND, yellowish brown, moist, very dense, primarily fine grained sand, oxidized, uniform/ homogeneous, little to no fines | |
| | | | | | | | | | **Total Depth 31.5' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| 75 | 35 | | | | | | | | | |
| 70 | 40 | | | | | | | | | |
| 65 | 45 | | | | | | | | | |
| 60 | 50 | | | | | | | | | |
| 55 | 55 | | | | | | | | | |
| 50 | 60 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-2

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 106' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| 105 | 0 | | | | | | | SC | @Surface: 2-inch asphalt concrete over 8-inch aggregate base<br>**Artificial Fill, Undocumented (Afu)**<br>Clayey SAND, dark brown, mottled yellow brown, fine to coarse grained sand, light to medium plasticity, some fine subrounded gravel, pockets of poorly graded SAND<br>@2': steel pipe encountered; sidestep boring out 5 feet | |
| 100 | 5 | | | S-1 | 3<br>5<br>8 | | 11 | SM | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@4': Silty SAND, reddish brown, moist, fine grained sand, uniform<br>@5': Silty SAND, reddish brown, saturated (recent rain), medium dense, decreased moisture with depth, fine sand, MnO specs-smeared | |
| | | | | R-2 | 15<br>21<br>25 | 116 | 11 | SP-SM | @7.5': Poorly-graded SAND with silt and clay, yellowish brown, slightly moist, dense, fine to medium grained sand, some clay, low plasticity, pocket of grayish white sand, 3-inch thick filling downward sequences | |
| 95 | 10 | | | S-3 | 8<br>14<br>14 | | 9 | | @10': medium dense, MnO and FeO specs | |
| 90 | 15 | | | R-4 | 9<br>19<br>19 | 122 | 10 | SC | @15': Clayey SAND, olive brown, moist, dense, low plasticity, fine grained sand, abundant Feo specs, pinhole pores, thinly laminated, some poorly-graded sand layers | |
| 85 | 20 | | | S-5 | 5<br>11<br>12 | | 2 | SP | @20': Poorly-graded SAND, yellowish brown, slightly moist, medium dense, primarily fine grained SAND, little to no fines, oxidized laminae, uniform and homogeneous | |
| 80 | 25 | | | R-6 | 4<br>15<br>25 | 102 | 3 | | @25': medium dense | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-2

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 106' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | 30 | | | S-7 | 7<br>15<br>20 | | 4 | | @30': Poorly-graded SAND, orange brown, dense, highly oxidized, well-sorted/no fines, uniform and homogeneous | |
| | | | | | | | | | **Total Depth 31.5' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| 70 | 35 | | | | | | | | | |
| 65 | 40 | | | | | | | | | |
| 60 | 45 | | | | | | | | | |
| 55 | 50 | | | | | | | | | |
| 50 | 55 | | | | | | | | | |
| | 60 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-3

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 108' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| | 0 | | | | | | | | @Surface: 2-inch asphalt concrete over 8-inch aggregate base | |
| | | | | | | | | | **Artificial Fill, Undocumented (Afu)** | |
| 105 | | | | | | | | CL | Sandy CLAY with gravel, dark gray, mottled yellow smears, very moist, medium plasticity, fine subrounded gravel, fine to medium grained sand, trace coarse sand | |
| | 5 | | | S-1 | 2<br>2<br>3 | | 20 | | @5': medium stiff, mottled green/black/red/yellow | |
| | | | | | | | | | **Quaternary Age Old Eolian and Dune Deposits (Qoe)** | |
| 100 | | | | R-2 | 2<br>2<br>5 | 100 | 25 | CL | @7.5': Lean CLAY, orange brown, very moist, medium stiff, medium to high plasticity, undulatory laminae, MnO specs, trace micas | DS,CN |
| | 10 | | | S-3 | 2<br>3<br>6 | | 12 | SP | @10': Poorly-graded SAND, light brown, loose, mostly fine grained SAND, homogeneous<br>@11': sharp contact to Sandy CLAY, orange brown, moist, stiff, low to medium plasticity, micaceous, thinly laminated | |
| 95 | | | | | | | | | | |
| | 15 | | | R-4 | 5<br>5<br>9 | 115 | 14 | SC | @15': Clayey SAND, reddish brown, slightly moist, loose, fine to coarse grained SAND, low to medium plasticity, trace micas, oxidized blebs-smeared | |
| 90 | | | | | | | | | | |
| | 20 | | | S-5 | 5<br>8<br>11 | | 4 | SP | @20': Poorly-graded SAND, light brown, very moist, medium dense, primarily fine sand, little to no fines, homogeneous/ uniform | |
| 85 | | | | | | | | | | |
| | 25 | | | R-6 | 10<br>21<br>35 | 106 | 5 | SP-SM | @25': Poorly-graded SAND with silt, light brown, very moist, medium dense, primarily fine SAND, little to no fines, homogeneous/ uniform, 2.5-inch thick fining downward sequences to a silty sand | |
| 80 | | | | | | | | | | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-3

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 108' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | N S | | S-7 | 9<br>12<br>10 | | 12 | | @30': medium dense<br>@31': gradual contact to CLAY, olive brown, very stiff, oxidized smears, medium plasticity, some fine grained sand | |
| 75 | | | | | | | | | **Total Depth 31.5' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| | 35 | | | | | | | | | |
| 70 | | | | | | | | | | |
| | 40 | | | | | | | | | |
| 65 | | | | | | | | | | |
| | 45 | | | | | | | | | |
| 60 | | | | | | | | | | |
| | 50 | | | | | | | | | |
| 55 | | | | | | | | | | |
| | 55 | | | | | | | | | |
| 50 | | | | | | | | | | |
| | 60 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-4

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 105' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N / S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 105 | 0 | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| | | | | | | | | | @Surface: 3-inch asphalt concrete over 12-inch aggregate base | |
| | | | | B-1 | | | | SC-SM | **Artificial Fill, Undocumented (Afu)**<br>@1.3': Silty clayey SAND, black/dark gray, moist, slightly odorous, low plasticity, fine sand, some fine subrounded gravel | |
| 100 | 5 | | | R-1 | 7<br>10<br>16 | 119 | 15 | CL-ML | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@5': Silty CLAY, reddish brown, moist, very stiff, low plasticity, manganese oxide specs, pinhole pores, trace micas | |
| | | | | S-2 | 4<br>8<br>14 | | 16 | CL | @7.5': Sandy CLAY, reddish brown, slightly moist, very stiff, low to medium plasticity, fine to medium sand, oxidized | |
| 95 | 10 | | | R-3 | 5<br>13<br>20 | 123 | 13 | SC | @10': Clayey SAND, reddish brown, slightly moist, medium density, low to medium plasticity, fine to medium sand, oxidized | |
| 90 | 15 | | | S-4 | 6<br>9<br>9 | | 10 | | @15': Clayey SAND, reddish brown, moist, medium density, fine to medium sand, low plasticity, thinly laminated silt layers-undulatory | |
| 85 | 20 | | | R-5 | 7<br>15<br>30 | 104 | 5 | SP | @20': Poorly-graded SAND, orange (highly oxidized), moist, medium density, primarily fine grained sand, little to no fines present, uniform, homogenous | |
| 80 | 25 | | | S-6 | 8<br>17<br>21 | | 4 | SP | @25': Poorly-graded SAND, yellowish brown/ orange (highly oxidized), slightly moist, dense, mostly fine sand, 2" layer of medium to coarse grained sand that is coarsening downward, few to no fines present | |
| 75 | 30 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-4

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 105' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | 30 | | | R-7 | 16<br>40<br>50/3 | 105 | 4 | SP/SW | @30': Alternating layers of poorly-graded and well-graded SANDS, moist, very dense, coarsening downward sequences interlayed with oxidized sand layers, few fines present | |
| | | | | | | | | | **Total Depth 31.25' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| 70 | 35 | | | | | | | | | |
| 65 | 40 | | | | | | | | | |
| 60 | 45 | | | | | | | | | |
| 55 | 50 | | | | | | | | | |
| 50 | 55 | | | | | | | | | |
| 45 | 60 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-5

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 107' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| | 0 | | | | | | | | @Surface: 2.5-inch asphalt concrete over 7-inch aggregate base | |
| | | | | B-1 | | | | SM | **Artificial Fill, Undocumented (Afu)**<br>@0.8': Silty SAND, dark brown, moist, fine sand | |
| 105 | | | | | | | | | | |
| | | | | | | | | CL | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@3': Sandy CLAY, dark grayish brown, moist, low plasticity, fine to medium grained sand | |
| | 5 | | | R-1 | 4<br>5<br>10 | 122 | 8 | SM | @5': Silty SAND, reddish brown, moist, loose, fine grained SAND, non plastic | DS,CN |
| | | | | | | | | CL-ML | @6': Silty CLAY, dark brown, moist, stiff, medium to high plasticity, trace amount of fine sand | |
| 100 | | | | S-2 | 4<br>7<br>10 | | 16 | CL | @7.5': Lean CLAY, reddish brown, slightly moist, very stiff, low plasticity, manganese oxide specs and calcium carbonate veins, trace fine to medium sand and medium subrounded gravel | |
| | 10 | | | R-3 | 8<br>20<br>32 | 118 | 14 | | @10': hard | DS,CN |
| 95 | | | | | | | | | | |
| | 15 | | | S-4 | 2<br>3<br>3 | | 14 | | @15': CLAY with sand, yellowish brown, moist, medium stiff, low to medium plasticity, thin laminae of fine grained sand, trace micas, trace FeO staining | |
| 90 | | | | | | | | | | |
| | 20 | | | R-5 | 4<br>14<br>18 | 104 | 4 | SP-SM | @20': Poorly-graded SAND with silt, light brown, slightly moist, medium dense, mostly fine grained sand, uniform and homogenous | |
| 85 | | | | | | | | | | |
| | 25 | | | S-6 | 5<br>9<br>10 | | 4 | SP | @25': Poorly-graded SAND, yellow brown, moist, medium dense, fine to medium sand, uniform, trace oxidation | |
| 80 | | | | | | | | | | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-5

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 107' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | | | R-7 | 15<br>32<br>39 | 106 | 4 | SP | @30': dense, oxidized veins | |
| 75 | | | | | | | | | **Total Depth 31.5' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| | 35 | | | | | | | | | |
| 70 | | | | | | | | | | |
| | 40 | | | | | | | | | |
| 65 | | | | | | | | | | |
| | 45 | | | | | | | | | |
| 60 | | | | | | | | | | |
| | 50 | | | | | | | | | |
| 55 | | | | | | | | | | |
| | 55 | | | | | | | | | |
| 50 | | | | | | | | | | |
| | 60 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LB-6

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 103' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| | 0 | | | | | | | | @Surface: 2.5-inch asphalt concrete over 6.5-inch aggregate base | |
| | | | | B-1 | | | | SC-SM | **Artificial Fill, Undocumented (Afu)**<br>@0.7': Clayey SAND, dark brown, moist, low plasticity, mottled black/light brown, fine grained sand | MD,DS, EI,CN, RV,CR |
| 100 | | | | | | | | SM | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@3': Silty SAND, reddish brown, very moist-wet (recent rainfall), nonplastic, fine grained sand | |
| | 5 | | | S-1 | 4<br>9<br>13 | | 15 | CL | @5': Sandy CLAY, reddish brown, moist, very stiff, manganese oxide specs, medium plasticity, fine grained sand | |
| 95 | | | | R-2 | 6<br>14<br>22 | 94 | 15 | | @7.5': highly oxidized | |
| | 10 | | | S-3 | 6<br>10<br>10 | | 10 | SC | @10': Clayey SAND, reddish brown, slightly moist, medium density, manganese oxide specs, pinhole porosity, low plasticity, fine grained sand | |
| 90 | | | | | | | | | | |
| | 15 | | | R-4 | 7<br>12<br>25 | 103 | 5 | SP | @15': Poorly-graded SAND, highly oxidized orange, slightly moist, medium density, fine grained sand, homogenous and uniform | |
| 85 | | | | | | | | | | |
| | 20 | | | S-5 | 9<br>15<br>21 | | 3 | | @20': yellow brown, moist, dense | |
| 80 | | | | | | | | | | |
| | 25 | | | R-6 | 13<br>25<br>45 | 105 | 2 | | @25': dense, uniform, with trace oxidation, thinly laminated | |
| 75 | | | | | | | | | | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LB-6

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 103' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N / S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | 30 | | | S-7 | 9<br>21<br>40 | | 3 | SP-SM | @30': Silty poorly-graded SAND, yellow brown, moist, very dense, fine to medium grained sand, with oxidized stripes/streaks | |
| 70 | | | | | | | | | **Total Depth 31.5' bgs**<br>**No Groundwater encountered during drilling**<br>**Boring backfilled to ground surface with spoils and patched with cold-mix asphalt concrete** | |
| | 35 | | | | | | | | | |
| 65 | | | | | | | | | | |
| | 40 | | | | | | | | | |
| 60 | | | | | | | | | | |
| | 45 | | | | | | | | | |
| 55 | | | | | | | | | | |
| | 50 | | | | | | | | | |
| 50 | | | | | | | | | | |
| | 55 | | | | | | | | | |
| 45 | | | | | | | | | | |
| | 60 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LP-1

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 107' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | N S | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| 105 | 0 | | | B-1 | | | | SC-SM | @Surface: 4.5-inch asphalt concrete over 3-inch aggregate base<br>**Artificial Fill, Undocumented (Afu)**<br>Clayey SAND, olive brown, very moist, fine grained sand, mottled red/yellow | MD,DS, EI,CN, RV,CR |
| 100 | 5 | | | S-1 | 2<br>6<br>10 | | 19 | CL | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@4': Sandy CLAY, reddish brown, moist, fine grained sand, medium plasticity, oxidized, MnO Specs<br>@5': CLAY, reddish brown, slightly moist, very stiff, medium to high plasticity, CaCO3 precipitates, MnO specs, trace coarse-grained sand | |
| 95 | 10 | | | S-2 | 7<br>12<br>14 | | 12 | | @8.5': Sandy CLAY, reddish olive brown, moist, hard, some fine grained sand, low plasticity, micaceous, oxidized | |
| 90 | 15 | | | | | | | | **Total Depth 10' bgs**<br>**No groundwater encountered during drilling**<br>**Installed temporary percolation test well using 2" diameter pipe. Solid pipe from 0'-5' and 0.020" screened pipe from 5'-10'. No. 3 Monterey SAND placed in annulus from 4'-10'. Upon completion of percolation test, pipe was removed and boring was backfilled with soil cuttings and patched with cold-mix asphalt concrete** | |
| 85 | 20 | | | | | | | | | |
| 80 | 25 | | | | | | | | | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LP-2

| | | | |
|---|---|---|---|
| **Project No.** | 13837.001 | **Date Drilled** | 2-28-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 106' |
| **Location** | See Figure 2 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 105 | 0 | | | | | | | CL | @Surface: 2-inch asphalt concrete over 5-inch aggregate base<br>**Artificial Fill, Undocumented (Afu)**<br>@0.6': CLAY, dark brown, moist, medium plasticity, some fine sand | |
| | 5 | | | S-1 | 5<br>3<br>5 | | 18 | | @4': Sandy CLAY, reddish brown, moist, low plasticity, fine grained sand<br>@5': CLAY, dark gray, medium stiff, mottled green/ blue/gray, miscellaneous compositions of soils | |
| 100 | | | | | | | | CL | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@7': CLAY, reddish brown, moist, some fine grained sand, MnO specs, oxidized, medium plasticity | |
| | 10 | | | S-2 | 6<br>13<br>18 | | 17 | | @8.5': Silty CLAY, reddish brown, slightly moist, hard, low plasticity, some fine grained sand, oxidized stains | |
| 95 | | | | | | | | | **Total Depth 10' bgs**<br>**No groundwater encountered during drilling**<br>**Installed temporary percolation test well using 2" diameter pipe. Solid pipe from 0'-5' and 0.020" screened pipe from 5'-10'. No. 3 Monterey SAND placed in annulus from 4'-10'. Upon completion of percolation test, pipe was removed and boring was backfilled with soil cuttings and patched with cold-mix asphalt concrete** | |
| | 15 | | | | | | | | | |
| 90 | | | | | | | | | | |
| | 20 | | | | | | | | | |
| 85 | | | | | | | | | | |
| | 25 | | | | | | | | | |
| 80 | | | | | | | | | | |
| | 30 | | | | | | | | | |

*Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# SUMMARY

# OF

# CONE PENETRATION TEST DATA

Project:

**Rexford**
**9000 Airport Blvd.**
**Los Angeles, CA**
**February 28, 2023**

Prepared for:

**Mr. Jeff Pflueger**
**Leighton Consulting**
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www.kehoetesting.com

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- CPT Classification/Soil Behavior Chart
- Summary of Shear Wave Velocities
- Pore Pressure Dissipation Graphs
- CPT Data Files (sent via email)

# SUMMARY
# OF
# CONE PENETRATION TEST DATA

## 1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the Rexford project located at 9000 Airport Blvd. in Los Angeles, California. The work was performed by Kehoe Testing & Engineering (KTE) on February 28, 2023. The scope of work was performed as directed by Leighton Consulting personnel.

## 2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at eight locations to determine the soil lithology. A summary is provided in **TABLE 2.1**.

| LOCATION | DEPTH OF CPT (ft) | COMMENTS/NOTES: |
|---|---|---|
| **CPT-1** | 29 | Refusal |
| **CPT-2** | 30 | |
| **CPT-3** | 30 | |
| **CPT-4** | 30 | |
| **CPT-5** | 26 | Refusal |
| **CPT-6** | 30 | |
| **CPT-7** | 50 | |
| **CPT-8** | 30 | |

**TABLE 2.1 - Summary of CPT Soundings**

## 3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone with a cone net area ratio of 0.83. The following parameters were recorded at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed
- Pore Pressure Dissipation (at selected depths)

At locations CPT-2 & CPT-7, shear wave measurements were obtained at approximately 5-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for up to 2 years for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

## 4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil behavior type on the CPT plots is derived from the attached CPT SBT plot (Robertson, "Interpretation of Cone Penetration Test…", 2009) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

The CPT data files have also been provided. These files can be imported in CPeT-IT (software by GeoLogismiki) and other programs to calculate various geotechnical parameters.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING



Steven P. Kehoe
President

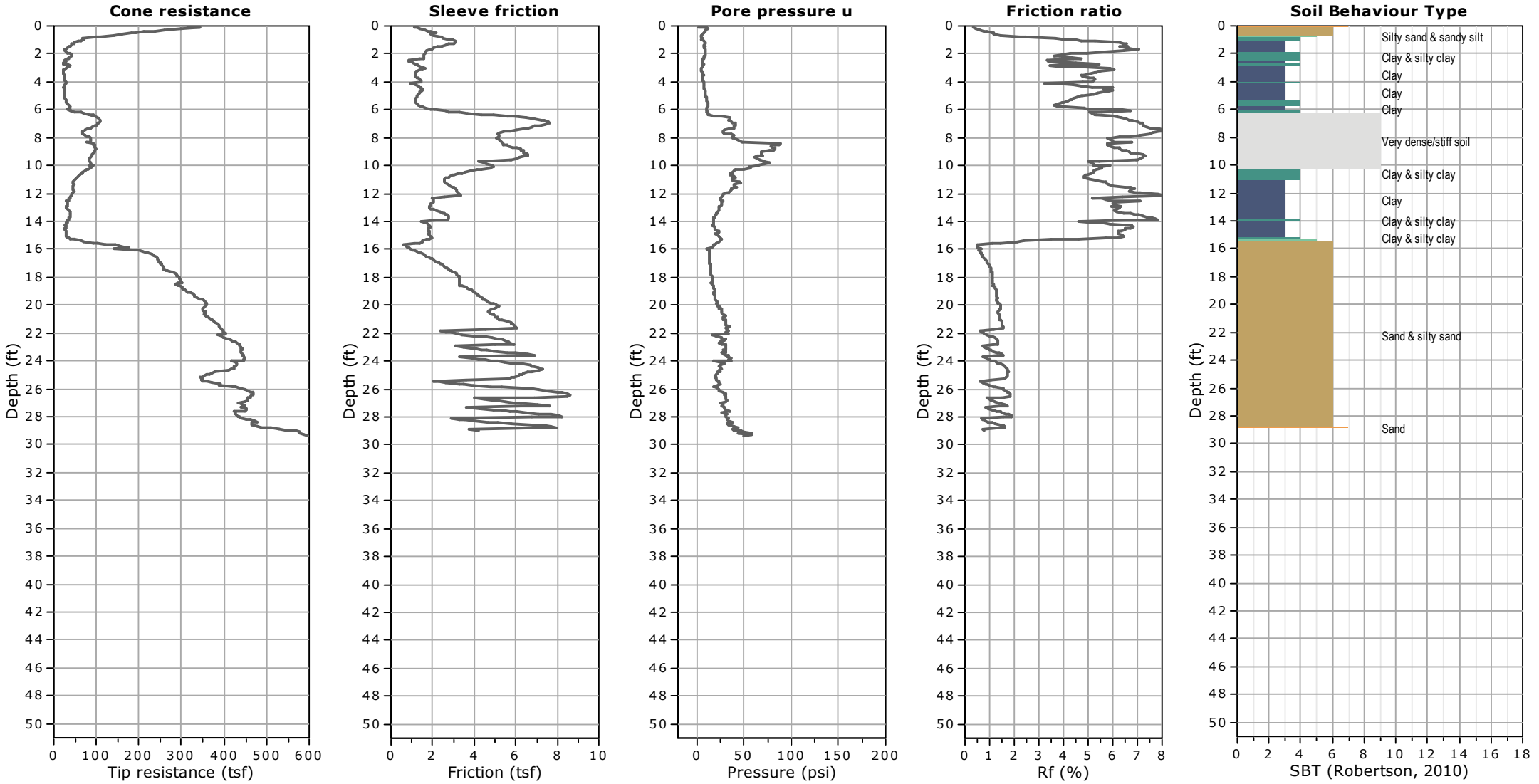
03/02/23-aga-5162

# APPENDIX

**Kehoe Testing and Engineering**
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

**Project:** **Leighton Consulting / Rexford**
**Location:** **9000 Airport Blvd, Los Angeles, CA**

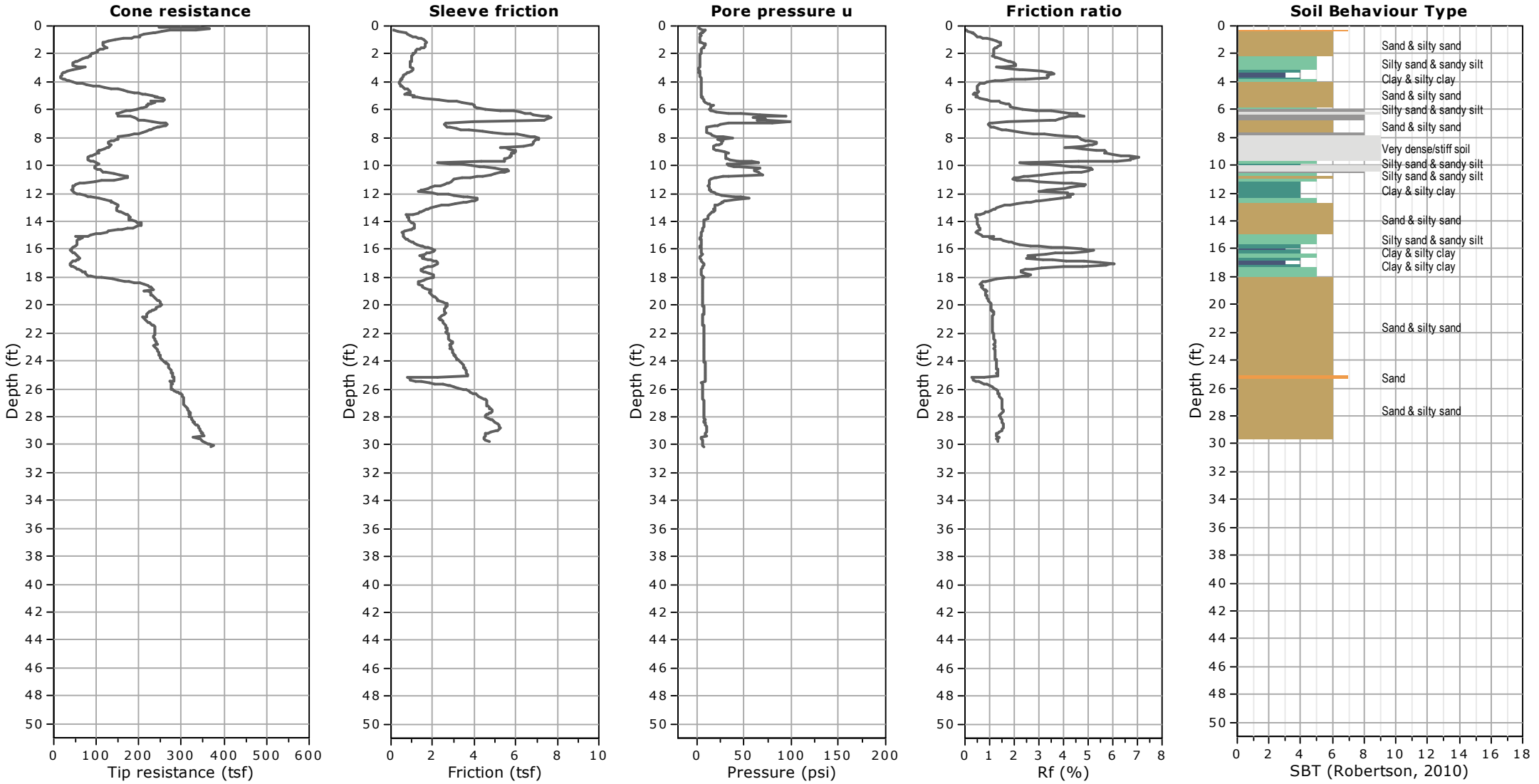
**CPT-1**
Total depth: 29.33 ft, Date: 2/28/2023



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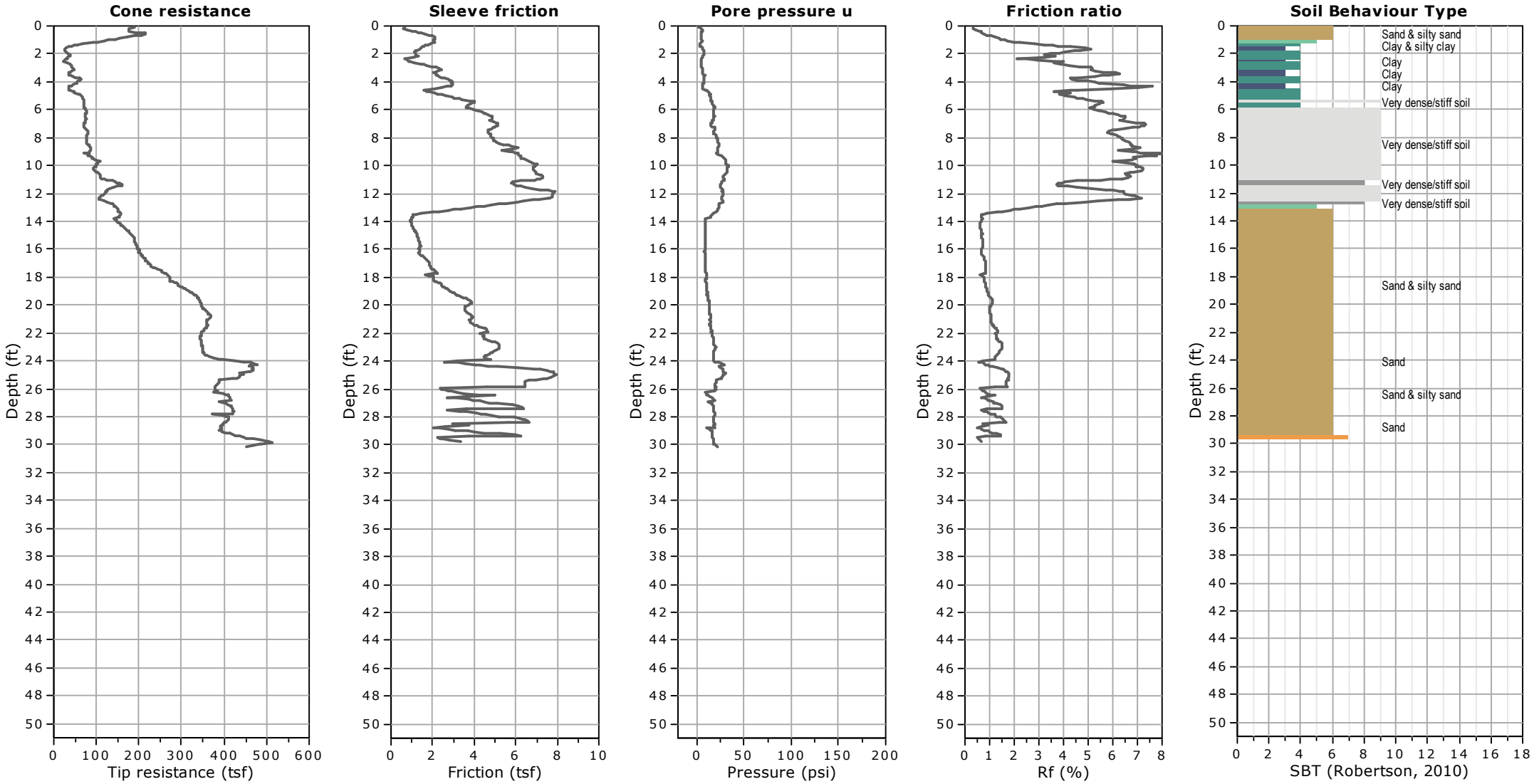
**CPT-2**
Total depth: 30.13 ft, Date: 2/28/2023



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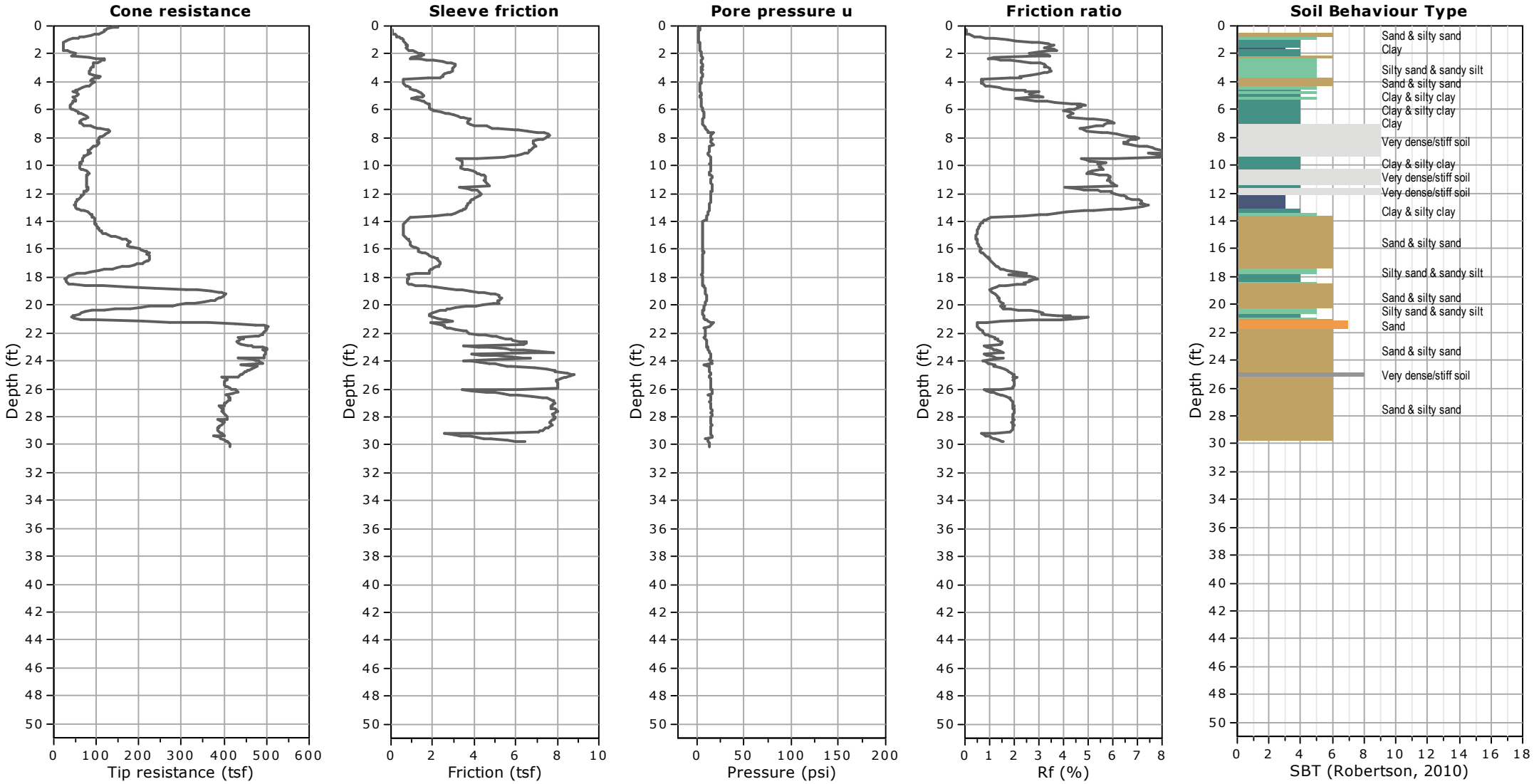
**CPT-3**
Total depth: 30.12 ft, Date: 2/28/2023



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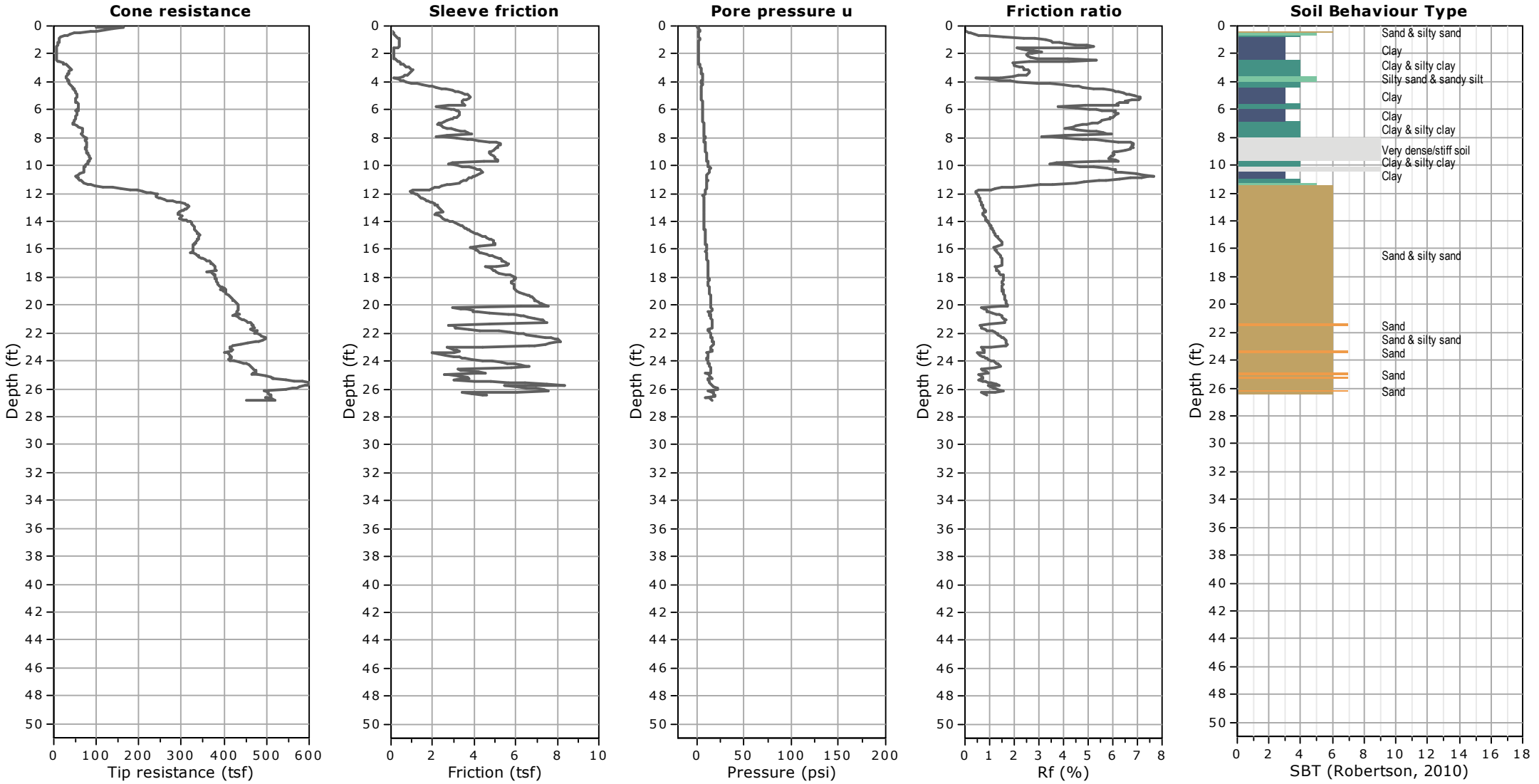
**CPT-4**
Total depth: 30.18 ft, Date: 2/28/2023



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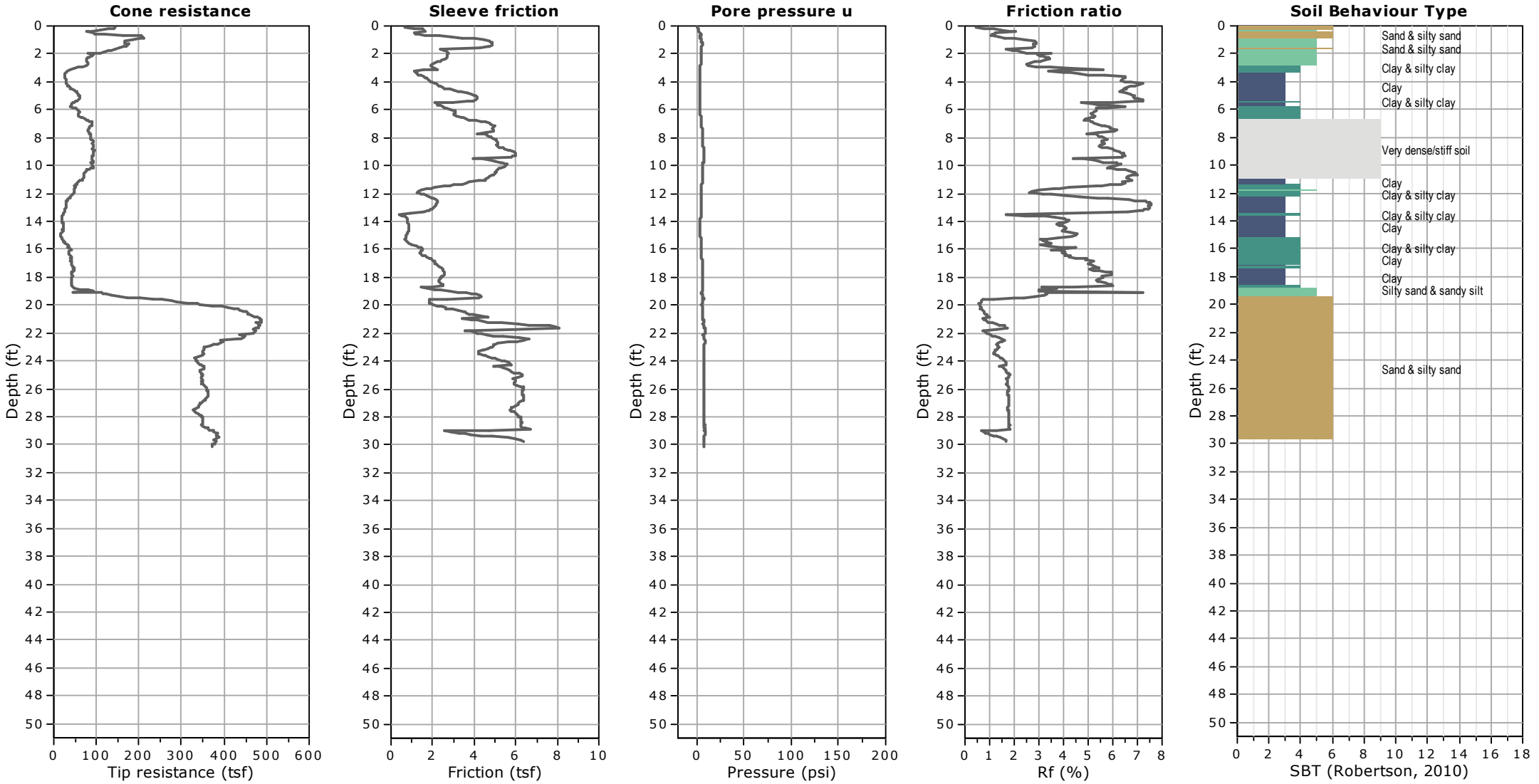
**CPT-5**
Total depth: 26.84 ft, Date: 2/28/2023



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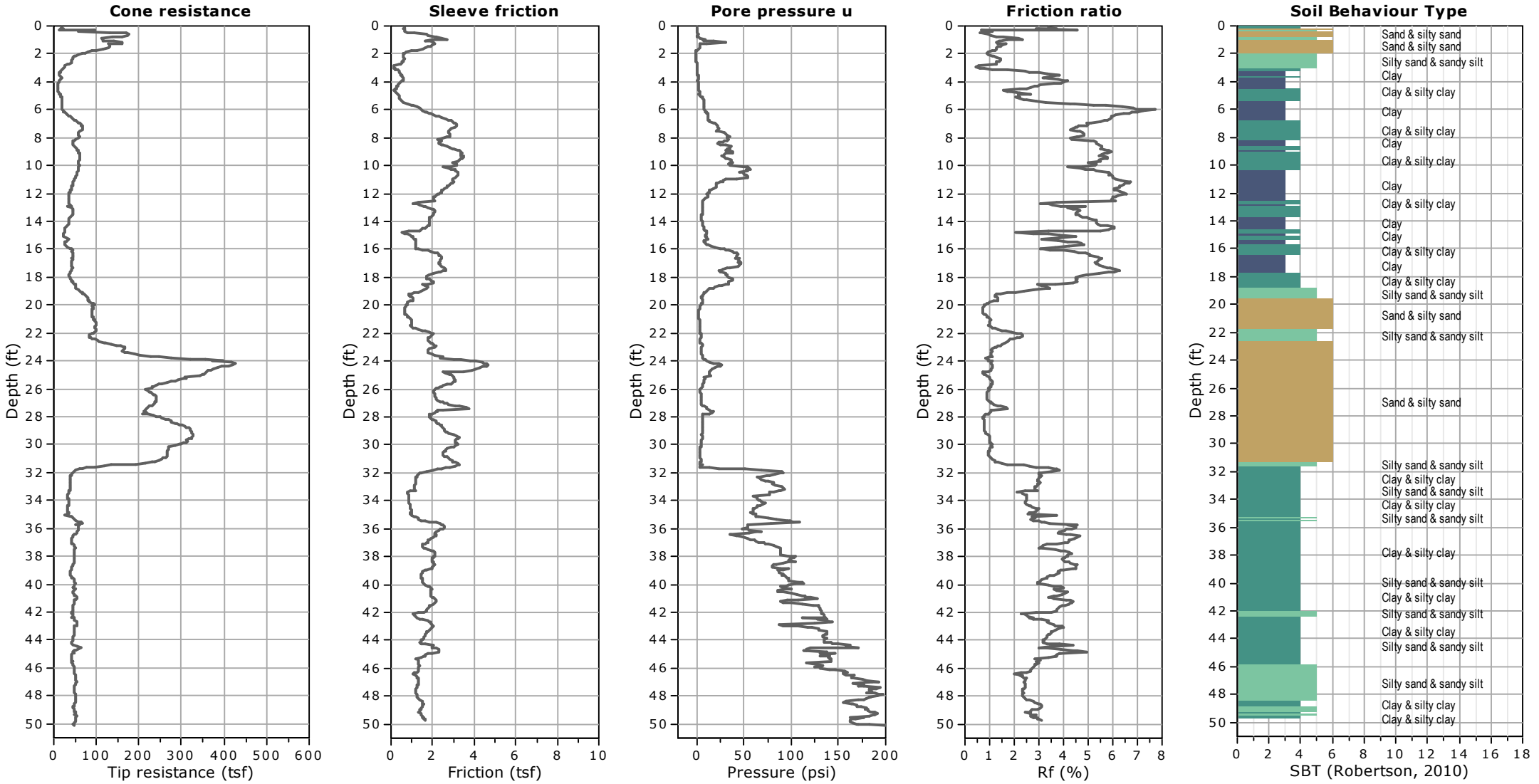
**CPT-6**
Total depth: 30.12 ft, Date: 2/28/2023



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**Project:** **Leighton Consulting / Rexford**
**Location:** **9000 Airport Blvd, Los Angeles, CA**

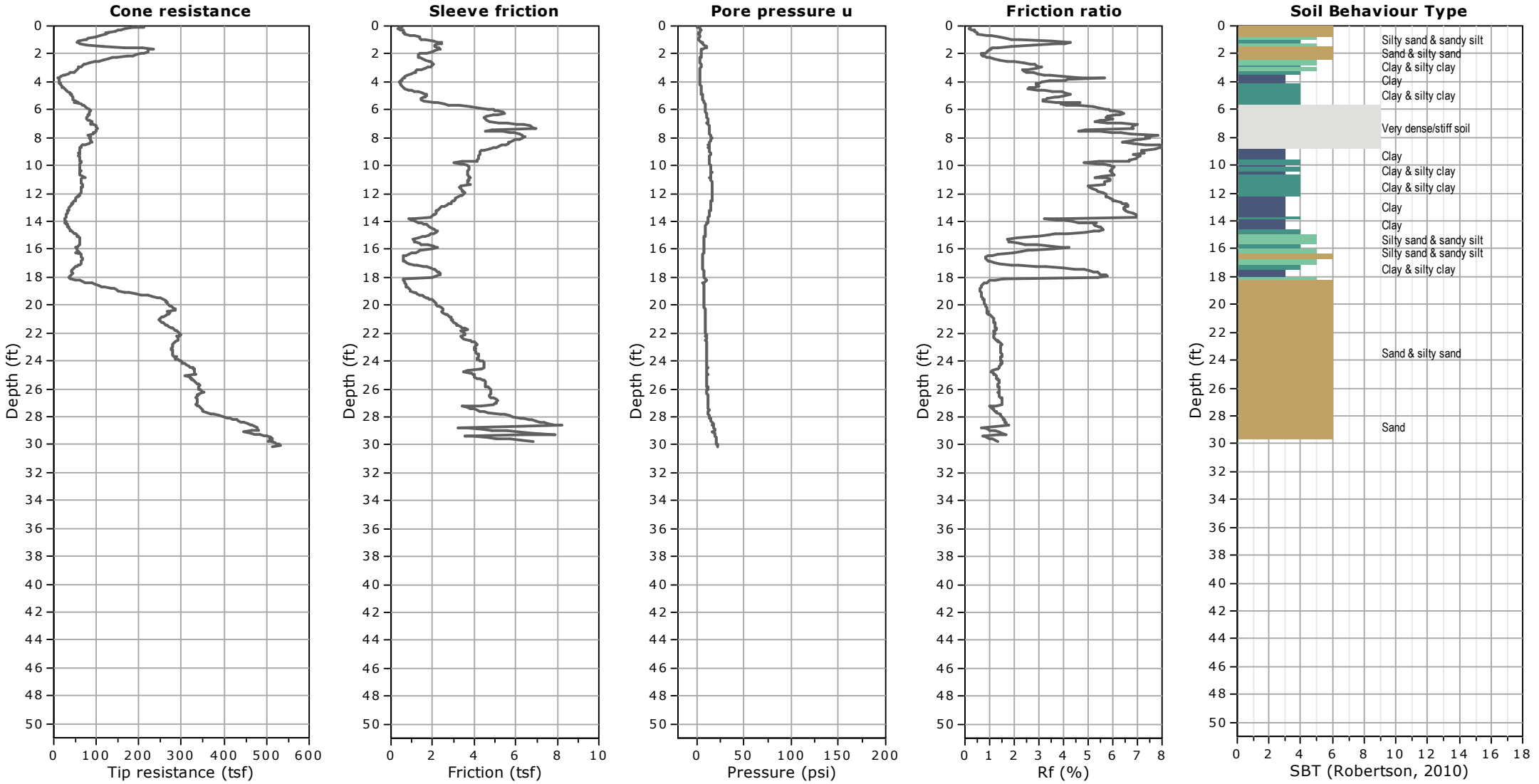
**CPT-7**
Total depth: 50.15 ft, Date: 2/28/2023



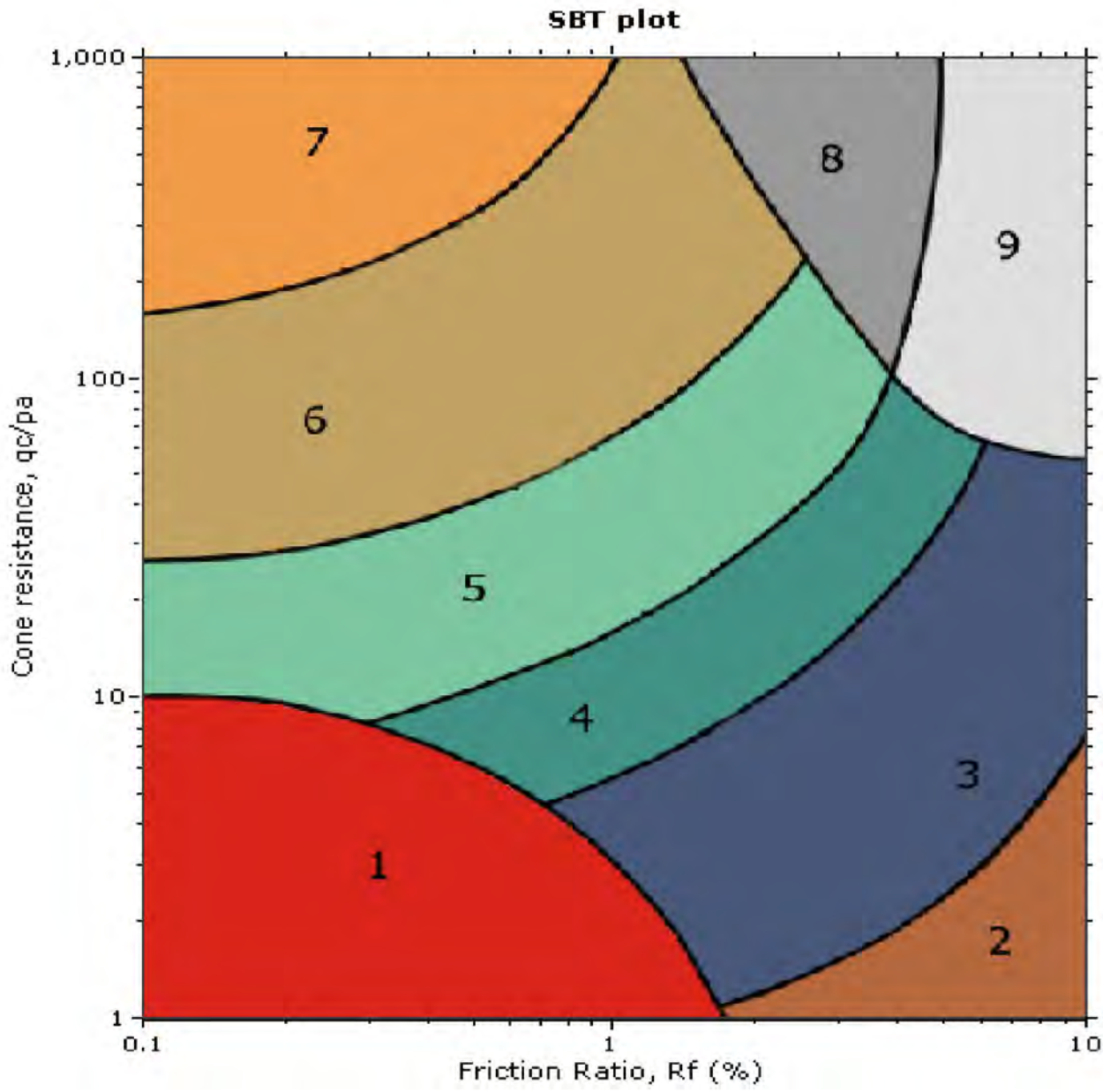
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**Project:** **Leighton Consulting / Rexford**
**Location:** **9000 Airport Blvd, Los Angeles, CA**

**CPT-8**
Total depth: 30.14 ft, Date: 2/28/2023



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**SBT legend**

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

Leighton Consulting
Rexford Airport Blvd.
Los Angeles, CA

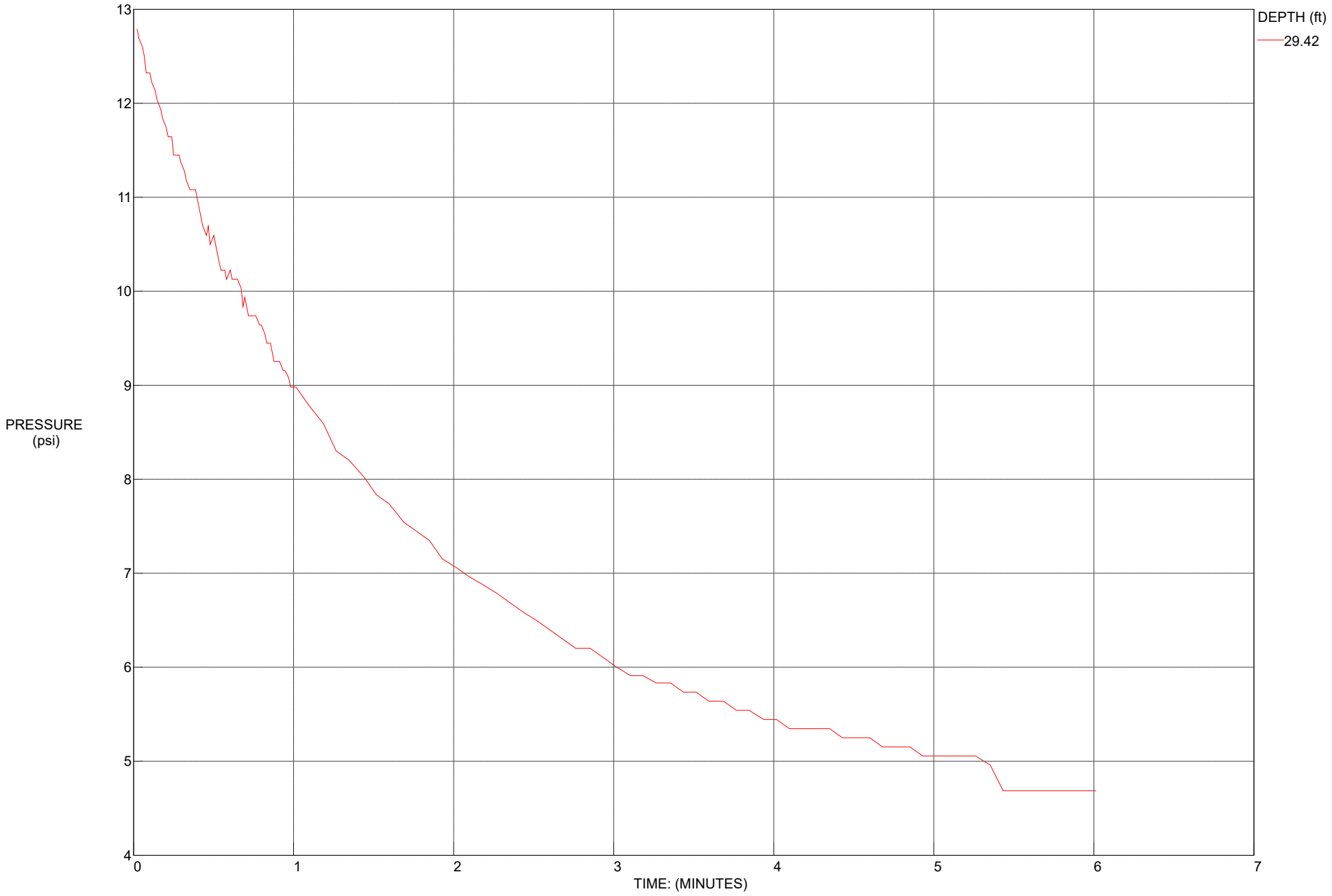
CPT Shear Wave Measurements

| Location | Tip Depth (ft) | Geophone Depth (ft) | Travel Distance (ft) | S-Wave Arrival (msec) | S-Wave Velocity from Surface (ft/sec) | Interval S-Wave Velocity (ft/sec) |
|---|---|---|---|---|---|---|
| CPT-2 | 5.05 | 4.05 | 4.52 | 5.44 | 830 | |
| | 10.07 | 9.07 | 9.29 | 10.28 | 903 | 986 |
| | 15.09 | 14.09 | 14.23 | 14.56 | 977 | 1155 |
| | 20.08 | 19.08 | 19.18 | 18.72 | 1025 | 1191 |
| | 25.07 | 24.07 | 24.15 | 22.38 | 1079 | 1357 |
| | 30.09 | 29.09 | 29.16 | 25.48 | 1144 | 1615 |
| CPT-7 | 5.02 | 4.02 | 4.49 | 4.90 | 916 | |
| | 10.01 | 9.01 | 9.23 | 10.92 | 845 | 787 |
| | 15.06 | 14.06 | 14.20 | 16.16 | 879 | 949 |
| | 20.05 | 19.05 | 19.15 | 21.40 | 895 | 945 |
| | 25.07 | 24.07 | 24.15 | 26.42 | 914 | 996 |
| | 30.09 | 29.09 | 29.16 | 29.76 | 980 | 1499 |
| | 35.04 | 34.04 | 34.10 | 34.80 | 980 | 980 |
| | 40.06 | 39.06 | 39.11 | 40.36 | 969 | 902 |
| | 45.05 | 44.05 | 44.10 | 45.26 | 974 | 1017 |
| | 50.16 | 49.16 | 49.20 | 49.88 | 986 | 1105 |

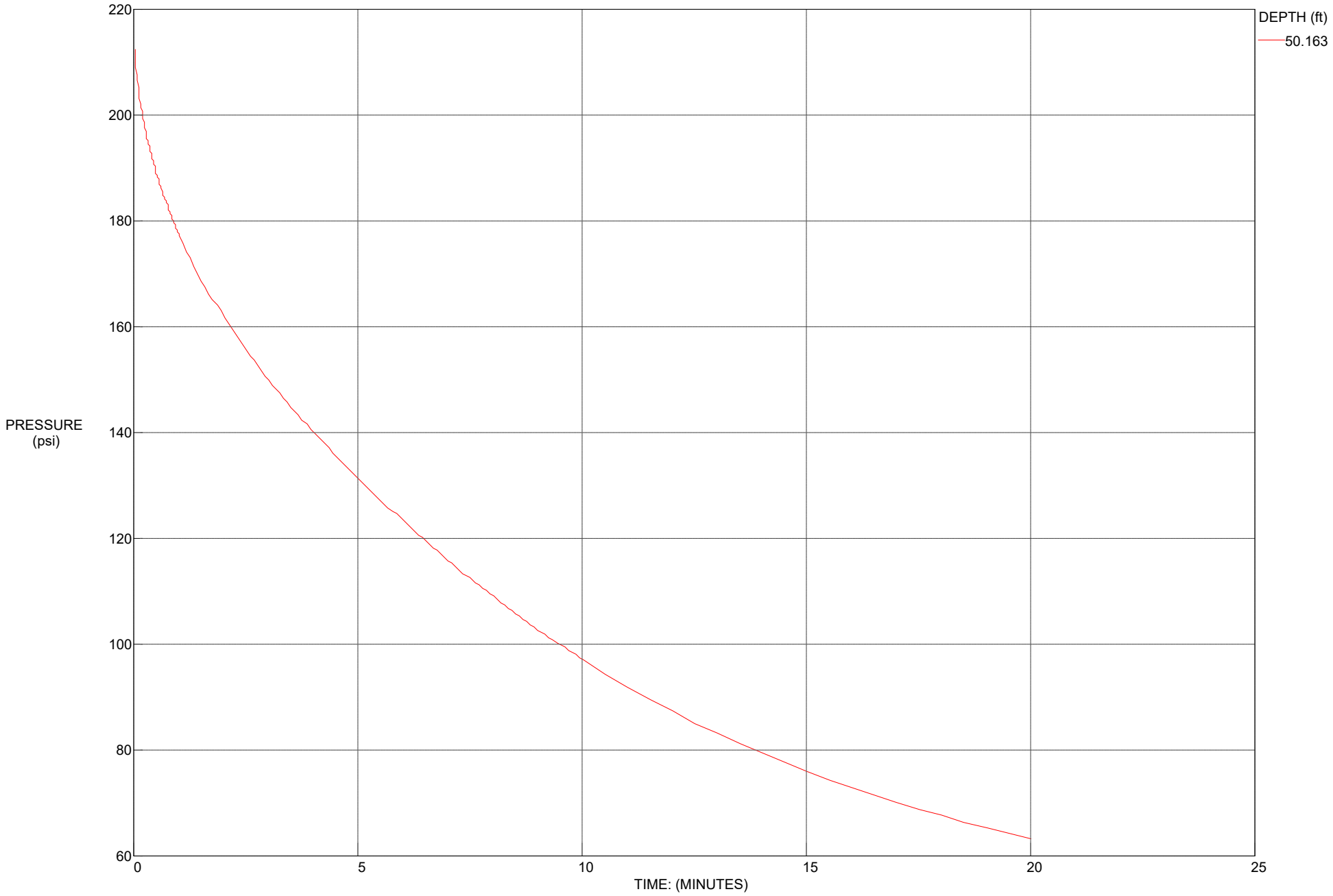
Shear Wave Source Offset - 2 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

TEST ID: CPT-2


DEPTH (ft)
29.42
PRESSURE
(psi)
13
12
11
10
9
8
7
6
5
4
0
1
2
3
4
5
6
7
TIME: (MINUTES)

TEST ID: CPT-7


DEPTH (ft)
50.163
PRESSURE
(psi)
220
200
180
160
140
120
100
80
60
0
5
10
15
20
25
TIME: (MINUTES)

# APPENDIX B

# PERCOLATION TEST DATA

## Boring Percolation Test Data Sheet

| | | | | |
|---|---|---|---|---|
| **Project Number:** | 13837.001 | **Test Hole Number:** | LP-1 | |
| **Project Name:** | Rexford LA Airport Blvd | **Date Excavated:** | 2/28/2023 | |
| **Earth Description:** | Alluvium | **Date Tested:** | 3/2/2023 | |
| **Liquid Description:** | Tap water | **Depth of boring (ft):** | 10 | |
| **Tested By:** | ECB | **Radius of boring (in):** | 4 | |
| **Time Interval Standard** | | **Radius of casing (in):** | 1 | |
| **Start Time for Pre-Soak:** | 9:00 | **Length of slotted of casing (ft):** | | 5 |
| **Start Time for Standard:** | 10:00 | **Depth to Initial Water Depth (ft):** | | 5 |
| **Standard Time Interval** | | **Porosity of Annulus Material, *n* :** | | 0.35 |
| **Between Readings, mins:** | 30 | **Bentonite Plug at Bottom:** No | | |

Field Percolation Data - Falling Head Test

| Reading | Time | Time Interval, Δt (min.) | Initial/Final Depth to Water (ft.) | Initial/Final Water Height, $H_0/H_f$ (in.) | Total Water Drop, Δd (in.) | Infiltration Rate (in./hr.) |
|---|---|---|---|---|---|---|
| 1 | 10:30 | 30 | 5.00 | 60.0 | 1.2 | 0.03 |
| | 11:00 | | 5.10 | 58.8 | | |
| 2 | 11:00 | 30 | 5.00 | 60.0 | 1.2 | 0.03 |
| | 11:30 | | 5.10 | 58.8 | | |
| 3 | 11:30 | 30 | 5.00 | 60.0 | 1.3 | 0.03 |
| | 12:00 | | 5.11 | 58.7 | | |
| 4 | 12:00 | 30 | 5.00 | 60.0 | 1.2 | 0.03 |
| | 12:30 | | 5.10 | 58.8 | | |
| 5 | 12:30 | 30 | 5.00 | 60.0 | 1.4 | 0.04 |
| | 13:00 | | 5.12 | 58.6 | | |
| 6 | 13:00 | 30 | 5.00 | 60.0 | 1.2 | 0.03 |
| | 13:30 | | 5.10 | 58.8 | | |
| 7 | 13:30 | 30 | 5.00 | 60.0 | 1.1 | 0.03 |
| | 14:00 | | 5.09 | 58.9 | | |
| 8 | 14:00 | 30 | 5.00 | 60.0 | 1.2 | 0.03 |
| | 14:30 | | 5.10 | 58.8 | | |

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

**Measured Infiltration Rate, I (Average of Last 3 Readings) = 0.03 in./hr.**

**Design Infiltration Rate**

Reduction Factor from Test Procedure, $RF_t$ = 1

Reduction Factor for Site Variability, # of Tests and Investigation, $RF_v$ = 1

Reduction Factor for Long Term Siltation, Plugging and Maintenance, $RF_t$ = 1

Reduction Factor, $RF = RF_t + RF_v + RF_s$ = 3

**Design Infiltration Rate = Measured Infiltration Rate / Reduction Factor (RF) = 0.01 in./hr.**

## Boring Percolation Test Data Sheet

| | | | |
|---|---|---|---|
| **Project Number:** | 13837.001 | **Test Hole Number:** | LP-2 |
| **Project Name:** | Rexford LA Airport Blvd | **Date Excavated:** | 2/28/2023 |
| **Earth Description:** | Alluvium | **Date Tested:** | 3/2/2023 |
| **Liquid Description:** | Tap water | **Depth of boring (ft):** | 10 |
| **Tested By:** | ECB | **Radius of boring (in):** | 4 |
| **Time Interval Standard** | | **Radius of casing (in):** | 1 |
| **Start Time for Pre-Soak:** | 8:30 | **Length of slotted of casing (ft):** | 5 |
| **Start Time for Standard:** | 9:30 | **Depth to Initial Water Depth (ft):** | 5 |
| **Standard Time Interval** | | **Porosity of Annulus Material, *n* :** | 0.35 |
| **Between Readings, mins:** | 30 | **Bentonite Plug at Bottom:** No | |

Field Percolation Data - Falling Head Test

| Reading | Time | Time Interval, Δt (min.) | Initial/Final Depth to Water (ft.) | Initial/Final Water Height, $H_0/H_f$ (in.) | Total Water Drop, Δd (in.) | Infiltration Rate (in./hr.) |
|---|---|---|---|---|---|---|
| 1 | 9:30 | 30 | 5.00 | 60.0 | 0.2 | 0.01 |
| | 10:00 | | 5.02 | 59.8 | | |
| 2 | 10:00 | 30 | 5.00 | 60.0 | 0.2 | 0.01 |
| | 10:30 | | 5.02 | 59.8 | | |
| 3 | 10:30 | 30 | 5.00 | 60.0 | 0.4 | 0.01 |
| | 11:00 | | 5.03 | 59.6 | | |
| 4 | 11:00 | 30 | 5.00 | 60.0 | 0.5 | 0.01 |
| | 11:30 | | 5.04 | 59.5 | | |
| 5 | 11:30 | 30 | 5.00 | 60.0 | 0.5 | 0.01 |
| | 12:00 | | 5.04 | 59.5 | | |
| 6 | 12:00 | 30 | 5.00 | 60.0 | 0.4 | 0.01 |
| | 12:30 | | 5.03 | 59.6 | | |
| 7 | 12:30 | 30 | 5.00 | 60.0 | 0.4 | 0.01 |
| | 13:00 | | 5.03 | 59.6 | | |
| 8 | 13:00 | 30 | 5.00 | 60.0 | 0.4 | 0.01 |
| | 13:30 | | 5.03 | 59.6 | | |

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

**Measured Infiltration Rate, I (Average of Last 3 Readings) = 0.01 in./hr.**

**Design Infiltration Rate**

Reduction Factor from Test Procedure, $RF_t$ = 1

Reduction Factor for Site Variability, # of Tests and Investigation, $RF_v$ = 1

Reduction Factor for Long Term Siltation, Plugging and Maintenance, $RF_t$ = 1

Reduction Factor, $RF = RF_t + RF_v + RF_s$ = 3

**Design Infiltration Rate = Measured Infiltration Rate / Reduction Factor (RF) = 0.00 in./hr.**

# APPENDIX C

# LABORATORY TEST RESULTS

Leighton
a verdantas company

# MODIFIED PROCTOR COMPACTION TEST

**ASTM D 1557**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | O. Figueroa | Date: | 03/07/23 |
| Project No.: | 13837.001 | Checked By: | A. Santos | Date: | 03/08/23 |
| Boring No.: | LB-1 | Depth (ft.): | 0-5 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Dark brown yellowish brown silty sand (SM) | | | | |

Note: Corrected dry density calculation assumes specific gravity of 2.70 and moisture content of 1.0% for oversize particles

| | | | | | |
|---|---|---|---|---|---|
| Preparation Method: | X | Moist | Scalp Fraction (%) | | Rammer Weight (lb.) = 10.0 |
| | | Dry | #3/4 | | Height of Drop (in.) = 18.0 |
| Compaction Method | X | Mechanical Ram | #3/8 | | |
| | | Manual Ram | #4 | 8.9 | Mold Volume (ft³) 0.03320 |

| TEST NO. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Wt. Compacted Soil + Mold (g) | 3892 | 3968 | 3873 | | | |
| Weight of Mold (g) | 1808 | 1808 | 1808 | | | |
| Net Weight of Soil (g) | 2084 | 2160 | 2065 | | | |
| Wet Weight of Soil + Cont. (g) | 386.0 | 423.3 | 416.8 | | | |
| Dry Weight of Soil + Cont. (g) | 364.5 | 391.1 | 377.5 | | | |
| Weight of Container (g) | 39.5 | 39.0 | 40.4 | | | |
| Moisture Content (%) | 6.62 | 9.15 | 11.66 | | | |
| Wet Density (pcf) | 138.4 | 143.4 | 137.1 | | | |
| Dry Density (pcf) | 129.8 | 131.4 | 122.8 | | | |

| | | | |
|---|---|---|---|
| **Maximum Dry Density (pcf)** | **132.0** | **Optimum Moisture Content (%)** | **8.3** |
| **Corrected Dry Density (pcf)** | **134.6** | **Corrected Moisture Content (%)** | **7.7** |

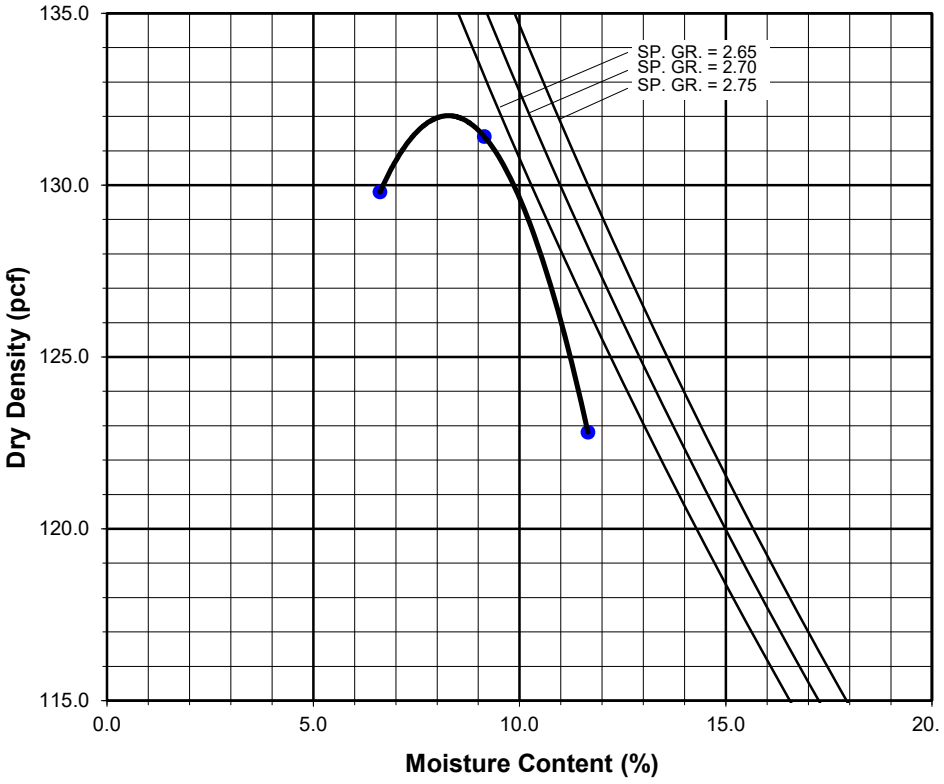
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

**Particle-Size Distribution:**
GR:SA:FI

**Atterberg Limits:**
LL,PL,PI



# MODIFIED PROCTOR COMPACTION TEST

**ASTM D 1557**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | O. Figueroa | Date: | 03/06/23 |
| Project No.: | 13837.001 | Checked By: | A. Santos | Date: | 03/08/23 |
| Boring No.: | LB-6 | Depth (ft.): | 0-3 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | | | |

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

**Mold Volume (ft³)** 0.03320 *Ram Weight = 10 lb.; Drop = 18 in.*

| TEST NO. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Wt. Compacted Soil + Mold (g) | 3717 | 3896 | 3918 | | | |
| Weight of Mold (g) | 1808 | 1808 | 1808 | | | |
| Net Weight of Soil (g) | 1909 | 2088 | 2110 | | | |
| Wet Weight of Soil + Cont. (g) | 447.5 | 356.2 | 343.6 | | | |
| Dry Weight of Soil + Cont. (g) | 427.8 | 333.5 | 316.0 | | | |
| Weight of Container (g) | 40.5 | 37.9 | 39.0 | | | |
| Moisture Content (%) | 5.09 | 7.68 | 9.96 | | | |
| Wet Density (pcf) | 126.8 | 138.6 | 140.1 | | | |
| Dry Density (pcf) | 120.6 | 128.8 | 127.4 | | | |

**Maximum Dry Density (pcf)** **129.2** **Optimum Moisture Content (%)** **8.4**

**PROCEDURE USED**

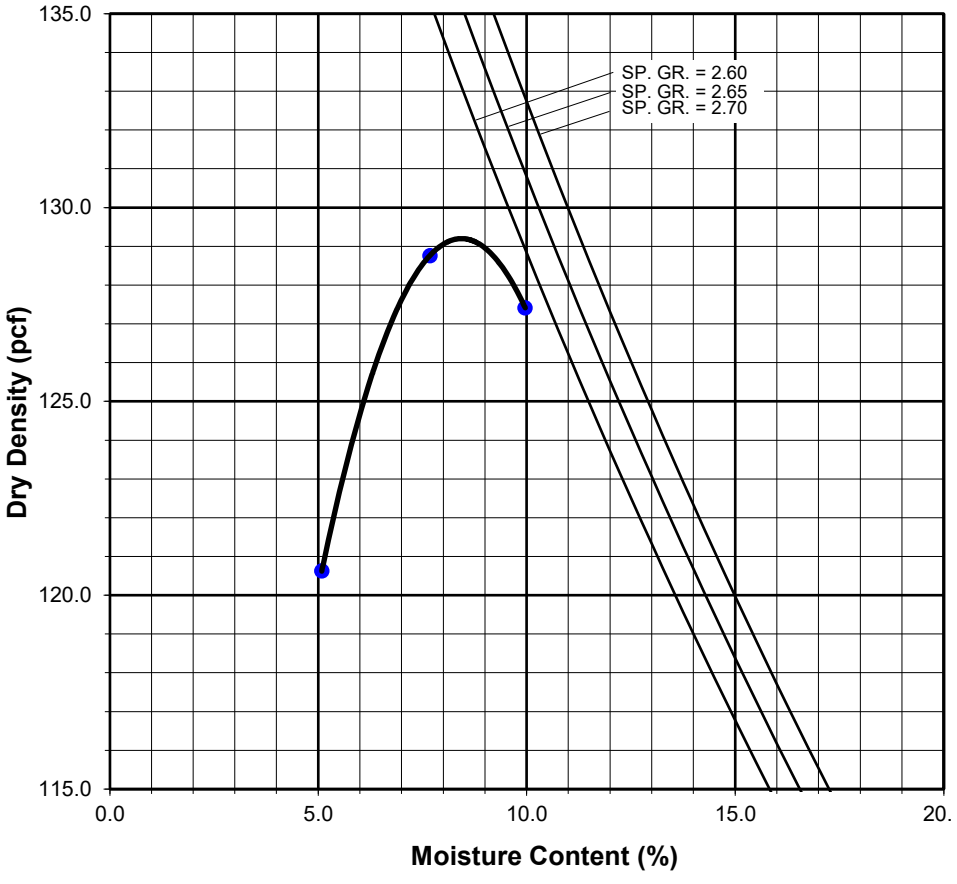
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

**Particle-Size Distribution:**
GR:SA:FI

**Atterberg Limits:**
LL,PL,PI



# MODIFIED PROCTOR COMPACTION TEST

**ASTM D 1557**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | O. Figueroa | Date: | 03/08/23 |
| Project No.: | 13837.001 | Checked By: | A. Santos | Date: | 03/13/23 |
| Boring No.: | LP-1 | Depth (ft.): | 0-5 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | | | |

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

**Mold Volume (ft³)** 0.03320 *Ram Weight = 10 lb.; Drop = 18 in.*

| TEST NO. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Wt. Compacted Soil + Mold (g) | 3683 | 3850 | 3859 | | | |
| Weight of Mold (g) | 1808 | 1808 | 1808 | | | |
| Net Weight of Soil (g) | 1875 | 2042 | 2051 | | | |
| Wet Weight of Soil + Cont. (g) | 332.8 | 467.4 | 474.4 | | | |
| Dry Weight of Soil + Cont. (g) | 311.4 | 426.6 | 423.8 | | | |
| Weight of Container (g) | 39.8 | 39.1 | 39.1 | | | |
| Moisture Content (%) | 7.88 | 10.53 | 13.15 | | | |
| Wet Density (pcf) | 124.5 | 135.6 | 136.2 | | | |
| Dry Density (pcf) | 115.4 | 122.7 | 120.4 | | | |

**Maximum Dry Density (pcf)** **123.0** **Optimum Moisture Content (%)** **11.3**

**PROCEDURE USED**

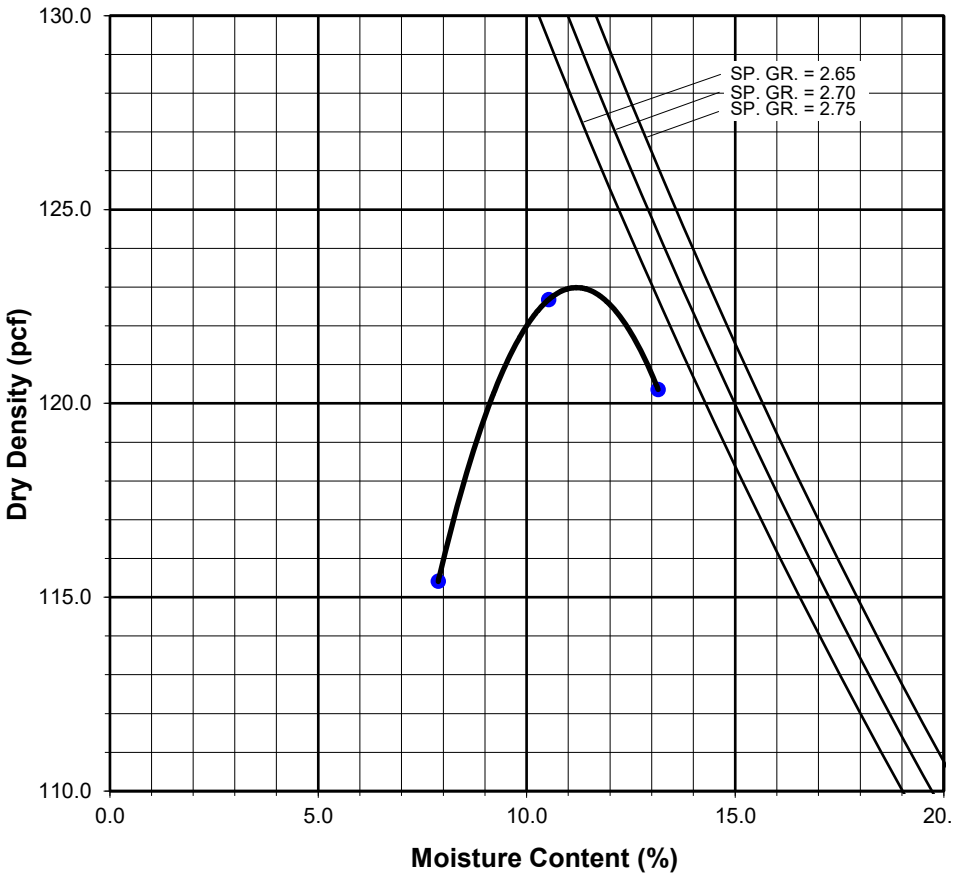
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

**Particle-Size Distribution:**
GR:SA:FI

**Atterberg Limits:**
LL,PL,PI



# EXPANSION INDEX of SOILS
**ASTM D 4829**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Berdy | Date: | 03/03/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 03/31/23 |
| Boring No.: | LB-1 | Depth (ft.): | 0-5 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Dark yellowish brown silty sand (SM) | | | | |

| | | |
|---|---|---|
| Dry Wt. of Soil + Cont. | (g) | 1000.00 |
| Wt. of Container No. | (g) | 0.00 |
| Dry Wt. of Soil | (g) | 1000.00 |
| Weight Soil Retained on #4 Sieve | | 0.00 |
| Percent Passing # 4 | | 100.00 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0005 |
| Wt. Comp. Soil + Mold (g) | 633.00 | 452.08 |
| Wt. of Mold (g) | 204.30 | 0.00 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | O | O |
| Wet Wt. of Soil + Cont. (g) | 854.90 | 656.38 |
| Dry Wt. of Soil + Cont. (g) | 795.20 | 603.09 |
| Wt. of Container (g) | 0.00 | 204.30 |
| Moisture Content (%) | 7.51 | 13.36 |
| Wet Density (pcf) | 129.3 | 136.3 |
| Dry Density (pcf) | 120.3 | 120.2 |
| Void Ratio | 0.402 | 0.402 |
| Total Porosity | 0.287 | 0.287 |
| Pore Volume (cc) | 59.3 | 59.4 |
| Degree of Saturation (%) [ $S_{meas}$] | **50.5** | 89.7 |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| 03/03/23 | 12:30 | 1.0 | 0 | 0.4275 |
| 03/03/23 | 12:40 | 1.0 | 10 | 0.4270 |
| Add Distilled Water to the Specimen | | | | |
| 03/03/23 | 13:49 | 1.0 | 69 | 0.4280 |
| 03/06/23 | 6:20 | 1.0 | 3940 | 0.4280 |
| 03/06/23 | 7:21 | 1.0 | 4001 | 0.4280 |
| | | | | |

| | |
|---|---|
| Expansion Index ($EI_{meas}$) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | **1** |

# EXPANSION INDEX of SOILS
**ASTM D 4829**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | GEB/ACS | Date: | 03/08/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 03/31/23 |
| Boring No.: | LB-6 | Depth (ft.): | 0-3 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | | | |

| | |
|---|---|
| Dry Wt. of Soil + Cont. (g) | 1000.00 |
| Wt. of Container No. (g) | 0.00 |
| Dry Wt. of Soil (g) | 1000.00 |
| Weight Soil Retained on #4 Sieve | 0.00 |
| Percent Passing # 4 | 100.00 |

| **MOLDED SPECIMEN** | Before Test | After Test |
|---|---|---|
| Specimen Diameter (in.) | 4.01 | 4.01 |
| Specimen Height (in.) | 1.0000 | 1.0125 |
| Wt. Comp. Soil + Mold (g) | 626.00 | 459.20 |
| Wt. of Mold (g) | 202.10 | 0.00 |
| Specific Gravity (Assumed) | 2.70 | 2.70 |
| Container No. | O | O |
| Wet Wt. of Soil + Cont. (g) | 854.90 | 661.30 |
| Dry Wt. of Soil + Cont. (g) | 795.20 | 596.38 |
| Wt. of Container (g) | 0.00 | 202.10 |
| Moisture Content (%) | 7.51 | 16.47 |
| Wet Density (pcf) | 127.9 | 136.8 |
| Dry Density (pcf) | 118.9 | 117.5 |
| Void Ratio | 0.417 | 0.435 |
| Total Porosity | 0.294 | 0.303 |
| Pore Volume (cc) | 61.0 | 63.6 |
| Degree of Saturation (%) [ $S_{meas}$] | **48.6** | 102.2 |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| 03/08/23 | 10:19 | 1.0 | 0 | 0.4435 |
| 03/08/23 | 10:29 | 1.0 | 10 | 0.4425 |
| Add Distilled Water to the Specimen | | | | |
| 03/08/23 | 10:50 | 1.0 | 21 | 0.4515 |
| 03/09/23 | 8:18 | 1.0 | 1309 | 0.4560 |
| 03/09/23 | 9:30 | 1.0 | 1381 | 0.4560 |
| | | | | |

| | |
|---|---|
| Expansion Index ($EI_{meas}$) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | **14** |

# EXPANSION INDEX of SOILS
**ASTM D 4829**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Berdy | Date: | 03/03/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 03/31/23 |
| Boring No.: | LP-1 | Depth (ft.): | 0-5 | | |
| Sample No.: | B-1 | | | | |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | | | |

| | | |
|---|---|---|
| Dry Wt. of Soil + Cont. | (g) | 1000.00 |
| Wt. of Container No. | (g) | 0.00 |
| Dry Wt. of Soil | (g) | 1000.00 |
| Weight Soil Retained on #4 Sieve | | 0.00 |
| Percent Passing # 4 | | 100.00 |

| **MOLDED SPECIMEN** | | Before Test | After Test |
|---|---|---|---|
| Specimen Diameter | (in.) | 4.01 | 4.01 |
| Specimen Height | (in.) | 1.0000 | 1.0165 |
| Wt. Comp. Soil + Mold | (g) | 603.20 | 436.08 |
| Wt. of Mold | (g) | 201.30 | 0.00 |
| Specific Gravity (Assumed) | | 2.70 | 2.70 |
| Container No. | | O | O |
| Wet Wt. of Soil + Cont. | (g) | 804.40 | 637.38 |
| Dry Wt. of Soil + Cont. | (g) | 733.30 | 567.38 |
| Wt. of Container | (g) | 0.00 | 201.30 |
| Moisture Content | (%) | 9.70 | 19.12 |
| Wet Density | (pcf) | 121.2 | 129.4 |
| Dry Density | (pcf) | 110.5 | 108.6 |
| Void Ratio | | 0.525 | 0.552 |
| Total Porosity | | 0.344 | 0.356 |
| Pore Volume | (cc) | 71.3 | 74.8 |
| Degree of Saturation (%) [ $S_{meas}$] | | **49.8** | 93.6 |

**SPECIMEN INUNDATION** in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

| Date | Time | Pressure (psi) | Elapsed Time (min.) | Dial Readings (in.) |
|---|---|---|---|---|
| 03/03/23 | 13:50 | 1.0 | 0 | 0.3915 |
| 03/03/23 | 14:00 | 1.0 | 10 | 0.3900 |
| Add Distilled Water to the Specimen | | | | |
| 03/03/23 | 14:35 | 1.0 | 35 | 0.4000 |
| 03/06/23 | 6:15 | 1.0 | 3855 | 0.4080 |
| 03/06/23 | 7:20 | 1.0 | 3920 | 0.4080 |
| | | | | |

| | |
|---|---|
| Expansion Index ($EI_{meas}$) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000 | **18** |

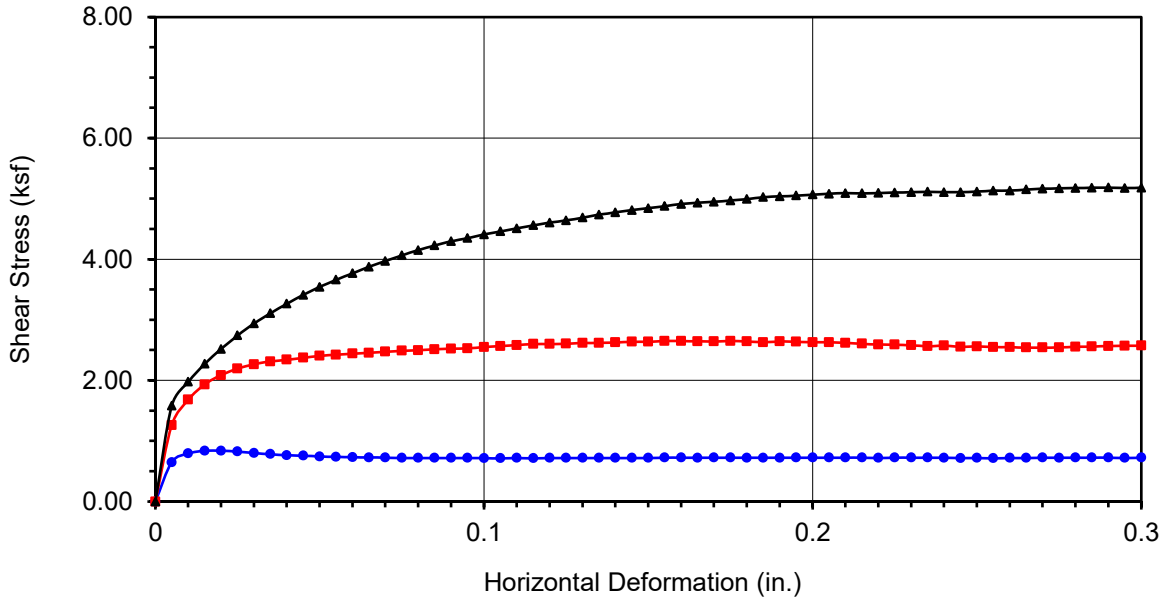
# DIRECT SHEAR TEST

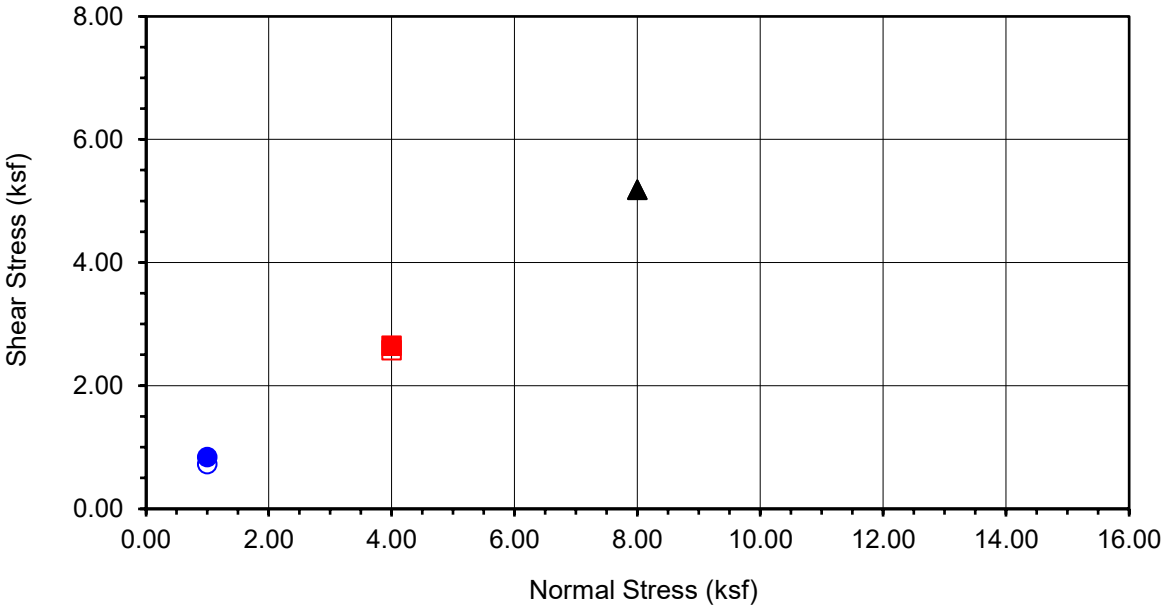
**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/14/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LB-1 | Sample Type: | 90% Remold | | |
| Sample No.: | B-1 | Depth (ft.): | 0-5 | | |

Soil Identification: Dark yellowish brown silty sand (SM)

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 200.80 | 201.38 | 201.28 |
| Weight of Ring(gm): | 45.41 | 45.80 | 45.64 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 182.16 | 182.16 | 182.16 |
| Weight of Dry Sample+Cont.(gm): | 172.90 | 172.90 | 172.90 |
| Weight of Container(gm): | 60.27 | 60.27 | 60.27 |
| Vertical Rdg.(in): Initial | 0.2570 | 0.2444 | 0.0000 |
| Vertical Rdg.(in): Final | 0.2638 | 0.2634 | -0.0307 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 228.98 | 216.93 | 222.37 |
| Weight of Dry Sample+Cont.(gm): | 210.66 | 199.80 | 206.58 |
| Weight of Container(gm): | 69.46 | 58.01 | 64.17 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LB-1** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-5** |
| Sample Type: 90% Remold | |
| Soil Identification: Dark yellowish brown silty sand (SM) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.839 | ■ 2.650 | ▲ 5.184 |
| Shear Stress @ End of Test (ksf) | ○ 0.726 | □ 2.575 | △ 5.181 |
| Deformation Rate (in./min.) | 0.0025 | 0.0025 | 0.0025 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 8.22 | 8.22 | 8.22 |
| Dry Density (pcf) | 119.4 | 119.6 | 119.6 |
| Saturation (%) | 53.9 | 54.2 | 54.2 |
| Soil Height Before Shearing (in.) | 0.9932 | 0.9810 | 0.9693 |
| Final Moisture Content (%) | 13.0 | 12.1 | 11.1 |

Leighton

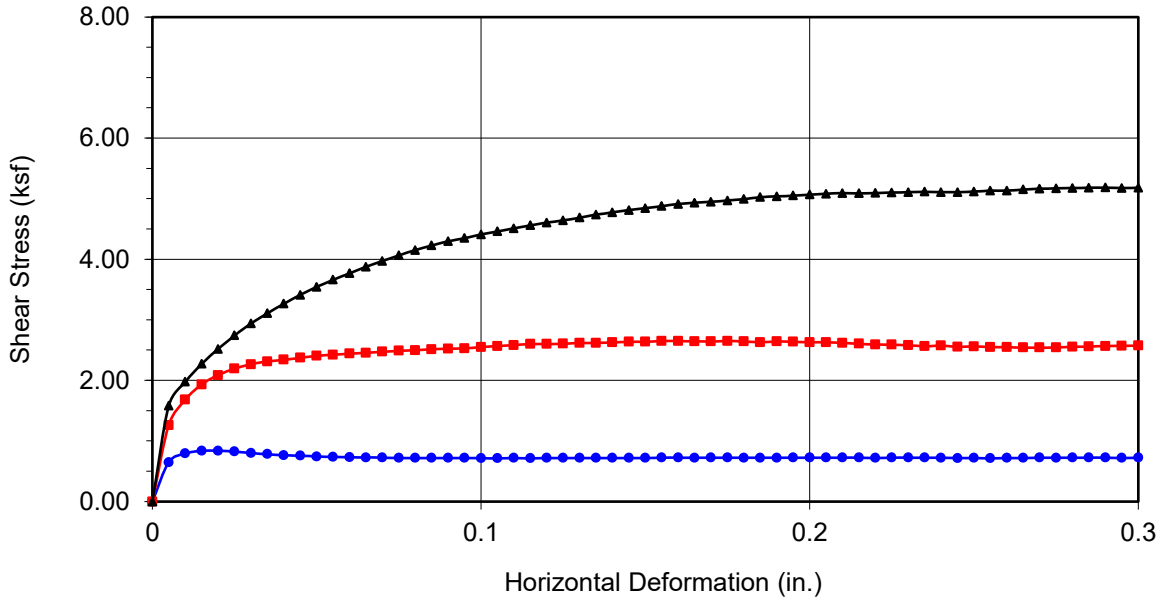
**DIRECT SHEAR TEST RESULTS**

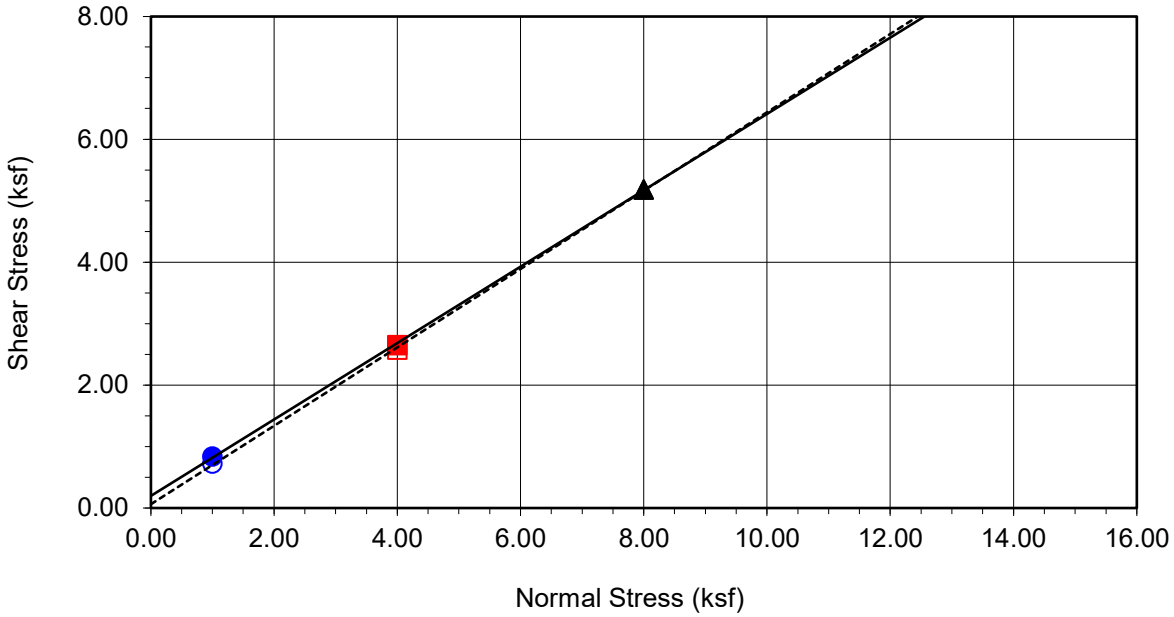
**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23




| | |
|---|---|
| **Boring No.** | **LB-1** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-5** |
| Sample Type: | 90% Remold |
| Soil Identification: Dark yellowish brown silty sand (SM) | |

**Strength Parameters**

| | C (psf) | $\phi$ (°) |
|---|---|---|
| Peak | 198 | 32 |
| Ultimate | 66 | 33 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.839 | ■ 2.650 | ▲ 5.184 |
| Shear Stress @ End of Test (ksf) | ○ 0.726 | □ 2.575 | △ 5.181 |
| Deformation Rate (in./min.) | 0.0025 | 0.0025 | 0.0025 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 8.22 | 8.22 | 8.22 |
| Dry Density (pcf) | 119.4 | 119.6 | 119.6 |
| Saturation (%) | 53.9 | 54.2 | 54.2 |
| Soil Height Before Shearing (in.) | 0.9932 | 0.9810 | 0.9693 |
| Final Moisture Content (%) | 13.0 | 12.1 | 11.1 |

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**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

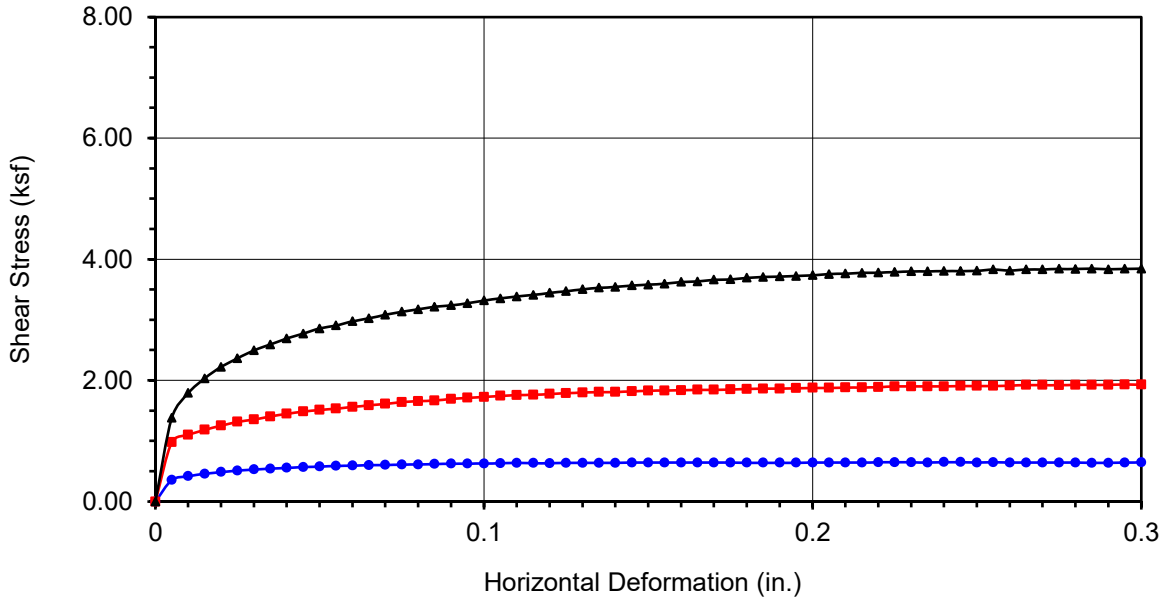
03-23

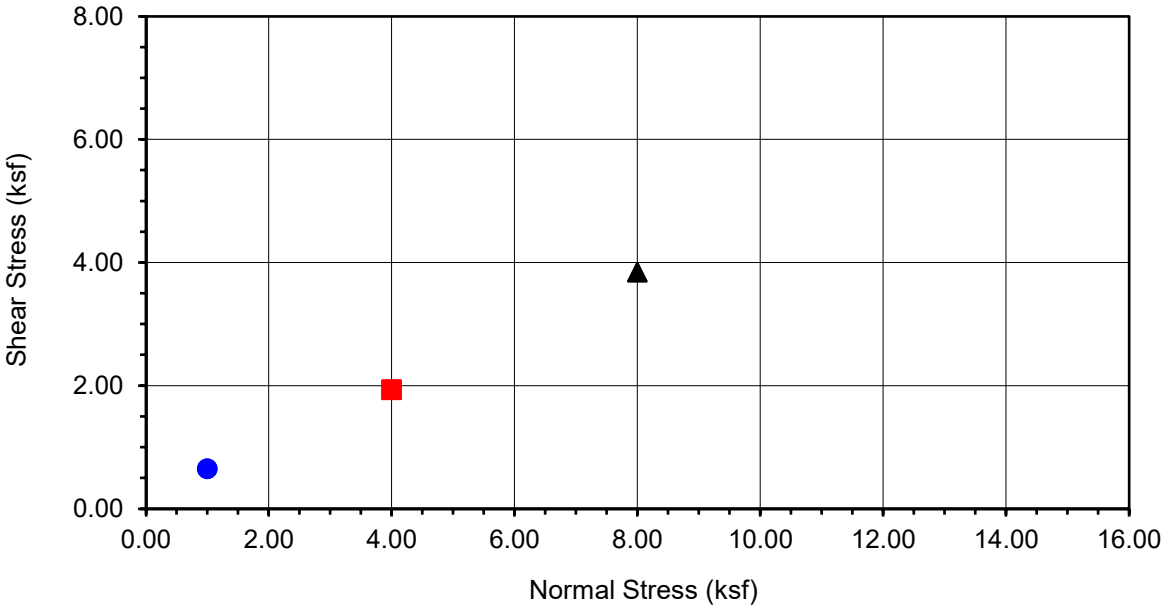
# DIRECT SHEAR TEST

**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/07/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LB-3 | Sample Type: | Ring | | |
| Sample No.: | R-2 | Depth (ft.): | 7.5 | | |
| Soil Identification: | Brown lean clay (CL) | | | | |

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 198.82 | 200.49 | 202.11 |
| Weight of Ring(gm): | 45.88 | 44.80 | 45.48 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 215.15 | 215.15 | 215.15 |
| Weight of Dry Sample+Cont.(gm): | 184.35 | 184.35 | 184.35 |
| Weight of Container(gm): | 58.52 | 58.52 | 58.52 |
| Vertical Rdg.(in): Initial | 0.0000 | 0.2633 | 0.2571 |
| Vertical Rdg.(in): Final | -0.0177 | 0.3334 | 0.3738 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 217.48 | 208.95 | 206.03 |
| Weight of Dry Sample+Cont.(gm): | 190.40 | 184.60 | 183.13 |
| Weight of Container(gm): | 67.75 | 58.00 | 58.52 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LB-3** |
| **Sample No.** | **R-2** |
| **Depth (ft)** | **7.5** |
| Sample Type: | |
| Ring | |
| Soil Identification: | |
| Brown lean clay (CL) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.651 | ■ 1.933 | ▲ 3.845 |
| Shear Stress @ End of Test (ksf) | ○ 0.648 | □ 1.930 | △ 3.845 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 24.48 | 24.48 | 24.48 |
| Dry Density (pcf) | 102.2 | 104.0 | 104.6 |
| Saturation (%) | 101.7 | 106.5 | 108.2 |
| Soil Height Before Shearing (in.) | 0.9823 | 0.9299 | 0.8833 |
| Final Moisture Content (%) | 22.1 | 19.2 | 18.4 |

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**DIRECT SHEAR TEST RESULTS**

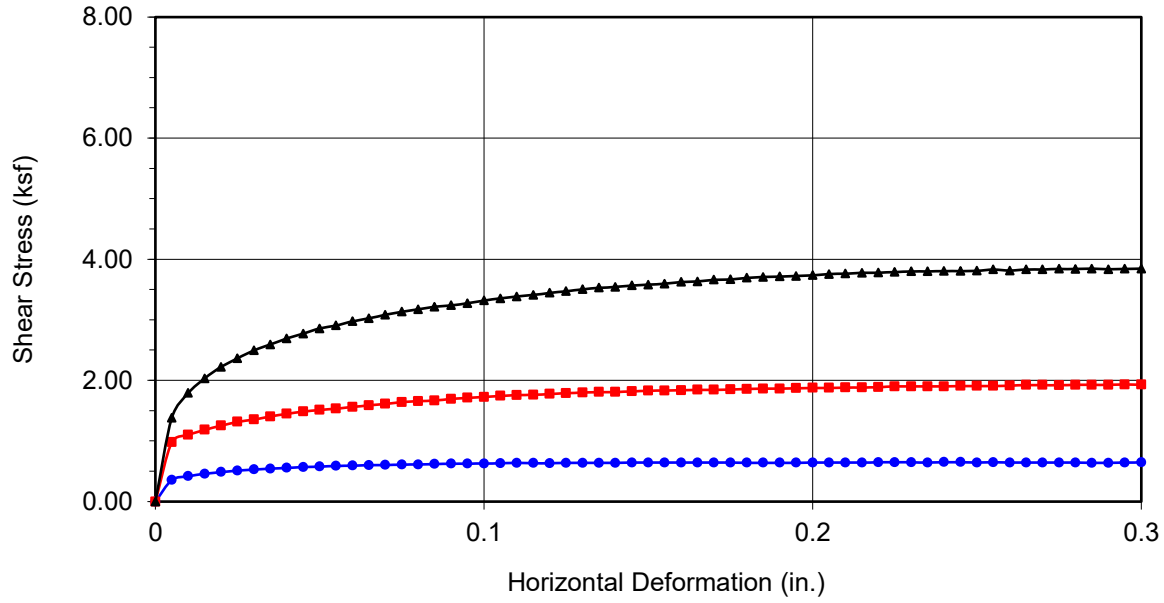
**Consolidated Drained - ASTM D 3080**

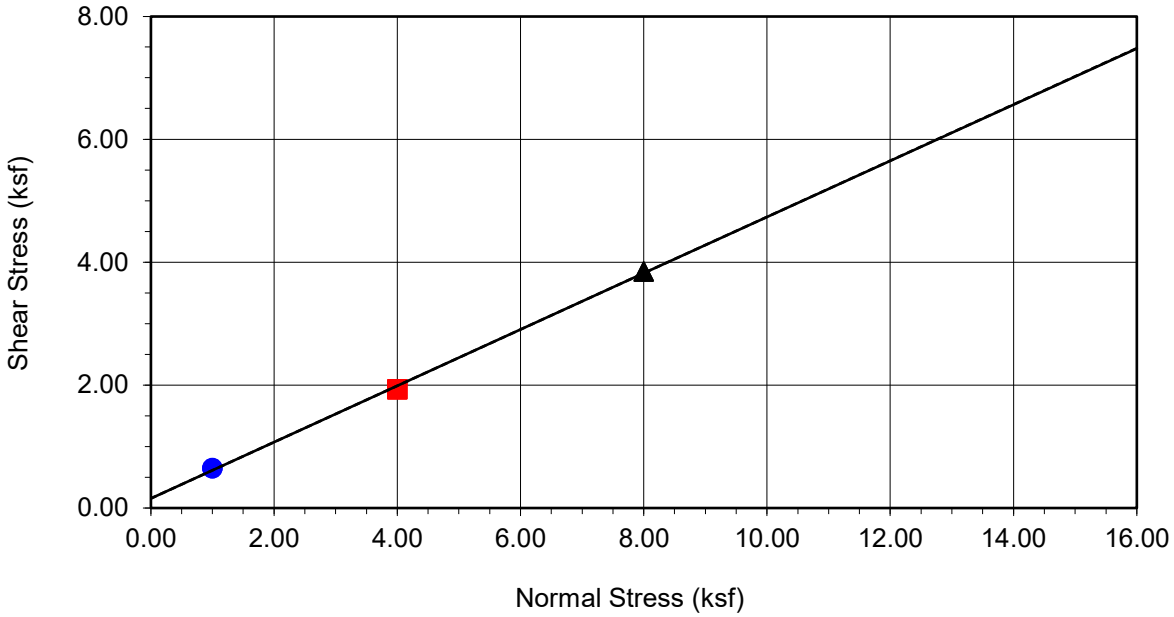
Project No.: 13837.001

Rexford LA Airport Blvd

03-23

*DS LB-3, R-2 @ 7.5*




| | |
|---|---|
| **Boring No.** | **LB-3** |
| **Sample No.** | **R-2** |
| **Depth (ft)** | **7.5** |
| Sample Type: | Ring |
| Soil Identification: | Brown lean clay (CL) |

**Strength Parameters**

| | C (psf) | $\phi$ (°) |
|---|---|---|
| Peak | 161 | 25 |
| Ultimate | 157 | 25 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.651 | ■ 1.933 | ▲ 3.845 |
| Shear Stress @ End of Test (ksf) | ○ 0.648 | □ 1.930 | △ 3.845 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 24.48 | 24.48 | 24.48 |
| Dry Density (pcf) | 102.2 | 104.0 | 104.6 |
| Saturation (%) | 101.7 | 106.5 | 108.2 |
| Soil Height Before Shearing (in.) | 0.9823 | 0.9299 | 0.8833 |
| Final Moisture Content (%) | 22.1 | 19.2 | 18.4 |

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**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23

*DS LB-3, R-2 @ 7.5*

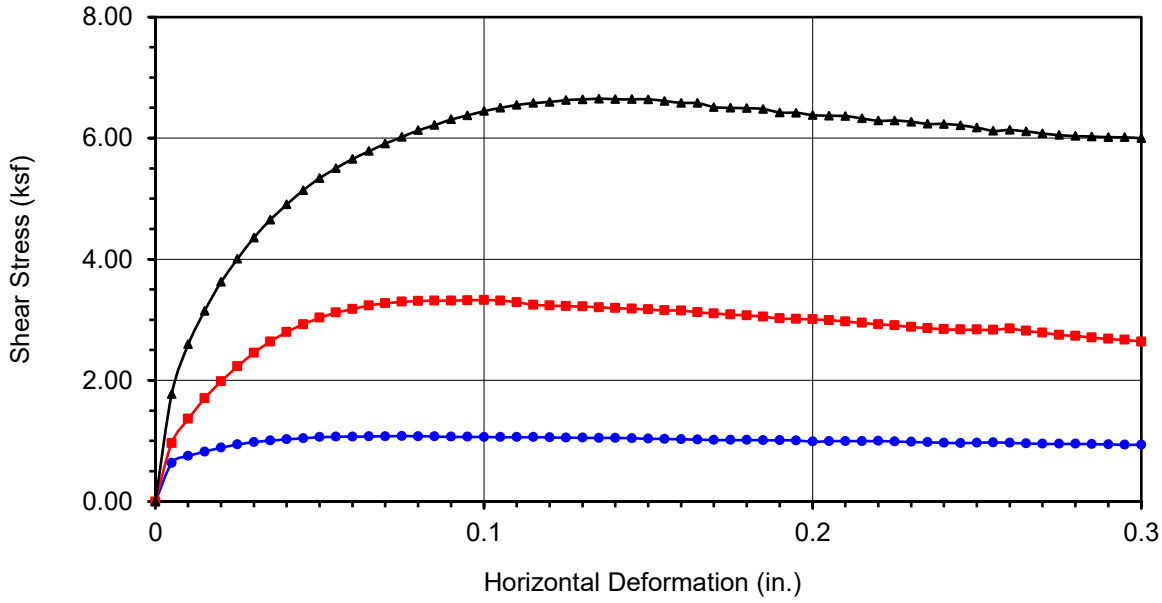
# DIRECT SHEAR TEST

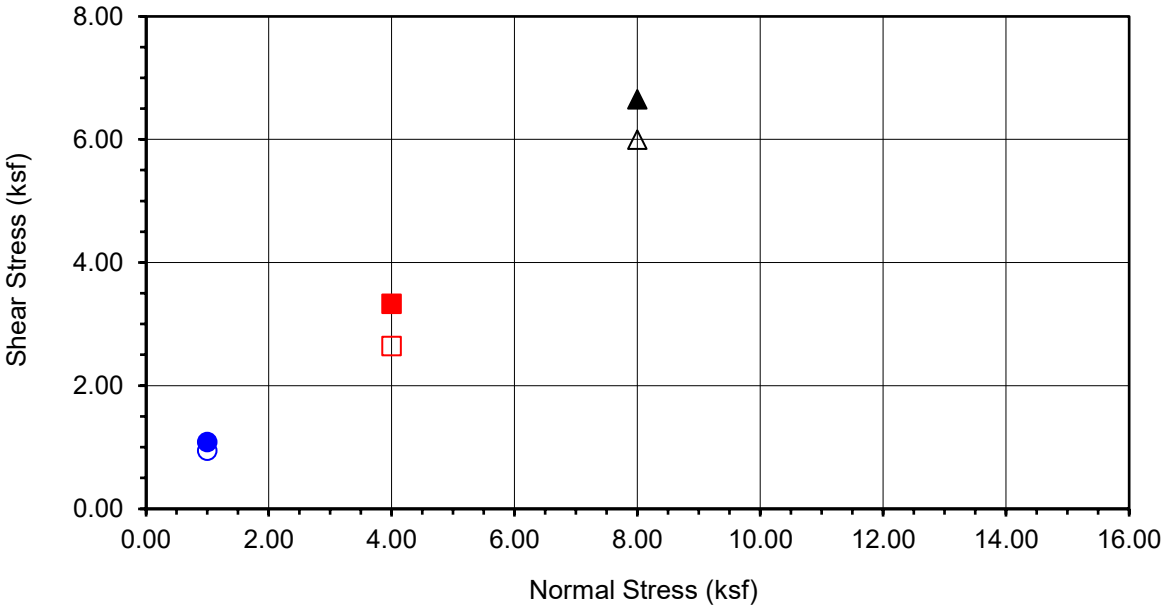
**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/08/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LB-5 | Sample Type: | Ring | | |
| Sample No.: | R-1 | Depth (ft.): | 5.0 | | |

Soil Identification: Light olive brown silty clay (CL-ML)

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 201.76 | 200.27 | 206.97 |
| Weight of Ring(gm): | 43.03 | 38.98 | 42.18 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 198.48 | 198.48 | 198.48 |
| Weight of Dry Sample+Cont.(gm): | 189.24 | 189.24 | 189.24 |
| Weight of Container(gm): | 67.68 | 67.68 | 67.68 |
| Vertical Rdg.(in): Initial | 0.0000 | 0.2500 | 0.2768 |
| Vertical Rdg.(in): Final | -0.0121 | 0.2744 | 0.3216 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 216.00 | 224.76 | 217.20 |
| Weight of Dry Sample+Cont.(gm): | 188.82 | 209.83 | 200.95 |
| Weight of Container(gm): | 57.98 | 67.75 | 55.74 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LB-5** |
| **Sample No.** | **R-1** |
| **Depth (ft)** | **5** |
| Sample Type: Ring | |
| Soil Identification: Light olive brown silty clay (CL-ML) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 1.081 | ■ 3.329 | ▲ 6.652 |
| Shear Stress @ End of Test (ksf) | ○ 0.940 | □ 2.641 | △ 5.998 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 7.60 | 7.60 | 7.60 |
| Dry Density (pcf) | 122.7 | 124.7 | 127.4 |
| Saturation (%) | 54.9 | 58.3 | 63.5 |
| Soil Height Before Shearing (in.) | 0.9879 | 0.9756 | 0.9552 |
| Final Moisture Content (%) | 20.8 | 10.5 | 11.2 |

Leighton

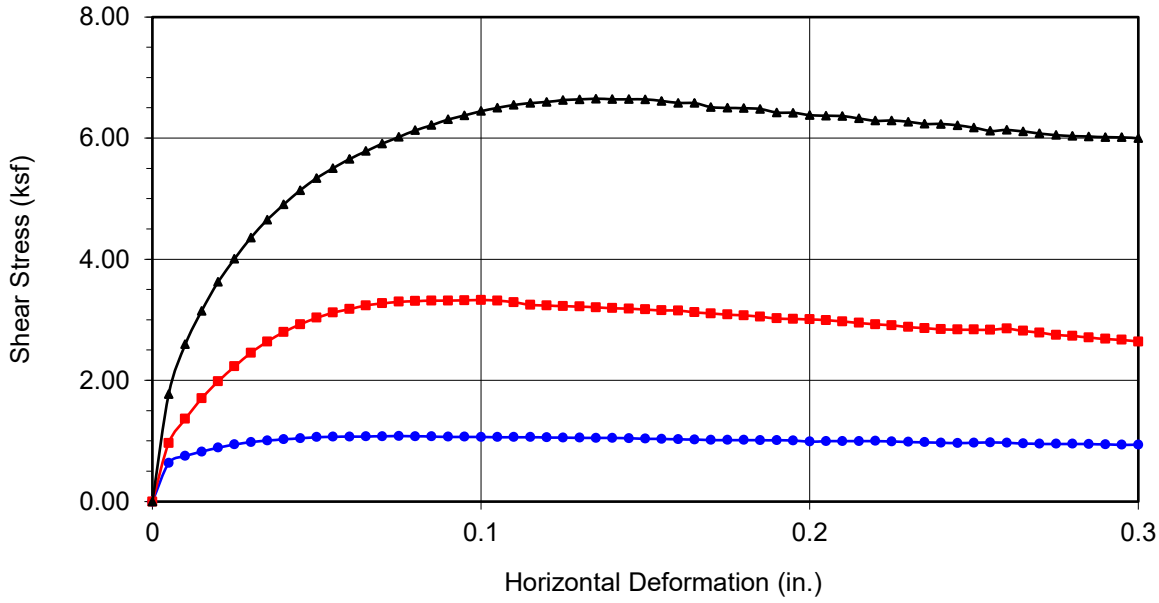
**DIRECT SHEAR TEST RESULTS**

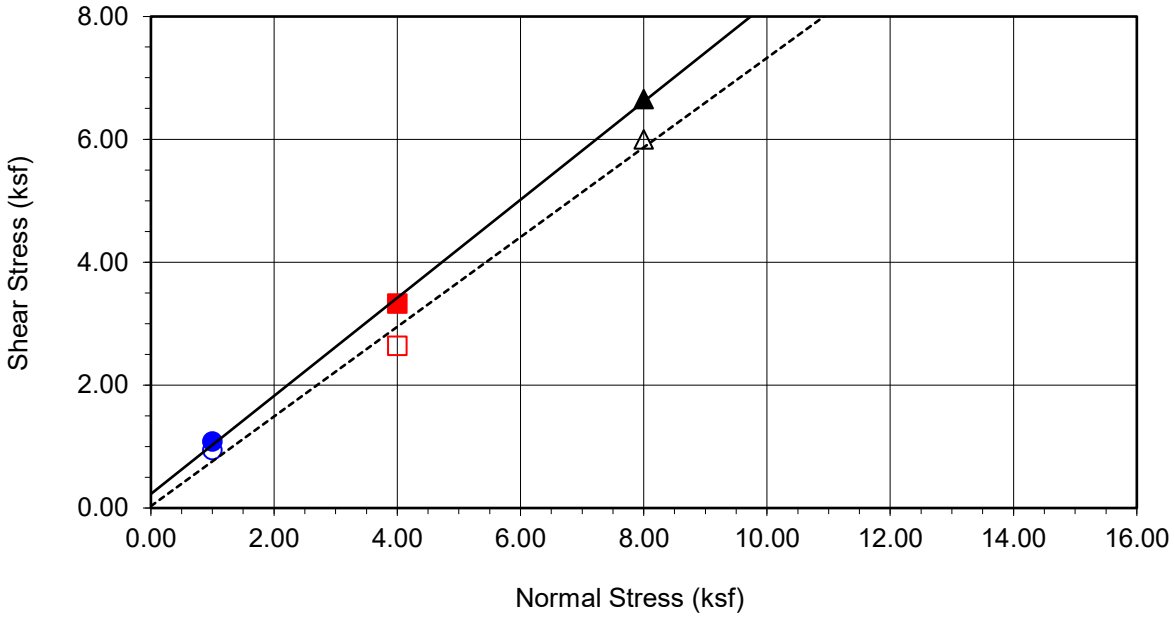
**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

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| | |
|---|---|
| **Boring No.** | **LB-5** |
| **Sample No.** | **R-1** |
| **Depth (ft)** | **5** |
| Sample Type: | Ring |
| Soil Identification: Light olive brown silty clay (CL-ML) | |

**Strength Parameters**

| | C (psf) | $\phi$ (°) |
|---|---|---|
| Peak | 230 | 39 |
| Ultimate | 35 | 36 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 1.081 | ■ 3.329 | ▲ 6.652 |
| Shear Stress @ End of Test (ksf) | ○ 0.940 | □ 2.641 | △ 5.998 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 7.60 | 7.60 | 7.60 |
| Dry Density (pcf) | 122.7 | 124.7 | 127.4 |
| Saturation (%) | 54.9 | 58.3 | 63.5 |
| Soil Height Before Shearing (in.) | 0.9879 | 0.9756 | 0.9552 |
| Final Moisture Content (%) | 20.8 | 10.5 | 11.2 |

Leighton

**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

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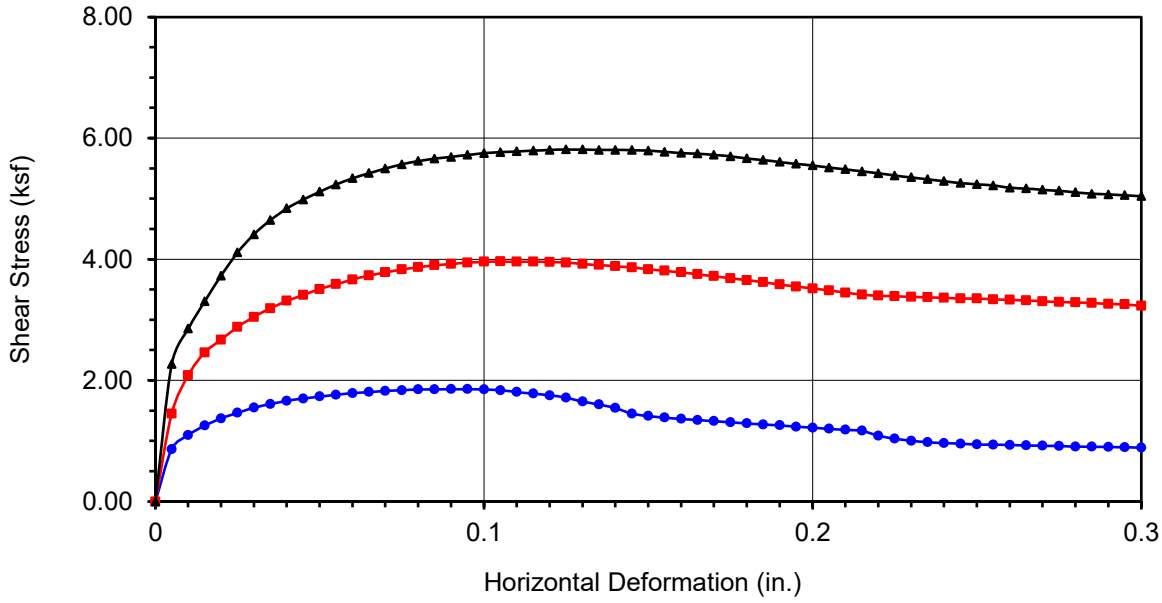
# DIRECT SHEAR TEST

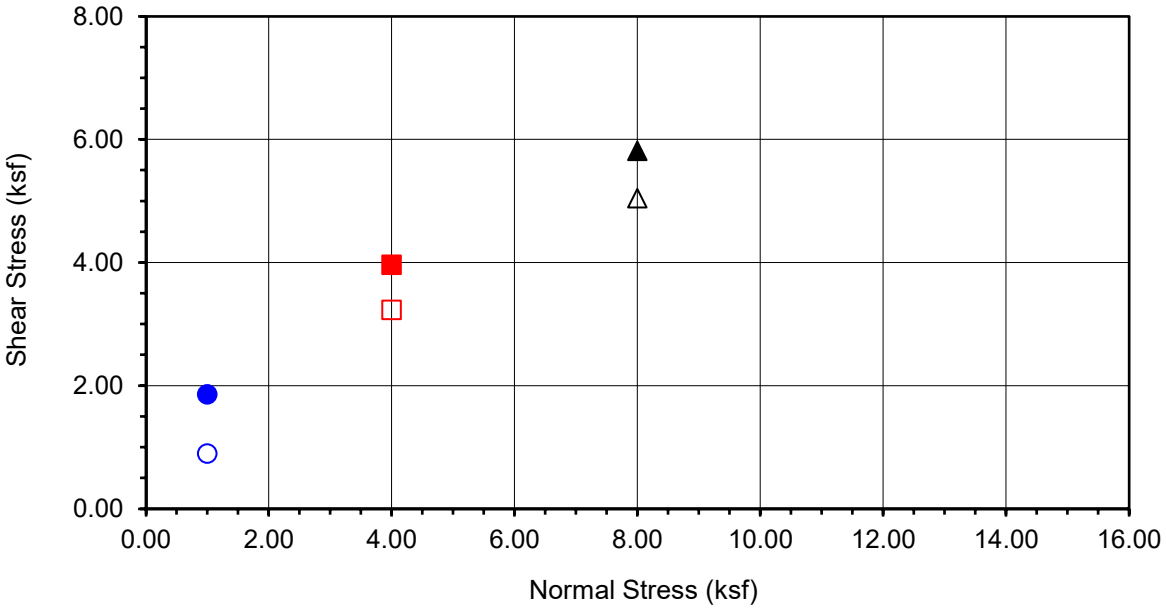
**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/06/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LB-5 | Sample Type: | Ring | | |
| Sample No.: | R-3 | Depth (ft.): | 10.0 | | |

Soil Identification: Light olive brown lean clay (CL)

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 208.67 | 211.43 | 211.72 |
| Weight of Ring(gm): | 45.45 | 46.28 | 45.08 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 192.59 | 192.59 | 192.59 |
| Weight of Dry Sample+Cont.(gm): | 175.45 | 175.45 | 175.45 |
| Weight of Container(gm): | 55.72 | 55.72 | 55.72 |
| Vertical Rdg.(in): Initial | 0.2626 | 0.2699 | 0.0000 |
| Vertical Rdg.(in): Final | 0.2563 | 0.2815 | -0.0228 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 223.11 | 220.74 | 233.47 |
| Weight of Dry Sample+Cont.(gm): | 196.24 | 195.90 | 209.78 |
| Weight of Container(gm): | 57.98 | 56.95 | 67.75 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LB-5** |
| **Sample No.** | **R-3** |
| **Depth (ft)** | **10** |
| Sample Type: Ring | |
| Soil Identification: Light olive brown lean clay (CL) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 1.855 | ■ 3.964 | ▲ 5.813 |
| Shear Stress @ End of Test (ksf) | ○ 0.893 | □ 3.232 | △ 5.043 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 14.32 | 14.32 | 14.32 |
| Dry Density (pcf) | 118.7 | 120.1 | 121.2 |
| Saturation (%) | 92.1 | 95.9 | 99.0 |
| Soil Height Before Shearing (in.) | 1.0063 | 0.9884 | 0.9772 |
| Final Moisture Content (%) | 19.4 | 17.9 | 16.7 |

Leighton

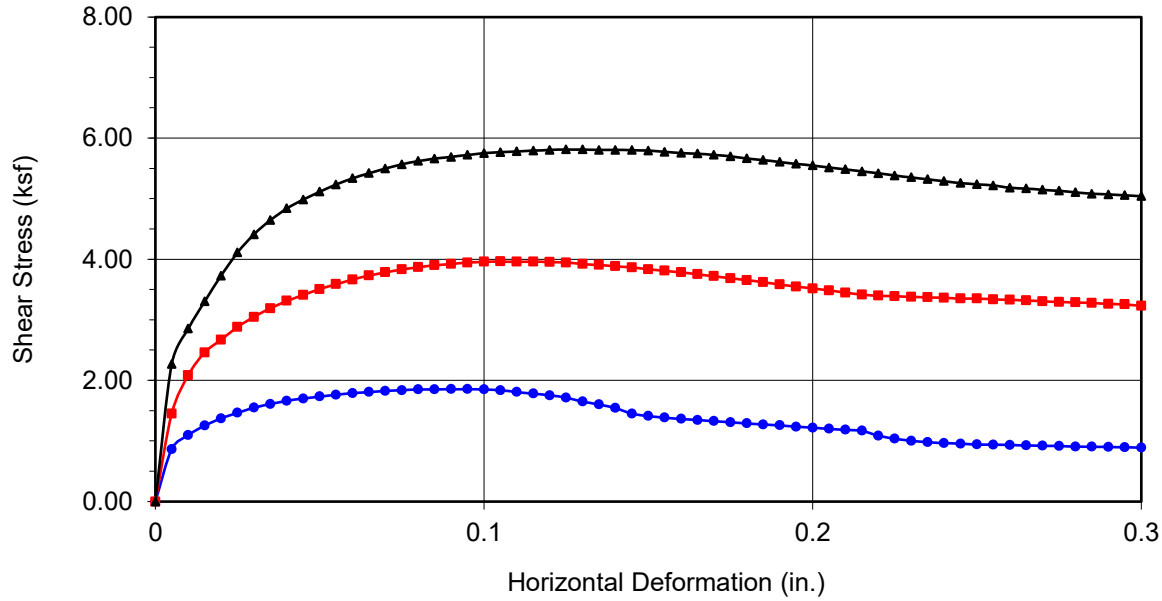
**DIRECT SHEAR TEST RESULTS**

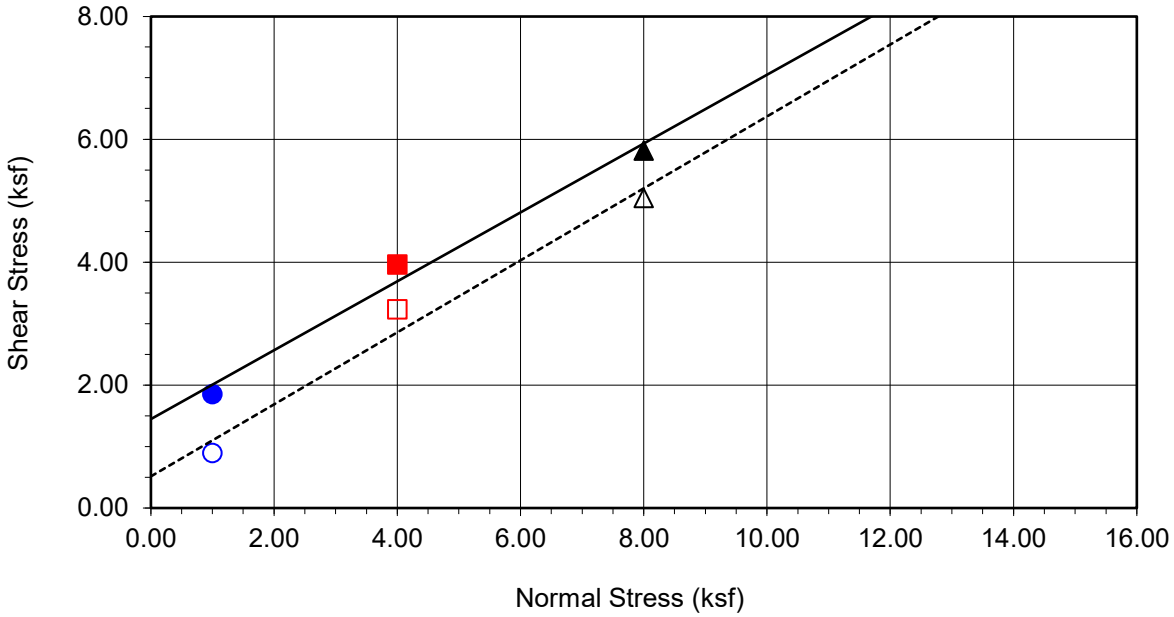
**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23




| | |
|---|---|
| **Boring No.** | **LB-5** |
| **Sample No.** | **R-3** |
| **Depth (ft)** | **10** |
| Sample Type: | Ring |
| Soil Identification: Light olive brown lean clay (CL) | |

**Strength Parameters**

| | C (psf) | ϕ (°) |
|---|---|---|
| Peak | 1451 | 29 |
| Ultimate | 520 | 30 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 1.855 | ■ 3.964 | ▲ 5.813 |
| Shear Stress @ End of Test (ksf) | ○ 0.893 | □ 3.232 | △ 5.043 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 14.32 | 14.32 | 14.32 |
| Dry Density (pcf) | 118.7 | 120.1 | 121.2 |
| Saturation (%) | 92.1 | 95.9 | 99.0 |
| Soil Height Before Shearing (in.) | 1.0063 | 0.9884 | 0.9772 |
| Final Moisture Content (%) | 19.4 | 17.9 | 16.7 |

Leighton

**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

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03-23

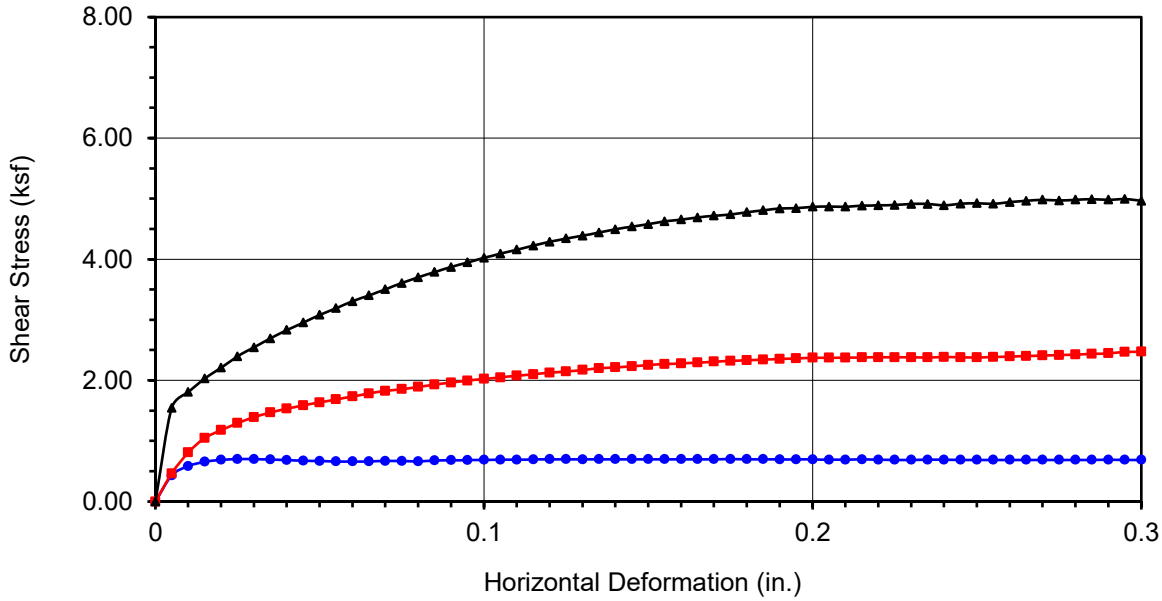
# DIRECT SHEAR TEST

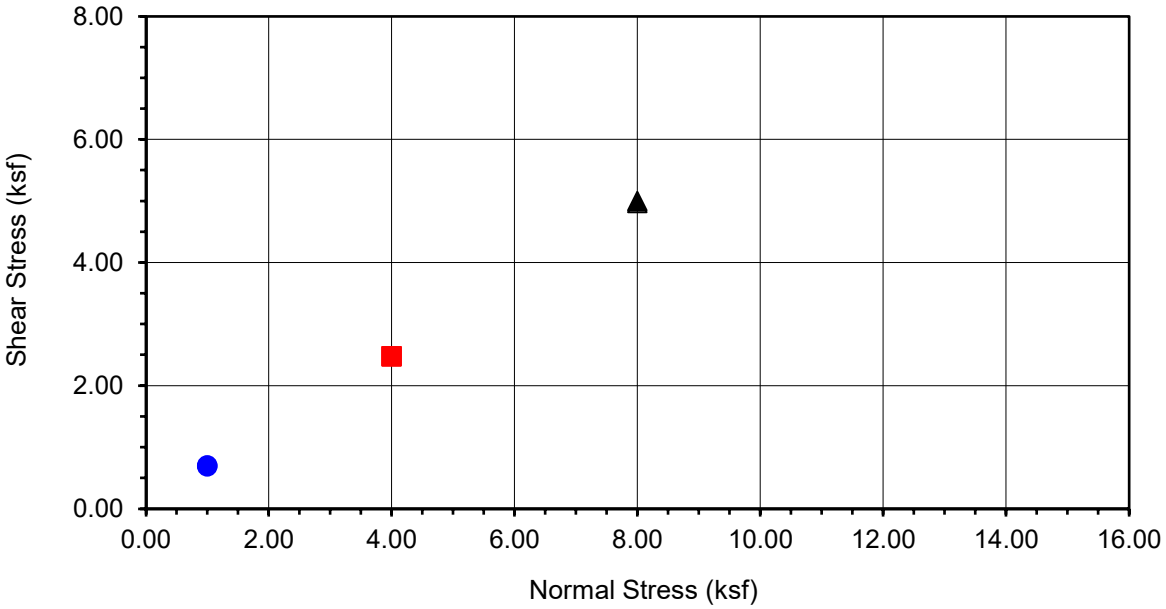
**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/14/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LB-6 | Sample Type: | 90% Remold | | |
| Sample No.: | B-1 | Depth (ft.): | 0-3 | | |

Soil Identification: Olive brown silty, clayey sand (SC-SM)

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 197.56 | 198.03 | 198.31 |
| Weight of Ring(gm): | 45.41 | 45.60 | 45.80 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 180.49 | 180.49 | 180.49 |
| Weight of Dry Sample+Cont.(gm): | 170.90 | 170.90 | 170.90 |
| Weight of Container(gm): | 56.14 | 56.14 | 56.14 |
| Vertical Rdg.(in): Initial | 0.2604 | 0.2228 | 0.0000 |
| Vertical Rdg.(in): Final | 0.2688 | 0.2452 | -0.0378 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 226.94 | 214.52 | 233.03 |
| Weight of Dry Sample+Cont.(gm): | 206.66 | 196.69 | 216.24 |
| Weight of Container(gm): | 68.09 | 58.51 | 77.77 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LB-6** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-3** |
| Sample Type: 90% Remold | |
| Soil Identification: Olive brown silty, clayey sand (SC-SM) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.701 | ■ 2.474 | ▲ 4.995 |
| Shear Stress @ End of Test (ksf) | ○ 0.688 | □ 2.474 | △ 4.967 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 8.36 | 8.36 | 8.36 |
| Dry Density (pcf) | 116.8 | 117.0 | 117.1 |
| Saturation (%) | 50.9 | 51.2 | 51.3 |
| Soil Height Before Shearing (in.) | 0.9916 | 0.9776 | 0.9622 |
| Final Moisture Content (%) | 14.6 | 12.9 | 12.1 |

Leighton

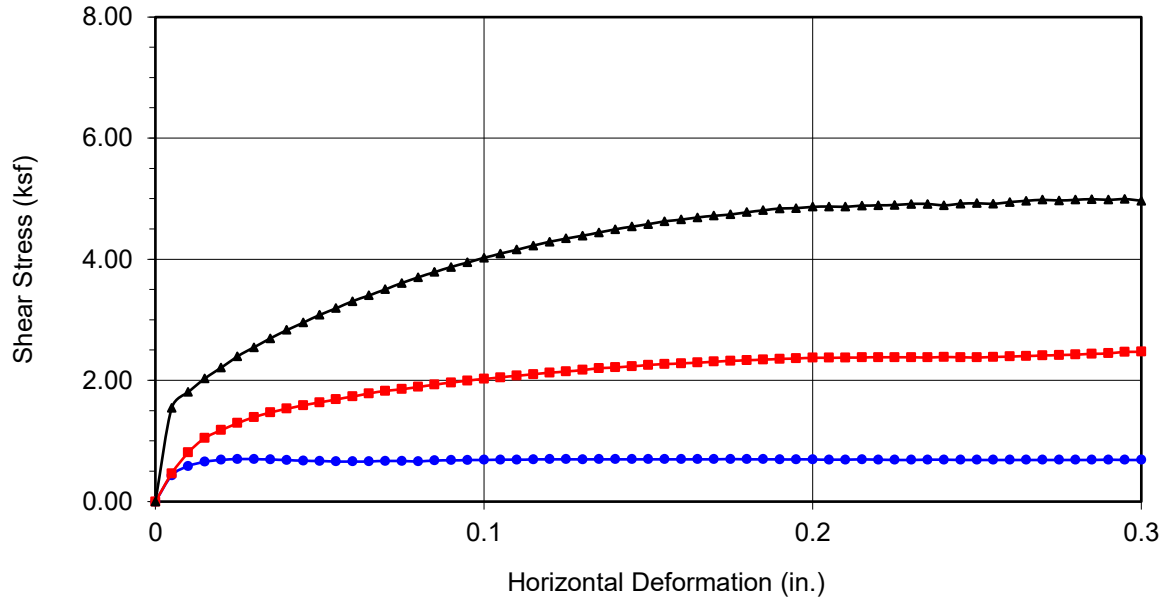
**DIRECT SHEAR TEST RESULTS**

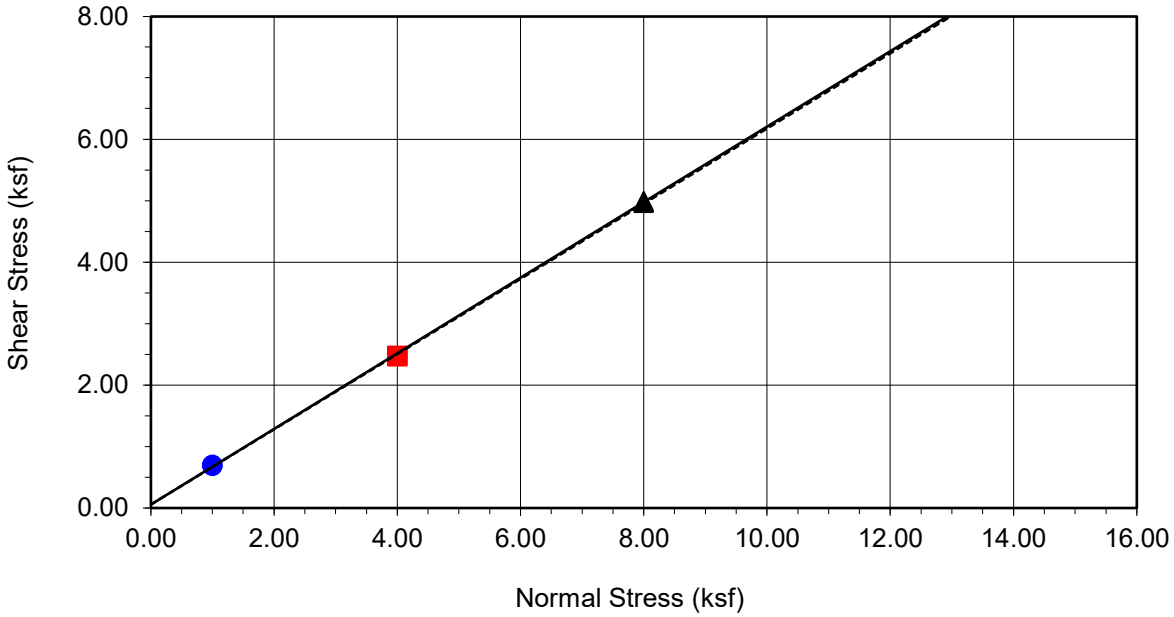
**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23




| | |
|---|---|
| **Boring No.** | **LB-6** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-3** |
| Sample Type: | 90% Remold |
| Soil Identification: Olive brown silty, clayey sand (SC-SM) | |

**Strength Parameters**

| | C (psf) | $\phi$ (°) |
|---|---|---|
| Peak | 61 | 32 |
| Ultimate | 58 | 31 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.701 | ■ 2.474 | ▲ 4.995 |
| Shear Stress @ End of Test (ksf) | ○ 0.688 | □ 2.474 | △ 4.967 |
| Deformation Rate (in./min.) | 0.0017 | 0.0017 | 0.0017 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 8.36 | 8.36 | 8.36 |
| Dry Density (pcf) | 116.8 | 117.0 | 117.1 |
| Saturation (%) | 50.9 | 51.2 | 51.3 |
| Soil Height Before Shearing (in.) | 0.9916 | 0.9776 | 0.9622 |
| Final Moisture Content (%) | 14.6 | 12.9 | 12.1 |

Leighton

**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23

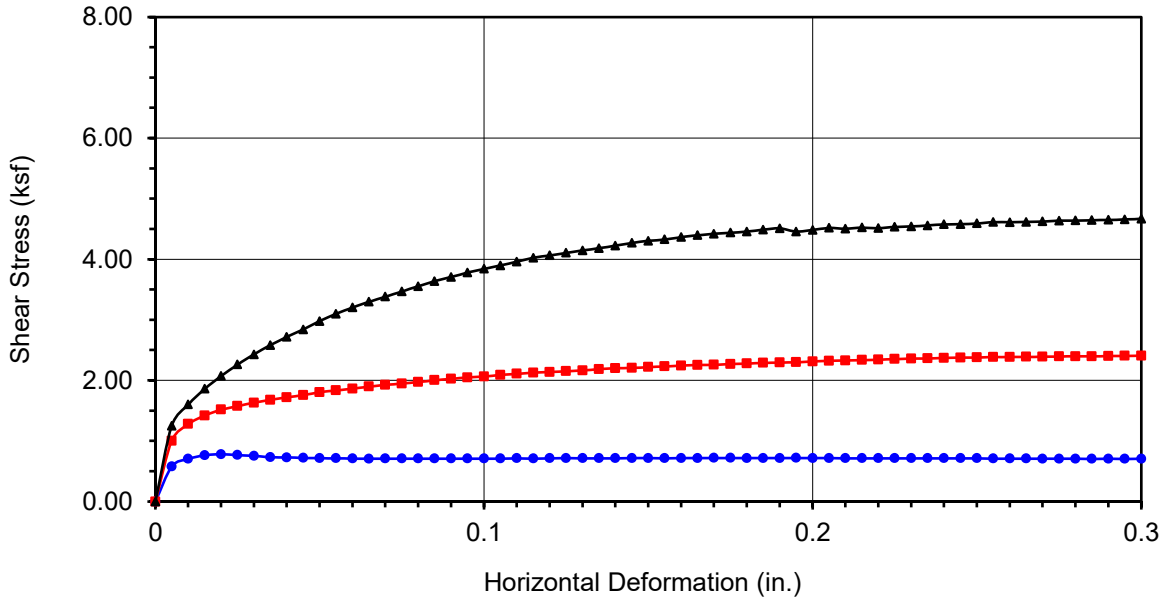
# DIRECT SHEAR TEST

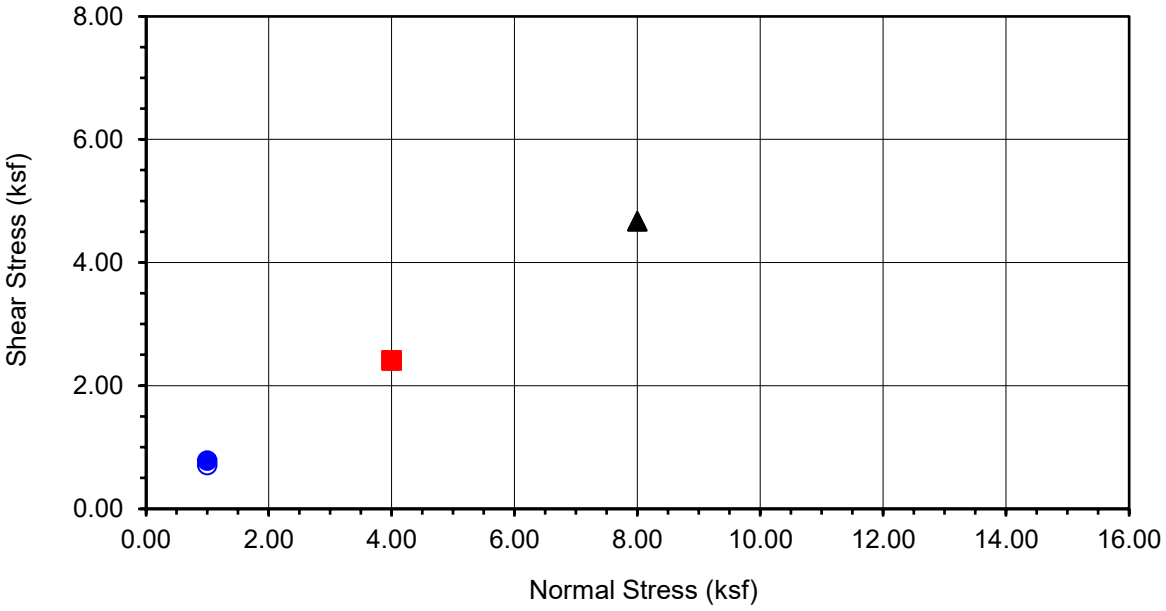
**Consolidated Drained - ASTM D 3080**

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: | G. Bathala | Date: | 03/14/23 |
| Project No.: | 13837.001 | Checked By: | J. Ward | Date: | 04/03/23 |
| Boring No.: | LP-1 | Sample Type: | 90% Remold | | |
| Sample No.: | B-1 | Depth (ft.): | 0-5 | | |

Soil Identification: Olive brown silty, clayey sand (SC-SM)

| | | | |
|---|---|---|---|
| Sample Diameter(in): | 2.415 | 2.415 | 2.415 |
| Sample Thickness(in.): | 1.000 | 1.000 | 1.000 |
| Weight of Sample + ring(gm): | 193.80 | 194.44 | 194.29 |
| Weight of Ring(gm): | 45.41 | 45.80 | 45.60 |
| **Before Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 214.24 | 214.24 | 214.24 |
| Weight of Dry Sample+Cont.(gm): | 198.26 | 198.26 | 198.26 |
| Weight of Container(gm): | 57.18 | 57.18 | 57.18 |
| Vertical Rdg.(in): Initial | 0.0000 | 0.2356 | 0.2469 |
| Vertical Rdg.(in): Final | -0.0049 | 0.2550 | 0.2831 |
| **After Shearing** | | | |
| Weight of Wet Sample+Cont.(gm): | 221.89 | 211.61 | 209.43 |
| Weight of Dry Sample+Cont.(gm): | 198.34 | 190.08 | 189.17 |
| Weight of Container(gm): | 66.43 | 59.01 | 58.55 |
| Specific Gravity (Assumed): | 2.70 | 2.70 | 2.70 |
| Water Density(pcf): | 62.43 | 62.43 | 62.43 |




| | |
|---|---|
| **Boring No.** | **LP-1** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-5** |
| Sample Type: 90% Remold | |
| Soil Identification: Olive brown silty, clayey sand (SC-SM) | |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.780 | ■ 2.408 | ▲ 4.669 |
| Shear Stress @ End of Test (ksf) | ○ 0.707 | □ 2.408 | △ 4.669 |
| Deformation Rate (in./min.) | 0.0025 | 0.0025 | 0.0025 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 11.33 | 11.33 | 11.33 |
| Dry Density (pcf) | 110.9 | 111.0 | 111.1 |
| Saturation (%) | 58.7 | 59.0 | 59.1 |
| Soil Height Before Shearing (in.) | 0.9951 | 0.9806 | 0.9638 |
| Final Moisture Content (%) | 17.9 | 16.4 | 15.5 |

Leighton

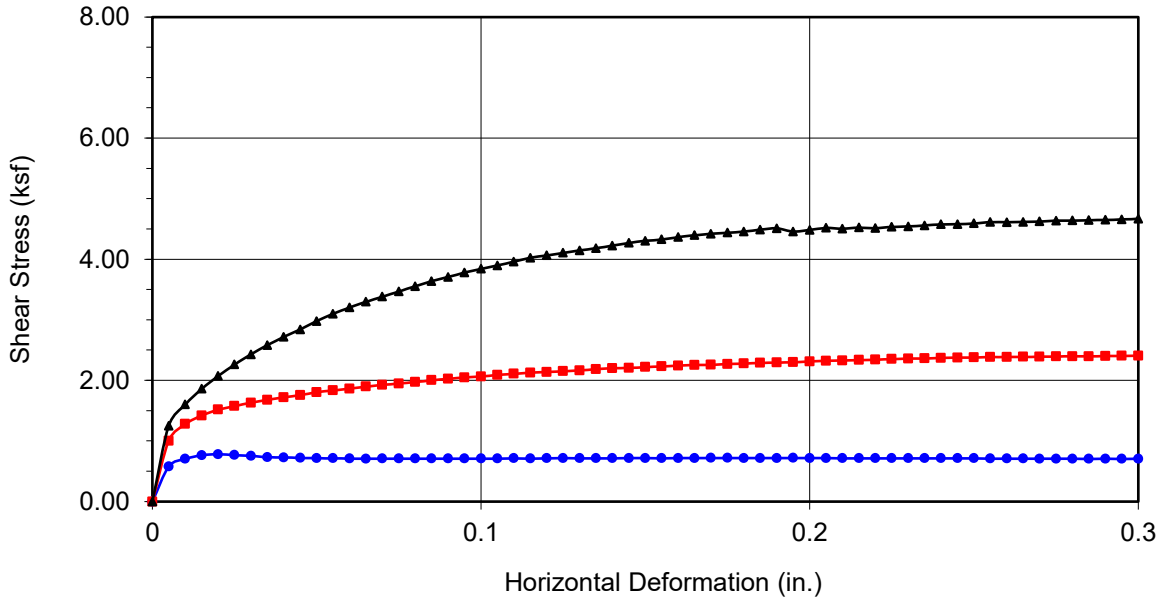
**DIRECT SHEAR TEST RESULTS**

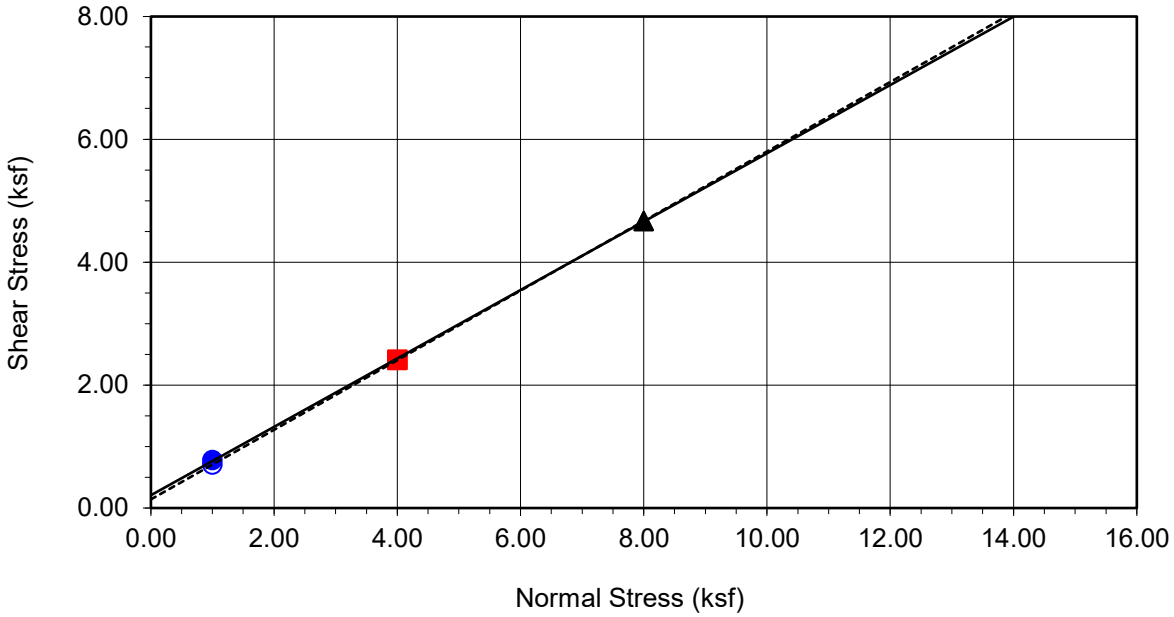
**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23




| | |
|---|---|
| **Boring No.** | **LP-1** |
| **Sample No.** | **B-1** |
| **Depth (ft)** | **0-5** |
| Sample Type: | 90% Remold |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) |

**Strength Parameters**

| | C (psf) | $\phi$ (°) |
|---|---|---|
| Peak | 209 | 29 |
| Ultimate | 142 | 30 |

| Normal Stress (kip/ft²) | 1.000 | 4.000 | 8.000 |
|---|---|---|---|
| Peak Shear Stress (kip/ft²) | ● 0.780 | ■ 2.408 | ▲ 4.669 |
| Shear Stress @ End of Test (ksf) | ○ 0.707 | □ 2.408 | △ 4.669 |
| Deformation Rate (in./min.) | 0.0025 | 0.0025 | 0.0025 |
| Initial Sample Height (in.) | 1.000 | 1.000 | 1.000 |
| Diameter (in.) | 2.415 | 2.415 | 2.415 |
| Initial Moisture Content (%) | 11.33 | 11.33 | 11.33 |
| Dry Density (pcf) | 110.9 | 111.0 | 111.1 |
| Saturation (%) | 58.7 | 59.0 | 59.1 |
| Soil Height Before Shearing (in.) | 0.9951 | 0.9806 | 0.9638 |
| Final Moisture Content (%) | 17.9 | 16.4 | 15.5 |

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**DIRECT SHEAR TEST RESULTS**

**Consolidated Drained - ASTM D 3080**

Project No.: 13837.001

Rexford LA Airport Blvd

03-23

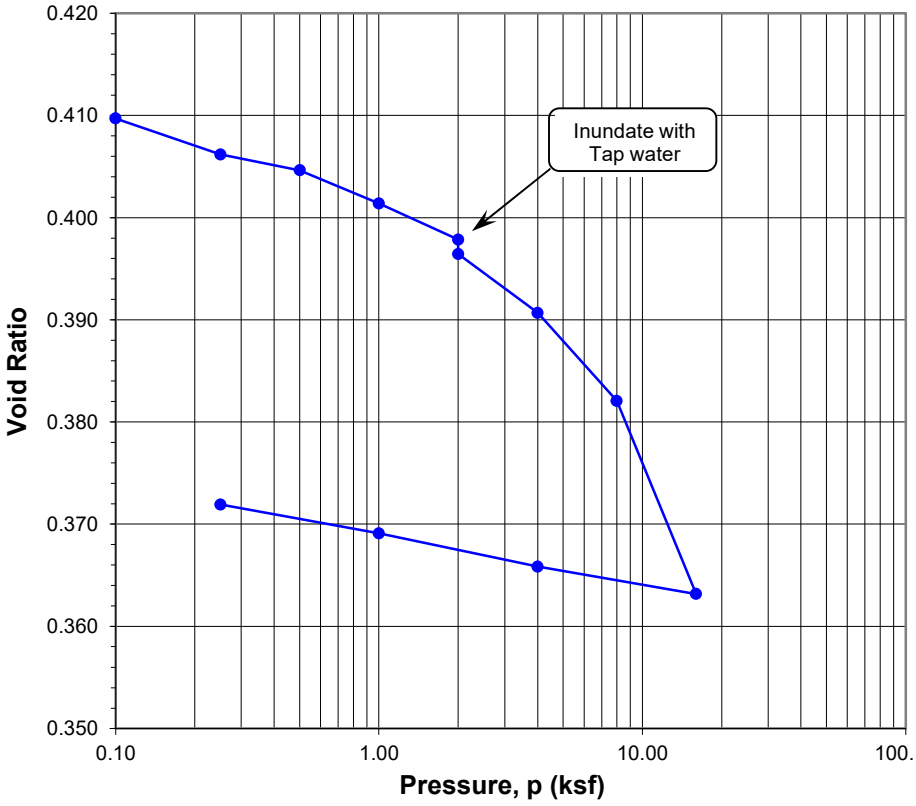
# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

Project Name: Rexford LA Airport Blvd
Project No.: 13837.001
Boring No.: LB-1
Sample No.: B-1
Soil Identification: Dark yellowish brown silty sand (SM)

Tested By: GB/JD Date: 03/13/23
Checked By: J. Ward Date: 04/03/23
Depth (ft.): 0-5
Sample Type: 90% Remold

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 200.79 |
| Weight of Ring (g): | 45.21 |
| Height after consol. (in.): | 0.9731 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 182.16 |
| Wt. of Dry Sample+Cont. (g): | 172.90 |
| Weight of Container (g): | 60.27 |
| Initial Moisture Content (%) | 8.2 |
| Initial Dry Density (pcf) | 119.6 |
| Initial Saturation (%): | 54 |
| Initial Vertical Reading (in.) | 0.0994 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 266.33 |
| Wt. of Dry Sample+Cont. (g): | 249.02 |
| Weight of Container (g): | 60.19 |
| Final Moisture Content (%) | 12.05 |
| Final Dry Density (pcf): | 122.7 |
| Final Saturation (%): | 87 |
| Final Vertical Reading (in.) | 0.1294 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |

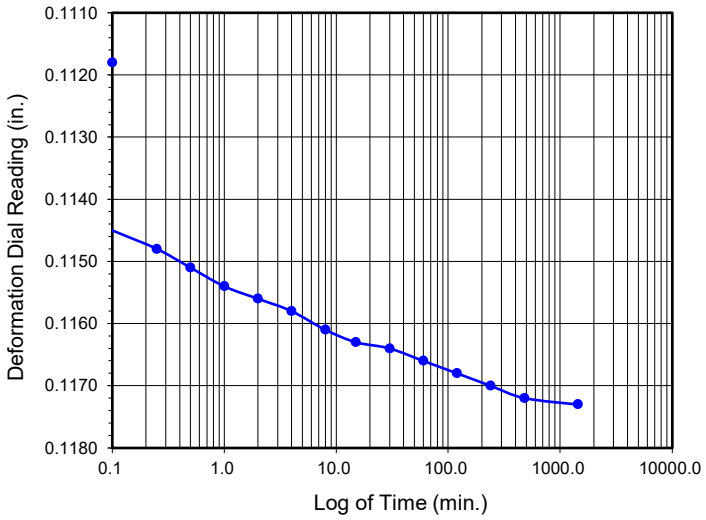


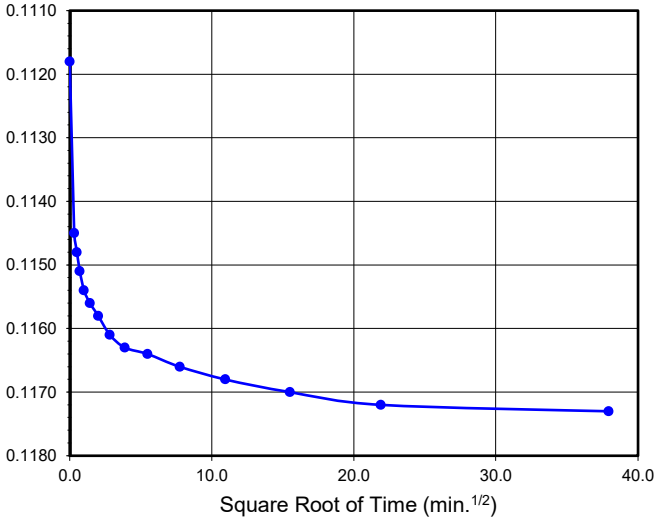

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.0995 | 0.9999 | 0.00 | 0.01 | 0.410 | 0.01 |
| 0.25 | 0.1025 | 0.9969 | 0.05 | 0.31 | 0.406 | 0.26 |
| 0.50 | 0.1042 | 0.9952 | 0.11 | 0.48 | 0.405 | 0.37 |
| 1.00 | 0.1073 | 0.9921 | 0.19 | 0.79 | 0.401 | 0.60 |
| 2.00 | 0.1108 | 0.9886 | 0.29 | 1.14 | 0.398 | 0.85 |
| 2.00 | 0.1118 | 0.9876 | 0.29 | 1.24 | 0.396 | 0.95 |
| 4.00 | 0.1173 | 0.9821 | 0.43 | 1.79 | 0.391 | 1.36 |
| 8.00 | 0.1249 | 0.9745 | 0.58 | 2.55 | 0.382 | 1.97 |
| 16.00 | 0.1401 | 0.9593 | 0.76 | 4.07 | 0.363 | 3.31 |
| 4.00 | 0.1364 | 0.9630 | 0.58 | 3.70 | 0.366 | 3.12 |
| 1.00 | 0.1324 | 0.9670 | 0.41 | 3.30 | 0.369 | 2.89 |
| 0.25 | 0.1294 | 0.9700 | 0.31 | 3.00 | 0.372 | 2.69 |
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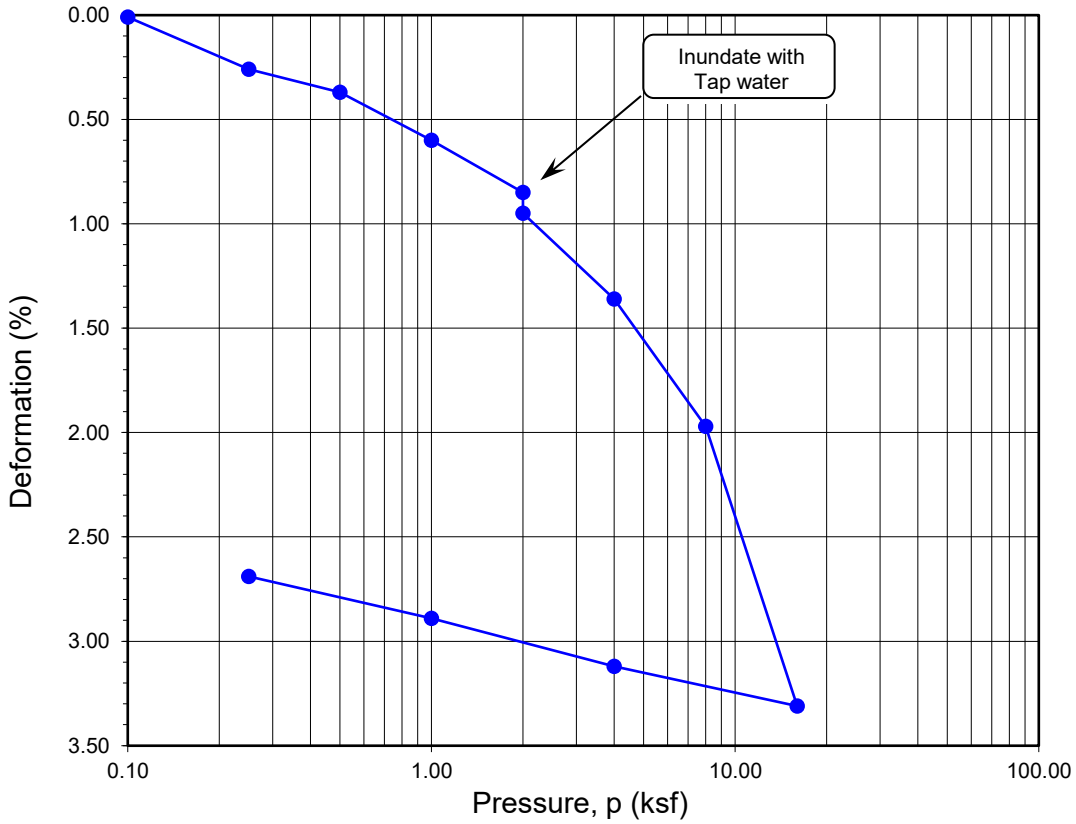
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/16/23 | 7:40:00 | 0.0 | 0.0 | 0.1118 |
| 3/16/23 | 7:40:06 | 0.1 | 0.3 | 0.1145 |
| 3/16/23 | 7:40:15 | 0.2 | 0.5 | 0.1148 |
| 3/16/23 | 7:40:30 | 0.5 | 0.7 | 0.1151 |
| 3/16/23 | 7:41:00 | 1.0 | 1.0 | 0.1154 |
| 3/16/23 | 7:42:00 | 2.0 | 1.4 | 0.1156 |
| 3/16/23 | 7:44:00 | 4.0 | 2.0 | 0.1158 |
| 3/16/23 | 7:48:00 | 8.0 | 2.8 | 0.1161 |
| 3/16/23 | 7:55:00 | 15.0 | 3.9 | 0.1163 |
| 3/16/23 | 8:10:00 | 30.0 | 5.5 | 0.1164 |
| 3/16/23 | 8:40:00 | 60.0 | 7.7 | 0.1166 |
| 3/16/23 | 9:40:00 | 120.0 | 11.0 | 0.1168 |
| 3/16/23 | 11:40:00 | 240.0 | 15.5 | 0.1170 |
| 3/16/23 | 15:40:00 | 480.0 | 21.9 | 0.1172 |
| 3/17/23 | 7:40:00 | 1440.0 | 37.9 | 0.1173 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-1** | **B-1** | **0-5** | **8.2** | **12.1** | **119.6** | **122.7** | **0.410** | **0.372** | **54** | **87** |

Soil Identification: Dark yellowish brown silty sand (SM)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

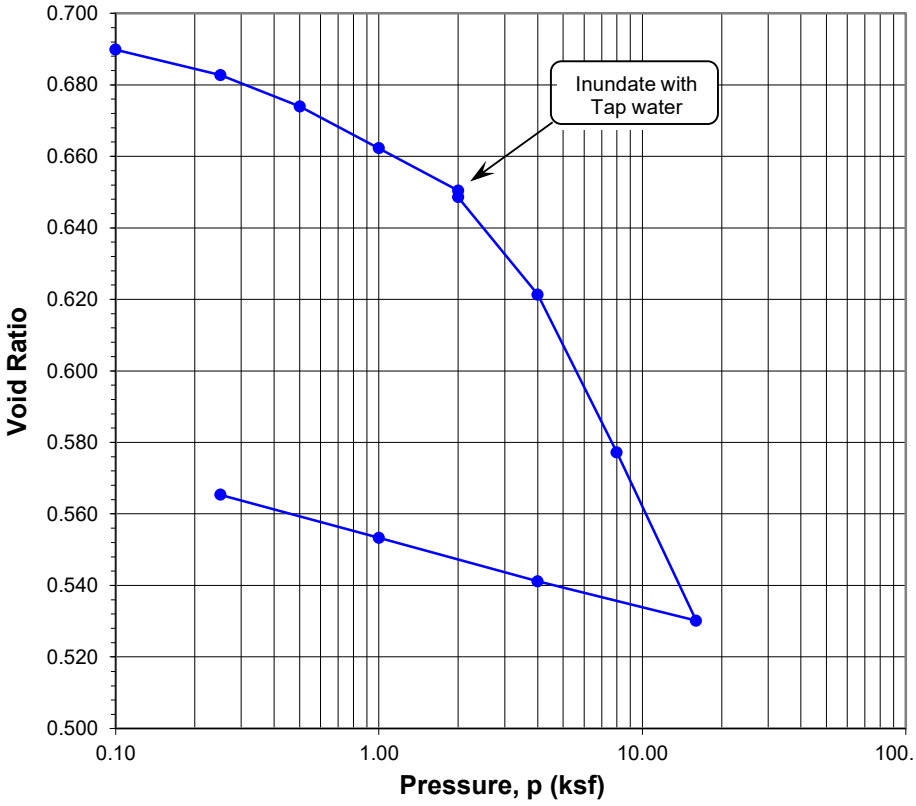
04-23

# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

| | | | |
|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: GB/JD | Date: 03/14/23 |
| Project No.: | 13837.001 | Checked By: ACS/JHW | Date: 03/23/23 |
| Boring No.: | LB-3 | Depth (ft.): 7.5 | |
| Sample No.: | R-2 | Sample Type: Ring | |
| Soil Identification: | Brown lean clay (CL) | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 194.69 |
| Weight of Ring (g): | 45.51 |
| Height after consol. (in.): | 0.9256 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 215.15 |
| Wt. of Dry Sample+Cont. (g): | 184.35 |
| Weight of Container (g): | 58.52 |
| Initial Moisture Content (%) | 24.5 |
| Initial Dry Density (pcf) | 99.7 |
| Initial Saturation (%): | 96 |
| Initial Vertical Reading (in.) | 0.0240 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 247.35 |
| Wt. of Dry Sample+Cont. (g): | 223.77 |
| Weight of Container (g): | 57.87 |
| Final Moisture Content (%) | 19.59 |
| Final Dry Density (pcf): | 108.2 |
| Final Saturation (%): | 95 |
| Final Vertical Reading (in.) | 0.1012 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |

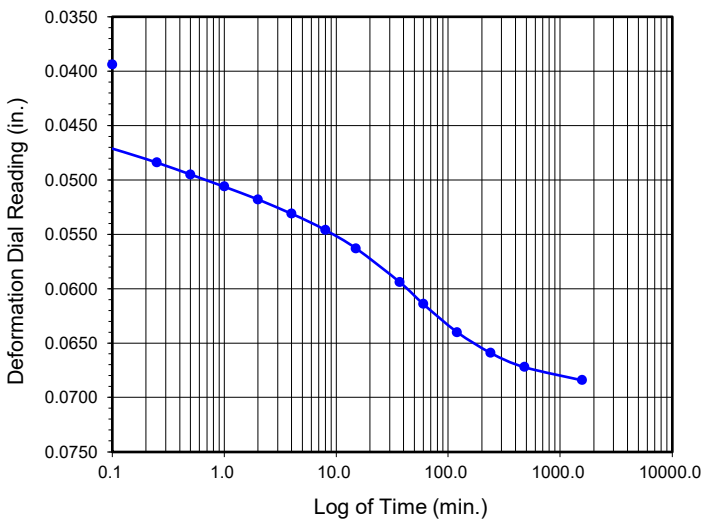


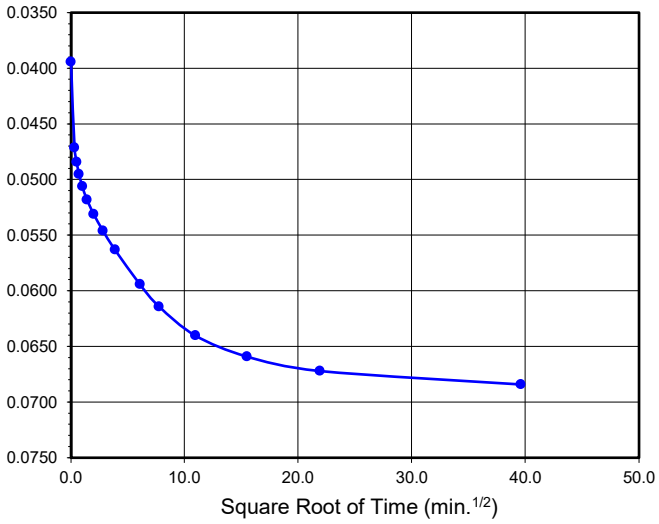

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.0248 | 0.9992 | 0.00 | 0.08 | 0.690 | 0.08 |
| 0.25 | 0.0293 | 0.9947 | 0.03 | 0.53 | 0.683 | 0.50 |
| 0.50 | 0.0349 | 0.9891 | 0.07 | 1.09 | 0.674 | 1.02 |
| 1.00 | 0.0425 | 0.9815 | 0.14 | 1.85 | 0.662 | 1.71 |
| 2.00 | 0.0503 | 0.9737 | 0.22 | 2.63 | 0.650 | 2.41 |
| 2.00 | 0.0514 | 0.9726 | 0.22 | 2.74 | 0.649 | 2.52 |
| 4.00 | 0.0684 | 0.9556 | 0.31 | 4.44 | 0.621 | 4.13 |
| 8.00 | 0.0954 | 0.9286 | 0.40 | 7.14 | 0.577 | 6.74 |
| 16.00 | 0.1243 | 0.8997 | 0.51 | 10.03 | 0.530 | 9.52 |
| 4.00 | 0.1171 | 0.9069 | 0.44 | 9.31 | 0.541 | 8.87 |
| 1.00 | 0.1090 | 0.9150 | 0.35 | 8.50 | 0.553 | 8.15 |
| 0.25 | 0.1012 | 0.9228 | 0.28 | 7.72 | 0.565 | 7.44 |
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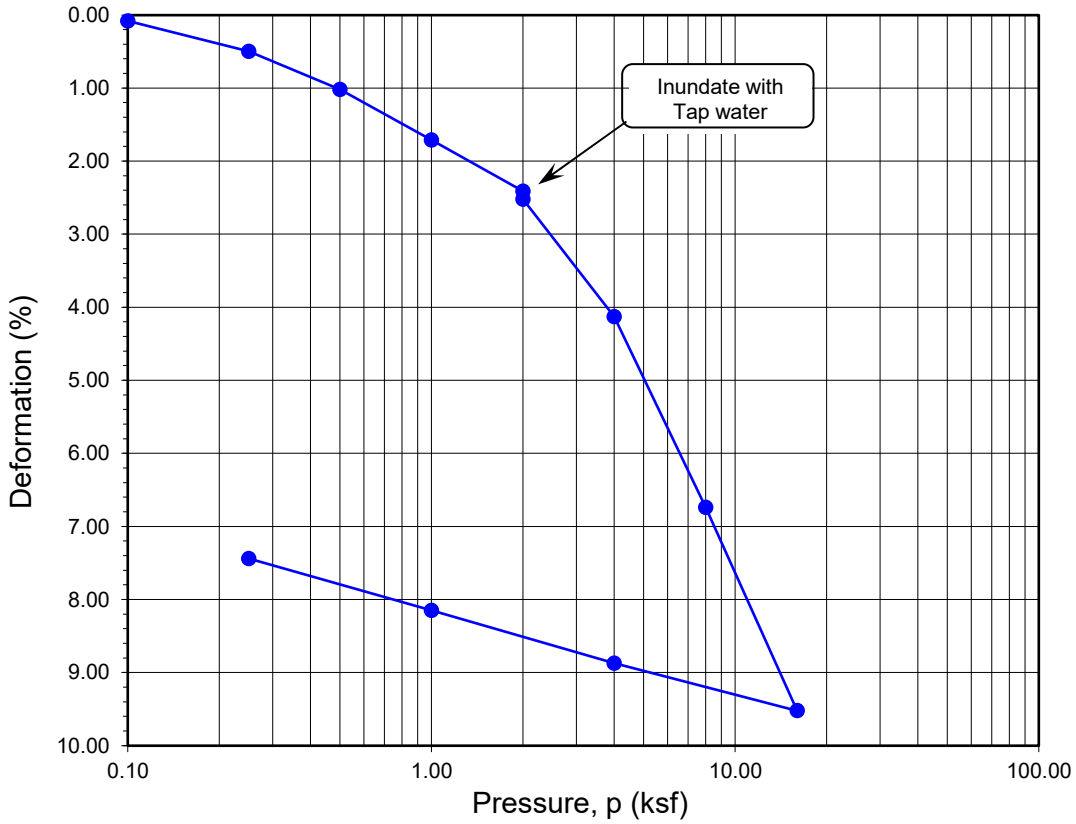
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/17/23 | 7:35:00 | 0.0 | 0.0 | 0.0394 |
| 3/17/23 | 7:35:06 | 0.1 | 0.3 | 0.0471 |
| 3/17/23 | 7:35:15 | 0.2 | 0.5 | 0.0484 |
| 3/17/23 | 7:35:30 | 0.5 | 0.7 | 0.0495 |
| 3/17/23 | 7:36:00 | 1.0 | 1.0 | 0.0506 |
| 3/17/23 | 7:37:00 | 2.0 | 1.4 | 0.0518 |
| 3/17/23 | 7:39:00 | 4.0 | 2.0 | 0.0531 |
| 3/17/23 | 7:43:00 | 8.0 | 2.8 | 0.0546 |
| 3/17/23 | 7:50:00 | 15.0 | 3.9 | 0.0563 |
| 3/17/23 | 8:12:00 | 37.0 | 6.1 | 0.0594 |
| 3/17/23 | 8:35:00 | 60.0 | 7.7 | 0.0614 |
| 3/17/23 | 9:35:00 | 120.0 | 11.0 | 0.0640 |
| 3/17/23 | 11:35:00 | 240.0 | 15.5 | 0.0659 |
| 3/17/23 | 15:35:00 | 480.0 | 21.9 | 0.0672 |
| 3/18/23 | 9:44:00 | 1569.0 | 39.6 | 0.0684 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-3** | **R-2** | **7.5** | **24.5** | **19.6** | **99.7** | **108.2** | **0.691** | **0.565** | **96** | **95** |

Soil Identification: Brown lean clay (CL)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

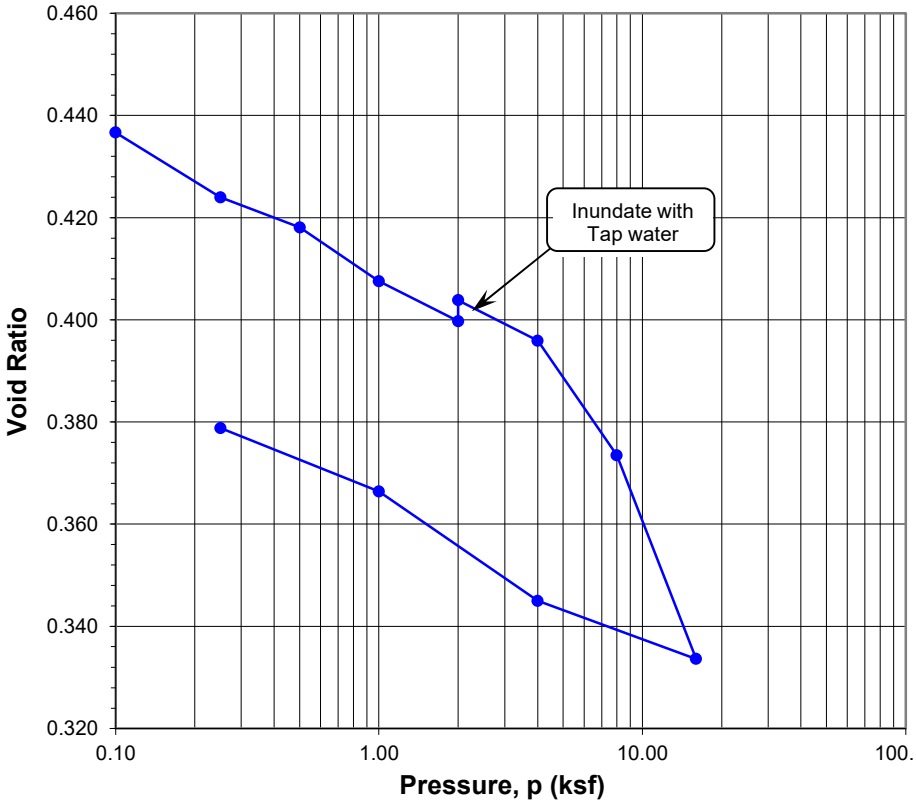
04-23

# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

| | | | |
|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: GB/JD | Date: 03/20/23 |
| Project No.: | 13837.001 | Checked By: J. Ward | Date: 04/03/23 |
| Boring No.: | LB-5 | Depth (ft.): 5.0 | |
| Sample No.: | R-1 | Sample Type: Ring | |
| Soil Identification: | Light olive brown silty clay (CL-ML) | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 199.28 |
| Weight of Ring (g): | 41.53 |
| Height after consol. (in.): | 0.9583 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 198.48 |
| Wt. of Dry Sample+Cont. (g): | 189.24 |
| Weight of Container (g): | 67.68 |
| Initial Moisture Content (%) | 7.6 |
| Initial Dry Density (pcf) | 121.9 |
| Initial Saturation (%): | 49 |
| Initial Vertical Reading (in.) | 0.0166 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 271.27 |
| Wt. of Dry Sample+Cont. (g): | 245.26 |
| Weight of Container (g): | 74.34 |
| Final Moisture Content (%) | 20.10 |
| Final Dry Density (pcf): | 112.3 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.0624 |
| Specific Gravity (assumed): | 2.81 |
| Water Density (pcf): | 62.43 |

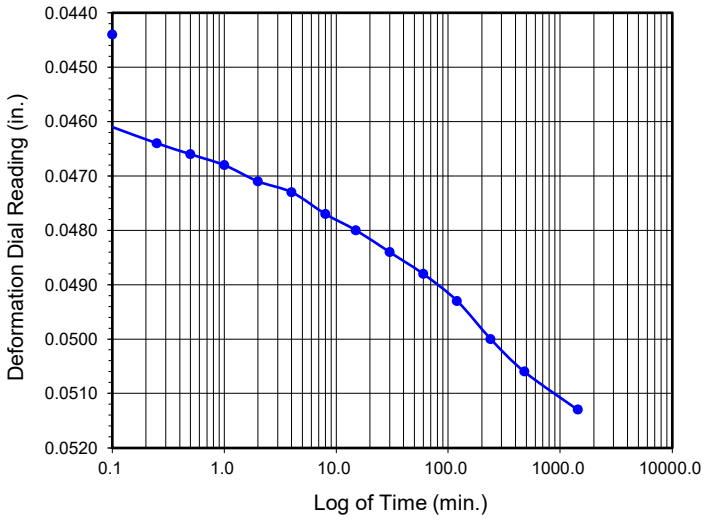


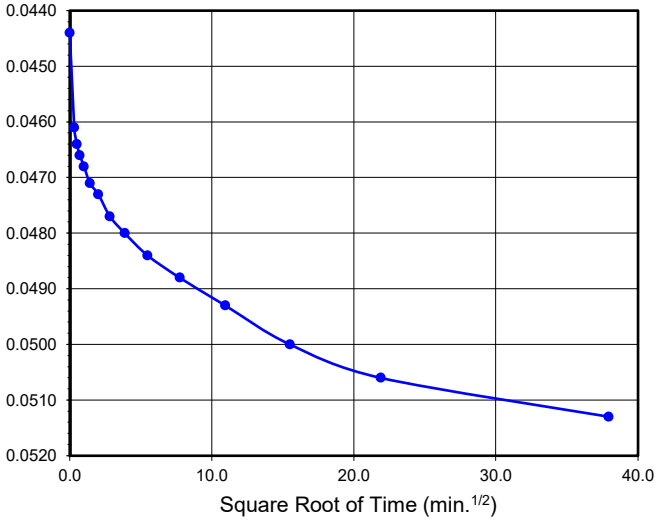

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.0181 | 0.9985 | 0.00 | 0.15 | 0.437 | 0.15 |
| 0.25 | 0.0274 | 0.9892 | 0.05 | 1.08 | 0.424 | 1.03 |
| 0.50 | 0.0322 | 0.9844 | 0.12 | 1.56 | 0.418 | 1.44 |
| 1.00 | 0.0405 | 0.9761 | 0.22 | 2.39 | 0.408 | 2.17 |
| 2.00 | 0.0473 | 0.9694 | 0.35 | 3.07 | 0.400 | 2.72 |
| 2.00 | 0.0444 | 0.9722 | 0.35 | 2.78 | 0.404 | 2.43 |
| 4.00 | 0.0513 | 0.9653 | 0.49 | 3.47 | 0.396 | 2.98 |
| 8.00 | 0.0685 | 0.9481 | 0.65 | 5.19 | 0.373 | 4.54 |
| 16.00 | 0.0979 | 0.9187 | 0.82 | 8.13 | 0.334 | 7.31 |
| 4.00 | 0.0886 | 0.9280 | 0.68 | 7.20 | 0.345 | 6.52 |
| 1.00 | 0.0721 | 0.9445 | 0.52 | 5.55 | 0.366 | 5.03 |
| 0.25 | 0.0624 | 0.9542 | 0.41 | 4.58 | 0.379 | 4.17 |
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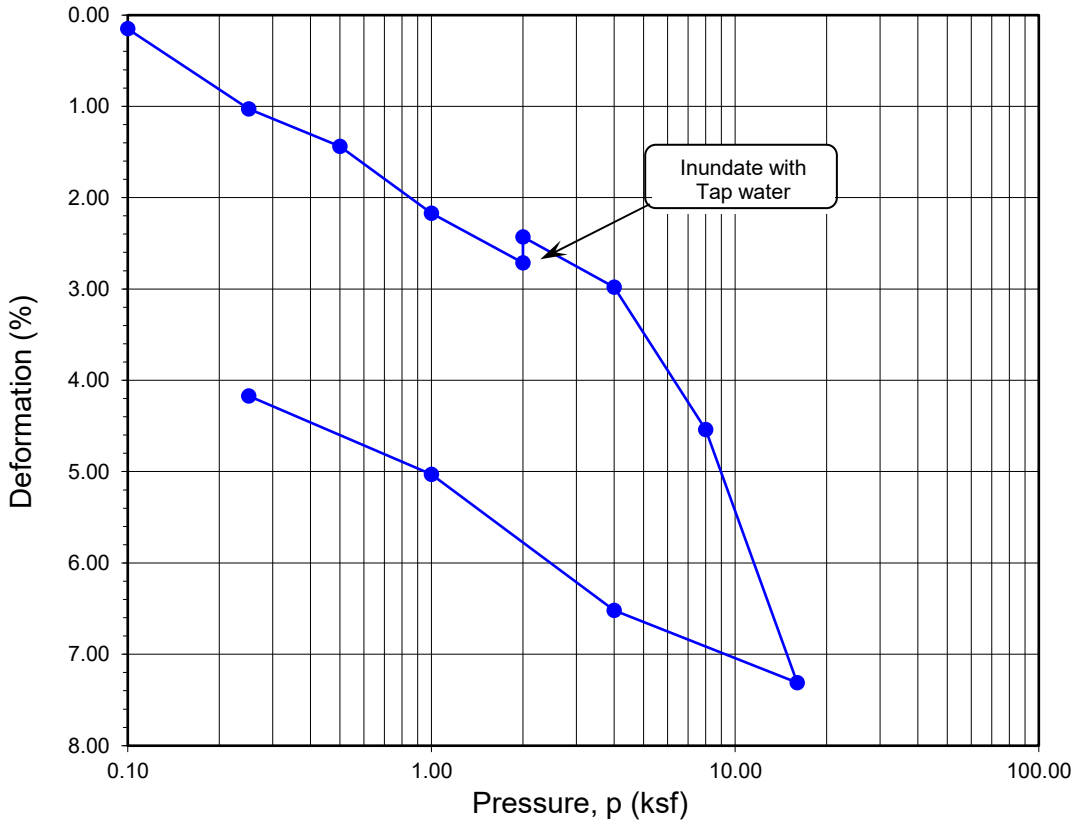
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/23/23 | 7:30:00 | 0.0 | 0.0 | 0.0444 |
| 3/23/23 | 7:30:06 | 0.1 | 0.3 | 0.0461 |
| 3/23/23 | 7:30:15 | 0.2 | 0.5 | 0.0464 |
| 3/23/23 | 7:30:30 | 0.5 | 0.7 | 0.0466 |
| 3/23/23 | 7:31:00 | 1.0 | 1.0 | 0.0468 |
| 3/23/23 | 7:32:00 | 2.0 | 1.4 | 0.0471 |
| 3/23/23 | 7:34:00 | 4.0 | 2.0 | 0.0473 |
| 3/23/23 | 7:38:00 | 8.0 | 2.8 | 0.0477 |
| 3/23/23 | 7:45:00 | 15.0 | 3.9 | 0.0480 |
| 3/23/23 | 8:00:00 | 30.0 | 5.5 | 0.0484 |
| 3/23/23 | 8:30:00 | 60.0 | 7.7 | 0.0488 |
| 3/23/23 | 9:30:00 | 120.0 | 11.0 | 0.0493 |
| 3/23/23 | 11:30:00 | 240.0 | 15.5 | 0.0500 |
| 3/23/23 | 15:30:00 | 480.0 | 21.9 | 0.0506 |
| 3/24/23 | 7:30:00 | 1440.0 | 37.9 | 0.0513 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-5** | **R-1** | **5** | **7.6** | **20.1** | **121.9** | **112.3** | **0.439** | **0.379** | **49** | **100** |

Soil Identification: Light olive brown silty clay (CL-ML)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

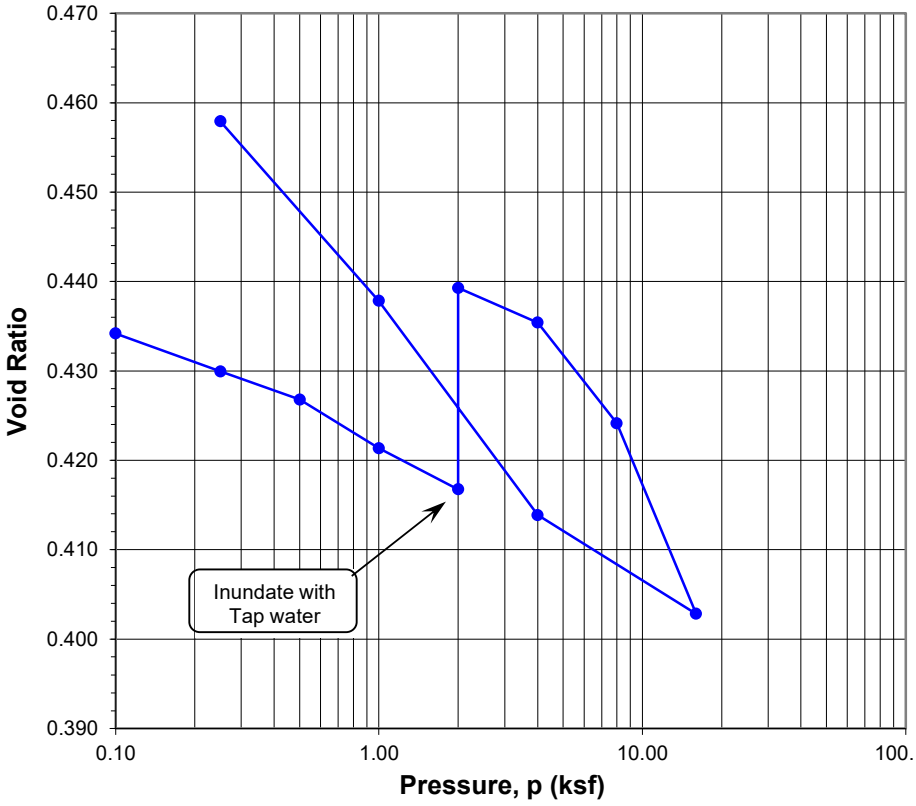
04-23

# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

| | | | |
|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: GB/JD | Date: 03/20/23 |
| Project No.: | 13837.001 | Checked By: J. Ward | Date: 04/03/23 |
| Boring No.: | LB-5 | Depth (ft.): 10.0 | |
| Sample No.: | R-3 | Sample Type: Ring | |
| Soil Identification: | Light olive brown lean clay (CL) | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 206.87 |
| Weight of Ring (g): | 44.76 |
| Height after consol. (in.): | 1.0163 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 192.59 |
| Wt. of Dry Sample+Cont. (g): | 175.45 |
| Weight of Container (g): | 55.72 |
| Initial Moisture Content (%) | 14.3 |
| Initial Dry Density (pcf) | 117.9 |
| Initial Saturation (%): | 89 |
| Initial Vertical Reading (in.) | 0.1016 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 286.58 |
| Wt. of Dry Sample+Cont. (g): | 262.18 |
| Weight of Container (g): | 76.75 |
| Final Moisture Content (%) | 17.35 |
| Final Dry Density (pcf): | 115.1 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.0884 |
| Specific Gravity (assumed): | 2.71 |
| Water Density (pcf): | 62.43 |

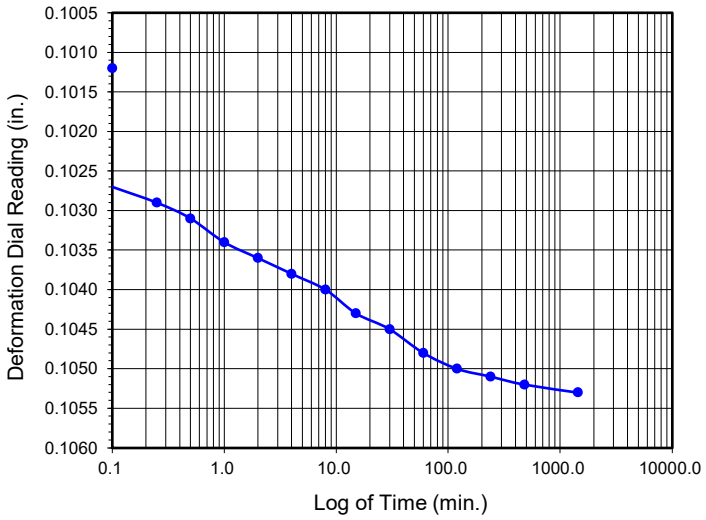


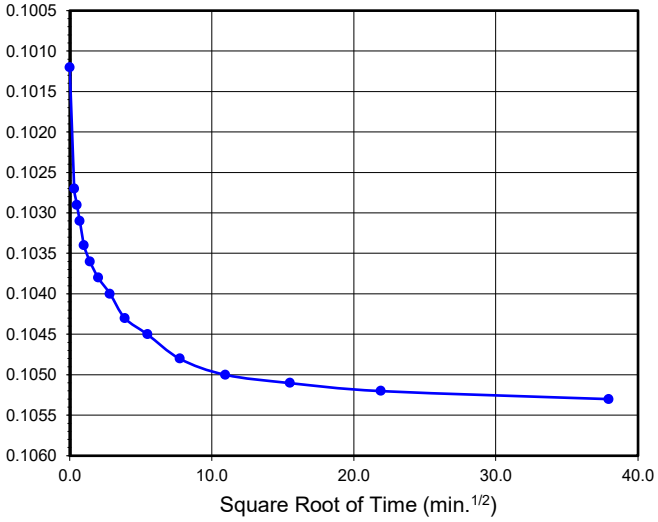

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.1019 | 0.9998 | 0.00 | 0.02 | 0.434 | 0.02 |
| 0.25 | 0.1053 | 0.9963 | 0.05 | 0.37 | 0.430 | 0.32 |
| 0.50 | 0.1081 | 0.9935 | 0.11 | 0.65 | 0.427 | 0.54 |
| 1.00 | 0.1127 | 0.9889 | 0.19 | 1.11 | 0.421 | 0.92 |
| 2.00 | 0.1169 | 0.9847 | 0.29 | 1.53 | 0.417 | 1.24 |
| 2.00 | 0.1012 | 1.0004 | 0.29 | -0.04 | 0.439 | -0.33 |
| 4.00 | 0.1053 | 0.9963 | 0.43 | 0.37 | 0.435 | -0.06 |
| 8.00 | 0.1147 | 0.9870 | 0.58 | 1.31 | 0.424 | 0.73 |
| 16.00 | 0.1313 | 0.9703 | 0.76 | 2.97 | 0.403 | 2.21 |
| 4.00 | 0.1218 | 0.9798 | 0.58 | 2.02 | 0.414 | 1.44 |
| 1.00 | 0.1034 | 0.9982 | 0.41 | 0.18 | 0.438 | -0.23 |
| 0.25 | 0.0884 | 1.0132 | 0.31 | -1.32 | 0.458 | -1.63 |
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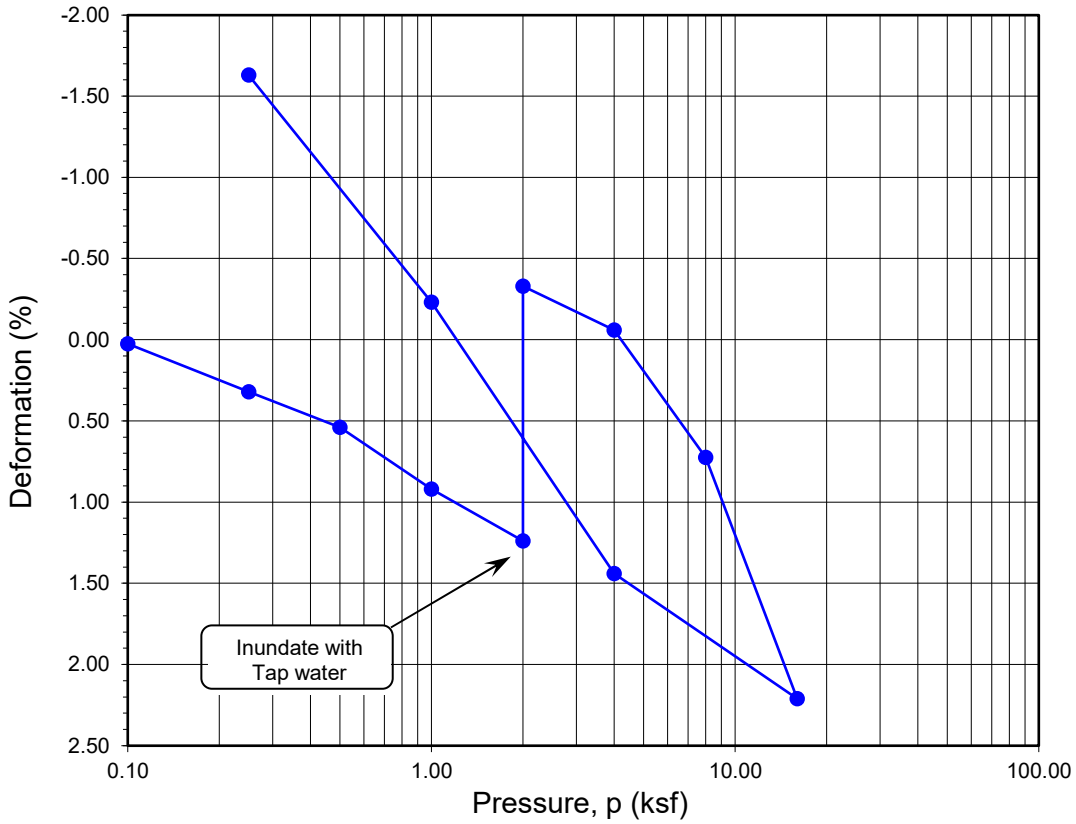
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/23/23 | 7:35:00 | 0.0 | 0.0 | 0.1012 |
| 3/23/23 | 7:35:06 | 0.1 | 0.3 | 0.1027 |
| 3/23/23 | 7:35:15 | 0.2 | 0.5 | 0.1029 |
| 3/23/23 | 7:35:30 | 0.5 | 0.7 | 0.1031 |
| 3/23/23 | 7:36:00 | 1.0 | 1.0 | 0.1034 |
| 3/23/23 | 7:37:00 | 2.0 | 1.4 | 0.1036 |
| 3/23/23 | 7:39:00 | 4.0 | 2.0 | 0.1038 |
| 3/23/23 | 7:43:00 | 8.0 | 2.8 | 0.1040 |
| 3/23/23 | 7:50:00 | 15.0 | 3.9 | 0.1043 |
| 3/23/23 | 8:05:00 | 30.0 | 5.5 | 0.1045 |
| 3/23/23 | 8:35:00 | 60.0 | 7.7 | 0.1048 |
| 3/23/23 | 9:35:00 | 120.0 | 11.0 | 0.1050 |
| 3/23/23 | 11:35:00 | 240.0 | 15.5 | 0.1051 |
| 3/23/23 | 15:35:00 | 480.0 | 21.9 | 0.1052 |
| 3/24/23 | 7:35:00 | 1440.0 | 37.9 | 0.1053 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-5** | **R-3** | **10** | **14.3** | **17.3** | **117.9** | **115.1** | **0.435** | **0.458** | **89** | **100** |

Soil Identification: Light olive brown lean clay (CL)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

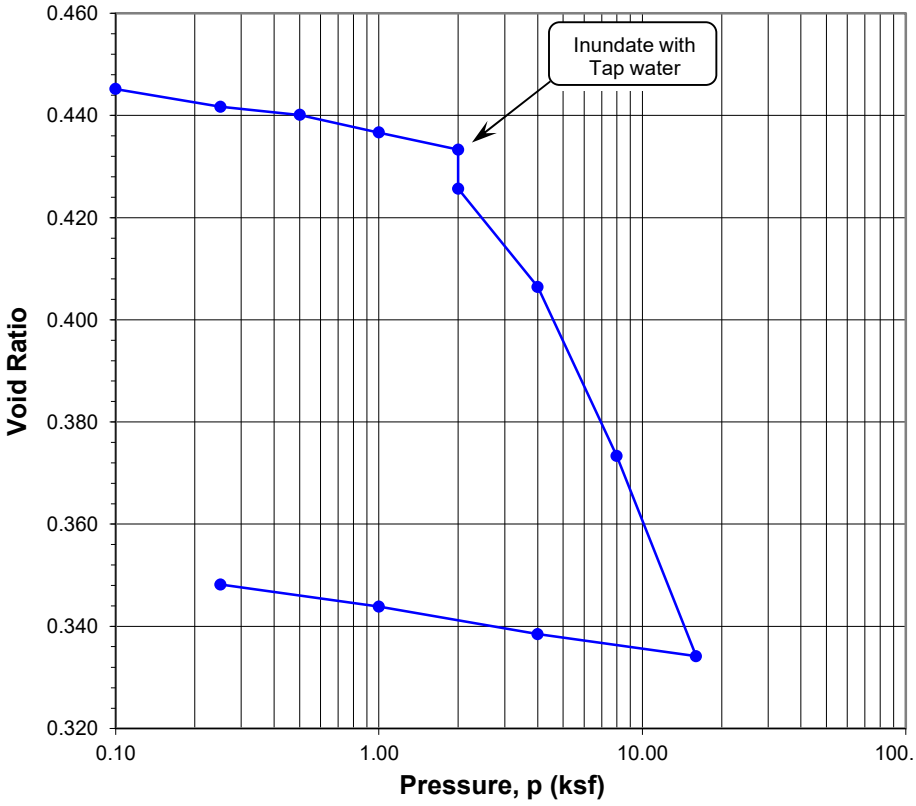
04-23

# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

| | | | |
|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: GB/JD | Date: 03/13/23 |
| Project No.: | 13837.001 | Checked By: J. Ward | Date: 04/03/23 |
| Boring No.: | LB-6 | Depth (ft.): 0-3 | |
| Sample No.: | B-1 | Sample Type: | 90% Remold |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 197.15 |
| Weight of Ring (g): | 45.23 |
| Height after consol. (in.): | 0.9326 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 180.49 |
| Wt. of Dry Sample+Cont. (g): | 170.90 |
| Weight of Container (g): | 56.14 |
| Initial Moisture Content (%) | 8.4 |
| Initial Dry Density (pcf) | 116.6 |
| Initial Saturation (%): | 51 |
| Initial Vertical Reading (in.) | 0.0413 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 280.01 |
| Wt. of Dry Sample+Cont. (g): | 261.90 |
| Weight of Container (g): | 76.74 |
| Final Moisture Content (%) | 12.94 |
| Final Dry Density (pcf): | 124.8 |
| Final Saturation (%): | 100 |
| Final Vertical Reading (in.) | 0.1115 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |

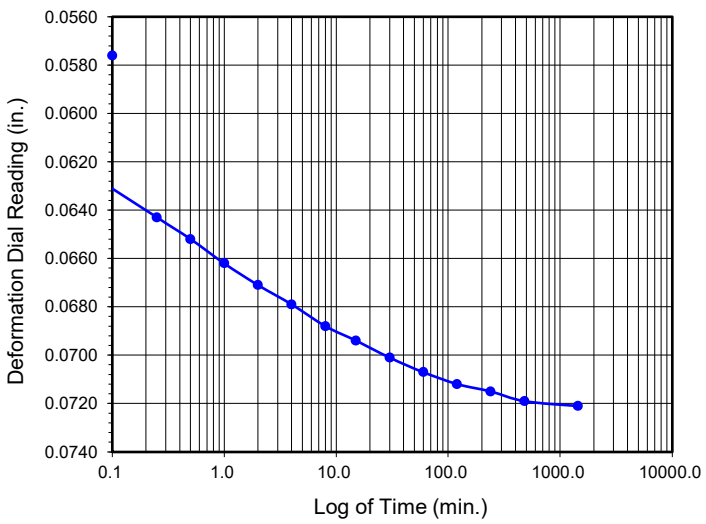


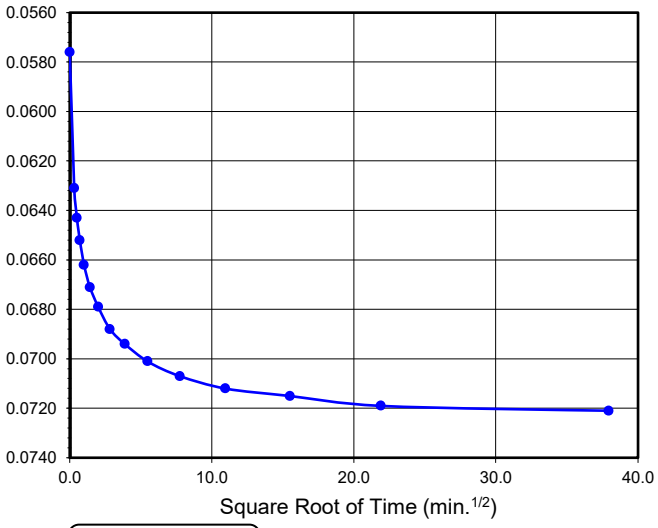

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deformation (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.0416 | 0.9997 | 0.00 | 0.03 | 0.445 | 0.03 |
| 0.25 | 0.0444 | 0.9969 | 0.04 | 0.31 | 0.442 | 0.27 |
| 0.50 | 0.0460 | 0.9953 | 0.09 | 0.47 | 0.440 | 0.38 |
| 1.00 | 0.0490 | 0.9923 | 0.15 | 0.77 | 0.437 | 0.62 |
| 2.00 | 0.0523 | 0.9890 | 0.25 | 1.10 | 0.433 | 0.85 |
| 2.00 | 0.0576 | 0.9837 | 0.25 | 1.63 | 0.426 | 1.38 |
| 4.00 | 0.0721 | 0.9692 | 0.37 | 3.08 | 0.406 | 2.71 |
| 8.00 | 0.0962 | 0.9451 | 0.49 | 5.49 | 0.373 | 5.00 |
| 16.00 | 0.1249 | 0.9164 | 0.65 | 8.36 | 0.334 | 7.71 |
| 4.00 | 0.1205 | 0.9208 | 0.51 | 7.92 | 0.338 | 7.41 |
| 1.00 | 0.1156 | 0.9257 | 0.39 | 7.43 | 0.344 | 7.04 |
| 0.25 | 0.1115 | 0.9298 | 0.28 | 7.02 | 0.348 | 6.74 |
| | | | | | | |
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| | | | | | | |

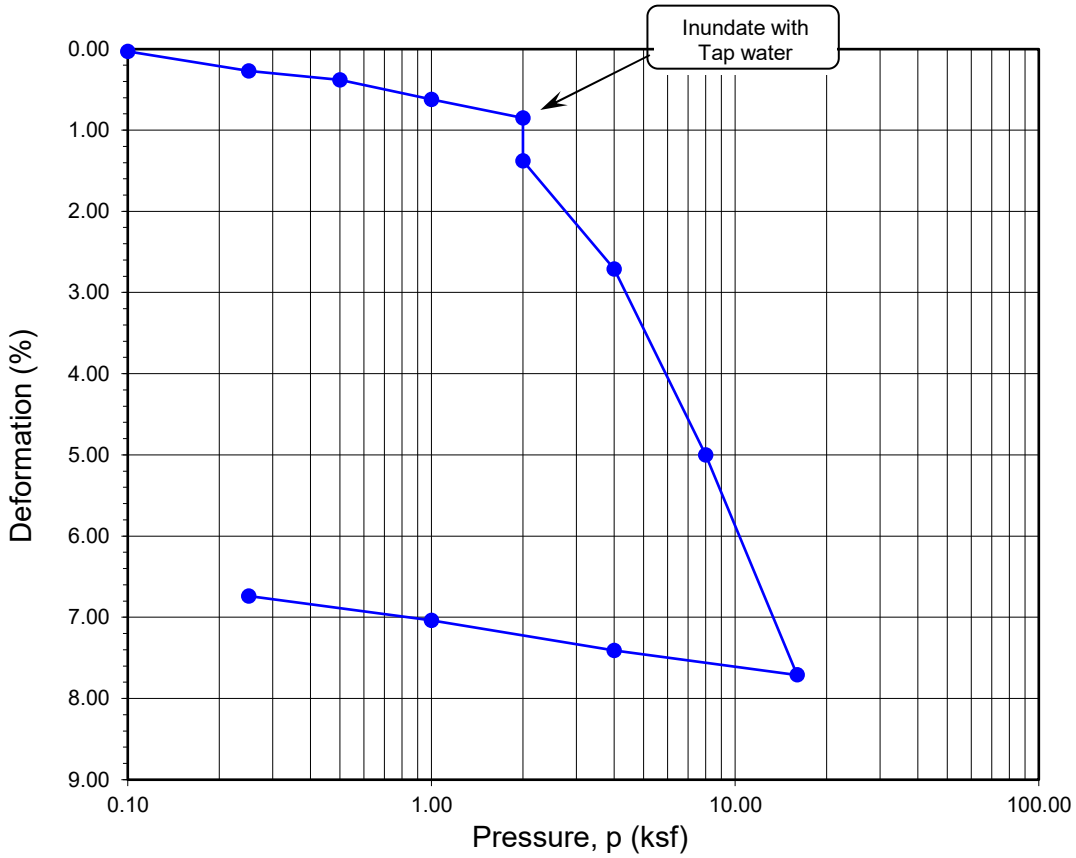
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/16/23 | 7:45:00 | 0.0 | 0.0 | 0.0576 |
| 3/16/23 | 7:45:06 | 0.1 | 0.3 | 0.0631 |
| 3/16/23 | 7:45:15 | 0.2 | 0.5 | 0.0643 |
| 3/16/23 | 7:45:30 | 0.5 | 0.7 | 0.0652 |
| 3/16/23 | 7:46:00 | 1.0 | 1.0 | 0.0662 |
| 3/16/23 | 7:47:00 | 2.0 | 1.4 | 0.0671 |
| 3/16/23 | 7:49:00 | 4.0 | 2.0 | 0.0679 |
| 3/16/23 | 7:53:00 | 8.0 | 2.8 | 0.0688 |
| 3/16/23 | 8:00:00 | 15.0 | 3.9 | 0.0694 |
| 3/16/23 | 8:15:00 | 30.0 | 5.5 | 0.0701 |
| 3/16/23 | 8:45:00 | 60.0 | 7.7 | 0.0707 |
| 3/16/23 | 9:45:00 | 120.0 | 11.0 | 0.0712 |
| 3/16/23 | 11:45:00 | 240.0 | 15.5 | 0.0715 |
| 3/16/23 | 15:45:00 | 480.0 | 21.9 | 0.0719 |
| 3/17/23 | 7:45:00 | 1440.0 | 37.9 | 0.0721 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LB-6** | **B-1** | **0-3** | **8.4** | **12.9** | **116.6** | **124.8** | **0.446** | **0.348** | **51** | **100** |

Soil Identification: Olive brown silty, clayey sand (SC-SM)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

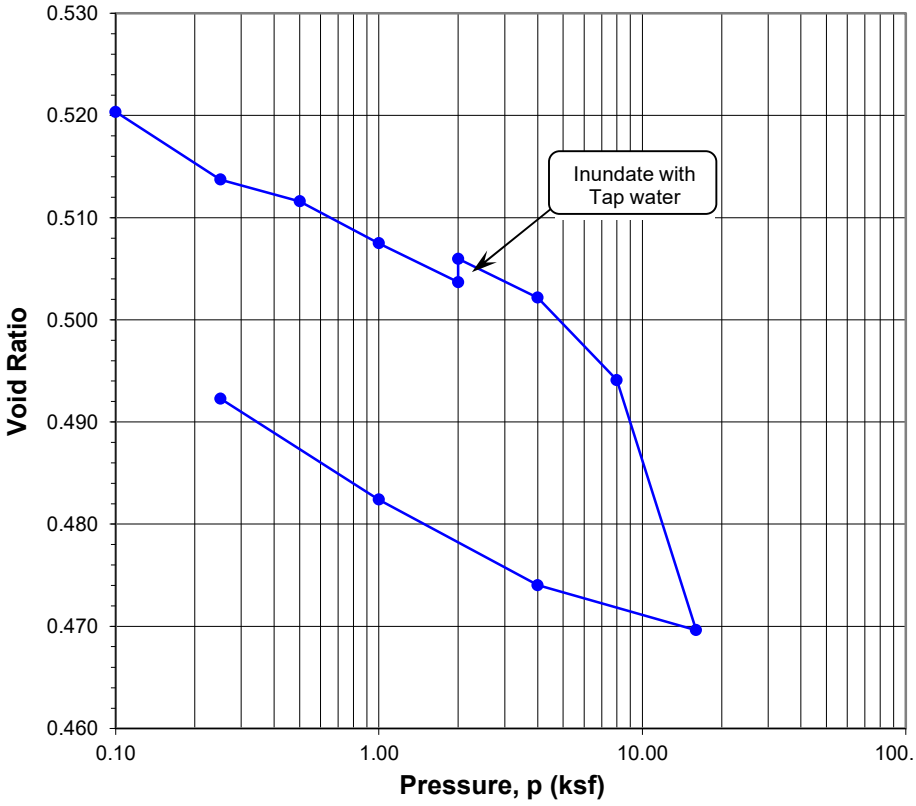
04-23

# ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

**ASTM D 2435**

| | | | |
|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | Tested By: GB/JD | Date: 03/14/23 |
| Project No.: | 13837.001 | Checked By: J. Ward | Date: 04/03/23 |
| Boring No.: | LP-1 | Depth (ft.): 0-5 | |
| Sample No.: | B-1 | Sample Type: | 90% Remold |
| Soil Identification: | Olive brown silty, clayey sand (SC-SM) | | |

| | |
|---|---|
| Sample Diameter (in.): | 2.415 |
| Sample Thickness (in.): | 1.000 |
| Weight of Sample + ring (g): | 189.04 |
| Weight of Ring (g): | 40.65 |
| Height after consol. (in.): | 0.9814 |
| **Before Test** | |
| Wt. of Wet Sample+Cont. (g): | 214.24 |
| Wt. of Dry Sample+Cont. (g): | 198.26 |
| Weight of Container (g): | 57.18 |
| Initial Moisture Content (%) | 11.3 |
| Initial Dry Density (pcf) | 110.9 |
| Initial Saturation (%): | 59 |
| Initial Vertical Reading (in.) | 0.0882 |
| **After Test** | |
| Wt. of Wet Sample+Cont. (g): | 260.46 |
| Wt. of Dry Sample+Cont. (g): | 238.81 |
| Weight of Container (g): | 65.44 |
| Final Moisture Content (%) | 16.31 |
| Final Dry Density (pcf): | 112.5 |
| Final Saturation (%): | 88 |
| Final Vertical Reading (in.) | 0.1096 |
| Specific Gravity (assumed): | 2.70 |
| Water Density (pcf): | 62.43 |

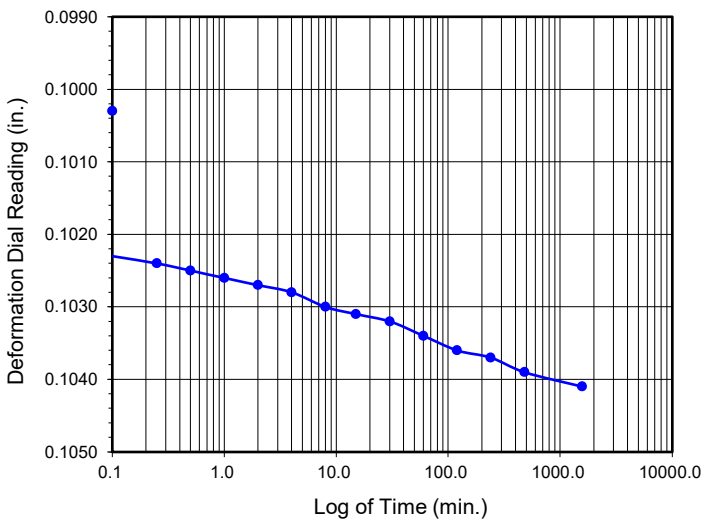


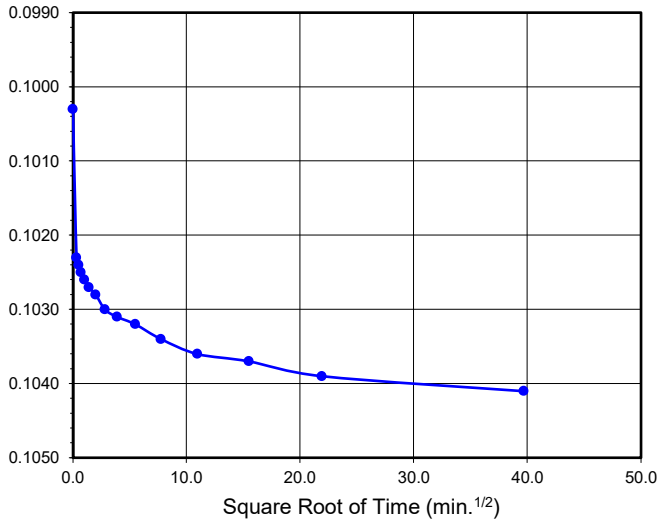

| Pressure (p) (ksf) | Final Reading (in.) | Apparent Thickness (in.) | Load Compliance (%) | Deformation % of Sample Thickness | Void Ratio | Corrected Deforma-tion (%) |
|---|---|---|---|---|---|---|
| 0.10 | 0.0884 | 0.9999 | 0.00 | 0.01 | 0.520 | 0.01 |
| 0.25 | 0.0931 | 0.9951 | 0.04 | 0.49 | 0.514 | 0.45 |
| 0.50 | 0.0950 | 0.9932 | 0.09 | 0.68 | 0.512 | 0.59 |
| 1.00 | 0.0984 | 0.9898 | 0.16 | 1.02 | 0.507 | 0.86 |
| 2.00 | 0.1018 | 0.9864 | 0.25 | 1.36 | 0.504 | 1.11 |
| 2.00 | 0.1003 | 0.9879 | 0.25 | 1.21 | 0.506 | 0.96 |
| 4.00 | 0.1041 | 0.9841 | 0.38 | 1.59 | 0.502 | 1.21 |
| 8.00 | 0.1107 | 0.9775 | 0.51 | 2.25 | 0.494 | 1.74 |
| 16.00 | 0.1283 | 0.9599 | 0.66 | 4.01 | 0.470 | 3.35 |
| 4.00 | 0.1240 | 0.9642 | 0.52 | 3.58 | 0.474 | 3.06 |
| 1.00 | 0.1171 | 0.9711 | 0.38 | 2.89 | 0.482 | 2.51 |
| 0.25 | 0.1096 | 0.9786 | 0.28 | 2.14 | 0.492 | 1.86 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

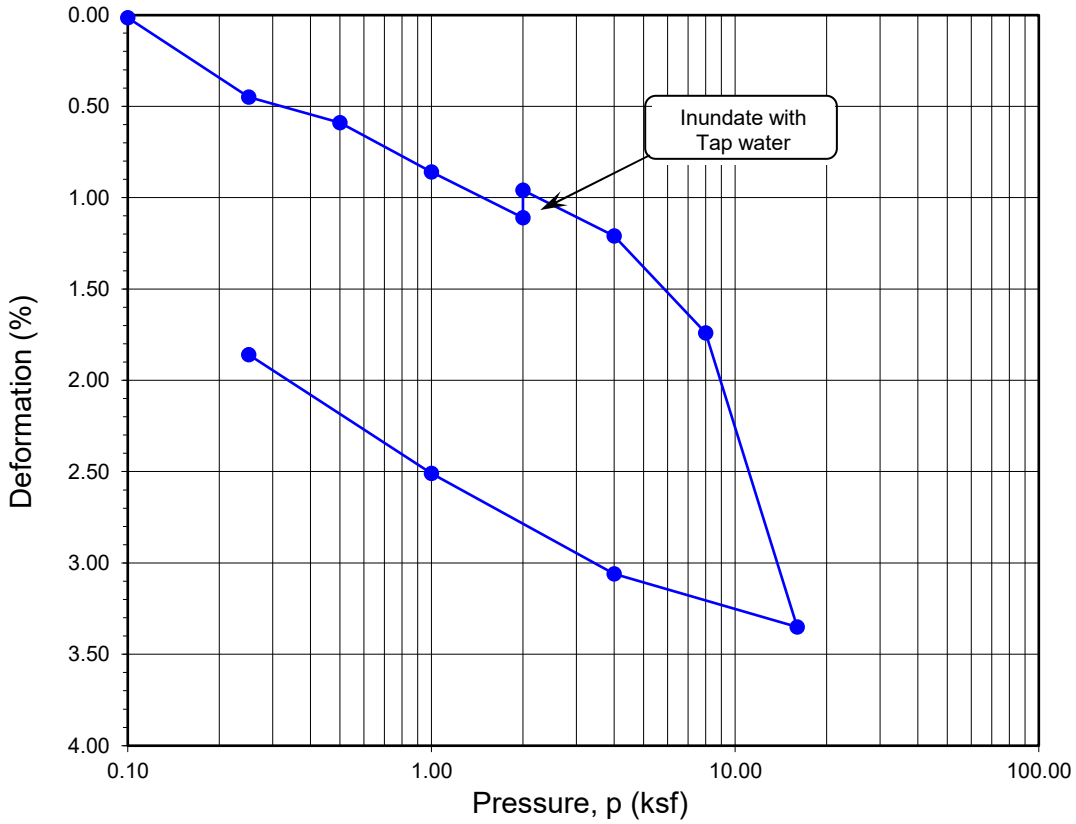
Time Readings @ 4.0 ksf

| Date | Time | Elapsed Time (min) | Square Root of Time | Dial Rdgs. (in.) |
|---|---|---|---|---|
| 3/17/23 | 7:25:00 | 0.0 | 0.0 | 0.1003 |
| 3/17/23 | 7:25:06 | 0.1 | 0.3 | 0.1023 |
| 3/17/23 | 7:25:15 | 0.2 | 0.5 | 0.1024 |
| 3/17/23 | 7:25:30 | 0.5 | 0.7 | 0.1025 |
| 3/17/23 | 7:26:00 | 1.0 | 1.0 | 0.1026 |
| 3/17/23 | 7:27:00 | 2.0 | 1.4 | 0.1027 |
| 3/17/23 | 7:29:00 | 4.0 | 2.0 | 0.1028 |
| 3/17/23 | 7:33:00 | 8.0 | 2.8 | 0.1030 |
| 3/17/23 | 7:40:00 | 15.0 | 3.9 | 0.1031 |
| 3/17/23 | 7:55:00 | 30.0 | 5.5 | 0.1032 |
| 3/17/23 | 8:25:00 | 60.0 | 7.7 | 0.1034 |
| 3/17/23 | 9:25:00 | 120.0 | 11.0 | 0.1036 |
| 3/17/23 | 11:25:00 | 240.0 | 15.5 | 0.1037 |
| 3/17/23 | 15:25:00 | 480.0 | 21.9 | 0.1039 |
| 3/18/23 | 9:40:00 | 1575.0 | 39.7 | 0.1041 |
| | | | | |

Time Readings @ 4.0 ksf




| Boring No. | Sample No. | Depth (ft.) | Moisture Content (%) | | Dry Density (pcf) | | Void Ratio | | Degree of Saturation (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Initial | Final | Initial | Final | Initial | Final | Initial | Final |
| **LP-1** | **B-1** | **0-5** | **11.3** | **16.3** | **110.9** | **112.5** | **0.521** | **0.492** | **59** | **88** |

Soil Identification: Olive brown silty, clayey sand (SC-SM)

Leighton

**ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS**
**ASTM D 2435**

Project No.: 13837.001

Rexford LA Airport Blvd

04-23

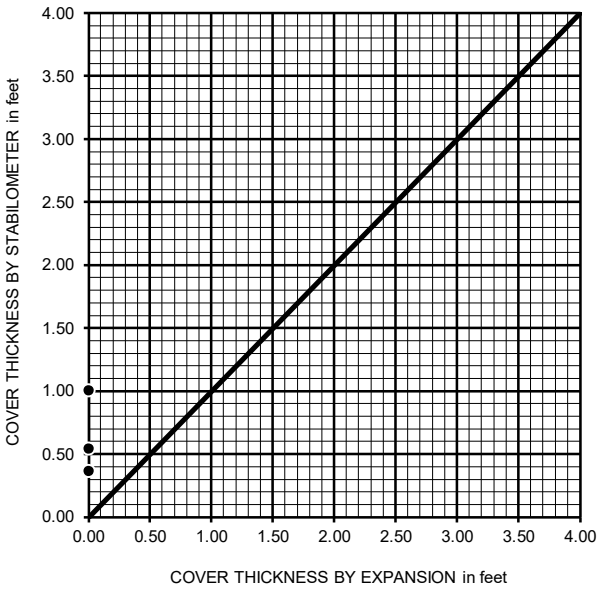
# R-VALUE TEST RESULTS
**DOT CA Test 301**

| | | | |
|---|---|---|---|
| PROJECT NAME: | Rexford LA Airport Blvd | PROJECT NUMBER: | 13837.001 |
| BORING NUMBER: | LB-1 | DEPTH (FT.): | 0-5 |
| SAMPLE NUMBER: | B-1 | TECHNICIAN: | F. Mina |
| SAMPLE DESCRIPTION: | Dark yellowish brown silty sand (SM) | DATE COMPLETED: | 3/22/2023 |

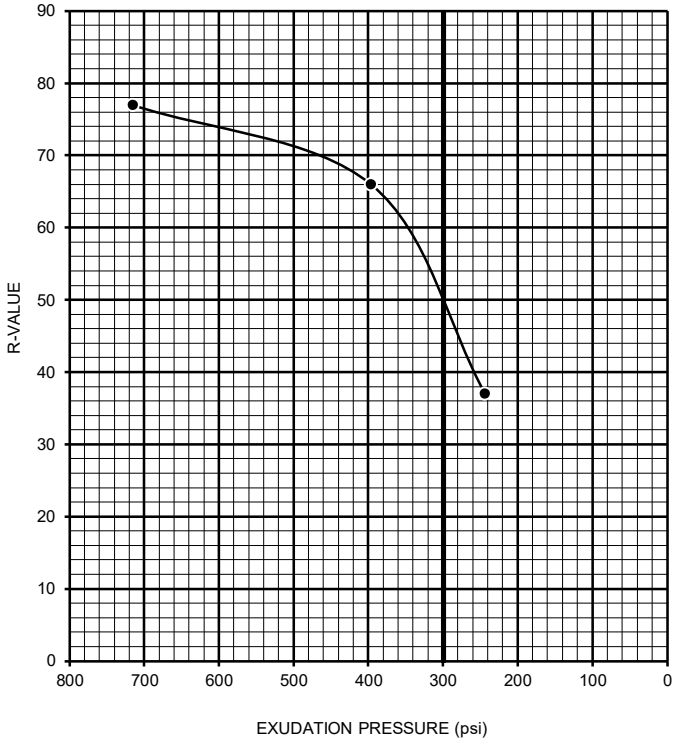
| TEST SPECIMEN | a | b | c |
|---|---|---|---|
| MOISTURE AT COMPACTION % | 8.0 | 8.5 | 9.5 |
| HEIGHT OF SAMPLE, Inches | 2.48 | 2.55 | 2.52 |
| DRY DENSITY, pcf | 116.9 | 115.8 | 118.8 |
| COMPACTOR PRESSURE, psi | 200 | 175 | 150 |
| EXUDATION PRESSURE, psi | 715 | 397 | 244 |
| EXPANSION, Inches x 10exp-4 | 0 | 0 | 0 |
| STABILITY Ph 2,000 lbs (160 psi) | 25 | 37 | 78 |
| TURNS DISPLACEMENT | 4.12 | 4.28 | 4.57 |
| R-VALUE UNCORRECTED | 77 | 66 | 37 |
| R-VALUE CORRECTED | 77 | 66 | 37 |

| DESIGN CALCULATION DATA | a | b | c |
|---|---|---|---|
| GRAVEL EQUIVALENT FACTOR | 1.0 | 1.0 | 1.0 |
| TRAFFIC INDEX | 5.0 | 5.0 | 5.0 |
| STABILOMETER THICKNESS, ft. | 0.37 | 0.54 | 1.01 |
| EXPANSION PRESSURE THICKNESS, ft. | 0.00 | 0.00 | 0.00 |

EXPANSION PRESSURE CHART




EXUDATION PRESSURE CHART




| | |
|---|---|
| R-VALUE BY EXPANSION: | N/A |
| R-VALUE BY EXUDATION: | 50 |
| EQUILIBRIUM R-VALUE: | 50 |

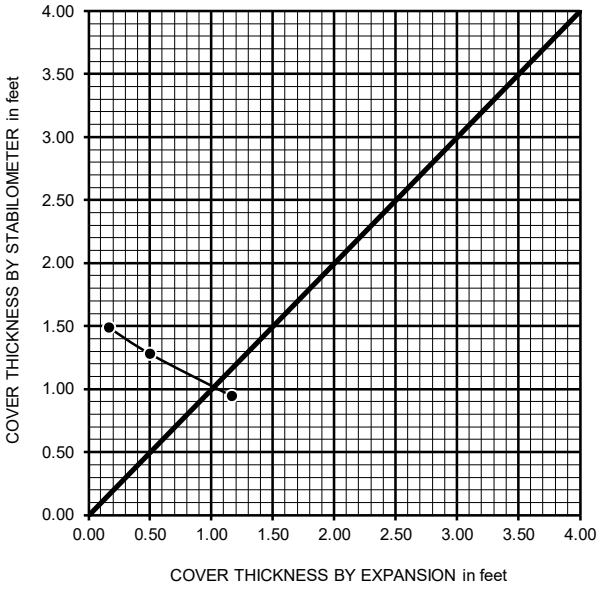
# R-VALUE TEST RESULTS
**DOT CA Test 301**

| | | | |
|---|---|---|---|
| PROJECT NAME: | Rexford LA Airport Blvd | PROJECT NUMBER: | 13837.001 |
| BORING NUMBER: | LB-6 | DEPTH (FT.): | 0-3 |
| SAMPLE NUMBER: | B-1 | TECHNICIAN: | F. Mina |
| SAMPLE DESCRIPTION: | Olive brown silty, clayey sand (SC-SM) | DATE COMPLETED: | 3/22/2023 |

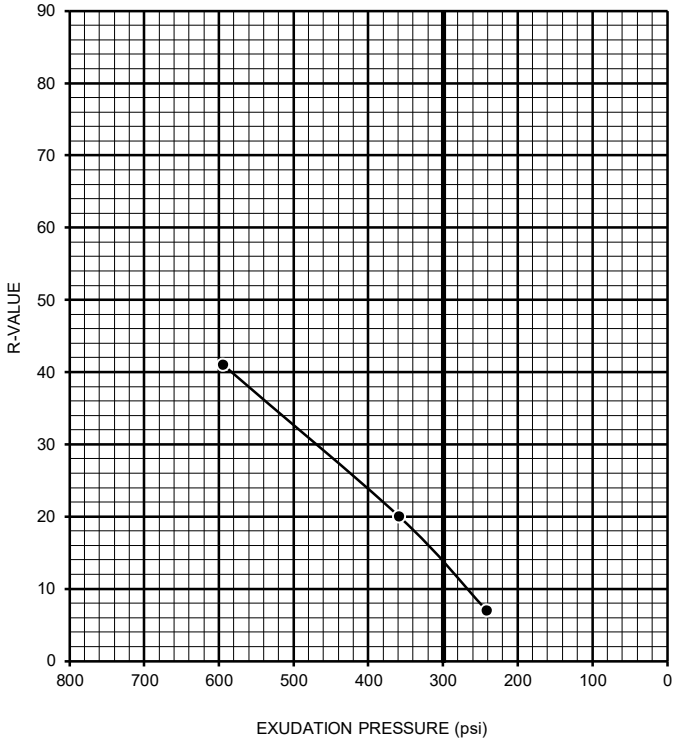
| TEST SPECIMEN | a | b | c |
|---|---|---|---|
| MOISTURE AT COMPACTION % | 9.4 | 10.4 | 11.6 |
| HEIGHT OF SAMPLE, Inches | 2.51 | 2.59 | 2.54 |
| DRY DENSITY, pcf | 120.8 | 118.3 | 118.4 |
| COMPACTOR PRESSURE, psi | 170 | 130 | 75 |
| EXUDATION PRESSURE, psi | 595 | 359 | 241 |
| EXPANSION, Inches x 10exp-4 | 35 | 15 | 5 |
| STABILITY Ph 2,000 lbs (160 psi) | 74 | 116 | 140 |
| TURNS DISPLACEMENT | 4.10 | 4.30 | 4.65 |
| R-VALUE UNCORRECTED | 41 | 18 | 7 |
| R-VALUE CORRECTED | 41 | 20 | 7 |

| DESIGN CALCULATION DATA | a | b | c |
|---|---|---|---|
| GRAVEL EQUIVALENT FACTOR | 1.0 | 1.0 | 1.0 |
| TRAFFIC INDEX | 5.0 | 5.0 | 5.0 |
| STABILOMETER THICKNESS, ft. | 0.94 | 1.28 | 1.49 |
| EXPANSION PRESSURE THICKNESS, ft. | 1.17 | 0.50 | 0.17 |

EXPANSION PRESSURE CHART




EXUDATION PRESSURE CHART




| | |
|---|---|
| R-VALUE BY EXPANSION: | 31 |
| R-VALUE BY EXUDATION: | 14 |
| EQUILIBRIUM R-VALUE: | 14 |

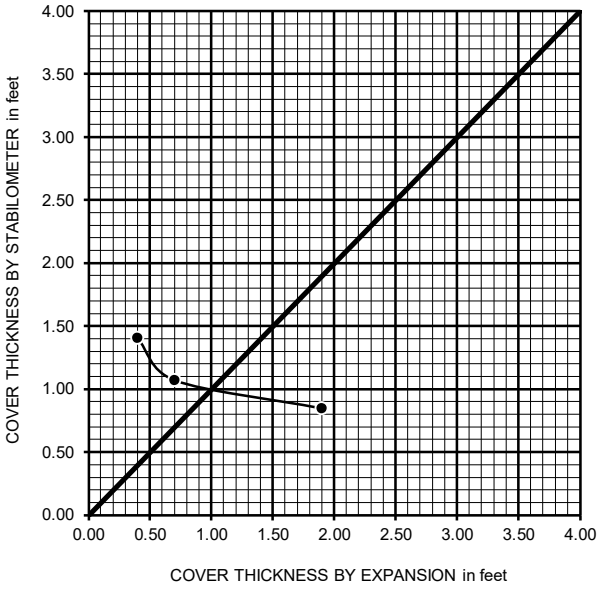
# R-VALUE TEST RESULTS
**DOT CA Test 301**

| | | | |
|---|---|---|---|
| PROJECT NAME: | Rexford LA Airport Blvd | PROJECT NUMBER: | 13837.001 |
| BORING NUMBER: | LP-1 | DEPTH (FT.): | 0-5 |
| SAMPLE NUMBER: | B-1 | TECHNICIAN: | F. Mina |
| SAMPLE DESCRIPTION: | Olive brown silty, clayey sand (SC-SM) | DATE COMPLETED: | 3/22/2023 |

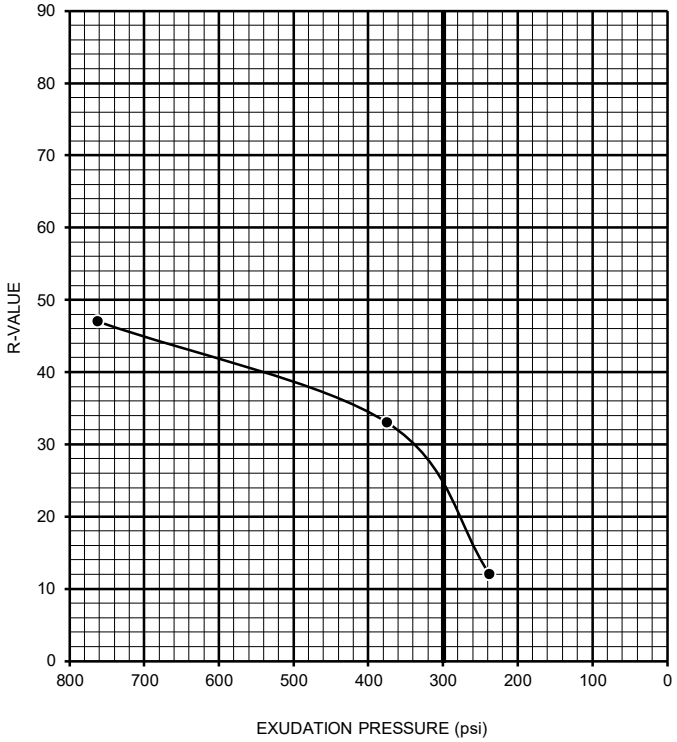
| TEST SPECIMEN | a | b | c |
|---|---|---|---|
| MOISTURE AT COMPACTION % | 11.8 | 12.8 | 14.1 |
| HEIGHT OF SAMPLE, Inches | 2.49 | 2.50 | 2.51 |
| DRY DENSITY, pcf | 111.0 | 110.9 | 106.8 |
| COMPACTOR PRESSURE, psi | 195 | 125 | 95 |
| EXUDATION PRESSURE, psi | 762 | 375 | 238 |
| EXPANSION, Inches x 10exp-4 | 57 | 21 | 12 |
| STABILITY Ph 2,000 lbs (160 psi) | 68 | 90 | 127 |
| TURNS DISPLACEMENT | 3.88 | 3.95 | 4.58 |
| R-VALUE UNCORRECTED | 47 | 33 | 12 |
| R-VALUE CORRECTED | 47 | 33 | 12 |

| DESIGN CALCULATION DATA | a | b | c |
|---|---|---|---|
| GRAVEL EQUIVALENT FACTOR | 1.0 | 1.0 | 1.0 |
| TRAFFIC INDEX | 5.0 | 5.0 | 5.0 |
| STABILOMETER THICKNESS, ft. | 0.85 | 1.07 | 1.41 |
| EXPANSION PRESSURE THICKNESS, ft. | 1.90 | 0.70 | 0.40 |

EXPANSION PRESSURE CHART




EXUDATION PRESSURE CHART




| | |
|---|---|
| R-VALUE BY EXPANSION: | 38 |
| R-VALUE BY EXUDATION: | 25 |
| EQUILIBRIUM R-VALUE: | 25 |

# TESTS for SULFATE CONTENT
# CHLORIDE CONTENT and pH of SOILS

Project Name: Rexford LA Airport Blvd | Tested By : G. Berdy | Date: 03/03/23

Project No. : 13837.001 | Checked By: J. Ward | Date: 03/31/23

| | | | | |
|---|---|---|---|---|
| Boring No. | LB-1 | LB-6 | LP-1 | |
| Sample No. | B-1 | B-1 | B-1 | |
| Sample Depth (ft) | 0-5 | 0-3 | 0-5 | |
| Soil Identification: | Dark yellowish brown SM | Olive brown SC-SM | Olive brown SC-SM | |
| Wet Weight of Soil + Container (g) | 0.00 | 0.00 | 0.00 | |
| Dry Weight of Soil + Container (g) | 0.00 | 0.00 | 0.00 | |
| Weight of Container (g) | 1.00 | 1.00 | 1.00 | |
| Moisture Content (%) | 0.00 | 0.00 | 0.00 | |
| Weight of Soaked Soil (g) | 100.21 | 100.11 | 100.44 | |

**SULFATE CONTENT, DOT California Test 417, Part II**

| | | | | |
|---|---|---|---|---|
| Beaker No. | 2 | 7 | 402 | |
| Crucible No. | 6 | 7 | 2 | |
| Furnace Temperature (°C) | 860 | 860 | 860 | |
| Time In / Time Out | 8:30/9:15 | 8:30/9:15 | 8:30/9:15 | |
| Duration of Combustion (min) | 45 | 45 | 45 | |
| Wt. of Crucible + Residue (g) | 25.7513 | 22.7095 | 28.7224 | |
| Wt. of Crucible (g) | 25.7447 | 22.7067 | 28.7188 | |
| Wt. of Residue (g) (A) | 0.0066 | 0.0028 | 0.0036 | |
| PPM of Sulfate (A) x 41150 | 271.59 | 115.22 | 148.14 | |
| **PPM of Sulfate, Dry Weight Basis** | **272** | **115** | **148** | |

**CHLORIDE CONTENT, DOT California Test 422**

| | | | | |
|---|---|---|---|---|
| ml of Extract For Titration (B) | 15 | 15 | 15 | |
| ml of AgNO3 Soln. Used in Titration (C) | 0.7 | 0.7 | 0.7 | |
| PPM of Chloride (C -0.2) * 100 * 30 / B | 100 | 100 | 100 | |
| **PPM of Chloride, Dry Wt. Basis** | **100** | **100** | **100** | |

**pH TEST, DOT California Test 643**

| | | | | |
|---|---|---|---|---|
| **pH Value** | **8.11** | **7.76** | **7.73** | |
| **Temperature °C** | 16.3 | 16.4 | 16.5 | |

# SOIL RESISTIVITY TEST

## DOT CA TEST 643

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | | Tested By : | G. Berdy | Date: 03/07/23 |
| Project No. : | 13837.001 | | Checked By: | J. Ward | Date: 03/31/23 |
| Boring No.: | LB-1 | | Depth (ft.) : | 0-5 | |
| Sample No. : | B-1 | | | | |

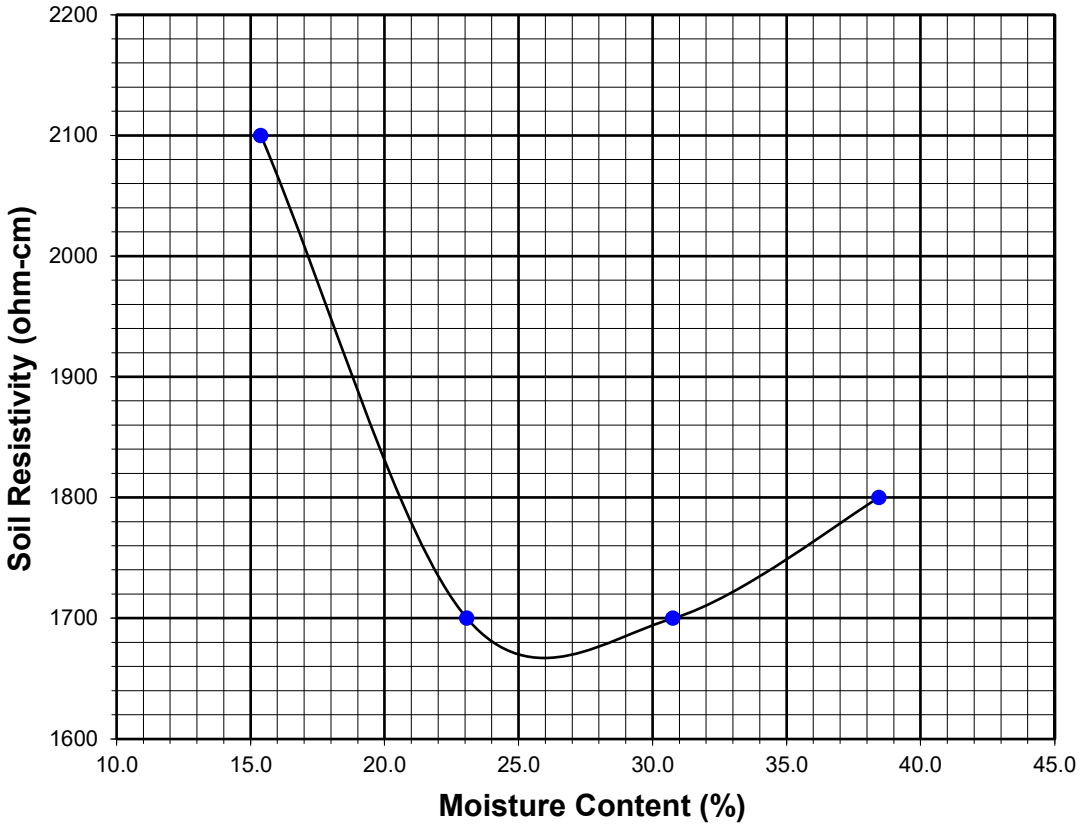
Soil Identification:* Dark yellowish brown SM

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

| Specimen No. | Water Added (ml) (Wa) | Adjusted Moisture Content (MC) | Resistance Reading (ohm) | Soil Resistivity (ohm-cm) |
|---|---|---|---|---|
| 1 | 20 | 15.38 | 2100 | 2100 |
| 2 | 30 | 23.07 | 1700 | 1700 |
| 3 | 40 | 30.76 | 1700 | 1700 |
| 4 | 50 | 38.44 | 1800 | 1800 |
| 5 | | | | |

| | |
|---|---|
| Moisture Content (%) (MCi) | 0.00 |
| Wet Wt. of Soil + Cont. (g) | 0.00 |
| Dry Wt. of Soil + Cont. (g) | 0.00 |
| Wt. of Container (g) | 1.00 |
| Container No. | |
| Initial Soil Wt. (g) (Wt) | 130.06 |
| Box Constant | 1.000 |
| MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100 | |

| Min. Resistivity (ohm-cm) | Moisture Content (%) | Sulfate Content (ppm) | Chloride Content (ppm) | Soil pH | |
|---|---|---|---|---|---|
| | | | | pH | Temp. (°C) |
| DOT CA Test 643 | | DOT CA Test 417 Part II | DOT CA Test 422 | DOT CA Test 643 | |
| **1670** | **26.0** | **272** | **100** | **8.11** | **16.3** |



# SOIL RESISTIVITY TEST

## DOT CA TEST 643

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | | Tested By : | G. Berdy | Date: 03/07/23 |
| Project No. : | 13837.001 | | Checked By: | J. Ward | Date: 03/31/23 |
| Boring No.: | LB-6 | | Depth (ft.) : | 0-3 | |
| Sample No. : | B-1 | | | | |

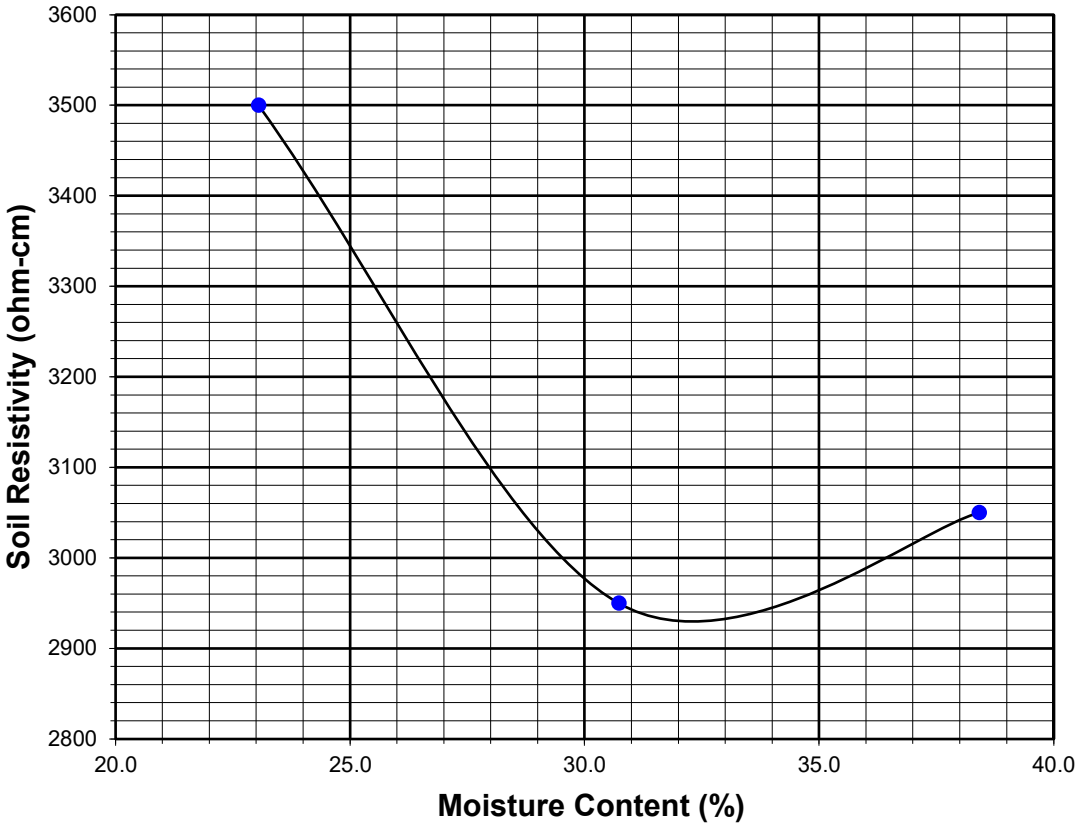
Soil Identification:* Olive brown SC-SM

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

| Specimen No. | Water Added (ml) (Wa) | Adjusted Moisture Content (MC) | Resistance Reading (ohm) | Soil Resistivity (ohm-cm) |
|---|---|---|---|---|
| 1 | 30 | 23.05 | 3500 | 3500 |
| 2 | 40 | 30.73 | 2950 | 2950 |
| 3 | 50 | 38.41 | 3050 | 3050 |
| 4 | | | | |
| 5 | | | | |

| | |
|---|---|
| Moisture Content (%) (MCi) | 0.00 |
| Wet Wt. of Soil + Cont. (g) | 0.00 |
| Dry Wt. of Soil + Cont. (g) | 0.00 |
| Wt. of Container (g) | 1.00 |
| Container No. | |
| Initial Soil Wt. (g) (Wt) | 130.16 |
| Box Constant | 1.000 |
| MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100 | |

| Min. Resistivity (ohm-cm) | Moisture Content (%) | Sulfate Content (ppm) | Chloride Content (ppm) | Soil pH | |
|---|---|---|---|---|---|
| | | | | pH | Temp. (°C) |
| DOT CA Test 643 | | DOT CA Test 417 Part II | DOT CA Test 422 | DOT CA Test 643 | |
| **2930** | **32.3** | **115** | **100** | **7.76** | **16.4** |



# SOIL RESISTIVITY TEST

## DOT CA TEST 643

| | | | | | |
|---|---|---|---|---|---|
| Project Name: | Rexford LA Airport Blvd | | Tested By : | G. Berdy | Date: 03/07/23 |
| Project No. : | 13837.001 | | Checked By: | J. Ward | Date: 03/31/23 |
| Boring No.: | LP-1 | | Depth (ft.) : | 0-5 | |
| Sample No. : | B-1 | | | | |

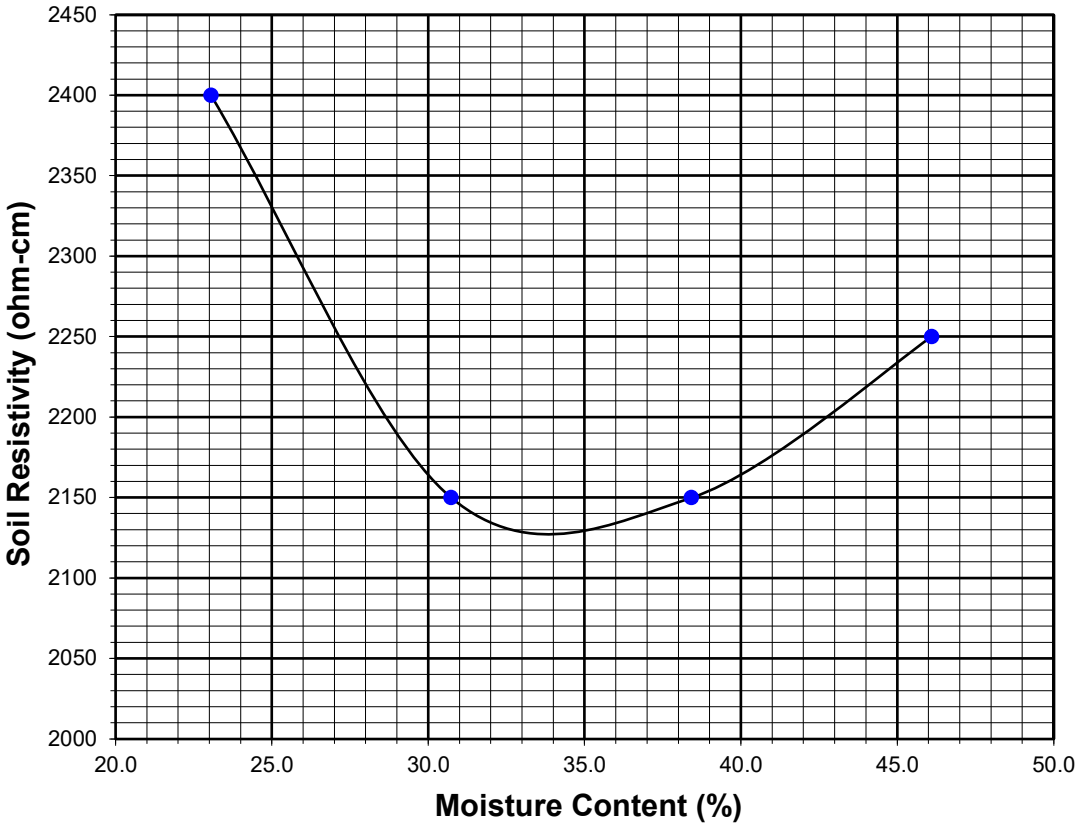
Soil Identification:* Olive brown SC-SM

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

| Specimen No. | Water Added (ml) (Wa) | Adjusted Moisture Content (MC) | Resistance Reading (ohm) | Soil Resistivity (ohm-cm) |
|---|---|---|---|---|
| 1 | 30 | 23.05 | 2400 | 2400 |
| 2 | 40 | 30.73 | 2150 | 2150 |
| 3 | 50 | 38.41 | 2150 | 2150 |
| 4 | 60 | 46.10 | 2250 | 2250 |
| 5 | | | | |

| | |
|---|---|
| Moisture Content (%) (MCi) | 0.00 |
| Wet Wt. of Soil + Cont. (g) | 0.00 |
| Dry Wt. of Soil + Cont. (g) | 0.00 |
| Wt. of Container (g) | 1.00 |
| Container No. | |
| Initial Soil Wt. (g) (Wt) | 130.16 |
| Box Constant | 1.000 |
| MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100 | |

| Min. Resistivity (ohm-cm) | Moisture Content (%) | Sulfate Content (ppm) | Chloride Content (ppm) | Soil pH | |
|---|---|---|---|---|---|
| | | | | pH | Temp. (°C) |
| DOT CA Test 643 | | DOT CA Test 417 Part II | DOT CA Test 422 | DOT CA Test 643 | |
| **2125** | **33.9** | **148** | **100** | **7.73** | **16.5** |



# APPENDIX D

# EARTHWORK AND GRADING GUIDE SPECIFICATIONS

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APPENDIX D

LEIGHTON CONSULTING, INC.
EARTHWORK AND GRADING GUIDE SPECIFICATIONS

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# D-1.0 GENERAL

## D-1.1 Intent

These Earthwork and Grading Guide Specifications are for grading and earthwork shown on the current, approved grading plan(s) and/or indicated in the Leighton Consulting, Inc. geotechnical report(s). These Guide Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the project-specific recommendations in the geotechnical report shall supersede these Guide Specifications. Leighton Consulting, Inc. shall provide geotechnical observation and testing during earthwork and grading. Based on these observations and tests, Leighton Consulting, Inc. may provide new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

## D-1.2 Role of Leighton Consulting, Inc.

Prior to commencement of earthwork and grading, Leighton Consulting, Inc. shall meet with the earthwork contractor to review the earthwork contractor's work plan, to schedule sufficient personnel to perform the appropriate level of observation, mapping and compaction testing. During earthwork and grading, Leighton Consulting, Inc. shall observe, map, and document subsurface exposures to verify geotechnical design assumptions. If observed conditions are found to be significantly different than the interpreted assumptions during the design phase, Leighton Consulting, Inc. shall inform the owner, recommend appropriate changes in design to accommodate these observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include (1) natural ground after clearing to receiving fill but before fill is placed, (2) bottoms of all "remedial removal" areas, (3) all key bottoms, and (4) benches made on sloping ground to receive fill.

Leighton Consulting, Inc. shall observe moisture-conditioning and processing of the subgrade and fill materials, and perform relative compaction testing of fill to determine the attained relative compaction. Leighton Consulting, Inc. shall provide *Daily Field Reports* to the owner and the Contractor on a routine and frequent basis.

## D-1.3 The Earthwork Contractor

The earthwork contractor (Contractor) shall be qualified, experienced and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Guide Specifications prior to commencement of grading. The Contractor shall be solely

responsible for performing grading and backfilling in accordance with the current, approved plans and specifications.

The Contractor shall inform the owner and Leighton Consulting, Inc. of changes in work schedules at least one working day in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that Leighton Consulting, Inc. is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish earthwork and grading in accordance with the applicable grading codes and agency ordinances, these Guide Specifications, and recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of Leighton Consulting, Inc., unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, adverse weather, etc., are resulting in a quality of work less than required in these specifications, Leighton Consulting, Inc. shall reject the work and may recommend to the owner that earthwork and grading be stopped until unsatisfactory condition(s) are rectified.

## D-2.0 PREPARATION OF AREAS TO BE FILLED

### D-2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies and Leighton Consulting, Inc.. Care should be taken not to encroach upon or otherwise damage native and/or historic trees designated by the Owner or appropriate agencies to remain. Pavements, flatwork or other construction should not extend under the “drip line” of designated trees to remain.

Leighton Consulting, Inc. shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 3 percent of organic materials (by dry weight: ASTM D 2974). Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area. As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage

of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

## D-2.2 Processing

Existing ground that has been declared satisfactory for support of fill, by Leighton Consulting, Inc., shall be scarified to a minimum depth of 6 inches (15 cm). Existing ground that is not satisfactory shall be over-excavated as specified in the following Section D-2.3. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

## D-2.3 Overexcavation

In addition to removals and over-excavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be over-excavated to competent ground as evaluated by Leighton Consulting, Inc. during grading. All undocumented fill soils under proposed structure footprints should be excavated

## D-2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), (>20 percent grade) the ground shall be stepped or benched. The lowest bench or key shall be a minimum of 15 feet (4.5 m) wide and at least 2 feet (0.6 m) deep, into competent material as evaluated by Leighton Consulting, Inc.. Other benches shall be excavated a minimum height of 4 feet (1.2 m) into competent material or as otherwise recommended by Leighton Consulting, Inc.. Fill placed on ground sloping flatter than 5:1 (horizontal to vertical units), (<20 percent grade) shall also be benched or otherwise over-excavated to provide a flat subgrade for the fill.

## D-2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by Leighton Consulting, Inc. as suitable to receive fill. The Contractor shall obtain a written acceptance (*Daily Field Report*) from Leighton Consulting, Inc. prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys and benches.

## D-3.0 FILL MATERIAL

### D-3.1 Fill Quality

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by Leighton Consulting, Inc. prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to Leighton Consulting, Inc. or mixed with other soils to achieve satisfactory fill material.

### D-3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 6 inches (15 cm), shall not be buried or placed in fill unless location, materials and placement methods are specifically accepted by Leighton Consulting, Inc.. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 feet (3 m) measured vertically from finish grade, or within 2 feet (0.61 m) of future utilities or underground construction.

### D-3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section D-3.1, and be free of hazardous materials ("contaminants") and rock larger than 3-inches (8 cm) in largest dimension. All import soils shall have an Expansion Index (EI) of 20 or less and a sulfate content no greater than (≤) 500 parts-per-million (ppm). A representative sample of a potential import source shall be given to Leighton Consulting, Inc. at least four full working days before importing begins, so that suitability of this import material can be determined and appropriate tests performed.

## D-4.0 FILL PLACEMENT AND COMPACTION

### D-4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill, as described in Section D-2.0, above, in near-horizontal layers not exceeding 8 inches (20 cm) in loose thickness. Leighton Consulting, Inc. may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers, and only if the building officials with the appropriate jurisdiction approve. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

### D-4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM) Test Method D 1557.

### D-4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, each layer shall be uniformly compacted to not-less-than (≥) 90 percent of the maximum dry density as determined by ASTM Test Method D 1557. In some cases, structural fill may be specified (see project-specific geotechnical report) to be uniformly compacted to at-least (≥) 95 percent of the ASTM D 1557 modified Proctor laboratory maximum dry density. For fills thicker than (>) 15 feet (4.5 m), the portion of fill deeper than 15 feet below proposed finish grade shall be compacted to 95 percent of the ASTM D 1557 laboratory maximum density. Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

### D-4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by back rolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet (1 to 1.2 m) in fill elevation, or by other methods producing satisfactory results acceptable to Leighton Consulting, Inc.. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of the ASTM D 1557 laboratory maximum density.

### D-4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by Leighton Consulting, Inc.. Location and frequency of tests shall be at our field representative(s) discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

### D-4.6 Compaction Test Locations

Leighton Consulting, Inc. shall document the approximate elevation and horizontal coordinates of each density test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that Leighton

Consulting, Inc. can determine the test locations with sufficient accuracy. Adequate grade stakes shall be provided.

## D-5.0 EXCAVATION

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by Leighton Consulting, Inc. during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by Leighton Consulting, Inc. based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, then observed and reviewed by Leighton Consulting, Inc. prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by Leighton Consulting, Inc..

## D-6.0 TRENCH BACKFILLS

### D-6.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations. Work should be performed in accordance with Article 6 of the *California Construction Safety Orders*, 2009 Edition or more current (see also: http://www.dir.ca.gov/title8/sb4a6.html ).

### D-6.2 Bedding and Backfill

All utility trench bedding and backfill shall be performed in accordance with applicable provisions of the 2018 Edition of the *Standard Specifications for Public Works Construction* (Green Book). Bedding material shall have a Sand Equivalent greater than 30 (SE>30). Bedding shall be placed to 1-foot (0.3 m) over the top of the conduit, and densified by jetting in areas of granular soils, if allowed by the permitting agency. Otherwise, the pipe-bedding zone should be backfilled with Controlled Low Strength Material (CLSM) consisting of at least one sack of Portland cement per cubic-yard of sand, and conforming to Section 201-6 of the 2018 Edition of the *Standard Specifications for Public Works Construction* (Green Book). Backfill over the bedding zone shall be placed and densified mechanically to a minimum of 90 percent of relative compaction (ASTM D 1557) from 1 foot (0.3 m) above the top of the conduit to the surface. Backfill above the pipe zone shall **not** be jetted. Jetting of the bedding around the conduits shall be observed by Leighton Consulting, Inc. and backfill above the pipe zone (bedding) shall be observed and tested by Leighton Consulting, Inc..

### D-6.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to Leighton Consulting, Inc. that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method, and only if the building officials with the appropriate jurisdiction approve.

# Appendix IS-3.2

Supplemental Percolation Study

# SUPPLEMENTAL PERCOLATION STUDY
# 9000 AIRPORT BOULEVARD
# CITY OF LOS ANGELES, CALIFORNIA

Prepared for

**REXFORD INDUSTRIAL REALTY & MANAGEMENT, INC.**
11620 WILSHIRE BOULEVARD, SUITE 610
LOS ANGELES, CALIFORNIA 90025

Prepared by

**LEIGHTON CONSULTING, INC.**
2600 MICHELSON DRIVE, SUITE 400
IRVINE, CALIFORNIA 92612

Project Number 13837.002

September 22, 2023

September 22, 2023

Project No. 13837.002

Rexford Industrial Realty & Management, Inc.
11620 Wilshire Boulevard, Suite 610
Los Angeles, California 90025

Attention: Mr. Brian Garcia

**Subject: Supplemental Percolation Study**
**9000 Airport Boulevard**
**City of Los Angeles, California**

References: Attached

Per your request and authorization, Leighton Consulting, Inc. (Leighton) prepared this report presenting the results of our supplemental percolation study performed at the project site along with recommendations for design and construction of the proposed storm water management devices.

## SITE DESCRIPTION AND PROPOSED IMPROVEMENTS

The project site, located at 9000 Airport Boulevard in the city of Los Angeles, is occupied by an existing and active rental car facility (Hertz) with several industrial buildings throughout the site and solar canopies along the southern end of the site. Asphalt concrete (AC) and Portland cement concrete (PCC) paved parking and access is present throughout the site.

Based on discussions with you and the results of our prior exploration performed at the site (Leighton, 2023), we understand that Rexford would like to evaluate the feasibility for deep stormwater infiltration devices (drywells) to be installed in the western portion of the site. Accordingly, we recently performed a supplemental field exploration that included additional percolation testing at the site.

## FIELD EXPLORATION

### Soil Borings and Temporary Well Installations

Our supplemental subsurface exploration was performed on August 29 and September 8, 2023; which included drilling, logging, and sampling of two (2) 8-inch-diameter hollow-stem auger borings (LP-3 and LP-4) to a depth of approximately 30 feet below ground

surface (bgs). The borings were drilled in the western portion of the site at the same locations as the prior percolation tests to evaluate the infiltration characteristics of the subsurface soils at a greater depth. The borings were then converted to temporary test wells for percolation testing. The percolation test wells consisted of a 2-inch-diameter, 0.020-inch slotted PVC pipe within the zone to be tested (bottom 20 to 30 feet of the test wells). The filter pack material surrounding the slotted section of pipe consisted of No. 3 Monterey sand and extended from the bottom of the boring to approximately 3 to 4 feet above the test zone.

The approximate locations of the borings are shown on Figure 1, *Exploration Location Map*, and copies of the boring logs are included in Appendix A, *Exploration Logs*.

## Laboratory Testing

Laboratory tests were performed on selected soil samples obtained from the borings during our field investigation. Tests performed during this investigation include:

- In- situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937) and
- Particle-size Analysis of Soils (ASTM D 7928 & D 6913).

Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix B, *Laboratory Test Results*.

## Percolation Testing

In-situ percolation testing was performed on September 8, 2023 in general accordance with the County of Los Angeles Department of Public Works (LADPW) *Guidelines for Geotechnical Investigation and Reporting, Low Impact Development Stormwater Infiltration* (LADPW, 2021). A constant-head (high flowrate) test was performed at test wells LP-3 and LP-4 due to the permeable characteristics of the site soils. Detailed results of the field-testing data for the tests performed are presented in Appendix C, *Percolation Test Data*. Upon completion of the percolation testing, the well casing was removed from the borings, and the borings were backfilled with soil cuttings and completed at the surface with cold-mix AC to match existing site conditions.

## SUBSURFACE CONDITIONS

### Soils

Based on our subsurface explorations, a layer of undocumented artificial fill materials (Afu) was encountered overlying Quaternary-aged (Late to Middle Pleistocene) old eolian and dune deposits (Qoe). The undocumented artificial fill encountered in borings LP-3 and LP-4 ranged from approximately 4 to 7 feet in thickness, likely associated with the existing and previous site improvements. The fill soils consist primarily of clayey sand, sandy clay, and clay. Below the artificial fill materials, old eolian and dune deposits (Qoe) were encountered in the borings to the maximum depth explored. The Qoe deposits encountered generally consist of olive brown to reddish-brown, slightly moist to moist, very stiff to hard clay with varying amounts of silt and sand. Below approximately 15 feet in depth at borings LP-3 and LP-4, the Qoe deposits consist of yellow brown, medium dense to very dense sand and clayey sand. Detailed descriptions of the subsurface materials encountered in the borings are presented on the attached boring logs (Appendix A).

### Groundwater

Groundwater was not encountered at the site during our recent and prior subsurface explorations performed at the site to the maximum depth of 50 feet bgs. Based on review of the *Seismic Hazard Zone Report for the Venice Quadrangle* (CGS, 1998), the historically shallowest groundwater depth at the site is greater than 40 feet bgs.

Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and following the rainy seasons or periods of locally intense rainfall, storm water runoff, or from stormwater infiltration.

## PERCOLATION TESTING RESULTS

A boring percolation test is useful for field measurements of the infiltration rate of soils and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to general depths anticipated for the invert of typical infiltration devices.

A constant-head test, or high flowrate test, was implemented at test wells LP-3 and LP-4 due to the permeable characteristics of the site soils. The infiltration rate was calculated by recording the approximate volume of water delivered to the test zone while maintaining a relatively constant height of water in the well over the testing period. A water source

(garden hose from onsite hose spigot) was used to deliver water to the wells at a relatively constant rate. The measured infiltration rate was calculated according to the procedure for a high flowrate percolation test, by dividing the total volume of water by the total duration of the test and dividing by the percolation surface area.

Per County of Los Angeles Guidelines (LADPW, 2021), the design infiltration rate incorporates a reduction factor for the test procedure, site variability, number of tests, thoroughness of subsurface investigation and long-term siltation, plugging and maintenance. As such, we have applied an appropriate reduction factor of 5 (minimum) to the small-scale infiltration rates measured at test wells LP-3 and LP-4 for use in design of the system(s) according to County of Los Angeles Guidelines (LADPW, 2021).

Detailed results of the field testing data, measured infiltration rate and design infiltration rate for the tests performed are presented in Appendix C. The test results are summarized in the table below:

**Table 1 – Infiltration Rate**

| Test Well Designation | Depth of Test Zone (feet bgs) | Measured Infiltration Rate (inches per hour) | Design Infiltration Rate (inches per hour) |
|---|---|---|---|
| LP-3 | 27 to 30 | 86.6 | 17.3 |
| LP-4 | 25 to 30 | 81.5 | 16.3 |

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 86.6 inches per hour (LP-3) and 81.5 inches per hour (LP-4). The design infiltration rates for the two (2) tests performed at the site are 17.3 inches per hour for LP-3 and 16.3 inches per hour for LP-4.

## INFILTRATION BMP DESIGN CONSIDERATIONS

Per County of Los Angeles G*uidelines for Geotechnical Investigation and Reporting – Low Impact Development Stormwater Infiltration* (LADPW, 2021), we have applied a reduction factor to the measured infiltration rates to be used in design of the infiltration system.

In general, a vast majority of geotechnical distress issues are related to improper drainage. Distress in the form of foundation movement could occur. Direct infiltration to the subsurface is not recommended adjacent to curb and gutter, public pavements or within 10 feet away from the design saturation zone as soil saturation could lead to a loss of soil support, settlement or collapse, and internal erosion (piping). The design saturation zone may be

assumed as a 1:1 plane projected downward from the top of an infiltration device's discharge zone. Additionally, infiltration water will migrate along pipe backfill (typically sand or gravel bedding) affecting improvements far from the point of infiltration. Proposed direct open bottom infiltration systems, should be located as far away from existing or proposed foundations, rigid improvements and utilities as is practical in order to reduce the geotechnical distress issues related to water. Where sufficient distance from improvements cannot be achieved, additional recommendations may be warranted and can be provided during plan review.

Prior to construction of any infiltration device intended for the site, the plans should be reviewed by the geotechnical consultant to verify that our geotechnical recommendations have been appropriately incorporated into the plans, and the existing and adjacent site improvements are not compromised by the addition of an infiltration system to the site. The designer of any infiltration system should contact the geotechnical consultant for geotechnical input during the design process as they feel necessary.

## CLOSING

We appreciate the opportunity to be of service to Rexford Industrial Realty & Management, Inc. If you have any questions or concerns, please contact us at your convenience. The undersigned can be reached at **(866) *LEIGHTON***, specifically at the phone extensions and e-mail addresses listed below.

Respectfully submitted,

LEIGHTON CONSULTING, INC.







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MM/JMP/CCK/lr

Attachments: References
Figure 1 – Exploration Location Map
Appendix A – Exploration Logs
Appendix B – Laboratory Test Results
Appendix C – Percolation Test Data

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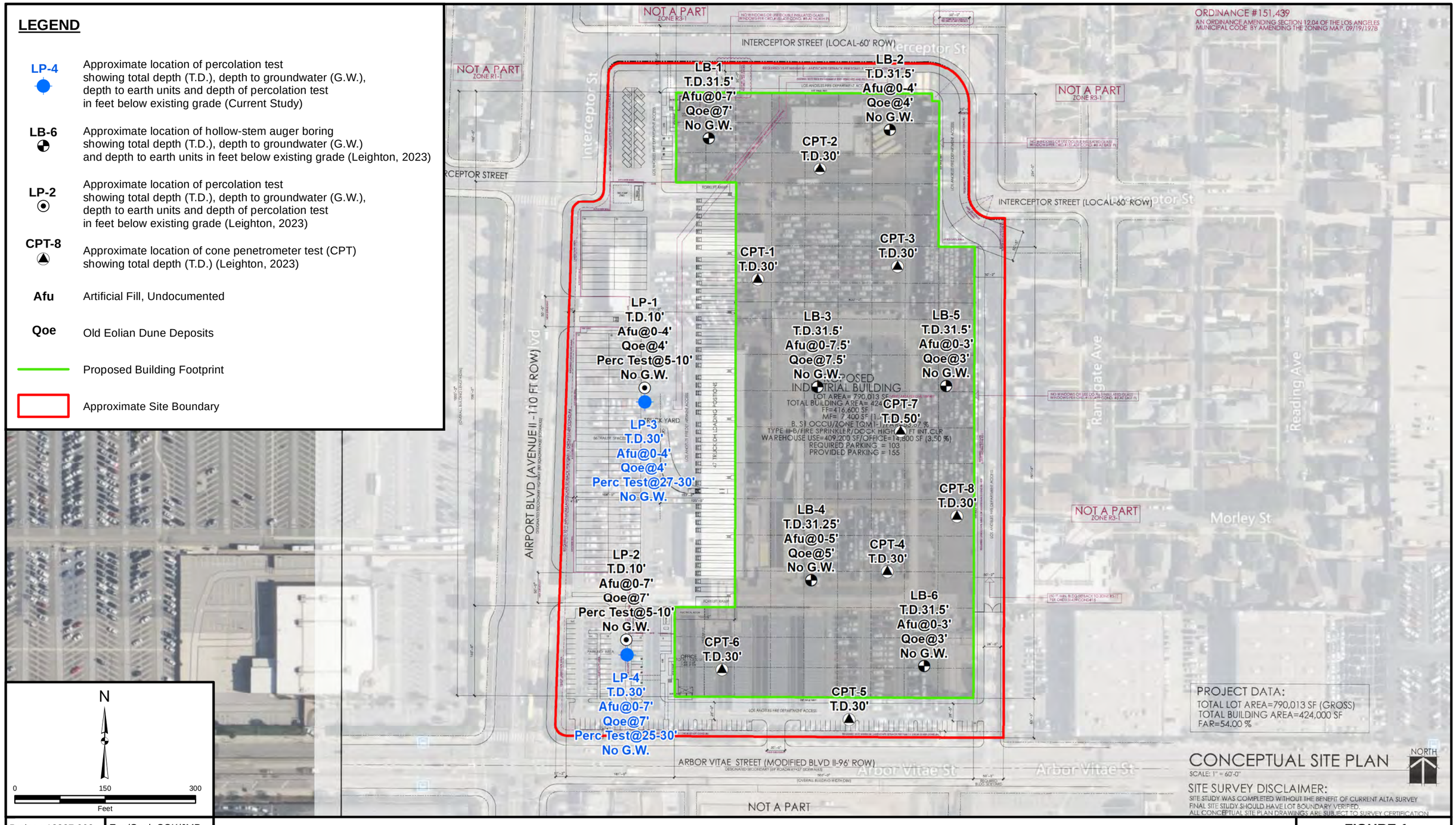
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## LEGEND

| | |
|---|---|
| LP-4 | Approximate location of percolation test showing total depth (T.D.), depth to groundwater (G.W.), depth to earth units and depth of percolation test in feet below existing grade (Current Study) |
| LB-6 | Approximate location of hollow-stem auger boring showing total depth (T.D.), depth to groundwater (G.W.) and depth to earth units in feet below existing grade (Leighton, 2023) |
| LP-2 | Approximate location of percolation test showing total depth (T.D.), depth to groundwater (G.W.), depth to earth units and depth of percolation test in feet below existing grade (Leighton, 2023) |
| CPT-8 | Approximate location of cone penetrometer test (CPT) showing total depth (T.D.) (Leighton, 2023) |
| Afu | Artificial Fill, Undocumented |
| Qoe | Old Eolian Dune Deposits |
| | Proposed Building Footprint |
| | Approximate Site Boundary |




N

0 150 300

Feet

| | |
|---|---|
| Project: 13837.002 | Eng/Geol: CCK/JMP |
| Scale: 1 " = 150 ' | Date: September 2023 |

Reference: Conceptual Site Plan, Sheet A1-0
Dated: 01/31/2023 by Rexford Industrial

# EXPLORATION LOCATION MAP

Proposed Industrial Building
9000 Airport Boulevard
City of Los Angeles, California

**FIGURE 1**

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Map Saved as J:\Drafting\13837\002\Maps\13837-002_F01_ELM_2023-09-21.mxd on 9/20/2023 4:58:00 PM Author: KVM (btran)

# APPENDIX A

# EXPLORATION LOGS

# GEOTECHNICAL BORING LOG LP-3

| | | | |
|---|---|---|---|
| **Project No.** | 13837.002 | **Date Drilled** | 8-29-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | MM/LM |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 107' |
| **Location** | See Figure 1 - Exploration Location Map | **Sampled By** | MM/LM |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| 105 | 0 | | | B-1 | | | | SC | @Surface: 6.5 inches of asphalt concrete<br>**Artificial Fill, Undocumented (Afu)**<br>@0.54': Clayey SAND, olive, brown, moist | |
| | | | | | | | | | @2': Clayey SAND, olive brown, moist, fine sand, trace fine gravel, mottled appearance | |
| | | | | | | | | CL | @3': CLAY, light brown and olive brown, very moist, low to medium plasticity, trace fine gravel, easy to hand auger through, soil felt soft | |
| 100 | 5 | | | R-1 | 6<br>13<br>26 | 111 | 18 | | **Quaternary Age Old Eolian and Dune Deposits (Qoe)**<br>@4': Reddish brown CLAY<br>@5': CLAY, hard, reddish brown, moist, medium plasticity, CaCO3 stringers | |
| | | | | S-2 | 8<br>13<br>25 | | 17 | sCL | @7': Sandy CLAY, hard, reddish brown, moist, trace fine gravel, trace MnO, massive | |
| 95 | 10 | | | R-3 | 8<br>28<br>50/6" | 124 | 12 | | @10': Sandy CLAY, hard, reddish brown, moist, trace fine gravel, trace MnO, massive | |
| 90 | 15 | | | S-4 | 3<br>7<br>8 | | 7 | SP | @15': Poorly graded SAND, medium dense, light yellow brown, moist, fine sand, trace MnO spots | |
| 85 | 20 | | | R-5 | 12<br>26<br>40 | 107 | 3 | SP | @20': Poorly graded SAND, very dense, light yellow brown, fine to medium sand, mostly fine sand, trace FeO spots | |
| 80 | 25 | | | S-6 | 8<br>13<br>16 | | 3 | | @25': Dense, FeO bands throughout | |
| | 30 | | | R-7 | 16<br>42<br>50/4" | 102 | 3 | | @28.5': Very dense | SA |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

# GEOTECHNICAL BORING LOG LP-3

| | | | |
|---|---|---|---|
| **Project No.** | 13837.002 | **Date Drilled** | 8-29-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | MM/LM |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 107' |
| **Location** | See Figure 1 - Exploration Location Map | **Sampled By** | MM/LM |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | 30 | | | | | | | | **Total Depth: 30 feet bgs**<br>**No groundwater encountered during drilling.**<br>**Installed temporary percolation well consisting of 2-inch diameter PVC well casing.**<br>**Solid casing installed from 0-20 feet bgs and 0.020-inch screened casing from 20-30 feet bgs.**<br>**#3 Monterey SAND placed in annulus from 17-30 feet bgs.**<br>**Upon completion of percolation testing, casing was pulled and the boring was backfilled with soil cuttings and patched with cold-mix asphalt.**<br>**Excess soil cuttings were drummed for offsite disposal.** | |
| 70 | 35 | | | | | | | | | |
| 65 | 40 | | | | | | | | | |
| 60 | 45 | | | | | | | | | |
| 55 | 50 | | | | | | | | | |
| 50 | 55 | | | | | | | | | |
| | 60 | | | | | | | | | |

*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# GEOTECHNICAL BORING LOG LP-4

| | | | |
|---|---|---|---|
| **Project No.** | 13837.002 | **Date Drilled** | 9-8-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 106' |
| **Location** | See Figure 1 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | *This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.* | |
| 105 | 0 | | | B-1 | | | | CL | @Surface: 2.5 inches of asphalt concrete over 5 inches of aggregate base<br>**Artificial Fill, Undocumented (Afu)**<br>@0.62': Sandy CLAY, brown to reddish brown, very moist, fine to coarse sand, some gravel, medium plasticity, mottled | |
| 100 | 5 | | | R-1 | 6<br>6<br>13 | 118 | 12 | | @5': Very stiff, dark brown to black<br>@6': Lean CLAY, very stiff, reddish brown to orange brown, moist, some fine sand, medium to high plasticity, contains FeO specs throughout<br>**Quaternary Age Old Eolian and Dune Deposits (Qoe)** | |
| 95 | 10 | | | S-2 | 6<br>10<br>14 | | 15 | ML-CL | @10': Silty CLAY, very stiff, olive brown, slightly moist, low plasticity, precipitates throughout | |
| 90 | 15 | | | R-3 | 6<br>9<br>19 | 115 | 13 | SC | @15': Clayey SAND, very stiff, yellow brown, moist, fine to medium sand, low plasticity clay, micas, trace FeO specs | |
| 85 | 20 | | | S-4 | 3<br>8<br>10 | | 4 | SP | @20': Poorly graded SAND, medium dense, yellow brown, moist, primarily fine to medium sand, trace fines, slight oxidation | |
| 80 | 25 | | | R-5 | 10<br>23<br>32 | 106 | 3 | SP-SM | @25': Poorly graded SAND with silt, dense, orange brown, slightly moist, primarily fine to medium sand, few coarse sand, trace fines | SA |
| | | | | S-6 | 4<br>9<br>12 | | 4 | | @28.5': Dense | |
| | 30 | | | | | | | | | |

**SAMPLE TYPES:**

| | |
|---|---|
| B | BULK SAMPLE |
| C | CORE SAMPLE |
| G | GRAB SAMPLE |
| R | RING SAMPLE |
| S | SPLIT SPOON SAMPLE |
| T | TUBE SAMPLE |

**TYPE OF TESTS:**

| | | | | | |
|---|---|---|---|---|---|
| -200 | % FINES PASSING | DS | DIRECT SHEAR | SA | SIEVE ANALYSIS |
| AL | ATTERBERG LIMITS | EI | EXPANSION INDEX | SE | SAND EQUIVALENT |
| CN | CONSOLIDATION | H | HYDROMETER | SG | SPECIFIC GRAVITY |
| CO | COLLAPSE | MD | MAXIMUM DENSITY | UC | UNCONFINED COMPRESSIVE STRENGTH |
| CR | CORROSION | PP | POCKET PENETROMETER | | |
| CU | UNDRAINED TRIAXIAL | RV | R VALUE | | |

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# GEOTECHNICAL BORING LOG LP-4

| | | | |
|---|---|---|---|
| **Project No.** | 13837.002 | **Date Drilled** | 9-8-23 |
| **Project** | Rexford LA Airport Boulevard | **Logged By** | ECB |
| **Drilling Co.** | Martini Drilling | **Hole Diameter** | 8" |
| **Drilling Method** | Hollow Stem Auger - 140lb - Autohammer - 30" Drop | **Ground Elevation** | 106' |
| **Location** | See Figure 1 - Exploration Location Map | **Sampled By** | ECB |

| Elevation Feet | Depth Feet | Graphic Log (N S) | Attitudes | Sample No. | Blows Per 6 Inches | Dry Density pcf | Moisture Content, % | Soil Class. (U.S.C.S.) | SOIL DESCRIPTION | Type of Tests |
|---|---|---|---|---|---|---|---|---|---|---|
| 75 | 30 | | | | | | | | **Total Depth: 30 feet bgs**<br>**No groundwater encountered during drilling.**<br>**Installed temporary percolation well consisting of 2-inch diameter PVC well casing.**<br>**Solid casing installed from 0-20 feet bgs and 0.020-inch screened casing from 20-30 feet bgs.**<br>**#3 Monterey SAND placed in annulus from 17-30 feet bgs.**<br>**Upon completion of percolation testing, casing was pulled and the boring was backfilled with soil cuttings and patched with cold-mix asphalt.**<br>**Excess soil cuttings were drummed for offsite disposal.** | |
| 70 | 35 | | | | | | | | | |
| 65 | 40 | | | | | | | | | |
| 60 | 45 | | | | | | | | | |
| 55 | 50 | | | | | | | | | |
| 50 | 55 | | | | | | | | | |
| | 60 | | | | | | | | | |

**SAMPLE TYPES:**

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

**TYPE OF TESTS:**

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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# APPENDIX B

# LABORATORY TEST RESULTS

# PARTICLE-SIZE ANALYSIS OF SOILS

**ASTM D 7928 & D 6913**

Project Name: Rexford LA Airport Blvd | Tested By: GEB/JD | Date: 09/18/23

Project No.: 13837.002 | Checked By: J. Ward | Date: 09/20/23

Boring No.: LP-3

Sample No.: R-7 | Depth (feet): 30.0

Soil Identification: Olive yellow poorly-graded sand (SP)

| | | |
|---|---|---|
| **% Gravel** | **0** | **Soil Type** |
| **% Sand** | **96** | **SP** |
| **% Fines** | **4** | |

| | | | Moisture Content of Total Air-Dry Soil | Moisture Content of Oven-Dry Soil Passing #10 | After Hydrometer & Wet Sieve ret. in #200 Sieve |
|---|---|---|---|---|---|
| Specific Gravity (Assumed) | 2.70 | Wt.of Air-Dry Soil + Cont.(g) | 0.00 | 81.30 | |
| Correction for Specific Gravity | 0.99 | Dry Wt. of Soil + Cont. (g) | 0.00 | 81.29 | 174.10 |
| Wt.of Air-Dry Soil + Cont. (g) | 424.73 | Wt. of Container No.___ (g) | 1.00 | 59.13 | 74.36 |
| Wt. of Container | 75.34 | Moisture Content (%) | 0.00 | 0.05 | |
| Dry Wt. of Soil (g) | 349.39 | Wt. of Dry Soil (g) | | | 99.74 |

**Coarse Sieve**

| U.S. Sieve | Cumulative Wt. Of Dry Soil Retained (g) | % Passing |
|---|---|---|
| 3" | 0.00 | 100.0 |
| 1½" | 0.00 | 100.0 |
| 3/4" | 0.00 | 100.0 |
| 3/8" | 0.00 | 100.0 |
| No. 4 | 0.00 | 100.0 |
| No. 10 | 0.00 | 100.0 |
| Pan | | |

**Sieve after Hydrometer & Wet Sieve**

| U.S. Sieve Size | Cumulative Wt. Of Dry Soil Retained (g) | % Passing | % Total Sample |
|---|---|---|---|
| No. 10 | 0.00 | 100.0 | 100.0 |
| No. 16 | 0.03 | 100.0 | 100.0 |
| No. 30 | 0.66 | 99.4 | 99.4 |
| No. 50 | 28.06 | 73.0 | 73.0 |
| No. 100 | 92.63 | 10.9 | 10.9 |
| No. 200 | 99.38 | 4.4 | 4.4 |
| Pan | | | |

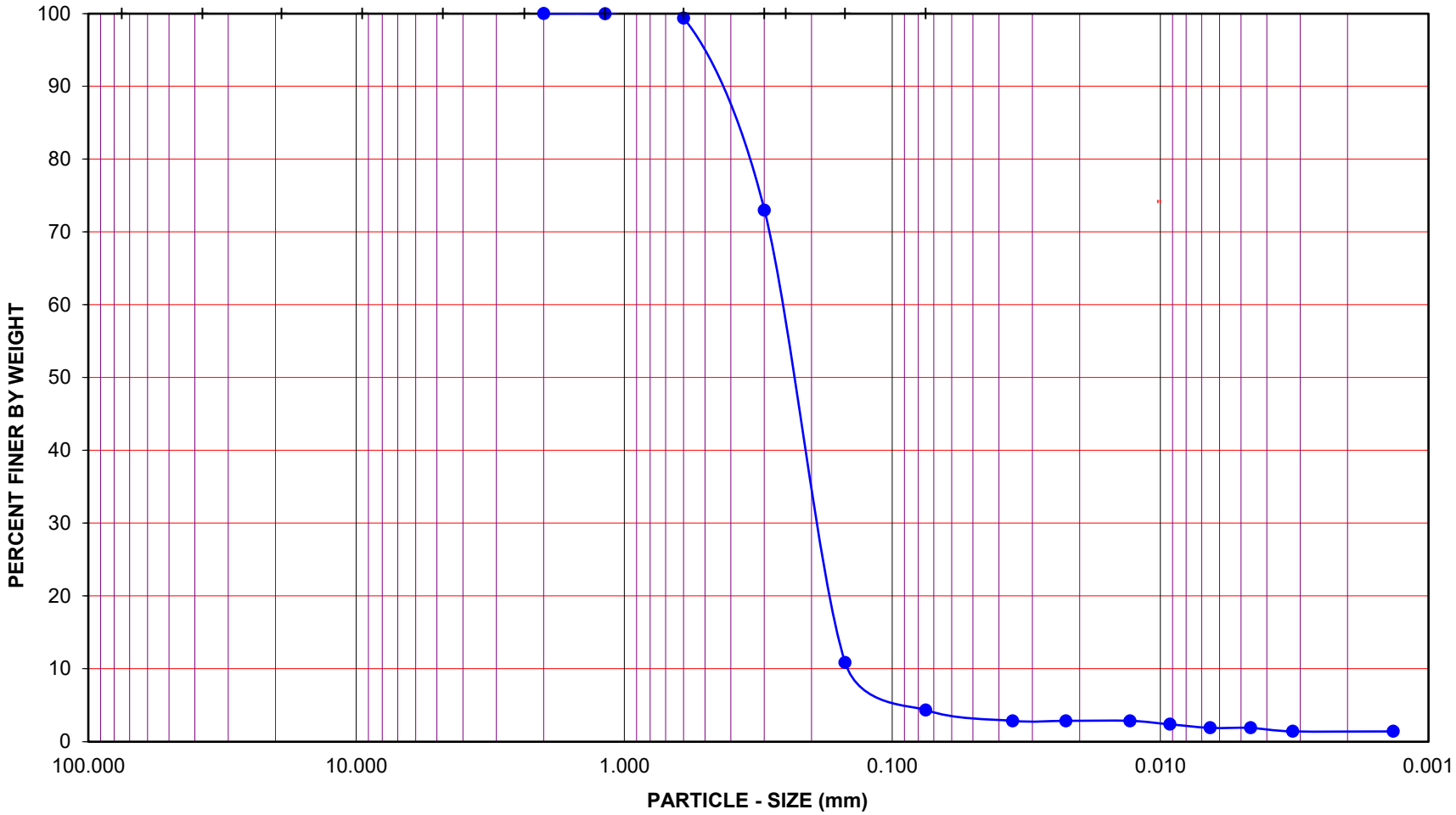
**Hydrometer** Wt. of Air-Dry Soil (g) 103.96 Wt. of Dry Soil (g) 103.91

Deflocculant 125 cc of 4% Solution

| Date | Time | Elapsed Time (min) | Water Temperature (°C) | Composite Correction 152H | Actual Hydrometer Readings | % Total Sample (%) | Soil Particle Diameter (mm) |
|---|---|---|---|---|---|---|---|
| 18-Sep-23 | 6:50 | 0 | | 7.0 | | | |
| | 6:52 | 2 | 22.5 | 7.0 | 10.0 | 2.9 | 0.0356 |
| | 6:55 | 5 | 22.5 | 7.0 | 10.0 | 2.9 | 0.0225 |
| | 7:05 | 15 | 22.6 | 7.0 | 10.0 | 2.9 | 0.0130 |
| | 7:20 | 30 | 22.5 | 7.0 | 9.5 | 2.4 | 0.0092 |
| | 7:50 | 60 | 22.3 | 7.0 | 9.0 | 1.9 | 0.0065 |
| | 8:50 | 120 | 22.2 | 7.0 | 9.0 | 1.9 | 0.0046 |
| | 11:00 | 250 | 22.1 | 7.0 | 8.5 | 1.4 | 0.0032 |
| 19-Sep-23 | 6:50 | 1440 | 21.0 | 7.0 | 8.5 | 1.4 | 0.0014 |

| GRAVEL | | SAND | | | FINES | |
|---|---|---|---|---|---|---|
| COARSE | FINE | CRSE | MEDIUM | FINE | SILT | CLAY |

U.S. STANDARD SIEVE OPENING: 3.0" 1 1/2" 3/4" 3/8"
U.S. STANDARD SIEVE NUMBER: #4 #8 #16 #30 #50 #100 #200
HYDROMETER




Project Name: Rexford LA Airport Blvd

Project No.: 13837.002

Boring No.: LP-3 Sample No.: R-7

Depth (feet): 30.0 Soil Type : SP

Soil Identification: Olive yellow poorly-graded sand (SP)

**GR:SA:FI : (%) 0 : 96 : 4**

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**PARTICLE - SIZE DISTRIBUTION ASTM D 7928 & D 6913**

Sep-23

# PARTICLE-SIZE ANALYSIS OF SOILS

**ASTM D 7928 & D 6913**

Project Name: Rexford LA Airport Blvd | Tested By: GEB/JD | Date: 09/18/23

Project No.: 13837.002 | Checked By: J. Ward | Date: 09/20/23

Boring No.: LP-4

Sample No.: R-5 | Depth (feet): 25.0

Soil Identification: Olive yellow poorly-graded sand with silt (SP-SM)

| | | |
|---|---|---|
| **% Gravel** | **0** | **Soil Type** |
| **% Sand** | **94** | **SP-SM** |
| **% Fines** | **6** | |

| | | | Moisture Content of Total Air-Dry Soil | Moisture Content of Oven-Dry Soil Passing #10 | After Hydrometer & Wet Sieve ret. in #200 Sieve |
|---|---|---|---|---|---|
| Specific Gravity (Assumed) | 2.70 | Wt.of Air-Dry Soil + Cont.(g) | 0.00 | 75.82 | |
| Correction for Specific Gravity | 0.99 | Dry Wt. of Soil + Cont. (g) | 0.00 | 75.81 | 176.35 |
| Wt.of Air-Dry Soil + Cont. (g) | 330.57 | Wt. of Container No.___ (g) | 1.00 | 59.57 | 78.89 |
| Wt. of Container | 75.45 | Moisture Content (%) | 0.00 | 0.06 | |
| Dry Wt. of Soil (g) | 255.12 | Wt. of Dry Soil (g) | | | 97.46 |

**Coarse Sieve**

| U.S. Sieve | Cumulative Wt. Of Dry Soil Retained (g) | % Passing |
|---|---|---|
| 3" | 0.00 | 100.0 |
| 1½" | 0.00 | 100.0 |
| 3/4" | 0.00 | 100.0 |
| 3/8" | 0.00 | 100.0 |
| No. 4 | 0.00 | 100.0 |
| No. 10 | 0.00 | 100.0 |
| Pan | | |

**Sieve after Hydrometer & Wet Sieve**

| U.S. Sieve Size | Cumulative Wt. Of Dry Soil Retained (g) | % Passing | % Total Sample |
|---|---|---|---|
| No. 10 | 0.00 | 100.0 | 100.0 |
| No. 16 | 0.09 | 99.9 | 99.9 |
| No. 30 | 8.66 | 91.6 | 91.6 |
| No. 50 | 66.26 | 35.7 | 35.7 |
| No. 100 | 94.83 | 7.9 | 7.9 |
| No. 200 | 97.31 | 5.5 | 5.5 |
| Pan | | | |

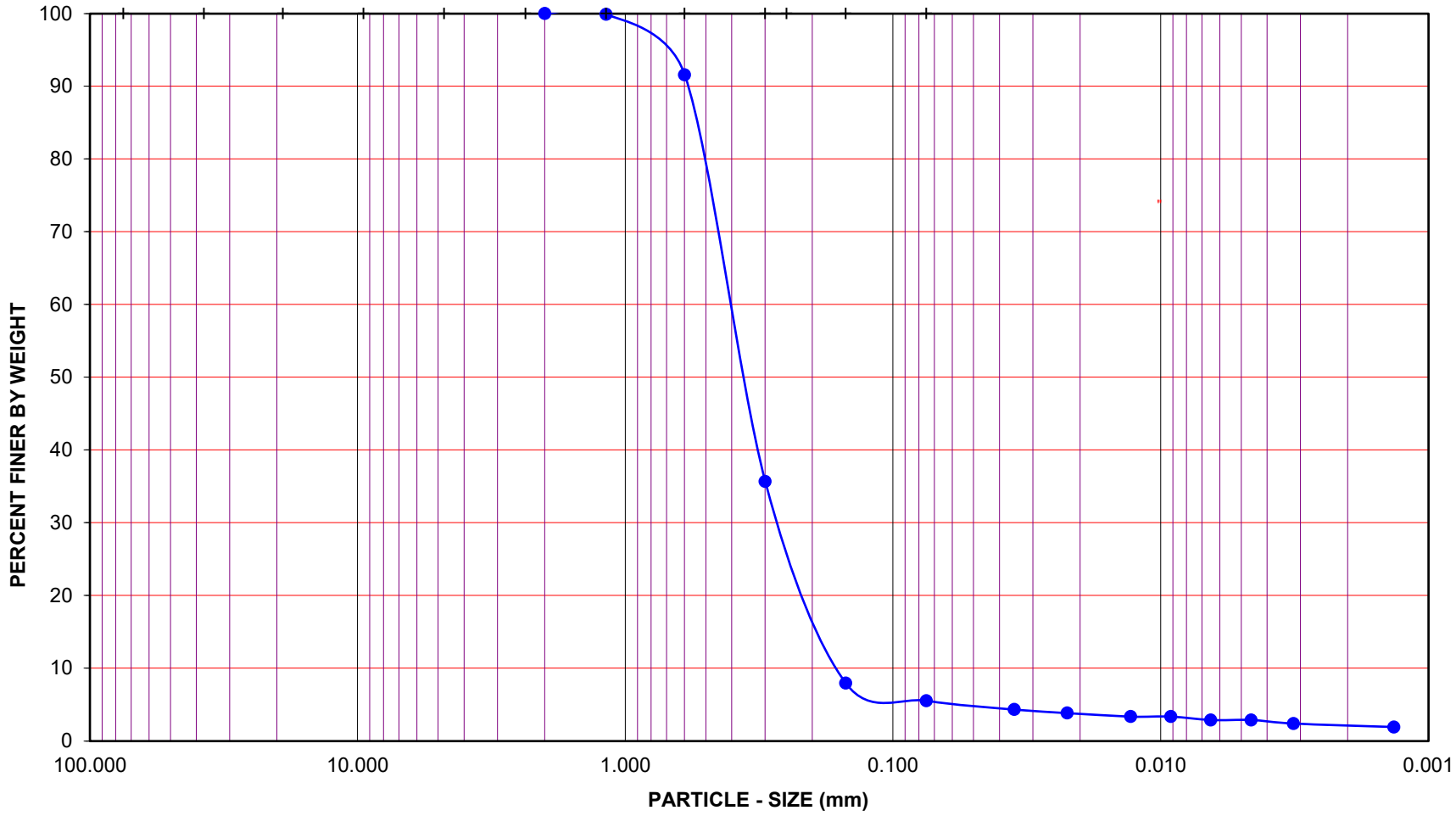
**Hydrometer** Wt. of Air-Dry Soil (g) 103.08 Wt. of Dry Soil (g) 103.02

Deflocculant 125 cc of 4% Solution

| Date | Time | Elapsed Time (min) | Water Temperature (°C) | Composite Correction 152H | Actual Hydrometer Readings | % Total Sample (%) | Soil Particle Diameter (mm) |
|---|---|---|---|---|---|---|---|
| 18-Sep-23 | 6:46 | 0 | | 7.0 | | | |
| | 6:48 | 2 | 22.4 | 7.0 | 11.5 | 4.3 | 0.0352 |
| | 6:51 | 5 | 22.4 | 7.0 | 11.0 | 3.9 | 0.0223 |
| | 7:01 | 15 | 22.4 | 7.0 | 10.5 | 3.4 | 0.0129 |
| | 7:16 | 30 | 22.3 | 7.0 | 10.5 | 3.4 | 0.0092 |
| | 7:46 | 60 | 22.1 | 7.0 | 10.0 | 2.9 | 0.0065 |
| | 8:46 | 120 | 22.0 | 7.0 | 10.0 | 2.9 | 0.0046 |
| | 10:56 | 250 | 22.0 | 7.0 | 9.5 | 2.4 | 0.0032 |
| 19-Sep-23 | 6:46 | 1440 | 21.1 | 7.0 | 9.0 | 1.9 | 0.0013 |

| GRAVEL | | SAND | | | FINES | |
|---|---|---|---|---|---|---|
| COARSE | FINE | CRSE | MEDIUM | FINE | SILT | CLAY |

U.S. STANDARD SIEVE OPENING: 3.0" 1 1/2" 3/4" 3/8"
U.S. STANDARD SIEVE NUMBER: #4 #8 #16 #30 #50 #100 #200
HYDROMETER




Project Name: Rexford LA Airport Blvd

Project No.: 13837.002

Boring No.: LP-4 Sample No.: R-5

Depth (feet): 25.0 Soil Type : SP-SM

Soil Identification: Olive yellow poorly-graded sand with silt (SP-SM)

**GR:SA:FI : (%) 0 : 94 : 6**

Leighton

**PARTICLE - SIZE DISTRIBUTION ASTM D 7928 & D 6913**

Sep-23

# APPENDIX C

# PERCOLATION TEST DATA

**Boring Percolation Test Data Sheet**

| | | | | |
|---|---|---|---|---|
| **Project Number:** | 13837.002 | **Test Hole Number:** | LP-3 | |
| **Project Name:** | Rexford LA Airport Blvd | **Date Excavated:** | 8/29/2023 | |
| **Earth Description:** | Alluvium | **Date Tested:** | 9/8/2023 | |
| **Liquid Description:** | Tap water | **Depth of boring (ft):** | 30 | |
| **Tested By:** | JMW | **Radius of boring, r (in):** | 4 | |
| **Time Interval Standard** | | **Radius of casing (in):** | 1 | |
| **Start Time for Pre-Soak:** | 7:00 AM | **Length of slotted of casing (ft):** | | 10 |
| **Start Time for Standard:** | 7:30 AM | **Porosity of Annulus Material, *n* :** | | 0.35 |
| **Standard Time Interval Between Readings, mins:** | 15 | **Bentonite Plug at Bottom:** | | No |

Field Percolation Data - High-Flow Constant Head Test

| Reading | Time | Time Interval, Δt (minutes) | Depth to Water (feet bgs) | Water Height, H (inches) | Cumulative Water Volume Delivered (gallons) |
|---|---|---|---|---|---|
| 1 | 7:30 | - | - | - | 0.0 |
| 2 | 7:45 | 15 | 26.73 | 39.2 | 81.8 |
| 3 | 8:00 | 15 | 27.72 | 27.4 | 163.6 |
| 4 | 8:15 | 15 | 27.39 | 31.3 | 245.4 |
| 5 | 8:30 | 15 | 27.27 | 32.8 | 327.2 |
| 6 | 8:45 | 15 | 27.31 | 32.3 | 409.1 |
| 7 | 9:00 | 15 | 27.20 | 33.6 | 490.9 |
| 8 | 9:15 | 15 | 27.28 | 32.6 | 572.7 |
| 9 | 9:30 | 15 | 27.30 | 32.4 | 654.5 |
| 10 | 9:45 | 15 | 27.26 | 32.9 | 736.3 |
| 11 | 10:00 | 15 | 27.27 | 32.8 | 818.1 |
| 12 | 10:15 | 15 | 27.30 | 32.4 | 899.9 |
| 13 | 10:30 | 15 | 27.24 | 33.1 | 981.7 |
| 14 | 10:45 | 15 | 27.28 | 32.6 | 1063.5 |

| | |
|---|---|
| Total Volume of Water Delivered (gallons) | 1063.5 |
| Total Volume of Water Delivered (cubic inches) | 245675.43 |
| Average Water Height (inches) | 32.7 |
| Average Percolation Surface Area (cubic Inches) | 872.7 |
| Duration of Test (minutes) | 195 |
| Duration of Test (hours) | 3.25 |

$$\text{Measured Infiltration Rate} = (\text{Total Volume})/(\text{Test Duration})/(\text{Surface Area})$$

**Measured Infiltration Rate =** **86.6** **in./hr.**

**Design Infiltration Rate**

| | |
|---|---|
| Reduction Factor from Test Procedure, $RF_t$ = | 3 |
| Reduction Factor for Site Variability, # of Tests and Investigation, $RF_v$ = | 1 |
| Reduction Factor for Long Term Siltation, Plugging and Maintenance, $RF_t$ = | 1 |
| Reduction Factor, $RF = RF_t + RF_v + RF_s$ = | 5 |

**Design Infiltration Rate = Measured Infiltration Rate / Reduction Factor (RF) =** **17.3** **in./hr.**

**Boring Percolation Test Data Sheet**

| | | | | |
|---|---|---|---|---|
| **Project Number:** | 13837.002 | **Test Hole Number:** | LP-4 | |
| **Project Name:** | Rexford LA Airport Blvd | **Date Excavated:** | 9/8/2023 | |
| **Earth Description:** | Alluvium | **Date Tested:** | 9/8/2023 | |
| **Liquid Description:** | Tap water | **Depth of boring (ft):** | 30 | |
| **Tested By:** | JMW | **Radius of boring, r (in):** | 4 | |
| **Time Interval Standard** | | **Radius of casing (in):** | 1 | |
| **Start Time for Pre-Soak:** | 9:00 AM | **Length of slotted of casing (ft):** | | 10 |
| **Start Time for Standard:** | 10:45 AM | **Porosity of Annulus Material, *n* :** | | 0.35 |
| **Standard Time Interval Between Readings, mins:** | 15 | **Bentonite Plug at Bottom:** | | No |

Field Percolation Data - High-Flow Constant Head Test

| Reading | Time | Time Interval, Δt (minutes) | Depth to Water (feet bgs) | Water Height, H (inches) | Cumulative Water Volume Delivered (gallons) |
|---|---|---|---|---|---|
| 1 | 10:45 | - | - | - | 0.0 |
| 2 | 11:00 | 15 | 26.38 | 43.4 | 120.0 |
| 3 | 11:15 | 15 | 25.56 | 53.3 | 240.0 |
| 4 | 11:30 | 15 | 25.52 | 53.8 | 360.0 |
| 5 | 11:45 | 15 | 25.49 | 54.1 | 480.0 |
| 6 | 12:00 | 15 | 25.48 | 54.2 | 600.0 |
| 7 | 12:15 | 15 | 25.50 | 54.0 | 720.0 |
| 8 | 12:30 | 15 | 25.56 | 53.3 | 840.0 |
| 9 | 12:45 | 15 | 25.68 | 51.8 | 960.0 |
| 10 | 13:00 | 15 | 25.74 | 51.1 | 1080.0 |
| 11 | 13:15 | 15 | 25.91 | 49.1 | 1200.0 |
| 12 | 13:30 | 15 | 25.65 | 52.2 | 1320.0 |
| 13 | 13:45 | 15 | 25.60 | 52.8 | 1440.0 |
| 14 | 14:00 | 15 | 25.48 | 54.2 | 1560.0 |

| | |
|---|---|
| Total Volume of Water Delivered (gallons) | 1560.0 |
| Total Volume of Water Delivered (cubic inches) | 360360 |
| Average Water Height (inches) | 52.1 |
| Average Percolation Surface Area (cubic Inches) | 1359.9 |
| Duration of Test (minutes) | 195 |
| Duration of Test (hours) | 3.25 |

$$\text{Measured Infiltration Rate} = (\text{Total Volume})/(\text{Test Duration})/(\text{Surface Area})$$

**Measured Infiltration Rate =** **81.5** **in./hr.**

**Design Infiltration Rate**

| | |
|---|---|
| Reduction Factor from Test Procedure, $RF_t$ = | 3 |
| Reduction Factor for Site Variability, # of Tests and Investigation, $RF_v$ = | 1 |
| Reduction Factor for Long Term Siltation, Plugging and Maintenance, $RF_t$ = | 1 |
| Reduction Factor, $RF = RF_t + RF_v + RF_s$ = | 5 |

**Design Infiltration Rate = Measured Infiltration Rate / Reduction Factor (RF) =** **16.3** **in./hr.**

# Appendix IS-4

Drainage Technical Report

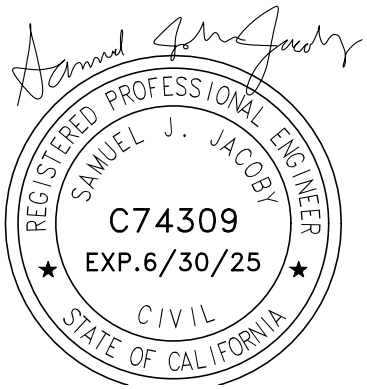
# Drainage Report

9000 Airport

Los Angeles, California

*Prepared for*

Rexford Industrial Realty, Inc.
11620 Wilshire Blvd. Suite 610
Los Angeles, Ca 90025




*Prepared by*

Cannon
Samuel J. Jacoby, PE, QSD
16842 Von Karman Avenue
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Irvine, CA 92606

May 8 , 2024

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## 1. Introduction

### 1.1 Project Description

The proposed project includes the development of a 435,390 square foot warehouse building including 80,000 square feet of office space with surface parking ("Option #1") or the development of a warehouse campus comprised of three buildings, totaling 410,056 square foot, including a total of 90,000 square feet of office space with surface parking ("Option #2") on an approximately 789,989 square foot site located within the Westchester – Playa del Rey Community Plan area in the City of Los Angeles. The Project Site is bounded by Interceptor Street to the north, West Arbor Vitae Street to the south, Airport Boulevard to the west, and residential uses to the east.

The Project Site is currently developed with an approximately 37,860 rental car facility comprised of two single-story buildings and accessory structures, as well as associated surface parking areas which would be removed to accommodate the Project.

Option 1 consists of a single building, detailed below:

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Option 1 | 435,390 s.f. | 355,390 s.f. | 80,000 s.f. |
| Landscaping | 94,400 s.f. | Impervious | 695,589 s.f. |

Option 2 consists of three buildings detailed below:

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Building 1 | 102,930 s.f. | 87,930 s.f. | 30,000 s.f. |
| Building 2 | 139,083 s.f. | 124,083 s.f. | 30,000 s.f. |
| Building 3 | 123,043 s.f. | 108,043 s.f. | 30,000 s.f. |
| Option 2 Total | 365,056 s.f. | 320,056 s.f. | 90,000 s.f. |
| Landscaping | 120,400 s.f. | Impervious | 669,589 s.f. |

### 1.2 Scope of Work

As part of the environmental impact report (EIR) for the Project, this report will describe the existing and proposed surface water hydrology, surface water quality, and groundwater at the Project Site and immediate surrounding areas, as well as an analysis of the Project's potential impacts on each of these water resources.

For the purpose of this report, the collective Project (Option 1 or Option 2) have similar hydrologic impacts and requirements so they will largely be considered the same project, except where divergent for Option 2.

## 2. Regulatory Framework

### 2.1 Surface Water Hydrology

#### *2.1.1 County of Los Angeles Hydrology Manual*

Per the City of Los Angeles (City)'s Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for at least a 10-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain facilities based on the MS4 Permit and is enforced on all new developments that discharge directly into the County's storm drain system, which this project is not subject to. Nor is the project proposing any County infrastructure improvements or connections and thus will not require the approval/review from the County Flood Control District department.

The Los Angeles County Department of Public Works Hydrology Manual (January 2006) establishes the Los Angeles County Department of Public Works' hydrologic design procedures based on historic rainfall and runoff data collected within the county. The hydrologic techniques in the manual apply for the design of local storm drains, retention and detention basins, pump stations, and major channel projects.

The proposed Project is required to utilize the 2006 Hydrology Manual and accompanying hydrologic tools including HydroCalc Calculator to calculate existing and proposed discharges and volumes from the Project.

#### *2.1.2 Los Angeles Municipal Code*

Any proposed drainage improvements within the street right-of-way or any other property owned by, to be owned by, or under the control of the City requires approval through the B-Permit process (Section 62.105, LAMC). Through the B-Permit process, storm drain installation plans which include any connections to the City's storm drain system from a property line to a catch basin or storm drain pipe, are subject to review and approval by the City of Los Angeles Department of Public Works, Bureau of Engineering.

### 2.2 Surface Water Quality

#### *2.2.1 Clean Water Act*

Controlling pollution of the nation's receiving water bodies has been a major environmental concern for more than three decades. Growing public awareness of the impacts of water pollution in the United States culminated in the establishment of the federal Clean Water Act (CWA) in 1972, which provided the regulatory framework for surface water quality protection. The United States Congress amended the CWA in 1987 to specifically regulate discharges to waters of the United States from public storm drain systems and storm water flows from industrial facilities, including construction sites, and require such discharges be regulated through permits under the National Pollutant Discharge Elimination System (NPDES) (CWA Section 402p) Rather than setting numeric effluent limitations for storm water and urban runoff, CWA regulation calls for the implementation of Best Management Practices (BMPs) to reduce or prevent the discharge of pollutants from these activities to the Maximum Extent Practicable(MEP) for urban runoff and meeting the Best Available Technology Economically achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) standards for construction storm water. Regulations

and permits have been implemented at the federal, state, and local level to form a comprehensive regulatory framework to serve and protect the quality of the nation's surface water resources.

In addition to reducing pollution with the regulations described above, the CWA also seeks to maintain the integrity of clean waters of the United States – in other words, to keep clean waters clean and to prevent undue degradation of others. As part of the CWA, the Federal Anti-Degradation Policy [40 Code of Federal Regulations (CFR) Section 131.12] states that each state "shall develop and adopt a statewide anti-degradation policy and identify the methods for implementing such policy…" [40 CFR Section 131.12(a)]. Three levels of protection are defined by the federal regulations:

1. Existing uses must be protected in all of the Nation's receiving waters, prohibiting any degradation that would compromise those existing uses;

2. Where existing uses are better than those needed to support propagation of aquatic wildlife and water recreation, those uses shall be maintained, unless the state finds that degradation is "…necessary to accommodate important economic or social development" [40 CFR Section 131.12(a)(2)]. Degradation, however, is not allowed to fall below the existing use of the receiving water; and

3. States must prohibit the degradation of Outstanding National Resource Waters, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreation or ecological significance.

#### *2.2.2 Federal Anti-Degradation Policy*

The Federal Anti-Degradation Policy (40 CFR 131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the CFR, state anti-degradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

#### *2.2.3 Porter-Cologne Water Quality Act*

In the State of California, the State Water Resources Control Board (SWRCB) and local Regional Water Quality Control Boards (RWQCBs) have assumed the responsibility of implementing the United States Environmental Protection Agency's (USEPA) NPDES Program and other programs under the CWA such as the Impaired Waters Program and the Anti-Degradation Policy. The primary quality control law in California is the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.). Under Porter-Cologne, the SWRCB issues joint federal NPDES Storm Water permits and state Waste Discharge Requirements (WDRs) to operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges from these operations.

### *2.2.4 California Anti-Degradation Policy*

The California Anti-Degradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Anti-degradation, Policy, the California Anti-Degradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

### *2.2.5 California Toxic Rule*

In 2000, the EPA promulgated the California Toxic Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The EPA promulgated this rule based on the EPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxic Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles Regional Water Quality Control Board (LARWQCB) as having beneficial uses protective of aquatic life or human health.

### *2.2.6 Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable state and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

### *2.2.7 NPDES Permit Program*

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the United States. As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs.

### *2.2.8 The General Permit for Construction Activities*

SWRCB Order No. 2009-0009-DWQ known as "General Permit" was adopted on September 2, 2009 and was amended by Order No 2012-0006-DWQ which became effective on July 17, 2012. This PDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels. The main objectives of the General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in stormwater discharges

3. Prevent materials used at a construction site from contacting stormwater
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-stormwater discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects
7. Establish maintenance commitments on post-construction pollution control measures

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of BMPs for a specific construction project, charging Owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit. As part of the Project, preparation, and implementation of a SWPPP will be required. In addition, the Project will be required to obtain a Waste Discharger Identification Number (WDID) through the State's Storm Water Multiple Application and Report Tracking System (S.M.A.R.T.S.).

#### *2.2.9 Los Angeles County Municipal Storm Water System (MS4) Permit*

As described previously, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On December 13, 2001, the LARWQCB adopted Order No. 01-182 under the CWA and the Porter-Cologne Act. This Order is the NPDES Permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the "Permit") cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the LACFCD is designated as the Principal Permittee. The Permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and unincorporated areas within Los Angeles County. Collectively, these are the "Co-Permittees".

The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Permittees. Since adoption of Order No. 01-182, the LARWQCB has seen adopted Order No. R4-2012-0175, as amended by State Water Board Order WQ 2015-0075 NPDES Permit No. CAS004001 on November 8, 2012. This current permit will expire on December 28, 2017. The City of Los Angeles is a Permittee of the California Regional Water Quality Control Board, Los Angeles Region, and is therefore subject to the requirements set forth in Order No. R4-2012-0175, as amended by State Water Board Order WQ 2015-0075, NPDES Permit No. CAS004001.

#### *2.2.10 Los Angeles Municipal Code*

Section 64.70 of LAMC sets forth the City's Stormwater and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of the following items into any storm drain systems: ·

- Any liquids, solids, or gasses which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion, or injury.
- Any solid or viscous materials, which could cause obstruction to the flow or operation of the storm drain system.
- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.
- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.
- Any medical, infectious, toxic, or hazardous material or waste.

Earthwork activities, including grading, are overseen by the Los Angeles Building Code, which is contained in Los Angeles Municipal Code (LAMC), Chapter IX, Article 1. Section 91.7013 contains regulations pertaining to erosion control and drainage devices and Section 91.7014 provide requirements for flood, mudflow protection and general construction requirements.

#### *2.2.11 Standard Urban Stormwater Mitigation Plan (SUSMP)*

Under the current Los Angeles County Municipal NPDES Permit, permittees are required to implement a development planning program to address storm water pollution. These programs require project applicants for certain types of projects to implement Standard Urban Stormwater Mitigation Plans (SUSMP) throughout the operational life of their projects. The purpose of SUSMP is to reduce the discharge of pollutants in storm water by outlining BMPs which must be incorporated into the design plans of new development and redevelopment.

The Project falls within the definition of "redevelopment" under the MS4 Storm Water Permit which requires compliance with the Low Impact Development (LID) requirements and SUSMP requirements.

#### *2.2.12 Low Impact Development*

LID is a stormwater strategy that is used to mitigate the impacts of runoff and stormwater pollution as close to its source as possible. Urban runoff discharged from municipal storm drain systems is one of the principal causes of water quality impacts in most urban areas. The stormwater may contain pollutants such as trash and debris, bacteria and viruses, oil and grease, sediments, nutrients, metals, and toxic chemicals that can negatively affect the ocean, rivers, plant and animal life, and public health.

LID encompasses a set of site design approaches and BMPs that are designed to address runoff and pollution at the source. These LID practices can effectively remove nutrients, bacteria, and metals, while reducing the volume and intensity of stormwater flows.

The Project is subject to compliance of Order No. R4-2012-0175, which became effective on November 8, 2012. The main purpose of this law is to ensure that development and redevelopment projects mitigate runoff in a manner that captures or treats rainwater at its source, while utilizing natural resources.

In accordance with Order No. R4-2012-0175, stormwater runoff shall be infiltrated, evapotranspirated, captured and used, or treated through high removal efficiency BMPs, onsite, through stormwater management techniques that comply with provisions of the City of Los Angeles Development Best Management Practices Handbook.

#### *2.2.13 Hydromodification*

In addition to the LID requirements listed in the Permit, the Permit also addresses requirements for Hydromodification as pertaining to the project. Per Part VI.D.7.c.iv of the Permit:

"Each Permittee shall require all New Development and Redevelopment projects located within natural drainage systems as described in Part VI.D.7.c.iv.(1)(a)(iii) to implement hydrologic control measures, to prevent accelerated downstream erosion and to protect stream habitat in natural drainage systems. The purpose of the hydrologic controls is to minimize changes in post-development hydrologic storm water runoff discharge rates, velocities, and duration. This shall be achieved by maintaining the project's pre-project stormwater runoff flow rates and durations."

However, per Part VI.D.7.c.iv.(1)(b)(iv) of the Permit, the project is exempt from such requirements as runoff from the site is discharged directly via storm drain to a receiving water that is not susceptible to hydromodification impacts. Dominguez Channel is categorized as not susceptible to hydromodification. Therefore, the project is not required to implement hydrologic control measures as mitigation for hydromodification impacts. In addition, implementation of the project will result in a reduction of peak flows and volumes as compared to existing conditions, thereby satisfying hydromodification requirements in addition to the receiving water exemption.

## 2.3 Groundwater

#### *2.3.1 California Groundwater Sustainability Act*

On Sept. 16, 2014, California Governor Jerry Brown signed into law a three-bill legislative package, known as the Sustainable Groundwater Management Act of 2014 (SGMA). The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention only if necessary to protect the resource.

The SGMA requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. The act provides substantial time – 20 years – for GSAs to implement plans and achieve long-term groundwater sustainability. It protects existing surface water and groundwater rights and does not impact current drought response measures.

The California Water Commission (CWC) requires a statewide prioritization of California's groundwater basins using the following eight criteria:

1. Overlying population;
2. Projected growth of overlying population;
3. Public supply wells;

4. Total wells;
5. Overlying irrigated acreage;
6. Reliance on groundwater as the primary source of water;
7. Impacts on the groundwater; including overdraft, subsidence, saline intrusion, and other water quality degradation; and
8. Any other information determined to be relevant by the Department.

The Project Site is located within a low priority California Statewide Groundwater Elevation Monitoring groundwater basin.

#### *2.3.2 Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin Plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable state and regional board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The Basin Plan is a resource for the LARWQCB and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

#### *2.3.3 Safe Drinking Water Act (SDWA)*

The federal Safe Drinking Water Act (SDWA), established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA, as set forth in the CFR, are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own SDWA in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels, as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal SDWA.

#### *2.3.4 West Coast Groundwater Basin*

The West Coast Groundwater Basin (Basin) underlies 160 square miles in the southwestern part of the Los Angeles Coastal Plain in Los Angeles County. The Basin extends southwesterly along the coast from the Newport-Inglewood Uplift to the Santa Monica Bay. The Basin provides groundwater to

approximately eleven cities and unincorporated areas of Los Angeles County. This average annual production is roughly 52,000 Acre-feet (AF), which accounts for 20% of total retail demands.

In 1961, the Basin was adjudicated. The adjudication limits the allowable annual extraction of groundwater per water rights holder within West Basin in order to prevent seawater intrusion and an unhealthy groundwater level. As part of the adjudication, the court appointed the California Department of Water Resources (DWR) to serve as Watermaster to account for all water rights and groundwater extraction amounts per year.

## 3. Environmental Setting

### 3.1 Surface Water Hydrology

#### *3.1.1 Regional*

Located within the Dominguez Channel watershed and generally east of the Los Angeles International Airport (LAX), the site discharges into the Port of Los Angeles (POLA) via the Dominguez Channel. Per the LA Sanitation and Environment (LASAN), The Domiguez Channel watershed encompasses about 70,000 acres and is located in the south portion of the LA Basin. The Channel is about 15.7 miles in length and begins in Hawthorne and discharges into POLA. The watershed is bounded by Manchester Boulevard in the north, POLA to the south; while the west includes areas of El Segundo, Manhattan Beach, Redondo Beach, Torrance and the Palos Verdes Hills. The eastern areas includes portions of Willowbrook, West Compton, and Carson. Over 90% of the watershed is developed, 41% is residential and 44% is commercial, industrial, and transportation related. About 61% of the watershed is impervious.

#### *3.1.1 Local*

Stormwater runoff is collected from the Project Site and conveyed through offsite storm drain facilities along the public streets surrounding the Project Site. Stormwater from the site generally flows southeast via Los Angeles City and Los Angeles County storm drain facilities. The site initially drains via connection to an existing 30" drain at the southeast corner of the site. This 30" city storm drain then flows east on Arbor Vitae St (plan D-27210, east towards Belanca Ave where it discharges to a county drain (BI 0113-Line C) generally running south, itself discharging to BI 0013 – Line B Inglewood Drain in Century Boulevard and continuing east. The Inglewood Drain, at the intersection of 116$^{th}$ St. and Inglewood Avenue, discharges to the Dominguez Channel (Doty Ave. to Inglewood Ave.) where it continues east. This channel reach discharges to further downstream reaches of the Dominguez Channel and ultimately the Pacific Ocean at the Los Angeles Harbor (POLA). Please refer to Appendix A for the existing condition hydrology map.

#### *3.1.2 Onsite*

In existing conditions, the site largely drains overland from north (elevation 107±) to south (elevation 102.5±). There are intermittent drains that are not mapped onsite, but the existing site does drain to the southeast corner of the site where it discharges to the City's drain.

The site proposes to mimic the existing drainage discharge (southeast corner of the site) and existing flow rates. See the attachments for existing and proposed hydrology maps.

**Table 3-1 Existing Hydrology Summary**

| Existing Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 7 | 0.9 | 29.91 |
| Existing Conditions 50-year Storm Frequency | | | | |
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 6 | 0.9 | 45.6 |

## 3.2 FEMA

The project is within Panel 1760 (Map Number 06037C1760F , dated September 26, 2008) on Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map (FIRM). Based on the FIRM, the project is within Zone X, which depicts areas determined to be outside of the 0.2% (500-year) annual chance floodplain. Therefore, the processing of a CLOMR/LOMR, through FEMA, will not be required for this project.

## 3.3 Surface Water Quality

### *3.3.1 Regional*

The Project is located within the Dominguez Channel Watershed, a highly industrialized area with numerous nonpoint sources of pollution which results in poor sediment quality both within the Channel and in adjacent Inner Harbor areas. The Dominguez Channel Watershed covers approximately 70,000 acres and is located in the southern portion of the Los Angeles Basin. Approximately 43,400 acres of the watershed drains to the 15.7-mile-long Dominguez Channel which begins in Hawthorne and discharges into the Los Angeles Harbor in the east basin. Over 90% percent of the land area is developed. Residential use covers about 41% and another 44% is industrial, commercial, and transportation related. Overall, the watershed is approximately 61% impervious.

Included in the water shed are portions of the cities of Los Angeles, El Segundo, Manhattan Beach, Redondo Beach, Torrance and the Palos Verdes Hills. Portions of Compton and Carson, and portions of unincorporated areas of Los Angeles County are also included. The watershed is managed by the Dominguez Channel Watershed Management Group (DCWMG). The DCWMG consists of the City of Los Angeles as the coordinating agency for the Enhanced Watershed Management Program and Coordinated Integrated Monitoring Program development, and also involves Los Angeles County, Los Angeles County Flood Control District, and the cities of El Segundo, Hawthorne, and Inglewood.

### *3.3.2 Beneficial Uses in Dominguez Channel Watersheds*

The existing and potential beneficial uses for the waters within the Dominguez Channel Watershed, where the majority of the surface water flows from the Project ultimately discharge are described below.

**Table 3-2 Beneficial Uses of Dominguez Channel and greater Los Angeles/Long Beach**

| 303(d) list waterbody | Basin Plan waterbody (Hydo # 405.12) | MUN | NAV | IND | REC1 | REC2 | COMM | WARM | EST | MAR | WILD | RARE | MIGR | SPWN | SHELL | WET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dominguez Channel fresh<br>Torrance Lateral | Dominguez Channel to Estuary | P | | | Ps | E | | P | | | P | E | | | | |
| Dominguez Channel Estuary | Dominguez Channel Estuary | | P | | Es | E | E | | E | E | E | Ee | Ef | Ef | | |
| Consolidated Slip<br>Inner Harbor<br>Fish Harbor | Los Angeles Long Beach Harbor All Other Inner areas | | E | E | E | E | E | | | E | | Ee | | | P | |
| Cabrillo Marina | Los Angeles Long Beach Harbor Marinas | | E | E | E | E | E | | | E | | E | | | P | |
| Inner Cabrillo Beach | Los Angeles Long Beach Harbor Public Beach areas | | E | | E | E | E | | | E | E | E | | E | E | |
| Los Angeles River Estuary | Los Angeles River Estuary | | E | E | E | E | E | | E | E | E | Ee | Ef | Ef | P | E |
| Outer Harbor<br>San Pedro Bay | Los Angeles Long Beach Harbor Outer Harbor | | E | | E | E | E | | | E | | E | | | P | |

Beneficial use designations apply to all tributaries to the indicated water body, if not listed separately.
E: Existing beneficial use
P: Potential beneficial use
e: One or more rare species utilize all oceans, bays, estuaries, and wetlands for foraging and/or nesting.
f: Aquatic organisms utilize all bays, estuaries, lagoons, and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas that are heavily influenced by freshwater inputs.
s: Access prohibited by Los Angeles County Department of Public Works

### *3.3.3 Impairments and TMDL's in the Dominguez Channel, Above and Below Vermont Ave.: CWA 303(d) List of Water Quality Limited Segments*

Under Section 303(d) of the CWA, states are required to identify water bodies that do not meet their water quality standards. Biennially, the LARWQCB prepares a list of impaired waterbodies in the region, referred to as the 303(d) list. The 303(d) list outlines the impaired waterbody and the specific pollutant(s) for which it is impaired. All waterbodies on the 303(d) list are subject to the development of a Total Daily Maximum Load (TMDL).

Storm water runoff from the Project discharges to Dominguez Channel and to Port of Los Angeles (POLA). According to the 2018 303(d) list of Limited Water Quality Segments published by the SWRCB, the Dominguez Channel is listed as impaired by the constituents in the table below.

**Table 3-3 List of 303(d) Impairments Dominguz Channel (lined portion above Vermont Ave)**

| | |
|---|---|
| Listed Pollutants | Indicator Bacteria (68243), Zinc (68450), Copper (72474), Toxicity (76424), Lead (98867) |
| Listed Pollutants w/TMDL | Zinc (68450); Copper (72474); Toxicity (76424); Lead (98867) |

**Table 3-4 List of 303(d) Impairments Dominguz Channel (unlined portion below Vermont Ave)**

| | |
|---|---|
| Listed Pollutants | PCBs (Polychlorinated biphenyls) (68139), Benzo(a)pyrene (68354), Pyrene (68839), Phenanthrene (69111), Chrysene (C1-C4) (69124), Benzo(a)anthracene (69189), Dieldrin (tissue) (69913), Indicator Bacteria (70163), Lead (70528), Benthic Community Effects (72640), Toxicity (76061), Chlordane (tissue) (98920), Copper (98921), DDT (tissue & sediment) (99361) |
| Listed Pollutants w/TMDL | PCBs (Polychlorinated biphenyls) (68139); Benzo(a)pyrene (68354); Pyrene (68839); Phenanthrene (69111); Chrysene (C1-C4) (69124); Benzo(a)anthracene (69189); Dieldrin (tissue) (69913); Lead (70528); Benthic Community Effects (72640); Toxicity (76061); Chlordane (tissue) (98920); Copper (98921); DDT (tissue & sediment) (99361) |

### *3.3.4 Local*

Within the urban environment of the Project, stormwater runoff occurs during and shortly after rain events. The volume of runoff depends on the intensity and duration of the storm event and the imperviousness of the drainage area. Typical urban pollutants associated with stormwater runoff following rain events includes sediment, trash, bacteria, metals, nutrients and potentially organics and pesticides. The source of contaminants is wide ranging and includes all areas where rainfall occurs along with atmospheric deposition. Therefore, sources of contaminants within urban areas include roadways, building tops, parking lots, landscape areas and maintenance areas.

To reduce contaminant loads from entering the storm drain system, the City conducts routine street cleaning operations as well as periodic cleaning and maintenance of the catch basins to reduce stormwater pollution within the storm drain system.

### *3.3.5 On Site*

Under the existing conditions, the entire project area is built out with high impervious conditions throughout each existing drainage area, and the predominant land use being surface parking lots and buildings. As mentioned, the proposed existing underground drainage facilities within the property are an inlet filters, (hydrodynamic separator), and sub-surface infiltration chambers within the property, and prior to the discharge to the City's main at the southeast corner of the property. Anticipated pollutants consistent with parking lots, building areas and landscaping include total suspended solids (TSS), oil/grease, heavy metals, nutrients, pesticides, and trash.

**Table 3-5 Typical Pollutants of Concern**

| Land Use | Pollutants of Concern [2] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Suspended Solids | Total Phosphorus | Total Nitrogen | Total Kjeldahl Nitrogen | Cadmium, Total | Chromium, Total | Copper, Total | Lead, Total | Zinc, Total |
| High Density Single Family Residential | X | X | | | [4] | [4] | X | X | X |
| Multi-Family Residential | X | | | | [4] | [4] | X | | X |
| Mixed Residential | X | X | X | | [4] | [4] | X | X | X |
| Commercial | X | X | X | X | [4] | [4] | X | X | X |
| Industrial | X | X | X | X | [4] | [4] | X | X | X |
| Critical Facilities [3] | X | [4] | [4] | [4] | [4] | [4] | X | X | X |
| Transportation (streets, roads) | X | X | X | X | [4] | [4] | X | X | X |
| Institutional (educational facilities) | X | | | | [4] | [4] | X | | X |

[1] Adapted from Table A-3 of the *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles* (February 2004) and the Southern California Coastal Water Research Project Land Use Specific Storm Water Monitoring Data. X = exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.

[2] Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).

[3] Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).

[4] No available data to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant.

Source: Los Angelese County LID Manual with information from MS4 permit covering City of Los Angeles

**Table 3-6 BMP Pollutant Removal Effectiveness**

| BMP | Pollutant/Condition of Concern | | | | | | | | | Reference |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dissolved oxygen (DO)[1] | Metals | Nutrients | Pathogen indicator/ bacteria | Pesticides[1] | Runoff volume and flow[1] | Sediment/Total suspended solids (TSS) | Trash[2] | Waste material[1] | |
| SC - All source controls (collective) | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Municipal (2003) |
| SC - Catch basin cleaning | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Municipal (2003) |
| SC - Education | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Municipal (2003) |
| SC - Street sweeping | x | x | | | x | x | x | x | x | CASQA Stormwater BMP Handbook - Municipal (2003) |
| SC-/TC - Roof runoff controls | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Development (2003) |
| TC - Bioretention | x | x | | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Constructed wetland | x | x | | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Extended detention basin | x | | | | x | x | | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC – Infiltration basin | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Infiltration trench | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Media filter | x | x | | | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Pervious pavement | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Development (2003) |
| TC - Vegetated buffer strip | x | x | | | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Vegetated swale | x | | | | x | x | | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Vortex separator | x | x | x | x | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |
| TC - Wet pond | x | x | | | x | x | x | x | x | CASQA Stormwater BMP Handbook - Industrial and Commercial (2003)[3] |

[1] BMP removal efficiencies for dissolved oxygen, pesticides, runoff volume and flow, and waste material are not defined in the CASQA Stormwater BMP Handbooks. For the purposes of this Database and selection queries, these pollutants and conditions of concerns will have a relationship with all BMPs so as to not limit the number of outputs.
[2] All BMPs are assumed to address trash for the purposes of this information database.
[3] Targeted constituents are based on "high pollutant removal" denoted in the CASQA BMP manual.

Source: California Stormwater Quality Association (CASQA) "Guidance Document for Effectiveness Assessment – Source Contribution Tools and Methodologies Information Database", Version 1.1, July 2018

## 3.4 GROUNDWATER

### *3.4.1 Regional*

The City of Los Angeles overlies the Los Angeles Coastal Plain Groundwater Basin (Basin) which consists of four major subbasins: Hollywood, Santa Monica, Central and West Coast. Replenishment of the Basin occurs primarily through percolation of rainfall throughout the watershed via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins. Injection wells are also used to pump freshwater along specific seawater barriers to prevent the intrusion of salt water. Groundwater flow within the Basin generally flows in a south and southwesterly direction.

### *3.4.2 Local*

The Project resides specifically within the West Coast Groundwater Basin, managed for replenishment by the Water Replenishment District of Southern California (WRD). Through the coordination of the Los

Angeles County Public Works Department, DWR, and WRD, the West Coast Groundwater Basin is managed and maintained to provide the utmost water quality and reliability for the region.

### *3.4.3 On Site*

Leighton Consulting, Inc. has prepared a geotechnical analysis of the site. The first report titled "Geotechnical Exploration Report" was prepared on April 5th, 2023, and a supplemental report titled "Supplemental Percolation Study" was prepared on September 22, 2023. Per the reports, "The soils encountered in the consist of a layer of undocumented artificial fill materials (Afu) was encountered overlying Quaternary-aged (Late to Middle Pleistocene) old eolian and dune deposits (Qoe). The undocumented artificial fill encountered in borings LP-3 and LP-4 ranged from approximately 4 to 7 feet in thickness, likely associated with the existing and previous site improvements. The fill soils consist primarily of clayey sand, sandy clay, and clay. Below the artificial fill materials, old eolian and dune deposits (Qoe) were encountered in the borings to the maximum depth explored. The Qoe deposits encountered generally consist of olive brown to reddish-brown, slightly moist to moist, very stiff to hard clay with varying amounts of silt and sand. Below approximately 15 feet in depth at borings LP-3 and LP-4, the Qoe deposits consist of yellow brown, medium dense to very dense sand and clayey sand. Detailed descriptions of the subsurface materials encountered in the borings are presented on the attached boring logs (Appendix A).

Groundwater was not encountered at the site during the recent and prior subsurface explorations performed at the site to the maximum depth of 50 feet bgs.

**Table 3-7 Infiltration Results**

| Test Well Designation | Depth of Test Zone (feet bgs) | Measured Infiltration Rate (inches per hour) | Design Infiltration Rate (Inches per hour) |
|---|---|---|---|
| LP-3 | 27 to 30 | 86.6 | 17.3 |
| LP-4 | 25 to 30 | 81.5 | 16.3 |

Based on the results of Leighton's percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 86.6 inches per hour (LP-3) and 81.5 inches per hour (LP-4). The design infiltration rates for the two (2) tests performed at the site are 17.3 inches per hour for LP-3 and 16.3 inches per hour for LP-4.

Based on the infiltration rates, infiltration is considered to be feasible as a BMP for this project.

## 4. SIGNIFICANCE THRESHOLD

### 4.1 4.1. Surface Water Hydrology

The City of Los Angeles CEQA Thresholds Guide states that a project would normally have a significant impact on surface water hydrology if it would:

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body; or
- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

## 4.2 4.2. Surface Water Quality

The City of Los Angeles CEQA Thresholds Guide states that a project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination or nuisance, as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body.

The City of Los Angeles CEQA Thresholds Guide and CWC include the following relevant definitions:

- "Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".
- "Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.
- "Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes.

## 4.3. GROUNDWATER

According to the City of Los Angeles CEQA Thresholds Guide, a project would normally have a significant impact on groundwater quality and groundwater level if it would:

- Affect the rate or change the direction of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.
- Change potable water levels sufficiently to:

- Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/ winter peaking, or to respond to emergencies and drought;

- Reduce yields of adjacent wells or well fields (public or private); or

- Adversely change the rate or direction of flow of groundwater; or

- Result in demonstrable and sustained reduction of groundwater recharge capacity.

## 5. METHODOLOGY

### 5.1 Surface Water Hydrology

In December 3, 1999, the City of Los Angeles issued Special Order No. 007-1299 which adopted the Los Angeles County Department of Public Works' Hydrology Manual to be used for studies within the City of Los Angeles. According to the County's 2006 Hydrology Manual, storm drains associated with the Project must carry flow from at least the 10-year frequency design storm. The 10-year storm event also corresponds with the design storm of the existing storm drain infrastructure receiving the flows from the Project.

The City's LA CEQA Thresholds Guide; however, has determined that a 50-year storm frequency analysis is required when determining flood hazards impacts and changes in the amount or movement of surface water. To analyze the Project's potential impacts under both thresholds, runoff for both 10- and 50-year frequency design storms was calculated for this report.

This study was prepared using HydroCalc 0.3.1-beta software in conformance with the County's Hydrology Manual (2006). The HydroCalc program uses the Modified Rational Method to calculate the required time of concentration and designed flowrates for 25- and 50-year storm events. The peak runoff for a drainage area is calculated using the formula Q= CIA, where

Q= flowrate (cfs)

C= runoff coefficient (unit less)

I=rainfall intensity (in/hr)

A= basin area (acres)

The HydroCalc calculator is supported by the County's online GIS system. This database is used to locate the Project Site's 50-year isohyet rainfall frequency as well as relevant soil type (please refer to Appendix B). The data collected is then used in the HydroCalc program to calculate peak stormwater runoff values.

## 5.2 Surface Water Quality

### *5.2.1 Construction*

Prior to the issuance of grading permits, the applicant is required by The City to provide of a Notice of Intent (NOI) and WDID Number issued from the SWRCB in accordance with the requirements of the General Permit to ensure the potential for soil erosion and construction impacts are minimized. In accordance with the updated General Permit (Order No 2012-0006-DWQ), the following Permit Registration Documents (PRD's) are required to be submitted to the SWRCB prior to commencement of construction activities:

- Notice of Intent (NOI);
- Risk Assessment (Standard or Site-Specific);
- Particle Size Analysis (if site-specific risk assessment is performed);
- Site Map;
- SWPPP;
- Annual Fee & Certification.

The updated General Permit uses a risk-based approach for controlling erosion and sediment discharges from construction sites, since the rates of erosion and sedimentation can vary from site to site depending on factors such as duration of construction activities, climate, topography, soil condition, and proximity to receiving water bodies. The updated General Permit identifies three levels of risk with differing requirements, designated as Risk Levels 1, 2 and 3, with Risk Level 1 having the fewest permit requirements and Risk Level 3 having the most-stringent requirements.

The Risk Assessment incorporates two risk factors for a project site: sediment risk (general amount of sediment potentially discharged from the site) and receiving water risk (the risk sediment discharges can pose to receiving waters). Based on the Risk Level a project falls under, different sets of regulatory requirements are applied to the site. The main difference between Risk Levels 1, 2, and 3 are the numeric effluent standards. In Risk Level 1, there are no numeric effluent standard requirements, as it is considered a Low sediment risk and Low receiving water risk. Instead, narrative effluent limits are prescribed. In Risk Level 2, Numeric Action Levels (NALs) of pH between 6.5-8.5 and turbidity below 250 NTU are prescribed in addition to the narrative effluent limitations found in Risk Level 1 requirements. Should the NAL be exceeded during a storm event, the discharger is required to immediately determine the source associated
with the exceedance and to implement corrective actions if necessary to mitigate the exceedance. Risk Level 3 dischargers must comply with Risk Level 2 requirements for NALs in addition to more rigorous monitoring requirements such as receiving water monitoring and in some cases bioassessment, should NALs be exceeded.

### *5.2.2 Operation*

The Project (Option 1 or Option 2) will meet the requirements of the LID Manual. Post-construction stormwater BMPs shall be designed to manage and capture stormwater runoff. Infiltration systems are the first priority type of BMP improvements, as they provide for percolation and infiltration of the stormwater into the ground, which not only reduces the volume of stormwater runoff entering the MS4,

but can contribute to groundwater recharge. If stormwater infiltration is not feasible, the next priority BMP shall be used.

The LID Manual establishes an order of priority, as specified below. Each type of BMP shall be implemented to the maximum extent feasible when determining the appropriate BMPs for a project.

1. Infiltration Systems
2. Stormwater Capture and Use
3. High Efficiency Biofiltration/Bioretention Systems
4. Combination of Any of the Above

Leighton Consulting, Inc. has prepared a geotechnical analysis of the site. The first report titled "Geotechnical Exploration Report" was prepared on April 5th, 2023 and a supplemental report titled "Supplemental Percolation Study" was prepared on September 22, 2023. Per the Study, percolation testing of the project site was performed in accordance with the County of Los Angeles requirements (COLA, 2017). Based on the results of the percolation testing, the subsurface soils at the site were determined to be suitable for stormwater infiltration based on measured field permeability. The design infiltration rates are greater than 0.3 inches/hour, which is the minimum usable rate per County guidelines.

Since Infiltration is deemed to be feasible for this project, infiltration will be the primary LID BMP for both options.

The next item on the priority list, Capture and Use, is not required because the site will infiltrate the entire water quality design volume. However, Capture and Use will be considered as a supplemental LID BMP. Capture and use, commonly referred to as rainwater harvesting, collects and stores stormwater for later use, thereby offsetting potable water demand and reducing pollutant loading to the storm drain system. Therefore, sufficient landscaped area with appropriate water demand is needed for the captured runoff to be directed to. In the City of Los Angeles, the use of collected stormwater is primarily limited to irrigation of landscaped surfaces. Harvest and Use feasibility analysis requires input from the Landscape Architect of various planting factors and parameters. Harvest and Use feasibility will be evaluated when planting information can be confirmed.

Projects that have demonstrated that they cannot manage 100% of the water quality design volume onsite through infiltration and/or capture and use BMPs may manage the remaining volume through the use of a high removal efficiency biofiltration/bioretention BMP. The high removal efficiency biofiltration/bioretention BMP shall be sized to adequately capture 1.5 times the volume not managed through infiltration and/or capture and use. Biofiltration BMPs are landscaped facilities that capture and treat stormwater runoff through a variety of physical and biological treatment processes. These facilities, also called Bioretention Planter Boxes, provide multiple benefits, including pollutant control, peak flow control, and low amounts of volume reduction through infiltration and evapotranspiration. These BMPs are not anticipated for both options. However, these BMPs may be utilized for redundancy water quality treatment; and will be determined in the final engineering phase of the project.

Water quality BMPs will be evaluated and selected during Final Design of the Project.

## 5.3 Groundwater

This report discusses the impact of the Project as it relates to the underlying groundwater conditions of the Los Angeles Coastal Plain Groundwater Basin. The significance of the Project as it relates to the condition of the underlying groundwater table included a review of the following existing considerations:

- Identification of the Los Angeles Coastal Plain Groundwater Basin as the underlying groundwater basin, and description of the level, quality, direction of flow, and existing uses for the groundwater
- Description of the location, existing uses, production capacity, quality, and other pertinent data for spreading grounds and potable water wells in the vicinity (typically within a one-mile radius) and;

The analysis of the proposed Project impacts on groundwater conditions include a review of the following proposed considerations:

- Description of the rate, duration, location and quantity of extraction, dewatering, spreading, injection or other activities;
- The projected reduction in groundwater resources and any existing wells in the vicinity (typically within one-mile radius); and
- The projected change in local or regional groundwater flow patterns

In addition, short-term groundwater quality impacts could potentially occur during construction of the Project as a result of soil or shallow groundwater being exposed to construction activities, materials, wastes, and spilled materials. These potential impacts are qualitatively assessed.

# 6. IMPACT ANALYSIS

## 6.1 Construction

### *6.1.1 Surface Water Hydrology and Quality*

Implementation of the Project would result in construction activities that includes demolition of the existing parking lots and buildings on-site and over-excavation of existing soils. Final earthwork quantities will be determined in the final engineering phase.

Construction activities have the potential to temporarily alter the existing drainage patterns of the Project site as well as increase the permeability of a site based on increased pervious surface coverage during construction. Exposed pervious surfaces also have the potential for erosion, scour and increased sediment and associated pollutants discharging from the site during construction activities. The main pollutant of concern during construction is typically sediment and soil particles that discharge off-site due to wind, rain, and construction patterns.

At this stage in the proposed Project, a detailed, site-specific Risk Assessment cannot be performed. However, based on the Project's location and known site conditions, a preliminary erosion calculation can be performed The Project is located in a low risk watershed and the predicted sediment loss is <15 tons/acre (14.51 tons/acre). Current project build out is expected to be 17 months. However, construction delays may push the construction duration to more than 18 months, therefore, the Project could classify as a Risk Level 2. If a conservative Risk Level 2 assumption was made, certain monitoring

requirements apply to the Project. See Table 7 below highlighting the various requirements for Risk Levels 1-3.

**Table 6-1 Risk Level Requirements**

| Visual Inspection Sample Collection | | | | | | Sample Collection | |
|---|---|---|---|---|---|---|---|
| Risk Level | Quarterly Non-Storm Water Discharge | Baseline | REAP | Daily Storm BMP | Post Storm | Storm Water Discharge | Receiving Water |
| 1 | X | X | | X | X | | |
| 2 | X | X | X | X | X | X | |
| 3 | X | X | X | X | X | X | X |

In the event exceedances of receiving water quality objectives are observed, measures must be taken and documented within the SWPPP to improve discharge water quality and runoff effluent. This may include but not limited to increasing the size of existing BMPs such as sediment traps, adding more BMPs to the drainage area such as erosion control stabilizers, additional filtering and/or a reduction in active grading area.

*6.1.1.1 Construction Best Management Practices (BMPs)*

In accordance with the existing and updated General Permit, a construction SWPPP must be prepared and implemented for the Project site, and revised as necessary, as administrative or physical conditions change. The SWPPP must be made available for review upon request, shall describe construction BMPs that address pollutant source reduction, and provide sures/controls necessary to mitigate potential pollutant sources. These measures/controls include, but are not limited to: erosion controls, sediment controls, tracking controls, non-storm water management, materials & waste management, and good housekeeping practices including the following:

- Erosion control BMPs, such as hydraulic mulch, soil binders, and geotextiles and mats, protect the soil surface by covering and/or binding the soil particles. Temporary earth dikes or drainage swales may also be employed to divert runoff away from exposed areas and into more suitable locations. If implemented correctly, erosion controls can effectively reduce the sediment loads entrained in storm water runoff from construction sites.
- Sediment controls are designed to intercept and filter out soil particles that have been detached and transported by the force of water. All storm drain inlets on the project site or within the project vicinity (i.e., along streets immediately adjacent to the project boundary) should be adequately protected with an impoundment (i.e., gravel bags) around the inlet and equipped with a sediment filter (i.e., fiber roll). Bags should also be placed around areas of soil disturbing activities, such as grading or clearing.
- Stabilize all construction entrance/exit points to reduce the tracking of sediments onto adjacent streets. Wind erosion controls should be employed in conjunction with tracking controls.
- Non-storm water management BMPs prohibit the discharge of materials other than storm water, as well as reduce the potential for pollutants from discharging at their source. Examples include avoiding paving and grinding operations during the rainy season (i.e., October 1 through April 30 each year) where feasible, and performing any vehicle equipment cleaning, fueling and maintenance in designated areas that are adequately protected and contained.

- Waste management consists of implementing procedural and structural BMPs for collecting, handling, storing, and disposing of wastes generated by a construction project to prevent the release of waste materials into storm water discharges.

Prior to commencement of construction activities, the General Permit requires the Project SWPPP to be prepared in accordance with the site-specific sediment risk analyses based on the grading plans, with erosion and sediment controls proposed for each phase of construction for the Project. The phases of construction will define the maximum amount of soil disturbed, the appropriately sized sediment basins and other control measures to accommodate all active soil disturbance areas and the appropriate monitoring and sampling plans. Major phases of the construction for the Project are described below.

#### *6.1.1.2 Mass & Rough Grading*

During mass and/or rough grading, a substantial amount of soil disturbing activities or earthwork will occur. As a consequence, soil loss potential will be at its highest risk level to exceed NALs/NELs specified in the General Permit. Therefore, an effective combination of erosion and sediment controls must be implemented during this phase of construction.

This region requires the use of sediment basins or sediment traps to control the amount of sediment discharged off-site during the rainy season. Sediment basins or sediment traps generally act as primary sediment control facilities at downstream locations that provide final polish of runoff prior to discharging off-site. Therefore, they are a major element in a project's erosion and sediment control design.

#### *6.1.1.3 Utility and Road Installation*

In addition to the erosion and sediment control BMP requirements for the grading phase, the utility and road installation phase will introduce materials to the Project site that may cause or contribute to exceedances of NALs specified in the General Permit. Materials include, but are not limited to hydrated lime, concrete, mortar, Portland cement treated base, and fly ash. For this reason, pH levels must be controlled at this stage through non-storm water management and waste and materials management BMPs. Stockpile management will also be important due to the trenching activities involved during utility installation. Should NALs/NELs be exceeded at any point in time, additional site management or good housekeeping BMPs shall be implemented, and the source of pollution controlled.

#### *6.1.1.4 Vertical Construction*

Once utilities and roads are in place, sediment controls (such as sediment/desilting basins) found in the rough grade phase may no longer be applicable as previously designed, due to the installment of curb and gutter, catch basins, and storm drain infrastructure to convey runoff off-site per the post-construction condition. BMPs at this stage will thus be more focused on on-site sediment control BMPs and at discharge points (i.e., catch basin inlet protection). During vertical construction, a substantial amount of construction materials will be delivered to the site, and wastes generated from the site have the potential to negatively impact pH levels. Therefore, non-storm water management and waste and materials management BMPs will be employed regularly.

#### *6.1.1.5 Final Stabilization and Landscaping*

During final stabilization and landscaping, minimal construction will be taking place and the majority of the project site will be stabilized. The majority of activities will involve planting and landscaping lots and

common areas. Sediment control at discharge locations and stockpile management will be of primary concern. Good housekeeping practices will continue in this phase of construction.

Through compliance with the General Permit including the preparation of a SWPPP, implementation of BMPs, and compliance with applicable City grading regulations, construction of the Project would not cause flooding, substantially increase or decrease the amount of surface water in a water body, or result in a permanent, adverse change to flow direction. The Project would also not result in discharges that would cause: (1) pollution that would impact the quality of waters of the State to a degree which negatively impacts beneficial uses of the waters; (2) contamination of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) nuisance that would be injurious to health, affect an entire community or neighborhood or any considerable number of persons, and occurs during or as a result of the treatment or disposal of wastes.

Construction of the Project would not result in discharges that would cause regulatory impacts within the Dominguez Channel Watersheds. Therefore, impacts to surface water hydrology and water quality during construction would be less than significant.

#### *6.1.2 Groundwater Hydrology*

Construction of the Project (Option 1 or Option 2) is not anticipated to impact any water supply wells. No water supply wells are located at or within one mile of the Project[1] and the Project will not include the construction of any water supply wells. In addition, recharge of groundwater will not be impacted. Rather, groundwater recharge will increase due to increased perviousness at the Project Site which allows for increased natural infiltration of stormwater.

Construction of the Project will include excavation with average depths of 10 feet below ground surface (bgs). Groundwater was not encountered (testing extended to 50 feet bgs) as mentioned in the geotechnical investigation by Leighton. Based on these excavation depths, groundwater is not anticipated to be encountered during construction. Therefore, a dewatering permit from the LARWQCB is not anticipated for this project. The Project will comply with all Standard Provisions and with any additional conditions that are applicable under 40 CFR section 122.42 to ensure groundwater hydrology is protected.

#### *6.1.3 Groundwater Quality*

Construction of the Project does not expect to include temporary dewatering practices during the construction due to the groundwater level greater than 50 feet bgs.

Final earthwork volumes quantities will be determined in the final engineering phase. In the event any contaminated soils are found during excavation, soils would be captured within that volume of excavated material, removed from the Project Site, and deposited at an approved disposal facility in accordance with regulatory requirements, including SCAQMD Rule 1166.

During on-site grading and building activities, hazardous materials such as fuels, paints, solvents, and concrete additives could be used and require proper management and containment during construction

[1] Source: Los Angeles County Groundwater Well Mapping Application. Well 1314 (State ID 2S14W31H01) is approximately 500 ft away, but is inactive.

activities. The presence of such materials provides an opportunity for hazardous materials to be released into groundwater. To protect groundwater resources, the Project will comply with all applicable federal, state and local requirements related to the handling, storage, application and disposal of hazardous waste which will reduce the potential for construction activities of the Project to release contaminants into groundwater that could affect existing contamination, mobilize or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well. Therefore, the Project would not result in a significant increase in groundwater contamination though hazardous materials releases and impacts on groundwater quality would be less than significant.

## 6.2 OPERATION

### *6.2.1 Surface Water Hydrology*

Development of the Project (Option 1 or Option 2) would result in the addition of landscaped areas throughout the Project Site, and would reduce the amount of impervious surfaces from 90% to 88% and 85%, respectively. This increase in pervious surfaces would result in a slight reduction in stormwater runoff. As this is still in the conceptual design stage of the Project, the hydrology analysis was performed assuming one outlet point in the proposed condition, consistent with the existing condition, discharging to Arbor Vitae Avenue to evaluate the most conservative potential impact on the local storm drain system, and may change during final design. Output calculations are provided in Attachments C to F

**Table 6-2**

| Option 1 | | | |
|---|---|---|---|
| 10-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q10 (cfs) |
| 1-PRE | 18.14 | 90% | 29.83 |
| 1-POST | 18.14 | 88% | 29.83(MAX) |
| 50-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q50 (cfs) |
| 1-PRE | 18.14 | 90% | 45.6 |
| 1-POST | 18.14 | 88% | 45.6(MAX) |
| *Proposed flow will not exceed existing peak discharge | | | |

**Table 6-3**

| Option 2 | | | |
|---|---|---|---|
| 10-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q10 (cfs) |
| 2-PRE | 18.14 | 90% | 29.71 |
| 2-POST | 18.14 | 85% | 29.71(MAX) |
| 50-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q50 (cfs) |
| 2-PRE | 18.14 | 90% | 45.59 |
| 2-POST | 18.14 | 85% | 45.59(MAX) |
| *Proposed flow will not exceed existing peak discharge | | | |

#### *6.2.1.1 Option 1 Proposed Hydrology*

Option 1 is proposed as a single tenant with a single infiltration BMP to satisfy LID requirements, but will be oversized by 5% to allow for pass-through high-flows. An effect of the oversized BMP will be that attenuation of larger events (10-, 50-year rainfall) to meet existing flows. Several inlets are proposed to reduce surface flow and minimize ponding on-site. The inlets will be equipped with inlet filters for pretreatment. Additionally, a hydrodynamic separator is proposed, sized for the LID flow.

The site discharges to a common onsite main prior to discharge to the existing 30" RCP at the south east corner of the site (City drain)

Table 6-2 below provides 10-year and 50-year storm frequency analysis for the Project Site's existing conditions. These two storm frequencies are required by Los Angeles County Public Works (10-year) and the City of Los Angles CEQA guideline requirements (50-year). Output calculations are provided in Appendix B.

Table 6-3 below provides for a summary of the LID volumes and infiltration rates. Output calculations are provided in Appendix C.

**Table 6-4 Option 2 Proposed 10-Year & 50-Year Discharge**

| Proposed - Option 1 - Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 7 | 0.88 | 29.83 |
| Proposed - Option 1 -Conditions 50-year Storm Frequency | | | | |
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 6 | 0.88 | 45.6 |

**Table 6-5 Option 2 LID Summary**

| Proposed - Option 1 - LID Statistics | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Volume |
| | Acres | Min | % | CF |
| DMA 1 | 18.14 | 31 | 0.88 | 55,130 |
| LID Volume Proposed for Infiltration | | | | |

#### *6.2.1.2 Option 2*

Option 2 proposes three buildings. Generally the areas surrounding each building is being considered uniquely. There will be, therefore, three infiltration BMP to satisfy LID requirements. The proposed hydrology map for Option 2 identifies these unique drainage areas. Similar to Option 1, the infiltration BMPS will be oversized by 5% to allow for pass-through high-flows. An effect of the oversized BMP will

be that attenuation of larger events (10-, 50-year rainfall) to meet existing flows. Several inlets are proposed to reduce surface flow and minimize ponding on-site. The inlets will be equipped with inlet filters for pretreatment. Additionally, a hydrodynamic separator is proposed, sized for the LID flow.

The three areas discharge to a common onsite main prior to discharge to the existing 30" RCP at the south east corner of the site (City drain)

Table 6-4 below provides 10-year and 50-year storm frequency analysis for the Project Site's existing conditions. These two storm frequencies are required by Los Angeles County Public Works (10-year) and the City of Los Angles CEQA guideline requirements (50-year). Output calculations are provided in Appendix D.

Table 6-5 below provides for a summary of the LID volumes and infiltration rates. Output calculations are provided in Appendix E.

**Table 6-6 Option 2 Proposed 10-Year & 50-Year Discharge**

| Proposed - Option 2 - Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA2-1 | 5.83 | 7 | 0.85 | |
| DMA2-2 | 6.14 | 7 | 0.85 | |
| DMA2-3 | 6.17 | 7 | 0.85 | |
| | | | | 29.71 |
| Proposed - Option 2 - Conditions 50-year Storm Frequency | | | | |
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q50 (cfs) |
| | Acres | Min | % | cfs |
| DMA2-1 | 5.83 | 6 | 0.85 | |
| DMA2-2 | 6.14 | 6 | 0.85 | |
| DMA2-3 | 6.17 | 6 | 0.85 | |
| | | | | 45.59 |

**Table 6-7 Option 2 LID Summary**

| Proposed - Option 2 - Statistics | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Volume |
| | Acres | Min | % | CF |
| DMA2-1 | 5.83 | 14 | 0.85 | 17,189 |
| DMA2-2 | 6.14 | 17 | 0.85 | 18,103 |
| DMA2-3 | 6.17 | 19 | 0.85 | 18,192 |
| LID Volume Proposed for Infiltration | | | | |

Based on the above, operation of the Project would not increase the peaks flows from the 10- year and 50-year storm events resulting from the proposed development

Based on the hydrology analysis, the Project (Option 1 or Option 2) would not result in on-site or off-site flooding, impact the capacity of the existing storm drain system or street conveyance system, or worsen an existing condition flood condition. In addition, the Project would not substantially reduce or increase the amount of surface water in the local waterbody, or result in a permanent adverse change in the drainage pattern that would result in an incremental effect on the capacity of the storm existing storm drain system. Therefore, operation of the Project would result in less than significant impact on surface water hydrology.

### *6.2.2 Surface Water Quality*

Stormwater runoff from the Project (Option 1 or Option 2) has the potential to discharge pollutants into the City and County storm drain systems. Anticipated pollutants and typical source areas include the following:

**Table 6-8 Potential Stormwater Pollutants and Sources**

| Pollutant Source | |
|---|---|
| Sediment (coarse and fine) | Parking lots, driveways, building rooftops, landscape areas, roads |
| Nutrients (dissolved and particulates) | Landscape areas, lawns |
| Pesticides | Landscape areas, lawns |
| Pathogens | Landscape areas, lawns, building rooftops, food serving areas |
| Trash/debris | Parking lots, driveways, roadways, parks |
| Oil/grease | Parking lots, driveways, roadways, food serving areas |
| Metals (dissolved and particulate) | Parking lots, driveways, roadways |

To meet the local MS4 Permit and LID requirements consistent with the City's LID Ordinance and LID Development BMP Handbook (May 2016), stormwater management strategies will be implemented throughout the Project Site. As noted in the existing conditions description, the existing site does not have any structural or LID BMPs to treat or infiltrate stormwater onsite. Therefore, implementation of the LID features proposed as part of the Project would result in a significant improvement in surface water quality runoff as compared to existing conditions. Water quality (LID) hydrologic calculations and 85th Percentile 24-hour Isohyetal (Rainfall) Map are included in Appendix B. See Section 5.2.2 for a detailed description of the BMP hierarchy that will be followed when determining the most appropriate LID BMPs to be designed as part of the Project.

Based on the proposed LID Plan to be submitted during the Final Design phases of the Project, operation of the Project would not result in discharges that would cause: (1) an incremental increase in pollution which would alter the quality of the waters of the State (Dominguez Channel) to a degree which unreasonably affects beneficial uses of the waters; (2) an incremental increase of contamination of the quality of the waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of diseases; or (3) an incremental increase in the nuisance that would injurious to health; affect an entire community or neighborhood, or any considerable numbers of persons; and occurs during or as a result of the treatment or disposal of wastes. Lastly, operation of the Project would not result in discharges that would cause regulatory standards to be violated in Dominguez Channel. Thus, operational impacts on surface water quality would be less than significant.

### *6.2.3 Groundwater Hydrology*

Under the proposed conditions, region and local potable water levels and adjacent wells or well fields will not be impacted by the Project. The post-developed Project does not include any groundwater pumping and relies on the local water purveyor for water. In addition, the Project is not anticipated to adversely change the rate of direction of flow of groundwater.

### *6.2.4 Groundwater Quality*

Operational activities which could affect groundwater quality include spills of hazardous materials and leaking underground storage tanks. Surface spills from the handling of hazardous materials most often involve small quantities and are cleaned up in a timely manner, thereby resulting in little threat to groundwater. Other types of risks such as leaking underground storage tanks have a greater potential to affect groundwater. There will be no proposed USTs that will be operated with the Project.

While the development of the new Project would comply with all applicable existing regulations at the Project Site, prevention methods will be enforced so the Project will not affect or expand any potential areas of contamination, increase the level of contamination, or cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations, Title 22, Division 4, Chapter 15 and the Safe Drinking Water Act. Furthermore, as described above, operation of the Project would not require extraction from the groundwater supply based on the depth of excavation for the proposed uses and the depth of groundwater below the Project Site. Additionally, the Project would include the installation of LID BMPs, which would mitigate at minimum the first flush or the equivalent of the greater between the 85th percentile storm and first 0.75-inch of rainfall for any storm event.

Operation of the Project will not require extraction from the groundwater supply. The Project does not include the installation or operation of water wells, or any extraction or recharge system that is in the vicinity of the coast, an area of known groundwater contamination or seawater intrusion, a municipal supply well or spreading ground facility. The Project does not include surface or subsurface application or introduction of potential contaminants or waste materials during construction or operation. The Project is not anticipated to result in releases or spills of contaminants that could reach a groundwater recharge area or spreading ground or otherwise reach groundwater through percolation.

Additionally, the Project would include the installation of structural BMPs as a means of pretreatment prior to infiltration or capture and use of the first flush or equivalent of the greater between the 85th percentile storm event and the first 0.75-inch of rainfall for any storm event, which would allow for treatment of runoff generated on-site prior to discharging to catch basins in the public right of way.

Based on the above, operation of the Project would result in a less than significant impact on groundwater quality.

## 6.3 CUMULATIVE IMPACTS

### *6.3.1 Surface Water Hydrology*

The regional geographic context for the cumulative impact analysis on surface water hydrology is the Dominguez Channel Watershed. The Project will reduce flows to these watersheds due to increased perviousness as compared to the existing conditions. BMPs will be implemented during the construction phase of the Project to ensure against erosion or negative impacts to surface water hydrology. As there

is sufficient capacity within Arbor Vitae to handle the proposed flows during the operational phase, there are no significant impacts to surface water hydrology anticipated.

#### *6.3.2 Surface Water Quality*

Future growth, including the related projects, in the Dominguez Channel Watershed would be subject to NPDES requirements relating to water quality for both construction and operation. The Project Site is located in a highly urbanized area, and it is anticipated that future development projects would also be subject to LID requirements. The Project would comply with all applicable laws, rules, and regulations, and therefore, the Project's cumulative impacts to surface water quality would be less than significant.

#### *6.3.3 Groundwater Hydrology*

Cumulative groundwater hydrology impacts could result from the overall utilization of groundwater basins located in proximity to the Project Site and the related projects. In addition, interruptions to existing injection or supply wells or designated spreading grounds would have the potential to affect groundwater levels. Any calculation of the extent to which the related projects would extract or otherwise directly utilize groundwater would be speculative. Nonetheless, to the extent existing injection or supply wells or designated spreading grounds are located within or near the related project sites, the related projects could adversely affect local and regional groundwater hydrology, including groundwater levels. In addition, the cumulative utilization of groundwater in the region, either as a result of water extraction under the related project sites or extraction from local basins by the local water supply agency to accommodate the related projects could also adversely affect local and regional groundwater hydrology. However, as described above, no water supply wells, spreading grounds, or injection wells are located within a one thousand foot radius of the Project Site. In addition, Project development would not involve the temporary or permanent extraction of groundwater from the Project Site or otherwise utilize the groundwater.

Development of the related projects could result in changes in impervious surface area within their respective project sites. Any calculation of the extent to which the related projects would increase or decrease impervious or pervious surfaces that might affect groundwater hydrology would be speculative. In addition, as the related projects are located in a highly urbanized area, any reduction in groundwater recharge due to the overall net change in impervious area within the related project sites would be minimal in the context of the regional groundwater basin. Additionally, as infiltration systems are designed to infiltrate only the greater of the 85th percentile storm and or the first 0.75-inch of rainfall for any storm event, the infiltration of stormwater as a means of stormwater treatment and management within the Project Site and related project sites would not result in a cumulative effect to groundwater hydrology. Based on the above, cumulative impacts to groundwater hydrology would be less than significant.

#### *6.3.4 Groundwater Quality*

Future growth in the Los Angeles Coastal Plain Santa Monica Subbasin would be subject to LA RWQCB requirements relating to groundwater quality. In addition, since the Project is located in a highly urbanized area, future land use changes or development are not likely to cause substantial changes in regional groundwater quality. As noted above, the Project does not have an adverse impact on groundwater quality. Also, it is anticipated that the Project and other future development projects would also be subject to LARWQCB requirements and implementation of measures to comply with total maximum daily loads. Therefore, since the Project does not have an adverse impact and through

compliance with all applicable laws, rules and regulations, cumulative impacts to groundwater quality would be less than significant.

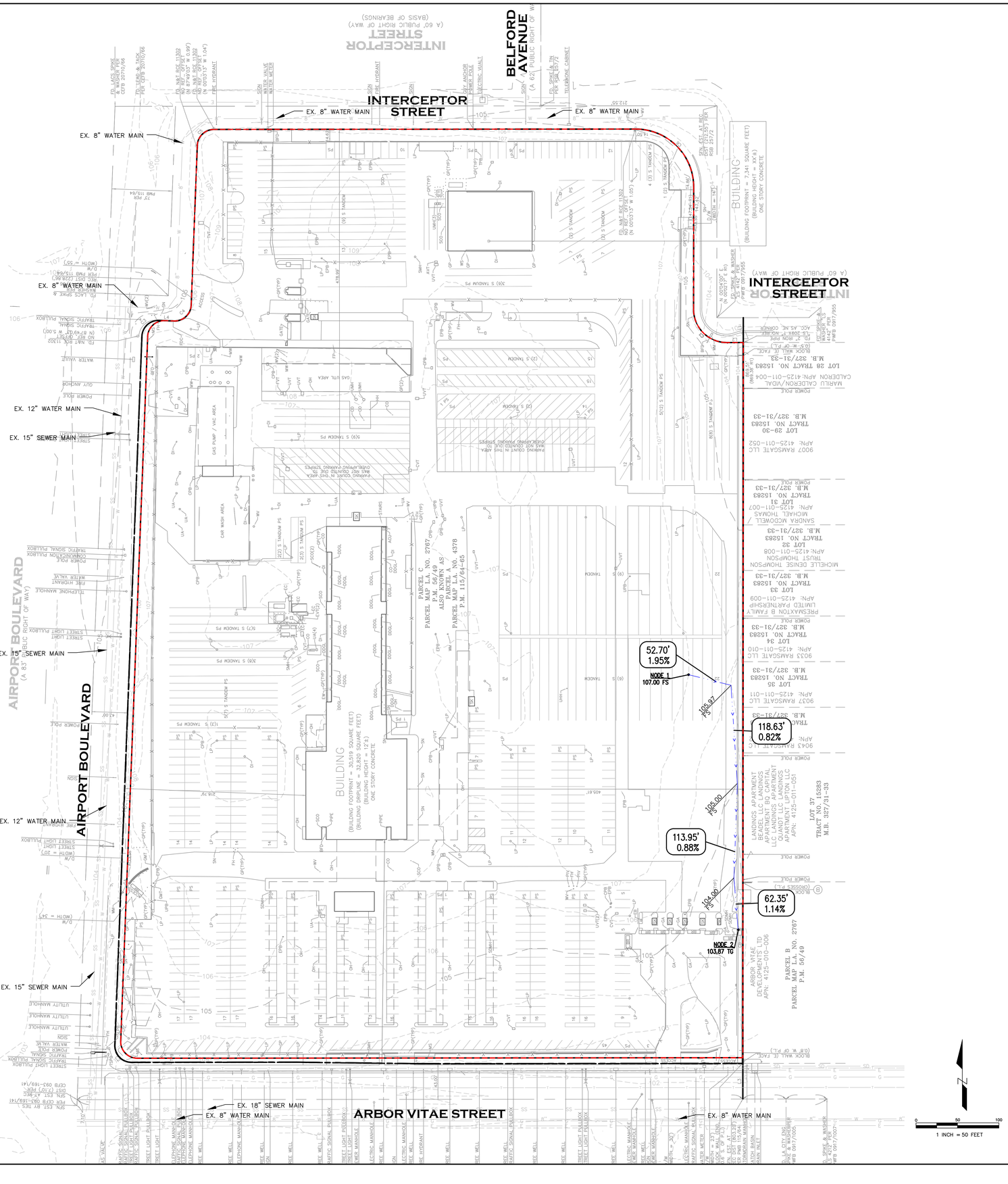
## 7. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report no significant impacts have been identified for surface water hydrology, surface water quality, or groundwater for this Project. An assessment of the LID hierarchy will be performed during final design as part of the Project's LID Plan to confirm the most appropriate BMP for the Project. Preliminary geotechnical results show that infiltration is likely feasible resulting from percolation rates. Detailed calculations and design will be included separately in the Project's LID Plan to be prepared during construction.

## 8. List of Attachments

ATTACHMENT 1. HYDROLOGY EXHIBITS
ATTACHMENT 2. MAPS AND REFERENCES
ATTACHMENT 3. EXISTING HYDROLOGIC RESULTS
ATTACHMENT 4. OPTION 1 HYDROLOGIC RESULTS
ATTACHMENT 5. OPTION 1 LID RESULTS
ATTACHMENT 6. OPTION 2 HYDROLOGIC RESULTS
ATTACHMENT 7. OPTION 2 LID RESULTS

## Attachment 1. Hydrology Exhibits







## SITE MAP

NOT TO SCALE

## LEGEND

DRAINAGE AREA BOUNDARY

EXISTING DRAINAGE PATH

EXISTING CONTOURS 100

189' — ℄ LENGTH
2.5% — ℄ SLOPE

DMA 1 — DMA NAME
15,250 SF — DMA AREA (SQUARE FEET)
0.35 AC — DMA AREA (ACRE)

| Existing Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 7 | 0.9 | 29.91 |

| Existing Conditions 50-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 6 | 0.9 | 45.6 |

| REV NO | DATE | REVISED | DESTROY ALL PRINTS BEARING EARLIER DATE | REV BY | CKD APPD BY |
|---|---|---|---|---|---|
| | | | | | |

Cannon
10842 Von Karman Avenue, Suite 150
Irvine, CA 92606
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CHECKED BY:

DATE 7-11-2023
SCALE 1" = 40'
CA JOB NO 230326

USE OF THESE PLANS AND ANY PRODUCT AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN THE SPECIFIED PROJECT AND SHALL NOT BE LOANED TO ANY THIRD PARTY WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

PROPOSED ONE STORY WAREHOUSE BUILDING

# EXISTING HYDROLOGY EXHIBIT

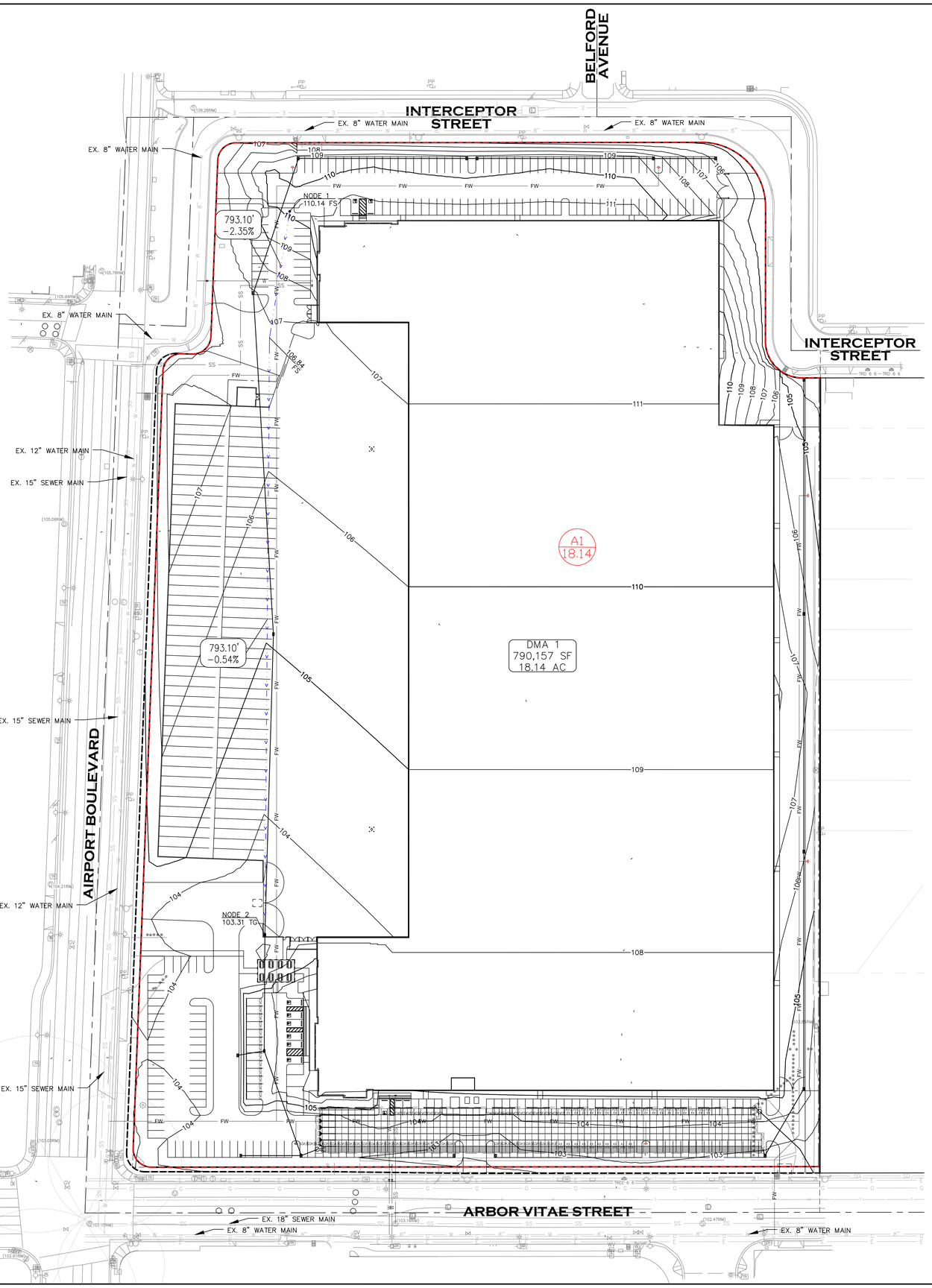
9000 SOUTH AIRPORT BLVD.

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## SITE MAP

NOT TO SCALE

| Proposed - Option 1 - Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 7 | 0.88 | 29.83 |
| Proposed - Option 1 -Conditions 50-year Storm Frequency | | | | |
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA 1 | 18.14 | 6 | 0.88 | 45.6 |
| Proposed - Option 1 - LID Statistics | | | | |
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Volume |
| | Acres | Min | % | CF |
| DMA 1 | 18.14 | 31 | 0.88 | 55,130 |
| LID Volume Proposed for Infiltration | | | | |

| Option 1 | | | |
|---|---|---|---|
| 10-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q10 (cfs) |
| 1-PRE | 18.14 | 90% | 29.83 |
| 1-POST | 18.14 | 88% | 29.83(MAX) |
| 50-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q50 (cfs) |
| 1-PRE | 18.14 | 90% | 45.6 |
| 1-POST | 18.14 | 88% | 45.6(MAX) |
| *Proposed flow will not exceed existing peak discharge | | | |

## LEGEND

A1 / 4.77 — AREA DESIGNATION / AREA (IN ACRES)

PROPERTY LINE

DRAINAGE AREA BOUNDARY

PROP. DRAINAGE PATH

PROPOSED CONTOURS 100

5 / 25 — INLET Q (CFS) / PIPE Q (CFS)

189' / 2.5% — ℄ LENGTH / ℄ SLOPE

DMA 1 / 15,250 SF / 0.35 AC — DMA NAME / DMA AREA (SQUARE FEET) / DMA AREA (ACRE)

WATER MAIN — W

SANITARY SEWER LINE — SS

STORM DRAIN LINE — SD

FIRE LINE — FW

| REV NO | DATE | REVISED | DRWG BY | CKD BY | APPD BY |
|---|---|---|---|---|---|
| | | DESTROY ALL PRINTS BEARING EARLIER DATE | | | |

Cannon
10842 Von Karman Avenue, Suite 150
Irvine, CA 92606
P 909.793.8111 F 909.793.0775

| DRAWN BY: CP | DATE 2/6/2024 | CA JOB NO. 230326 |
|---|---|---|
| CHECKED BY | SCALE AS SHOWN | |

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PROPOSED ONE STORY WAREHOUSE BUILDING

# HYDROLOGY EXHIBIT (1) BUILDING

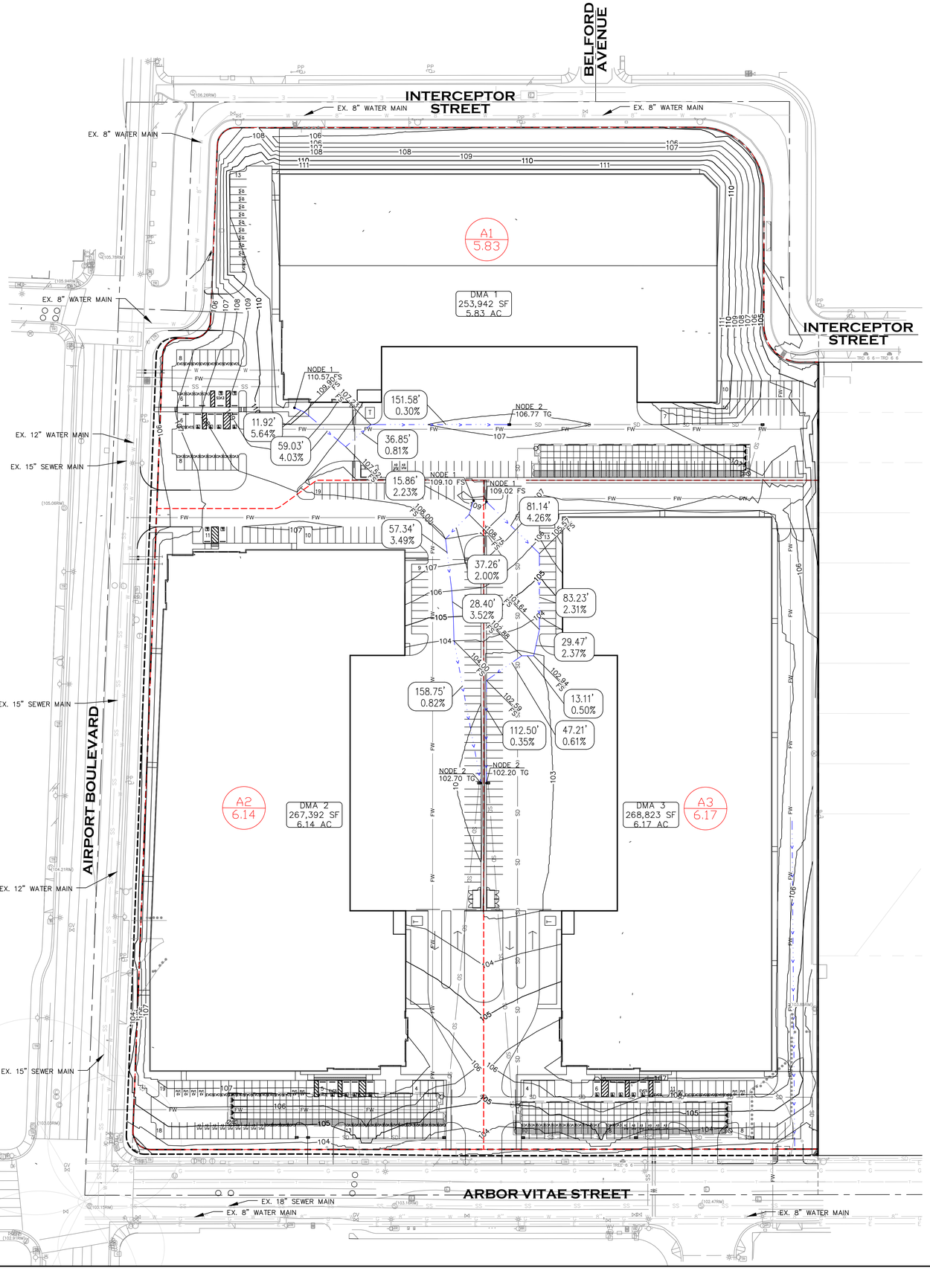
9000 SOUTH AIRPORT BLVD.

LOS ANGELES, CA

SHEET

HX-1

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## SITE MAP

NOT TO SCALE

## LEGEND

A1 / 4.77 — AREA DESIGNATION / AREA (IN ACRES)

PROPERTY LINE

DRAINAGE AREA BOUNDARY

PROP. DRAINAGE PATH

PROPOSED CONTOURS 100

MULT Q (CFS) / PIPE Q (CFS)

189' / 2.5% — % LENGTH / % SLOPE

DMA 1 / 15,250 SF / 0.35 AC — DMA NAME / DMA AREA (SQUARE FEET) / DMA AREA (ACRE)

WATER MAIN — W

SANITARY SEWER LINE — SS

STORM DRAIN LINE — SD

FIRE LINE — FW

| Proposed - Option 2 - Conditions 10-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q10 (cfs) |
| | Acres | Min | % | cfs |
| DMA2-1 | 5.83 | 7 | 0.85 | |
| DMA2-2 | 6.14 | 7 | 0.85 | |
| DMA2-3 | 6.17 | 7 | 0.85 | |
| | | | | 29.71 |

| Proposed - Option 2 - Conditions 50-year Storm Frequency | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Q50 (cfs) |
| | Acres | Min | % | cfs |
| DMA2-1 | 5.83 | 6 | 0.85 | |
| DMA2-2 | 6.14 | 6 | 0.85 | |
| DMA2-3 | 6.17 | 6 | 0.85 | |
| | | | | 45.59 |

| Proposed - Option 2 - Statistics | | | | |
|---|---|---|---|---|
| Drainage Sub Area | Area | Time of Concentration | Imperviousness | Volume |
| | Acres | Min | % | CF |
| DMA2-1 | 5.83 | 14 | 0.85 | 17,189 |
| DMA2-2 | 6.14 | 17 | 0.85 | 18,103 |
| DMA2-3 | 6.17 | 19 | 0.85 | 18,192 |
| LID Volume Proposed for Infiltration | | | | |

| Option 2 | | | |
|---|---|---|---|
| 10-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q10 (cfs) |
| 2-PRE | 18.14 | 90% | 29.71 |
| 2-POST | 18.14 | 85% | 29.71(MAX) |
| 50-Year Storm Event | | | |
| Area | Acreage | % Impeviousness | Q50 (cfs) |
| 2-PRE | 18.14 | 90% | 45.59 |
| 2-POST | 18.14 | 85% | 45.59(MAX) |
| *Proposed flow will not exceed existing peak discharge | | | |

N

0 50 100

1 INCH = 50 FEET

Know what's below. Call before you dig.

| REV NO | DATE | REVISED | DESTROY ALL PRINTS BEARING EARLIER DATE | REV. BY | CKD. BY | APPD. BY |
|---|---|---|---|---|---|---|
| | | | | | | |

Cannon
10842 Von Karman Avenue, Suite 150
Irvine, CA 92606
P 909.793.8111 F 909.793.0775

DRAWN BY: JR
CHECKED BY:

DATE: 7-11-2023
SCALE: 1" = 40'
CA JOB NO. 230326

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PROPOSED ONE STORY WAREHOUSE BUILDING

# HYDROLOGY EXHIBIT (3) BUILDING

9000 SOUTH AIRPORT BLVD.

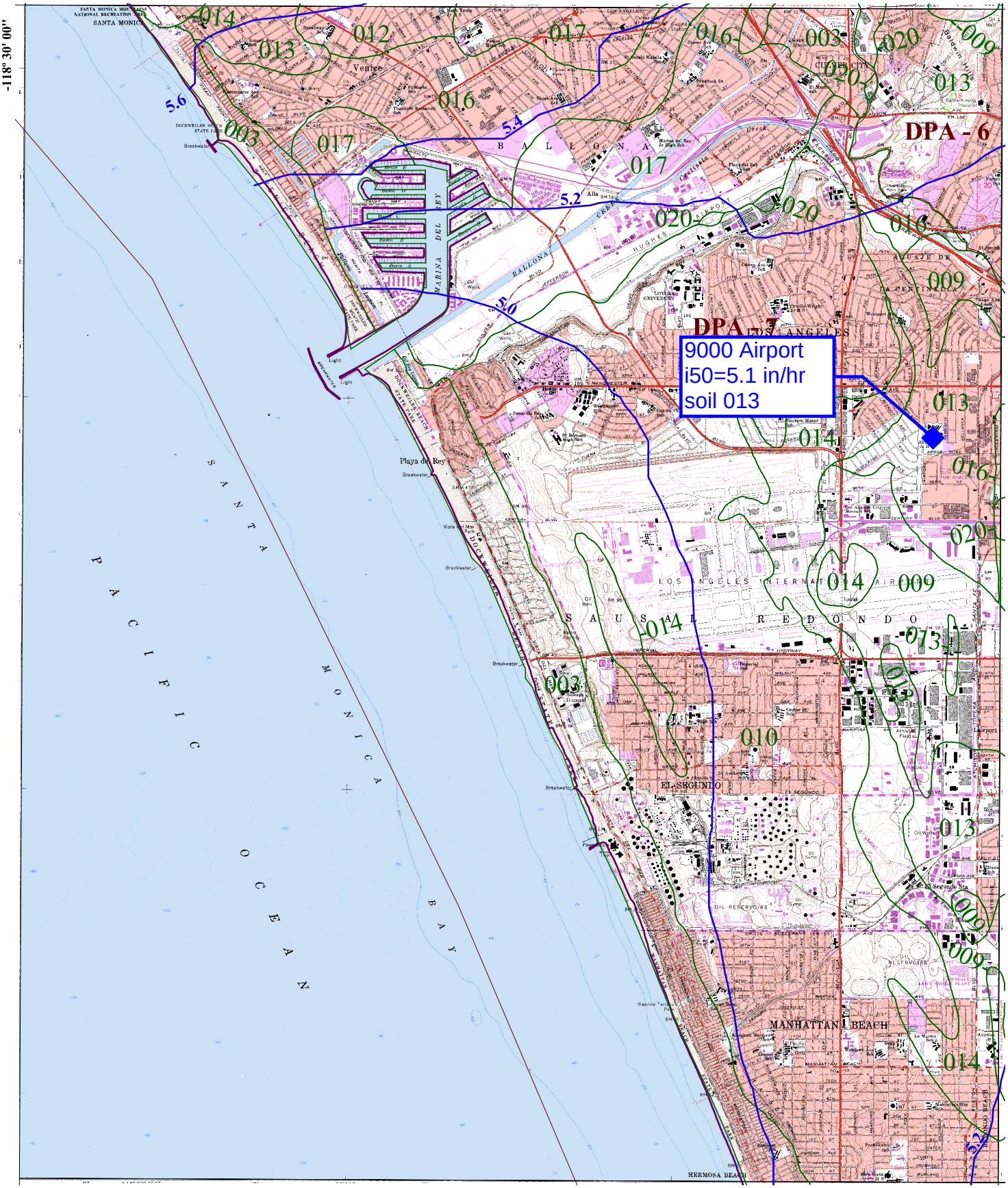
LOS ANGELES, CA

SHEET

HX-2

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## Attachment 2. Maps and References




016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

N W E S

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878

10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

# V E N I C E

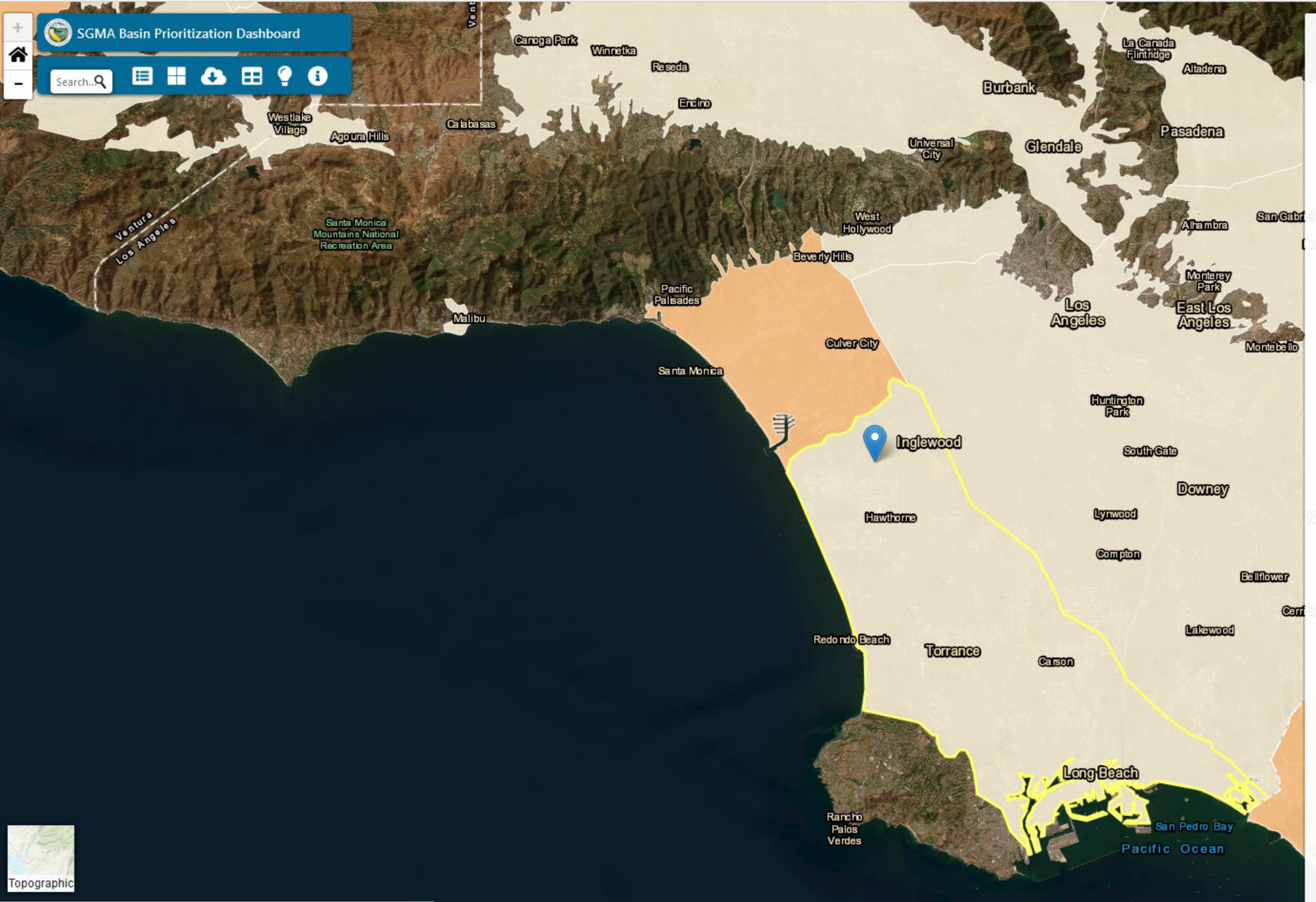
# 50-YEAR 24-HOUR ISOHYET

1-H1.7

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

# Los Angeles Regional Water Quality Control Board
## Watersheds, Lakes, and Rivers






## Basin Priority Details

COASTAL PLAIN OF LOS ANGELES - WEST COAST (4-011.03)

**Phase 1 (FINAL)**

Very Low 0 Priority Points

| Component 1 - Population | |
|---|---|
| Population (2010) | 1,196,091 |
| Pop / mi² | 8,231 |
| C1 Priority Points | 5 |

| Component 2 - Population Growth | |
|---|---|
| Population (2030) | 1,274,424 |
| Pop Growth | 7% |
| C2 Priority Points | 2 |

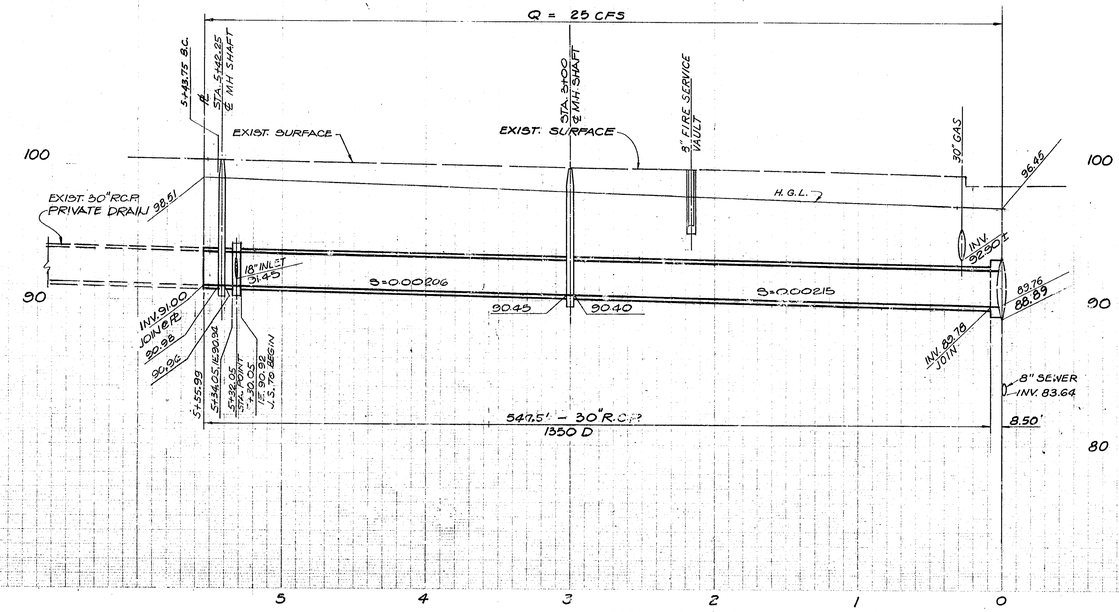
| Component 3 - Public Supply Wells | |
|---|---|
| Public Supply Wells | 36 |
| PSW / mi² | 0.24 |
| C3 Priority Points | 2 |

| Component 4 - Total Wells | |
|---|---|
| Total Wells | 1,672 |
| Wells / mi² | 11.5 |
| C4 Priority Points | 4 |

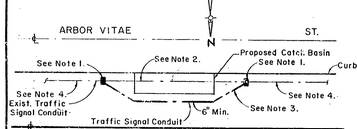
| Component 5 - Irrigated Acres | |
|---|---|
| Irrigated Acres | 0 |
| Irr. Acres / mi² | 0 |

SCALE IN METERS
MICROFILM
SCALE IN FEET
CITY OF LOS ANGELES

D-51510




SCALE: HOR. 1"=40'
VER. 1"=4'




DETAIL "A" (no scale)

NOTES:

1. Install Type 2 pullbox and splice conductors.
2. Remove interfering portion of Traffic Signal Conduit.
3. Install 1½" Traffic Signal Conduit and 7-№14 wires.
4. Reuse existing conduit & wires.

## HERTZ PROPERTY

PARCEL A
PARCEL MAP L.A.No.4878, FILED WITH LOS ANGELES Co. RECORDER, AUG. 10, 1979 BOOK 115, PAGE 65, SHEET 1 & 2 OF 2
ADDRESS: 9000 AIRPORT BLVD. L.A.

AKA 9000 Airport

HERTZ PROPERTY

℄ MH SHAFT 5+81.35
EC. 5+79.10
JOIN EX. S.D. @ P.

EXIST. 5'0" RCP STORM DRAIN

### CURVE DATA

Δ = 31° 10' 44"
R = 22.5'
T = 6.29'
L = 12.24'

JUNCTION STRUCTURE "C" PER STD. PLAN S-303-0
A=90°, B=18", C=45°, D=30"
E=2'; L=4'
ELEV. R=92.15; ELEV. S=91.95'

CATCH BASIN PER L.A. CITY STD. PLAN S-351-0 WITH MONOLITHIC CONN. PER STD. PLAN S-331-0 FOR LATERAL CONNECTION
W=1'-0", V=7.27

TRAFFIC CONDUIT, 11'± S.N.
TEL. (GMTD), 5½" S.N.
SEE DETAIL "A" FOR RELOCATION OF T.S. CONDUIT

WATER SERVICE VAULT TO BE SUPPORTED DURING TRENCH EXCAVATION

### CURVE DATA

Δ = 26°00'00"
R = 22.50'
T = 5.19'
L = 10.21'

375'
UTILITY EASEMENT LINES
℄ EXIST. 51" RCP PER LACFCD DWG. No. 181-113-D1.9 PROJECT No. 113
8" SEWER
PROTECT T.S. CONDUIT
EXIST. C.B.
℄ EXIST. 60" RCP PER LACFCD DWG. No. 181-113-D1.9 PROJECT No. 113

30" GAS, 15.5' S.N.

EC. 0+57.29
BC. 0+47.08

EXIST. CURB & GUTTER
℄ C.B. 5+32.03
CONC. WARPED GUTTER PER STD. PLAN S-310-0 CASE 1.
STA. 5+00 ℄ M.H. SHAFT TYPE EZ PER CITY STD. PLAN B-1532 OFFSET ℄ M.H. 6" ℄ TO NORTH
8" WATER
EXIST. M.H.
ARBOR VITAE ST.
ALLEY
TEL (2-3½ TRD)
4" GAS, 16' N.S.
TEL. (BU. CAB.)
15" SEWER 30' N/S
36" SEWER (ABANDONED)
8" WATER, 18' N.S.
STA. 5+42.25 ℄ M.H. SHAFT TYPE EZ PER CITY STD. PLAN B-1532 OFFSET ℄ M.H. EZ 6" to NORTH
96.98'

### J.S. No. 2

A = 30°
B = 30"
C = 8'-6"
D = 51"
EL. R = 89.78
EL. S = 89.70

EXIST. FENCE
EXIST. CONC. SIDEWALK TO BE REMOVED TO NEAREST SCORE LINE. REPLACE WITH 3" CONC. ON 4" S.N.B.
12'-0"
15'
3.25'
99.42 T.C.
CURB & GUTTER
℄ GAS LINE
11'±
5.5'
TEL LINE CONDUIT (G MOUNTED)
94.72± BOT. EL.
92.16
TRAFFIC CONTROL CONDUIT TO BE RELOCATED
91.46
30" ϕ RCP
TO BE SUPPORTED DURING TRENCH EXCAVATION.
MONOLITHIC CONNECTION FOR LATERAL

## SECTION A-A

SCALE: HORIZ. 1"=4'
VERT. 1"=4'

N

40 0 40 80
1 IN = 40 FT.

**VOLUNTARY IMPROVEMENT:**
ARBOR VITAE ST. APPROX. 970 FT. E/O TO 400 FT. E/O AIRPORT BLVD. (S.D.)

CHECKING & CONSTRUCTION PERMIT No. B-8987

NOTE:

40 HOURS PRIOR TO EXCAVATION NOTIFY:
1. SOUTHERN CALIFORNIA GAS COMPANY
8141 GULANA AVENUE
PLAYA DEL REY, CALIFORNIA 90291
PHONE (213) 823-7945
2. PACIFIC TEL. CO. PHONE 1-800-422-4133

PLANS PREPARED BY:
DANIEL, MANN, JOHNSON, AND MENDENHALL
3250 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA 90010
TELEPHONE: 213/381-3663
PLANNING, ENGINEERING SYSTEMS

| | DATE |
|---|---|
| DESIGNED PVT. ENG. | 8/7/80 |
| DRAWN PVT. ENG. | 8/7/80 |
| CHECKED M. Hinds | 4-27-81 |
| SUPERVISED M. Collins | 4-27-81 |
| PROJECT ENGR. Mathew Schweiger | R.E. NO. 21945 |
| ASST. DIV./DIST ENGR. | R.E. NO. |

REGISTERED PROFESSIONAL ENGINEER No. 21945 CIVIL STATE OF CALIFORNIA

| NO. | REVISION DESCRIPTION | DRAFTSMANSHIP ENGR. | DATE |
|---|---|---|---|

CITY OF LOS ANGELES
DONALD C. TILLMAN CITY ENGINEER

DATE April 17, 1981
DIV./DIST. ENGR. R.E. NO.

L.A.C.E. INDEX | SCALES: HORIZ. 1"=40' VERT. 1"=4' | SHEET 2 OF 2 | INDEX NUMBER D-27210

ENG. 6.300 (R 4-77)

I certify that this image is a correct copy of a record of the City of Los Angeles filmed under my direction and control and in accordance with the provisions of Charter Section 434 and California Government Code Section 34090.5.
CERTIFICATION
Microfilm Unit
Bureau of Engineering
4-27-81 Date

## Attachment 3. Existing Hydrologic Results

# Peak Flow Hydrologic Analysis

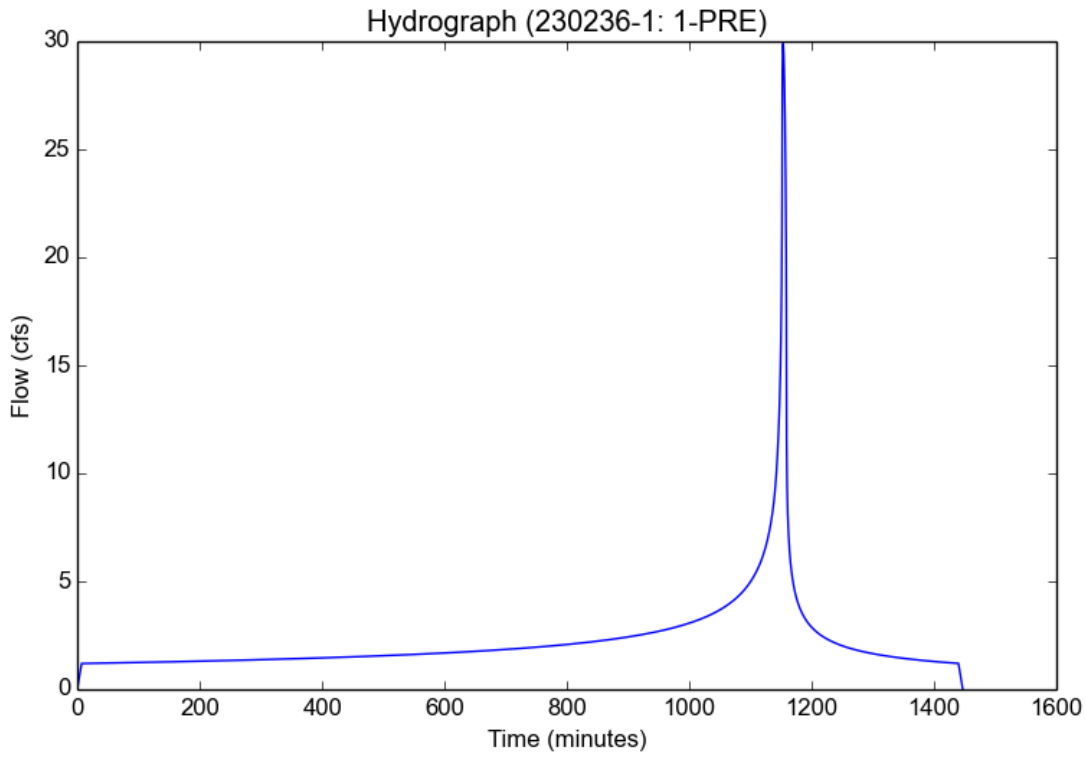
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 1-PRE |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.9 |
| Soil Type | 13 |
| Design Storm Frequency | 10-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (10-yr) Rainfall Depth (in) | 3.6414 |
| Peak Intensity (in/hr) | 1.8548 |
| Undeveloped Runoff Coefficient (Cu) | 0.7883 |
| Developed Runoff Coefficient (Cd) | 0.8888 |
| Time of Concentration (min) | 7.0 |
| Clear Peak Flow Rate (cfs) | 29.9052 |
| Burned Peak Flow Rate (cfs) | 29.9052 |
| 24-Hr Clear Runoff Volume (ac-ft) | 4.5022 |
| 24-Hr Clear Runoff Volume (cu-ft) | 196117.3744 |



# Peak Flow Hydrologic Analysis

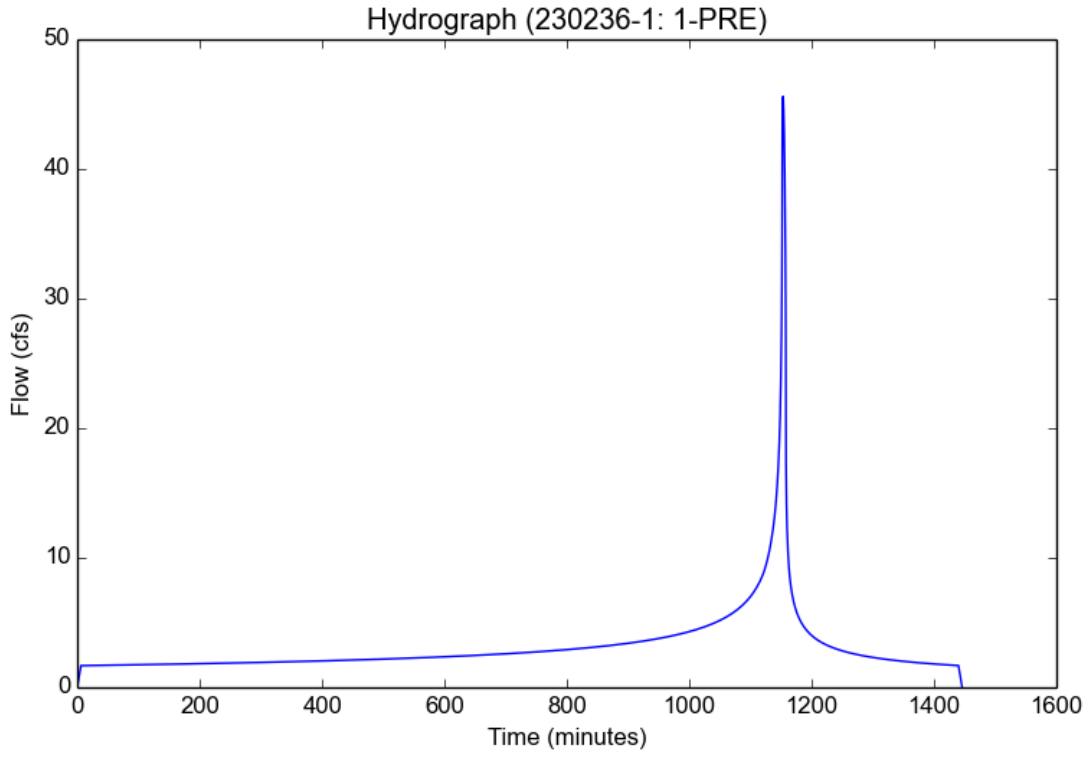
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 1-PRE |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.9 |
| Soil Type | 13 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 5.1 |
| Peak Intensity (in/hr) | 2.7929 |
| Undeveloped Runoff Coefficient (Cu) | 0.9 |
| Developed Runoff Coefficient (Cd) | 0.9 |
| Time of Concentration (min) | 6.0 |
| Clear Peak Flow Rate (cfs) | 45.5972 |
| Burned Peak Flow Rate (cfs) | 45.5972 |
| 24-Hr Clear Runoff Volume (ac-ft) | 6.3237 |
| 24-Hr Clear Runoff Volume (cu-ft) | 275458.4049 |



# Peak Flow Hydrologic Analysis

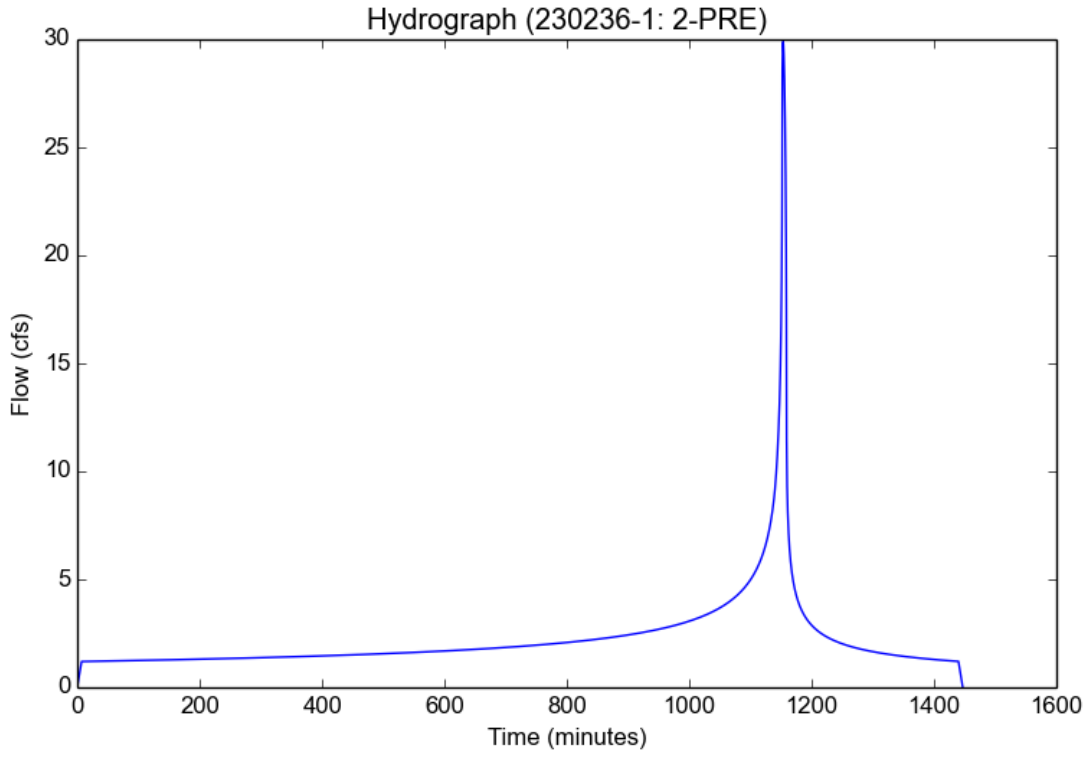
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 2-PRE |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.9 |
| Soil Type | 13 |
| Design Storm Frequency | 10-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (10-yr) Rainfall Depth (in) | 3.6414 |
| Peak Intensity (in/hr) | 1.8548 |
| Undeveloped Runoff Coefficient (Cu) | 0.7883 |
| Developed Runoff Coefficient (Cd) | 0.8888 |
| Time of Concentration (min) | 7.0 |
| Clear Peak Flow Rate (cfs) | 29.9052 |
| Burned Peak Flow Rate (cfs) | 29.9052 |
| 24-Hr Clear Runoff Volume (ac-ft) | 4.5022 |
| 24-Hr Clear Runoff Volume (cu-ft) | 196117.3744 |



# Peak Flow Hydrologic Analysis

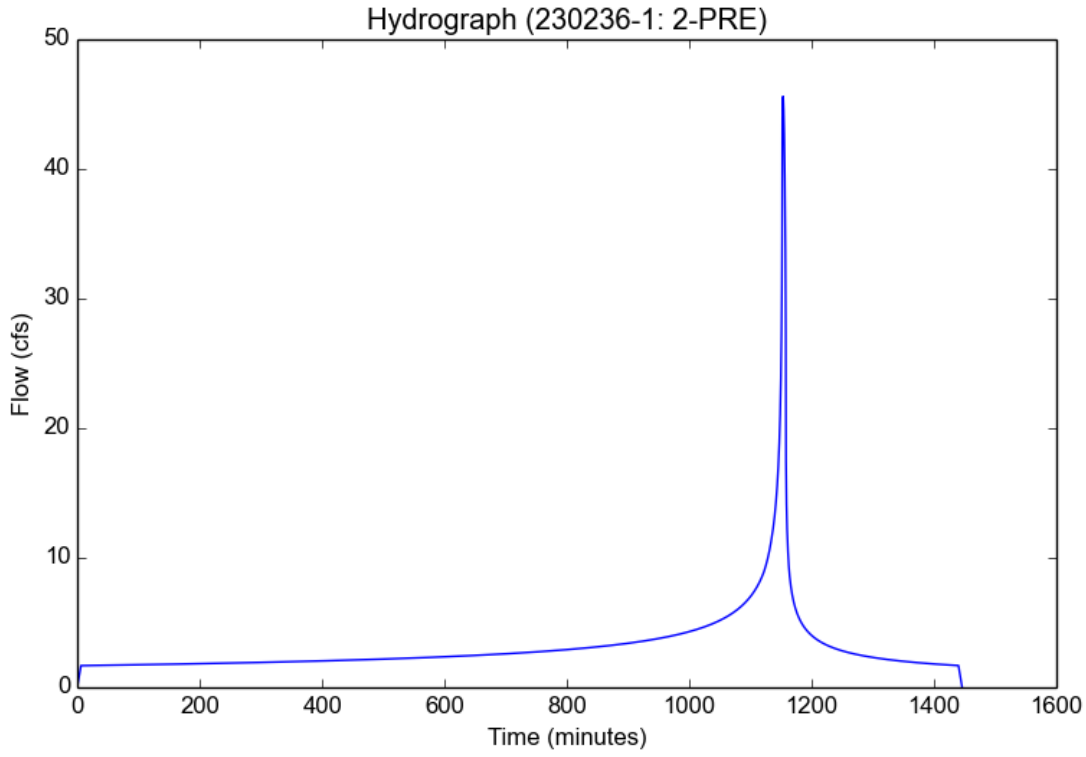
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 2-PRE |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.9 |
| Soil Type | 13 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 5.1 |
| Peak Intensity (in/hr) | 2.7929 |
| Undeveloped Runoff Coefficient (Cu) | 0.9 |
| Developed Runoff Coefficient (Cd) | 0.9 |
| Time of Concentration (min) | 6.0 |
| Clear Peak Flow Rate (cfs) | 45.5972 |
| Burned Peak Flow Rate (cfs) | 45.5972 |
| 24-Hr Clear Runoff Volume (ac-ft) | 6.3237 |
| 24-Hr Clear Runoff Volume (cu-ft) | 275458.4049 |



## Attachment 4. Option 1 Hydrologic Results

# Peak Flow Hydrologic Analysis

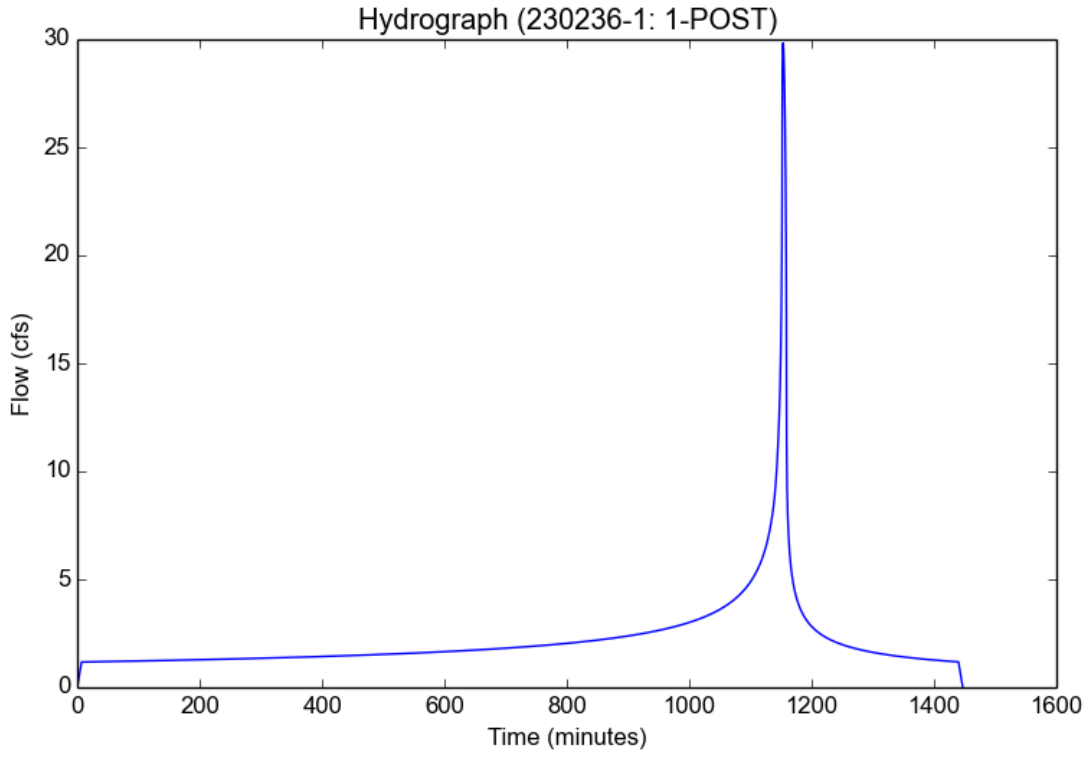
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 1-POST |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.88 |
| Soil Type | 13 |
| Design Storm Frequency | 10-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (10-yr) Rainfall Depth (in) | 3.6414 |
| Peak Intensity (in/hr) | 1.8548 |
| Undeveloped Runoff Coefficient (Cu) | 0.7883 |
| Developed Runoff Coefficient (Cd) | 0.8866 |
| Time of Concentration (min) | 7.0 |
| Clear Peak Flow Rate (cfs) | 29.8301 |
| Burned Peak Flow Rate (cfs) | 29.8301 |
| 24-Hr Clear Runoff Volume (ac-ft) | 4.42 |
| 24-Hr Clear Runoff Volume (cu-ft) | 192537.1856 |



# Peak Flow Hydrologic Analysis

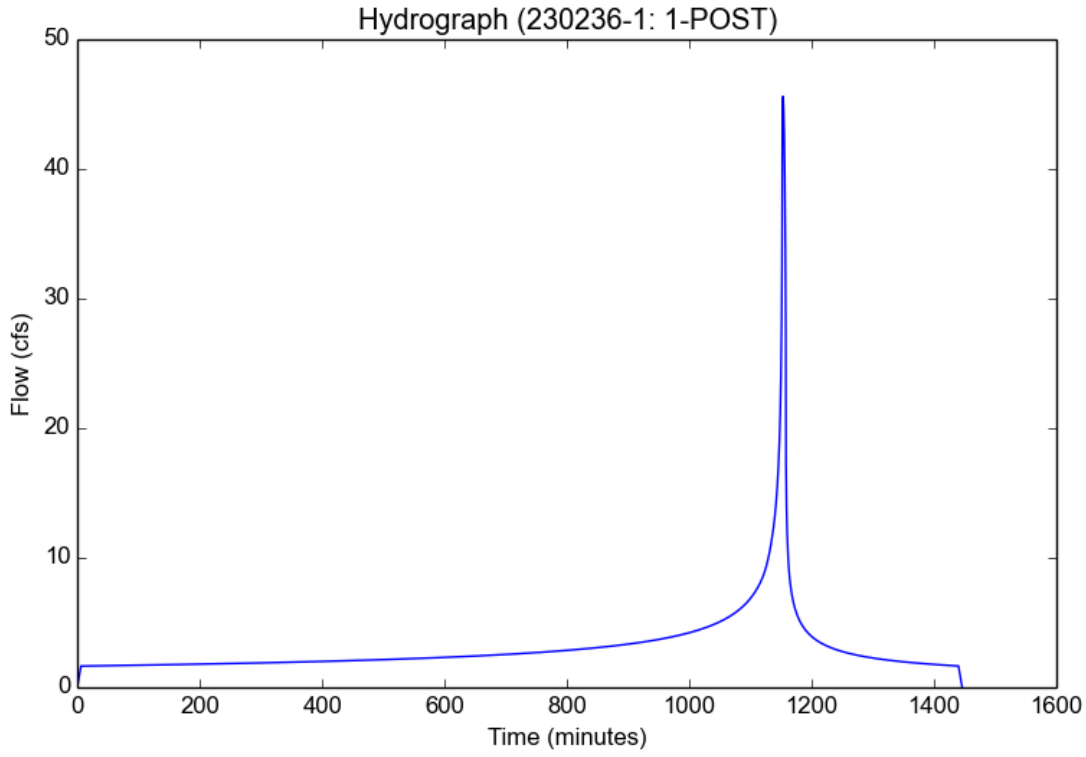
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 1-POST |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.88 |
| Soil Type | 13 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 5.1 |
| Peak Intensity (in/hr) | 2.7929 |
| Undeveloped Runoff Coefficient (Cu) | 0.9 |
| Developed Runoff Coefficient (Cd) | 0.9 |
| Time of Concentration (min) | 6.0 |
| Clear Peak Flow Rate (cfs) | 45.5972 |
| Burned Peak Flow Rate (cfs) | 45.5972 |
| 24-Hr Clear Runoff Volume (ac-ft) | 6.2121 |
| 24-Hr Clear Runoff Volume (cu-ft) | 270600.9868 |



## Attachment 5. Option 1 LID results

# Peak Flow Hydrologic Analysis

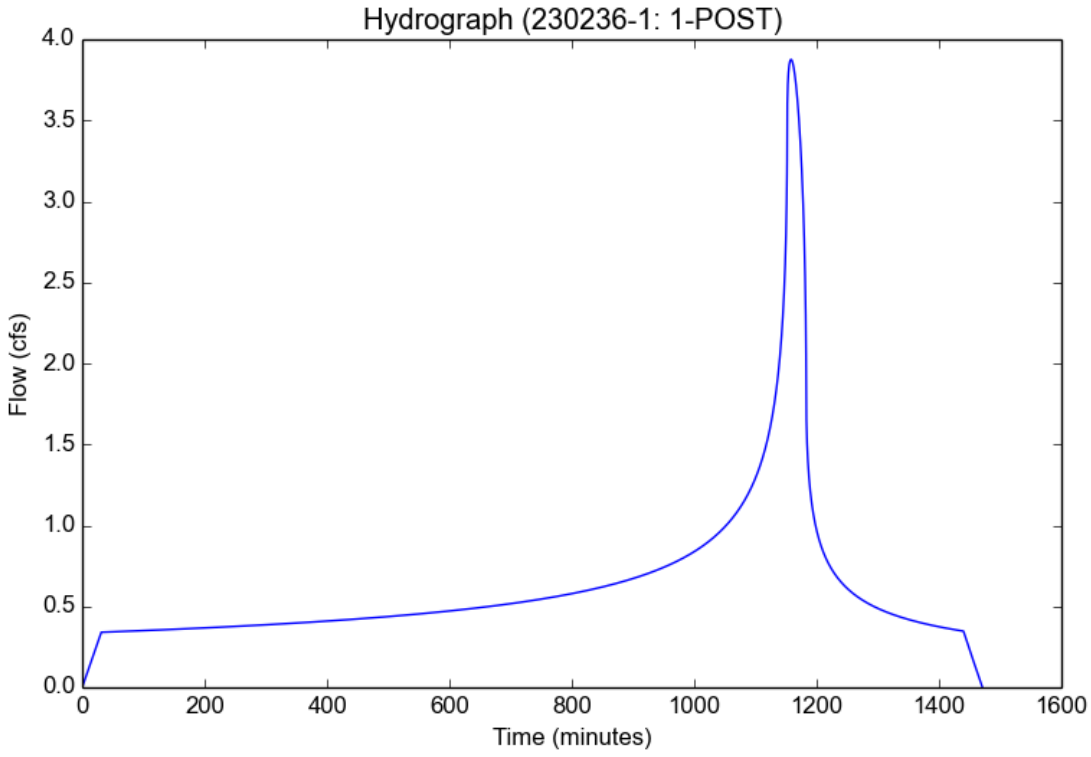
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 1-POST |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 793.1 |
| Flow Path Slope (vft/hft) | 0.014 |
| 85th Percentile Rainfall Depth (in) | 1.05 |
| Percent Impervious | 0.88 |
| Soil Type | 13 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.05 |
| Peak Intensity (in/hr) | 0.2657 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.804 |
| Time of Concentration (min) | 31.0 |
| Clear Peak Flow Rate (cfs) | 3.8758 |
| Burned Peak Flow Rate (cfs) | 3.8758 |
| 24-Hr Clear Runoff Volume (ac-ft) | 1.2656 |
| 24-Hr Clear Runoff Volume (cu-ft) | 55130.3131 |



## Attachment 6. Option 2 Hydrologic Results

# Peak Flow Hydrologic Analysis

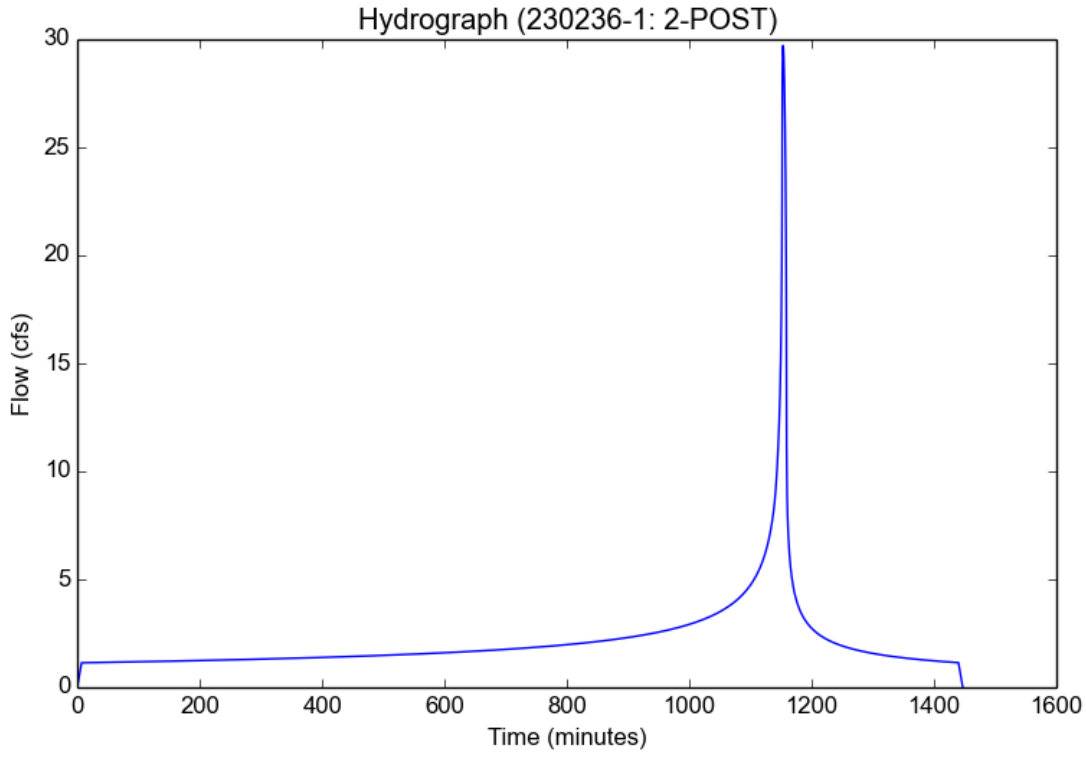
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 2-POST |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.85 |
| Soil Type | 13 |
| Design Storm Frequency | 10-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (10-yr) Rainfall Depth (in) | 3.6414 |
| Peak Intensity (in/hr) | 1.8548 |
| Undeveloped Runoff Coefficient (Cu) | 0.7883 |
| Developed Runoff Coefficient (Cd) | 0.8832 |
| Time of Concentration (min) | 7.0 |
| Clear Peak Flow Rate (cfs) | 29.7173 |
| Burned Peak Flow Rate (cfs) | 29.7173 |
| 24-Hr Clear Runoff Volume (ac-ft) | 4.2968 |
| 24-Hr Clear Runoff Volume (cu-ft) | 187166.9023 |



# Peak Flow Hydrologic Analysis

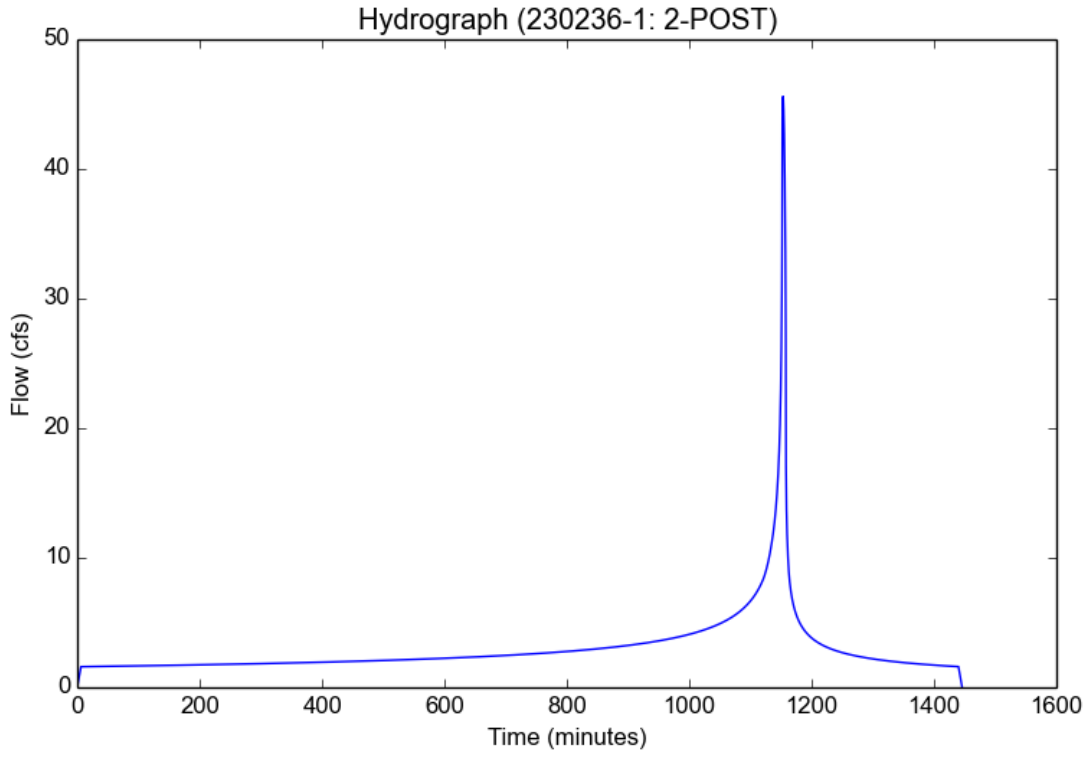
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-1 |
| Subarea ID | 2-POST |
| Area (ac) | 18.14 |
| Flow Path Length (ft) | 347.63 |
| Flow Path Slope (vft/hft) | 0.012 |
| 50-yr Rainfall Depth (in) | 5.1 |
| Percent Impervious | 0.85 |
| Soil Type | 13 |
| Design Storm Frequency | 50-yr |
| Fire Factor | 0 |
| LID | False |

## Output Results

| | |
|---|---|
| Modeled (50-yr) Rainfall Depth (in) | 5.1 |
| Peak Intensity (in/hr) | 2.7929 |
| Undeveloped Runoff Coefficient (Cu) | 0.9 |
| Developed Runoff Coefficient (Cd) | 0.9 |
| Time of Concentration (min) | 6.0 |
| Clear Peak Flow Rate (cfs) | 45.5972 |
| Burned Peak Flow Rate (cfs) | 45.5972 |
| 24-Hr Clear Runoff Volume (ac-ft) | 6.0449 |
| 24-Hr Clear Runoff Volume (cu-ft) | 263314.8596 |



## Attachment 7. Option 2 LID Results

# Peak Flow Hydrologic Analysis

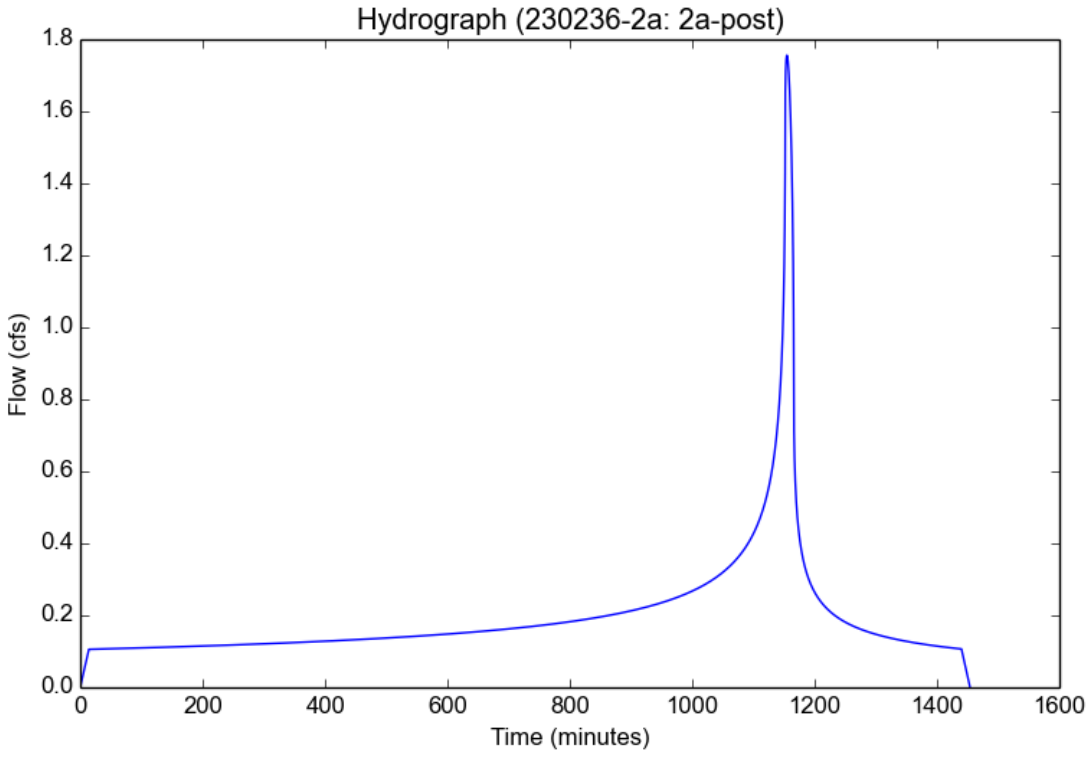
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-2a |
| Subarea ID | 2a-post |
| Area (ac) | 5.83 |
| Flow Path Length (ft) | 259.39 |
| Flow Path Slope (vft/hft) | 0.027 |
| 85th Percentile Rainfall Depth (in) | 1.05 |
| Percent Impervious | 0.85 |
| Soil Type | 13 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.05 |
| Peak Intensity (in/hr) | 0.3861 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.78 |
| Time of Concentration (min) | 14.0 |
| Clear Peak Flow Rate (cfs) | 1.7559 |
| Burned Peak Flow Rate (cfs) | 1.7559 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.3946 |
| 24-Hr Clear Runoff Volume (cu-ft) | 17189.2145 |



# Peak Flow Hydrologic Analysis

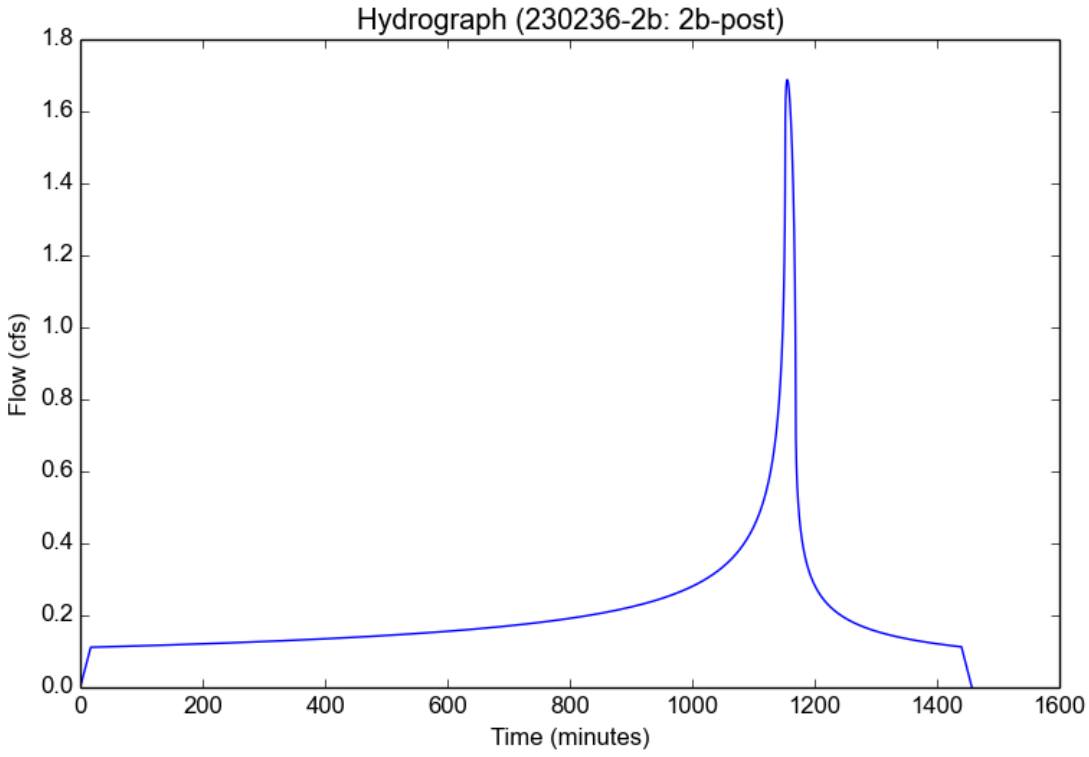
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-2b |
| Subarea ID | 2b-post |
| Area (ac) | 6.14 |
| Flow Path Length (ft) | 324.01 |
| Flow Path Slope (vft/hft) | 0.021 |
| 85th Percentile Rainfall Depth (in) | 1.05 |
| Percent Impervious | 0.85 |
| Soil Type | 13 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.05 |
| Peak Intensity (in/hr) | 0.3524 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.78 |
| Time of Concentration (min) | 17.0 |
| Clear Peak Flow Rate (cfs) | 1.688 |
| Burned Peak Flow Rate (cfs) | 1.688 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.4156 |
| 24-Hr Clear Runoff Volume (cu-ft) | 18103.2422 |



# Peak Flow Hydrologic Analysis

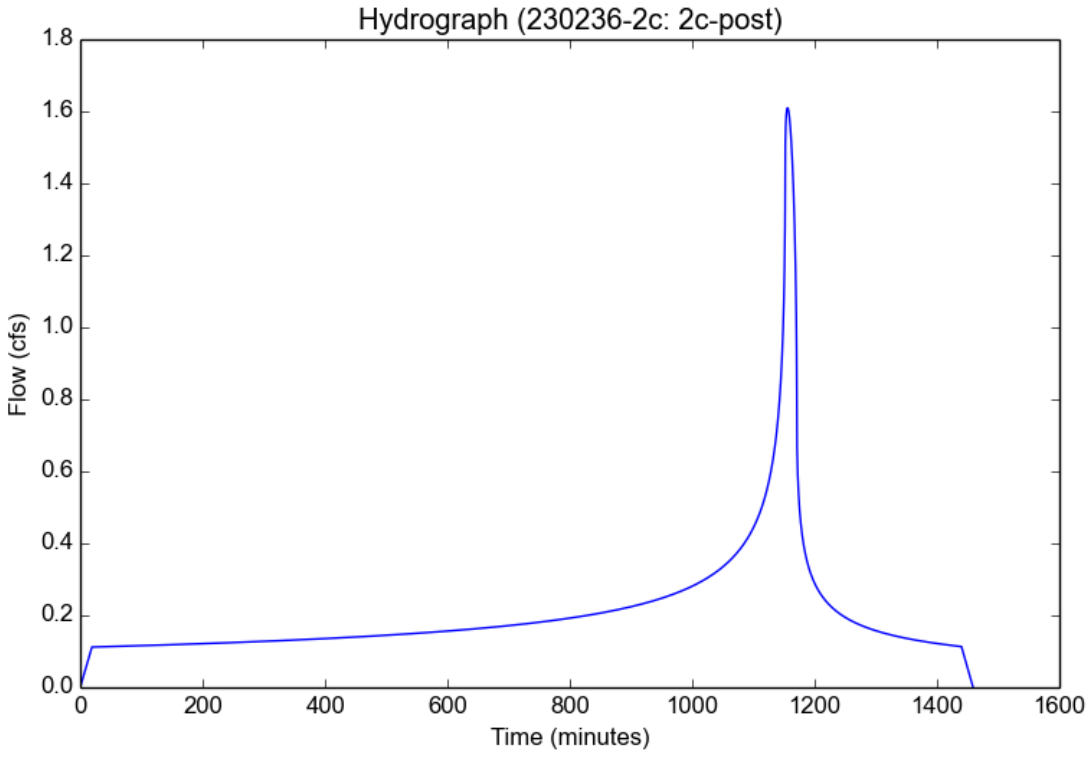
File location: //cannonassoc.com/dfsroot1/Public/proj/2023/230326/3 Project Design/Civil/HH/04 Calcs/230236-1 Report.pdf
Version: HydroCalc 1.0.3

## Input Parameters

| | |
|---|---|
| Project Name | 230236-2c |
| Subarea ID | 2c-post |
| Area (ac) | 6.17 |
| Flow Path Length (ft) | 366.66 |
| Flow Path Slope (vft/hft) | 0.017 |
| 85th Percentile Rainfall Depth (in) | 1.05 |
| Percent Impervious | 0.85 |
| Soil Type | 13 |
| Design Storm Frequency | 85th percentile storm |
| Fire Factor | 0 |
| LID | True |

## Output Results

| | |
|---|---|
| Modeled (85th percentile storm) Rainfall Depth (in) | 1.05 |
| Peak Intensity (in/hr) | 0.3345 |
| Undeveloped Runoff Coefficient (Cu) | 0.1 |
| Developed Runoff Coefficient (Cd) | 0.78 |
| Time of Concentration (min) | 19.0 |
| Clear Peak Flow Rate (cfs) | 1.6098 |
| Burned Peak Flow Rate (cfs) | 1.6098 |
| 24-Hr Clear Runoff Volume (ac-ft) | 0.4176 |
| 24-Hr Clear Runoff Volume (cu-ft) | 18191.7112 |



# Appendix IS-5

LAFD Service Response Letter

FORM. GEN. 160 (Rev. 6-80)

**CITY OF LOS ANGELES**
INTER-DEPARTMENTAL CORRESPONDENCE

May 20, 2024

**TO:** Vincent Bertoni, AICP, Director of Planning
Department of City Planning
Attn: Tamar Gharibian

**FROM:** Los Angeles Fire Department

**SUBJECT: Notice of Completion**

| | |
|---|---|
| **CASE NO.:** | ENV-2023-6757-EIR |
| **PROJECT NAME:** | 9000 Airport Blvd Project |
| **PROJECT APPLICANT:** | Eyestone Environmental |
| **PROJECT ADDRESS:** | 9000 s Airport Blvd (Arbor Vitae, Interceptor)<br>Los Angeles, CA 90045 |

**PROJECT DESCRIPTION:**

As shown in the Project Location Map and Aerial Photograph of the Project Site and Vicinity included as Attachment 1 and Attachment 2, respectively, the Project Site is located at 9000, 9100, 9150, and 9160 South Airport Boulevard; 5801, 5855, and 5881 West Arbor Vitae Street; 5820, 5880, 8940, 8941, and 9000 South Interceptor Street within the Westchester–Playa del Rey Community Plan in the City.

As shown in the Conceptual Site Plan—Option 1 and Conceptual Site Plan— Option 2 included in Attachment 3 and Attachment 4, respectively, and as summarized in Table 1 on page 3, the Project proposes to develop industrial uses on a 789,989-squarefoot (18.1-acre) site. The Project is comprised of two options that would each construct new warehouse and office floor area herein referred to as Option 1 and Option 2. Option 1 would develop one industrial building that would be comprised of 355,390 square feet of warehouse floor area and 80,000 square feet of office floor area for a total floor area of approximately 435,390 square feet, with a floor area ratio (FAR) of approximately 0.6:1 and a building height of 50 feet. Option 2 would develop three industrial buildings that would be comprised of 320,056 square feet of warehouse floor area and 90,000 square feet of office floor area for a total floor area of approximately 410,056 square feet, with a FAR of approximately 0.5:1 and a proposed height of 46 feet per building. The Project would include surface parking, with 288 vehicle spaces and 90 trailer parking spaces under Option 1, and 369 vehicle parking spaces, including 20 tandem spaces, under Option 2. In addition, 96 bicycle spaces would be provided under Option 1, and 91 bicycle parking spaces would be

provided under Option 2. A total of 37,860 square feet of floor area of existing commercial/industrial uses as well as associated surface parking would be demolished to accommodate the Project.

For Option 1, vehicular access to the Project Site would be provided along the southern boundary on Arbor Vitae Street and along the western boundary on Airport Boulevard and Interceptor Street. Two emergency vehicle access (EVA) driveways would be located on the eastern portion of the Project Site on Arbor Vitae Street and on Interceptor Street. For Option 2, vehicular access to the Project Site would be provided via three driveways along the southern boundary on Arbor Vitae Street, and two driveways along the western boundary on Airport Boulevard and Interceptor Street. An EVA access driveway would be located on the eastern portion of the Project Site along Arbor Vitae Street.

The Project Site is currently developed with structures consisting of approximately 37,860 square feet of existing floor area consisting of buildings used for a rental car facility. Therefore, the existing on-site uses do not generate a residential service population. Additionally, the Project does not include the development of any residential units, and would not generate a new residential service population that would require fire protection services. With regard to Project employment, using employee generation factors from the City of Los Angeles Department of Transportation (LADOT), the Project is estimated to generate 637 net new employees to the Project Site under Option 1 and 642 net new employees to the Project Site under Option 2.[1]

The Project would comply with applicable regulatory requirements such as safety and health provisions set forth by the Federal Occupational Safety and Health Administration (OSHA) for fire protection and prevention during construction activities

The following comments are furnished in response to your request for this Department to review the proposed development:

**FIRE FLOW:**

The adequacy of fire protection for a given area is based on required fire-flow, response distance from existing fire stations, and this Department's judgment for needs in the area. In general, the required fire-flow is closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

Fire-flow requirements vary from 2,000 gallons per minute (G.P.M.) in low density residential areas to 12,000 G.P.M. in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (P.S.I.) is to remain in the water system, with the required gallons per minute flowing. The required fire-flow for this project has been set at **12,000 G.P.M.**

1 Los Angeles Department of Transportation (LADOT) and Los Angeles Department of City Planning (DCP), City of Los Angeles VMT Calculator Documentation, Version 1.3, May 2020.

**available to any block (where local conditions indicate that consideration must be given to simultaneous fires, and additional 2,000 to 8,000 G.P.M. will be required).**

Improvements to the water system in this area may be required to provide 12,000G.P.M . fire flow. The cost of improving the water system may be charged to the developer. For more detailed information regarding water main improvements, the developer shall contact the Water Services Section of the Department of Water and Power.

**RESPONSE DISTANCE:**

Based on a required fire-flow of 12,000 G.P.M., the first-due Engine Company should be within ¾ mile, the first-due Truck Company within 1 mile.

**FIRE STATIONS:**

The Fire Department has existing fire stations at the following locations for initial response into the area of the proposed development: **9000 Airport Blvd**

| **DISTANCE** | **Fire Station No. 95**<br>10010 International Rd<br>Los Angeles, CA 90045 | **SERVICES & EQUIPMENT**<br>Task Force, Paramedic Rescue Ambulance, Hazmat Squad | **STAFF** |
|---|---|---|---|
| 1.1 | | | 12 |
| 1.5 | **Fire Station No. 5**<br>8900 Emerson Avenue<br>Los Angeles, CA 90045 | Light Force, Assessment Engine, Paramedic Rescue Ambulance, EMS Battalion, US&R Apparatus | 14 |
| 2.3 | **Fire Station No. 51**<br>10435 Sepluveda Blvd<br>Los Angeles CA 91345 | Assessment Engine, Paramedic Rescue Ambulance | 6 |

| | | | |
|---|---|---|---|
| 4.0 | **Fire Station No. 67**<br>5451 Playa Vista Drive<br>Los Angeles, CA 90094 | Assessment Engine<br>BLS Rescue Ambulance | 6 |
| 5.5 | **Fire Station No. 62**<br>11970 Venice Blvd<br>Los Angeles CA 90066 | Assessment Engine, Paramedic Rescue Ambulance | 6 |

Based on these criteria (response distance from existing fire stations), fire protection would be considered **Inadequate.**

At present, there are no immediate plans to increase Fire Department staffing or resources in those areas, which will serve the proposed project.

**FIREFIGHTING PERSONNEL & APPARATUS ACCESS:**

Access for Fire Department apparatus and personnel to and into all structures shall be required.

Address identification. New and existing buildings shall have approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property.

One or more Knox Boxes will be required to be installed for LAFD access to project.
Location and number to be determined by LAFD Field Inspector. (Refer to FPB Req # 75).

No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

Where access for a given development requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet.

The Fire Department may require additional vehicular access where buildings exceed 28 feet in height.

The Fire Department may require additional roof access via parapet access roof ladders where buildings exceed 28 feet in height, and when overhead wires or other obstructions block aerial ladder access.

Entrance to the main lobby shall be located off the address side of the building.

Tamar Gharibian
May 20, 2024
ENV-2023-6757-EIR

Site plans shall include all overhead utility lines adjacent to the site.

Fire Lane Requirements:
1) Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.
2) The width of private roadways for general access use and fire lanes shall not be less than 20 feet, and the fire lane must be clear to the sky.
3) Fire lanes, where required and dead ending streets shall terminate in a cul-de-sac or other approved turning area. No dead ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.
4) Submit plot plans indicating access road and turning area for Fire Department approval.
5) All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being issued.
6) Plans showing areas to be posted and/or painted, “FIRE LANE NO PARKING” shall be submitted and approved by the Fire Department prior to building permit application sign-off.
7) Electric Gates approved by the Fire Department shall be tested by the Fire Department prior to Building and Safety granting a Certificate of Occupancy.
8) All public street and fire lane cul-de-sacs shall have the curbs painted red and/or be posted “No Parking at Any Time” prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy for any structures adjacent to the cul-de-sac.
9) No framing shall be allowed until the roadway is installed to the satisfaction of the Fire Department.

Construction of public or private roadway in the proposed development shall not exceed 10 percent in grade.

Private streets shall be recorded as Private Streets, **AND** Fire Lane. All private street plans shall show the words "Private Street and Fire Lane” within the private street easement.

Private streets and entry gates will be built to City standards to the satisfaction of the City Engineer and the Fire Department.

Private development shall conform to the standard street dimensions shown on Department of Public Works Standard Plan S-470-0.

Standard cut-corners will be used on all turns.

Private roadways for general access use shall have a minimum width of 20 feet.

All access roads, including fire lanes, shall be maintained in an unobstructed manner, removal of obstructions shall be at the owner's expense. The entrance to all required fire lanes or required private driveways shall be posted with a sign no less than three square feet in area in accordance with Section 503 of the City of Los Angeles Municipal Code.

Tamar Gharibian
May 20, 2024
ENV-2023-6757-EIR

Any required fire hydrants to be installed shall be fully operational and accepted by the Fire Department prior to any building construction.

FPB #105
5101.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

That in order to provide assurance that the proposed common fire lane and fire protection facilities, for the project, not maintained by the City, are properly and adequately maintained, the sub-divider shall record with the County Recorder, prior to the recordation of the final map, a covenant and agreement (Planning Department General Form CP-6770) to assure the following:

A. The establishment of a property owners association, which shall cause a yearly inspection to be, made by a registered civil engineer of all common fire lanes and fire protection facilities. The association will undertake any necessary maintenance and corrective measures. Each future property owner shall automatically become a member of the association or organization required above and is automatically subject to a proportionate share of the cost.

B. The future owners of affected lots with common fire lanes and fire protection facilities shall be informed or their responsibility for the maintenance of the devices on their lots. The future owner and all successors will be presented with a copy of the maintenance program for their lot. Any amendment or modification that would defeat the obligation of said association as the Advisory Agency must approve required hereinabove in writing after consultation with the Fire Department.

C. In the event that the property owners association fails to maintain the common property and easements as required by the CC and R's, the individual property owners shall be responsible for their proportional share of the maintenance.

D. Prior to any building permits being issued, the applicant shall improve, to the satisfaction of the Fire Department, all common fire lanes and install all private fire hydrants to be required.

E. That the Common Fire Lanes and Fire Protection facilities be shown on the Final Map.

The plot plans shall be approved by the Fire Department showing fire hydrants and access for each phase of the project prior to the recording of the final map for that phase. Each phase shall comply independently with code requirements.

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department’s review of the plot plan.

Tamar Gharibian
May 20, 2024
ENV-2023-6757-EIR

The inclusion of the above listed recommendations, along with any additional recommendations made during later reviews of the proposed project will reduce the impacts to an acceptable level.

Definitive plans and specifications shall be submitted to this Department and requirements for necessary permits satisfied prior to commencement of any portion of this project.

The Los Angeles Fire Department continually evaluates fire station placement and overall Department services for the entire City, as well as specific areas. The development of this proposed project, along with other approved and planned projects in the immediate area, may result in the need for the following:

1. Increased staffing for existing facilities. (I.E., Paramedic Rescue Ambulance and EMT Rescue Ambulance resources.)
2. Additional fire protection facilities.
3. Relocation of present fire protection facilities.

For additional information, please contact the Fire Development Services Section, Hydrants & Access Unit at **(213) 482-6543** or email **lafdhydrants@lacity.org**

Very truly yours,

David A. Perez, Fire Marshal
Fire Marshal

DP:MRC:mrc

# Appendix IS-6

Water Infrastructure Assessment Report

# Water Infrastructure Assessment Report

9000 Airport

Los Angeles, California

*Prepared for*

Rexford Industrial Realty, Inc.
11620 Wilshire Blvd. Suite 610
Los Angeles, CA 90025

*Prepared by*

Cannon
Samuel J. Jacoby, PE, QSD
16842 Von Karman Avenue
Suite 150
Irvine, CA 92606

July 17, 2024



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*Attachment 3. LADWP Information of Fire Flow Availability (IFFAR)*

## 1. INTRODUCTION

### 1.1 PROJECT DESCRIPTION

The proposed project includes the development of a 435,390 square foot warehouse building including 80,000 square feet of office space with surface parking ("Option #1") or the development of a warehouse campus comprised of three buildings, totaling 410,056 square foot, including a total of 90,000 square feet of office space with surface parking ("Option #2") on an approximately 789,989 square foot site located within the Westchester – Playa del Rey Community Plan area in the City of Los Angeles. The Project Site is bounded by Interceptor Street to the north, West Arbor Vitae Street to the south, Airport Boulevard to the west, and residential uses to the east.

The Project Site is currently developed with an approximately 37,860 rental car facility comprised of two single-story buildings and accessory structures, as well as associated surface parking areas which would be removed to accommodate the Project.

Option 1 consists of a single building, detailed below:

**Table 1-1 Option 1 Building Summary**

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Option 1 | 435,390 s.f. | 355,390 s.f. | 80,000 s.f. |
| Landscaping | 94,400 s.f. | Impervious | 695,589 s.f. |

Option 2 consists of three buildings detailed below:

**Table 1-2 Option 2 Building Summary**

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Building 1 | 102,930 s.f. | 87,930 s.f. | 30,000 s.f. |
| Building 2 | 139,083 s.f. | 124,083 s.f. | 30,000 s.f. |
| Building 3 | 123,043 s.f. | 108,043 s.f. | 30,000 s.f. |
| Option 2 Total | 365,056 s.f. | 320,056 s.f. | 90,000 s.f. |
| Landscaping | 120,400 s.f. | Impervious | 669,589 s.f. |

### 1.2 SCOPE OF WORK

As part of the environmental review for the Project, the purpose of this report is to analyze the potential impacts of each potential Project (Option 1 and Option 2) upon the existing water infrastructure systems.

### 1.3 WATER SERVICE, INFRASTRUCTURE, AND EXISTING DEMAND

The City of Los Angeles Department of Water and Power (LADWP) maintains water infrastructure in the Project area and provides domestic water service to the Project Site. According to the City of Los Angeles there is an existing 8" water line in Arbor Vitae Street, a 12" water line in Airport Boulevard, an 8" water line in Interceptor Street.

Domestic service is provided via main connection on Arbor Vitae Street (southeast corner of the site), at the intersection of Airport Boulevard and Interceptor Street (northwest corner of the site), and at the northeast corner of the site at Interceptor Street.

The water consumption tables are detailed below for both options:

### Table 1-3 Option 1 Water Demand

**Option 1 Estimated Project Water Demand**

| Land Use | Floor Area (sf) | Water Consumption Rate (gpd/unit) (b) | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility (a) | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 355,390 | 0.03 | 10662 |
| Office | 80,000 | 0.12 | 9600 |
| Landscaping (c) | | | 3164 |
| **Total Proposed** | | | 23425 |
| *Less Existing to be Removed* | | | 1893 |
| **Net Water Consumption** | | | 21532 |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

*(c) Landscaping water demand is based on estimations provided by Conceptual Design and Planning Company, 2023.*

**Table 1-4 Option 2 Water Demand**

**Option 2 Estimated Project Water Demand**

| Land Use | Floor Area | Water Consumption Rate (gpd/unit) (b) | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9602 |
| Office | 90,000 | 0.12 | 10800 |
| Landscaping (c) | | | 4094 |
| **Total Proposed** | | | 24496 |
| *Less Existing to be Removed* | | | 1893 |
| **Net Water Consumption** | | | 22603 |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

*(c) Landscaping water demand is based on estimations provided by Conceptual Design and Planning Company, 2023.*

### 1.4 EXISTING FIRE INFRASTRUCTURE

There are currently nine (9) existing fire hydrants abutting or within 20’ of the project site, split evenly (three apiece) along the frontages of Airport Boulevard, Arbor Vitae Street, and Interceptor Street. The hydrants are all served by existing 6-inch service lines. The hydrants are supplied and installed by LADWP, and paid for by applicant fees.

Fire service to the onsite hydrants and buildings is provided via main connection on Arbor Vitae Street (southeast corner of the site), and at the intersection of Airport Boulevard and Interceptor Street (northwest corner of the site).

## 2. SIGNIFICANCE THRESHOLDS

### 2.1 WATER

Appendix G of the CEQA Guidelines provides a set of questions that address impacts with regard to water infrastructure. These questions are as follows:

Would the project:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of Los Angeles CEQA Thresholds Guide determines the significance of a project on a case-by-case basis, considering the following factors:

- The total estimated water demand for the project;
- Whether sufficient capacity exists in the water infrastructure that would serve the project, accounting for the anticipated conditions at project build-out;
- The amount by which the project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of the project completion; and
- The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

## 3. METHODOLOGY

### 3.1 WATER

The methodology for determining the significance of a project as it relates to a project's impact on water supply and distribution infrastructure is based on the City of Los Angeles CEQA Thresholds Guide. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of major water infrastructure serving the Project Site, including the type of facilities, location and sizes, and any planned improvements
- Description of the water conditions for the Project area and known improvement plans

Project Impacts

- Evaluate the Project's water demand, considering design or operational features that would reduce/offset water demand.
- Determine what improvements would be needed, if any, to adequately serve the Project.
- Describe the degree to which presently scheduled off-site improvements offset impacts.

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

Under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment (WSA) for every "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. The WSA for a project would evaluate the reliability of existing and projected water supplies to meet present and future water demands. Neither Option 1 nor Option 2 of the proposed Project falls within the requirements of SB 610 as neither include the addition of more than dwelling units, neither propose a commercial office building housing 1,000 persons or more (or having more than 250,000 sf of floor space (office)), nor a proposed industrial park housing 1,000

persons or more (or being more than 40 ac. of land, or having more than 650,000 sf of floor space in aggregate). Therefore, LADWP has not prepared a WSA for the project.

In addition, LADWP performed flow tests via Service Advisory Report (SAR) requests to determine if available water conveyance facilities including water lines and fire hydrants exist for future development (see Attachments). LADWP's approach consists of data ranging from available static pressure (how much pressure is available at the source before applying the Project's demand), to the available pressure at the maximum demand needed for the Project. As explained in more detail in Section 5.2, LADWP is able to meet the Project's (Option 1 or Option 2) water needs based on the existing infrastructure.

## 4. PROJECT IMPACTS

### 4.1 CONSTRUCTION

#### *4.1.1 WATER*

Water demand for construction of the Project (Option 1 or Option 2) would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, rough grading, etc. Construction water demands vary based on site specific conditions but are typically significantly less than the long term, operational water demand of new projects. The removal of the existing facilities uses would assist in offsetting water use during the construction phase. Based on a review of construction projects of similar size, duration and geotechnical conditions, the proposed construction water use will be less than the fire flow requirements of the complete project (during rough grading) and less thereafter.. Further, during construction the infiltration areas should be protected which will largely remove approximately 3 acres from the construction impact area during the majority of the project's construction. Considering these two mitigation measures, the watering will largely be constrained to less than the domestic and fire demand of the project. Therefore, since the impact on water use from construction activity will be temporary and less than significant.

The Project (Option 1 or Option 2) will require construction of new, on-site water distribution lines to serve new buildings, as well as the potential relocation of existing lines. Construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the lines below surface. A Construction Management Plan, which would provide for safe pedestrian access as well as emergency vehicle access and safe vehicle travel within the site for construction traffic in general, will be implemented to reduce any temporary pedestrian and traffic impacts occurring as a result of construction activities. In addition, when considering impacts resulting from the installation of any required water infrastructure (i.e installation of one hydrant along Airport Boulevard, on-site water distribution, and minor off-site work associated with connections to the public main) , all impacts are of a relatively short- term duration (i.e., months) and would cease to occur once the installation is complete. Based on the results of the IFFAR and SAR, no upgrades to public water mains are anticipated. There are no on-site public water mains, but prior to ground disturbance, Project contractors would coordinate with LADWP and BOE to identify connection points to public facilities in advance of proposed ground disturbance activities to avoid water lines and disruption of water service. Therefore, Project impacts on water associated with construction activities would be temporary and less than significant.

## 4.2 OPERATION

### *4.2.1 WATER*

#### *4.2.1.1 Water Consumption*

Based on the Project's land uses identified in Section 3.1, the Project's estimated water consumption is approximately 18,369 gpd (Option 1, Table 4-3) to 18,509 (Option 2, Table 4-4), resulting in a net increased maximum water demand of 18,369 gpd (Option 1) (~0.465 acre-feet per year) or 18,509 gpd (Option 2) (~0.425 acre-feet per year).

**Table 4-1 Option 1 Water Demand**

**Option 1 Estimated Project Water Demand**

| Land Use | Floor Area (sf) | Water Consumption Rate (gpd/unit) (b) | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility (a) | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 355,390 | 0.03 | 10662 |
| Office | 80,000 | 0.12 | 9600 |
| Landscaping (c) | | | 3164 |
| **Total Proposed** | | | 23425 |
| *Less Existing to be Removed* | | | 1893 |
| **Net Water Consumption** | | | 21532 |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

*(c) Landscaping water demand is based on estimations provided by Conceptual Design and Planning Company, 2023.*

**Table 4-2 Option 2 Water Demand**

**Option 2 Estimated Project Water Demand**

| Land Use | Floor Area | Water Consumption Rate (gpd/unit) (b) | Total Water Consumption (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9602 |
| Office | 90,000 | 0.12 | 10800 |
| Landscaping (c) | | | 4094 |
| **Total Proposed** | | | 24496 |
| *Less Existing to be Removed* | | | 1893 |
| **Net Water Consumption** | | | 22603 |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

*(c) Landscaping water demand is based on estimations provided by Conceptual Design and Planning Company, 2023.*

#### *4.2.1.2 Domestic Water Service and Fire Suppression Analysis*

When analyzing the Project for infrastructure capacity, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor of water consumption, fire flow demands have a much greater instantaneous impact on infrastructure. Therefore, fire flow demands are the primary means for analyzing infrastructure capacity. Conservative analysis for both fire suppression and domestic water flows has been completed by LADWP for the Project as summarized below. To determine the ability to provide on-site water service to the Project, a Service Advisory Report (SAR) and a Information on Fire Flow Availability Report (IFFAR) request were submitted to LADWP to analyze if there is adequate water capacity for both fire suppression (fire hydrants and building sprinkler system capacity) and domestic water service.

In addition to the Los Angeles Fire Department requirements for fire hydrants, minimum requirements for domestic service and building fire safety have also been established. To determine if the existing system can provide 2,500 gpm for the building fire sprinkler system, a SAR and IFFAR request were submitted to LADWP to assess the ability for the public water mains for capacity to simultaneously provide for the on-site fire suppression system and domestic water service through the proposed 8- inch line onsite water connection to the 8-inch main in Arbor Vitae.

#### *4.2.1.3 Water Infrastructure*

The approved SAR and IFFAR confirm that sufficient water supply capacity is available for the Project for both domestic water supply and fire flows. The service laterals will be adequately sized to accommodate the on-site fire suppression system demand and domestic demand flowing simultaneously. The new water services will also include backflows and be metered separately per City requirements. Therefore, impacts on water infrastructure would be less than significant.

## 5. CUMULATIVE IMPACTS

### 5.1 WATER

As mentioned above, the approved SAR proves that sufficient capacity is available for the proposed increases in domestic water demands and fire flows (both fire hydrant and building fire sprinkler systems) associated with the Project (Option 1 or Option 2). Proposed domestic and irrigation water service can be connected to any of the mains surrounding the site, and primary fire service connections can be connected to the main in Airport Boulevard. The service laterals will be adequately sized to accommodate the on-site fire suppression system demand and domestic demand flowing simultaneously.

In addition to the confirmation of the water system infrastructure's ability to support the proposed Project, it is also necessary to determine the cumulative impact analysis on water supply within the LADWP service area (i.e., the City). LADWP, as a public water service provider, is required to prepare and update on five-year intervals an Urban Water Management Plan to plan and provide for water supplies to serve existing and projected demands. The 2020 Urban Water Management Plan (UWMP) prepared by LADWP accounts for existing development within the City, as well as projected growth through the year 2045. The regional water provider, the Metropolitan Water District of Southern California (MWD), which also released its 2020 UWMP and provides the City with imported water resources, also follows this process.

Through the MWD 2020 Regional UWMP and LADWP's local UWMP process along with the City's Securing L.A.'s Water Supply, MWD and the City will meet all new demand for water due to projected population growth through a combination of water conservation, water transfer agreements and water supply projects (i.e. increase water recycling). LADWP plans outline the creation of sustainable sources of water for the City of Los Angeles to reduce dependence on imported supplies from MWD. LADWP is planning to achieve these goals by increasing its water conservation program and by expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge.

Additionally, under the provisions of Senate Bill 610, LADWP is required to prepare a comprehensive water supply assessment (WSA) for every "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. As discussed previously, neither Option 1 nor Option 2 falls within the applicable thresholds.

Based on the previous paragraphs, it is anticipated that LADWP has sufficient infrastructure to support the Project (Option 1 or Option 2) and would be able to supply the demands of the Project and future growth. Therefore, cumulative impacts on water infrastructure and supply would be less than significant.

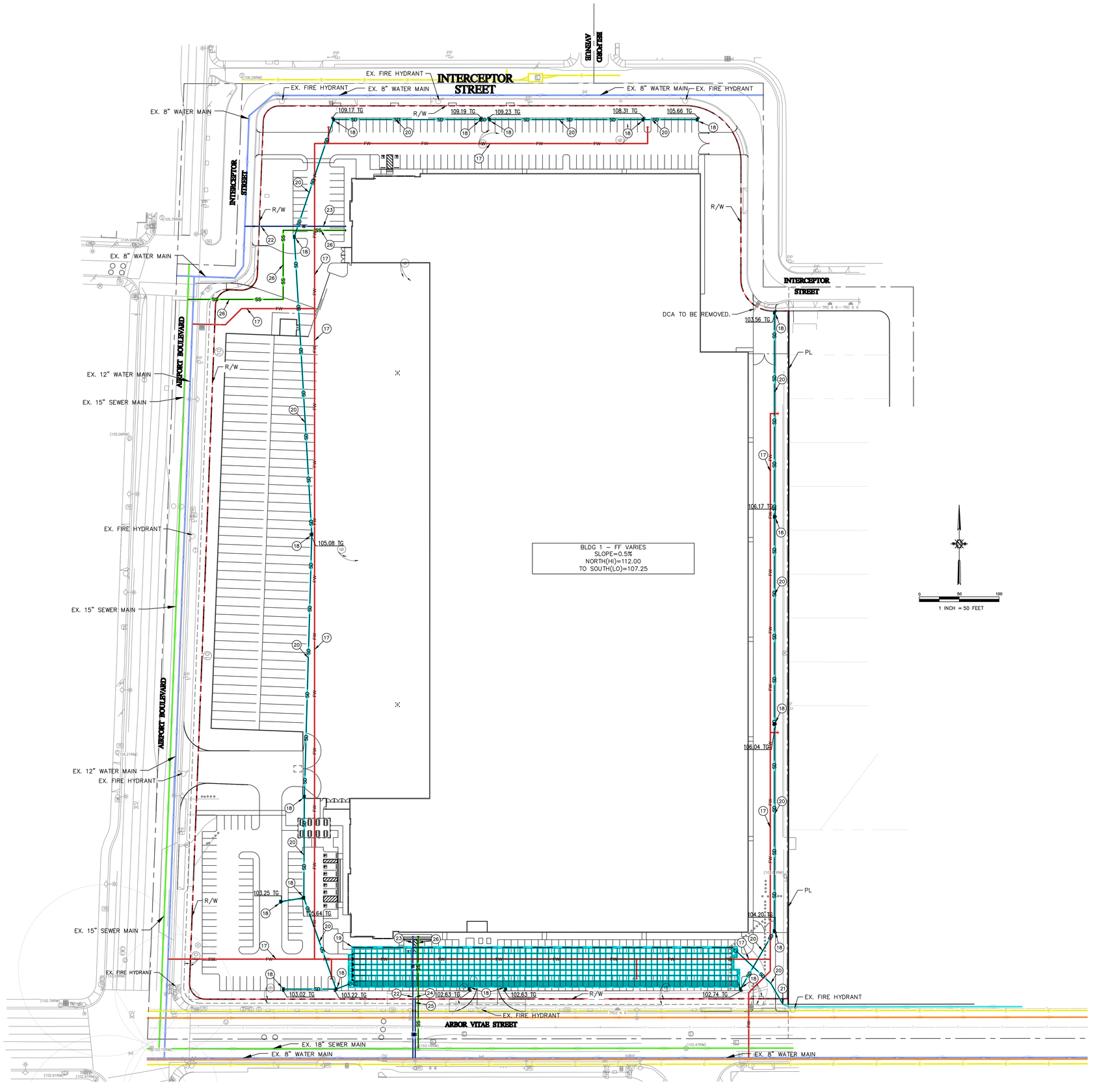
## 6. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant water or wastewater impacts have been identified for either Option 1 or Option 2 of this Project.

## 7. LIST OF ATTACHMENTS

*Attachment 1. Sewer and Water Utility Maps*
*Attachment 2. LADWP Service Advisory Report (SAR)*
*Attachment 3. LADWP Information of Fire Flow Availability (IFFAR)*

## Attachment 1. Sewer and Water Utility Maps




## CIVIL NOTES

17. FIREWATER
18. STORM DRAIN INLET
19. UNDERGROUND INFILTRATION SYSTEM
20. STORM DRAIN PIPE
21. CONNECTION TO CITY OF LA STORM DRAIN
22. 2" DOMESTIC METER, BACKFLOW
23. 2" DOMESTIC SERVICE
24. 2" LANDSCAPE METER, BACKFLOW
25. 2" LANDSCAPE SERVICE
26. 6" SANITARY SERVICE

## LEGEND

| | |
|---|---|
| WATER LINE | W |
| SANITARY SEWER LINE | SS |
| STORM DRAIN LINE | SD |
| FIRE LINE | FW |
| ELECTRICAL LINE | E |
| GAS LINE | G |

| REV NO | DATE | REVISED | REV BY | CKD BY | APRD BY |
|---|---|---|---|---|---|
| | | DESTROY ALL PRINTS BEARING EARLIER DATE | | | |

Cannon
10842 Von Karman Avenue, Suite 150
Irvine, CA 92606
P 909.793.8111 F 909.793.0775

DRAWN BY: CP
CHECKED BY:
DATE 7/18/2024
SCALE AS SHOWN
CA JOB NO. 230326

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PROPOSED ONE STORY WAREHOUSE BUILDING

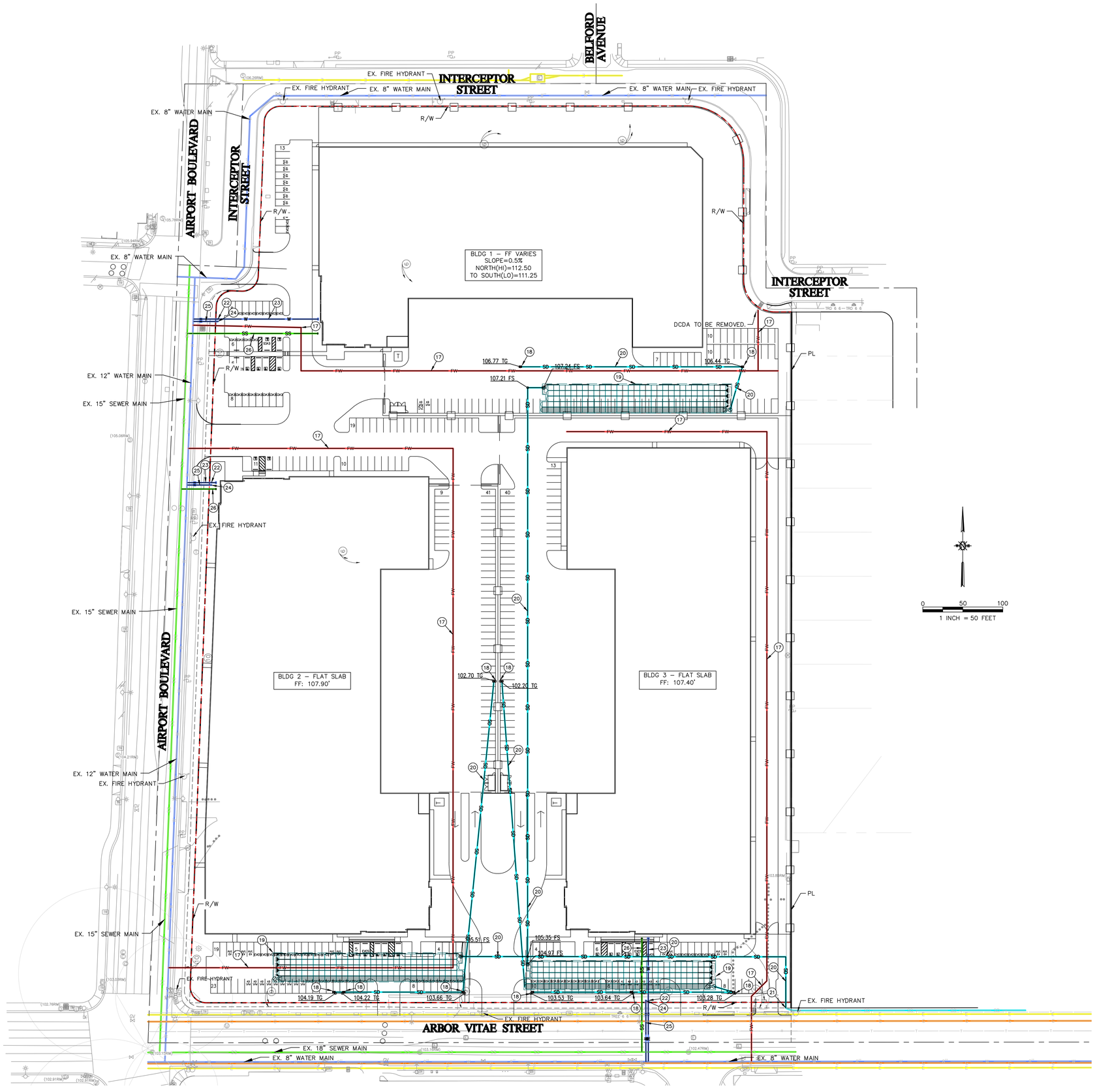
# PRELIMINARY UTILITY PLAN

9000 SOUTH AIRPORT BLVD.
LOS ANGELES, CA

SHEET
C5–1
OF GP5

811 Know what's below. Call before you dig.

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## CIVIL NOTES

17. FIREWATER
18. STORM DRAIN INLET
19. UNDERGROUND INFILTRATION SYSTEM
20. STORM DRAIN PIPE
21. CONNECTION TO CITY OF LA STORM DRAIN
22. 2" DOMESTIC METER, BACKFLOW
23. 2" DOMESTIC SERVICE
24. 2" LANDSCAPE METER, BACKFLOW
25. 2" LANDSCAPE SERVICE
26. 6" SANITARY SERVICE

## LEGEND

| | |
|---|---|
| WATER LINE | W |
| SANITARY SEWER LINE | SS |
| STORM DRAIN LINE | SD |
| FIRE LINE | FW |
| ELECTRICAL LINE | E |
| GAS LINE | G |

| REV NO | DATE | REVISED | REV BY | CKD BY | APPD BY |
|---|---|---|---|---|---|
| | | DESTROY ALL PRINTS BEARING EARLIER DATE | | | |

Cannon
10842 Von Karman Avenue, Suite 150
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DRAWN BY: JR
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DATE 7-11-2023
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CA JOB NO. 230326

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PROPOSED ONE STORY WAREHOUSE BUILDING

# PRELIMINARY UTILITY PLAN

9000 SOUTH AIRPORT BLVD.
LOS ANGELES, CA

SHEET
C6 – 3
OF GP–6

Know what's below. Call before you dig.

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**Attachment 2. LADWP Service Advisory Report (SAR)**

# City of Los Angeles

## Los Angeles Department of Water and Power - Water System

SAR NUMBER **105860**

## Fire Service Pressure Flow Report

SERVICE NUMBER **644738**

For: **9000 AIRPORT BLVD** Approved Date: **6-27-2024**

**Proposed Service** **8 INCH** off of the

**8** inch main in **ARBOR VITAE ST** on the **NORTH** side approximately

**400** feet **EAST** of **EAST** of **AIRPORT BLVD** The System maximum pressure is

**97** psi based on street curb elevation of **102** feet above sea level at this location.

The distance from the DWP street main to the property line is **74** feet

**System maximum pressure should be used only for determining class of piping and fittings.**

**Residual Flow/Pressure Table for water system street main at this location**

| Flow (gpm) | Press. (psi) | Flow (gpm) | Press. (psi) | Flow (gpm) | Press. (psi) |
|---|---|---|---|---|---|
| 0 | 87 | 2500 | 69 | | |
| 525 | 86 | | | | |
| 765 | 85 | | | | |
| 950 | 84 | | | | |
| 1110 | 83 | | | | |
| 1250 | 82 | | | | |
| 1380 | 81 | | | | |
| 1500 | 80 | | | | |
| 1615 | 79 | | | | |
| 1720 | 78 | | | | |
| 1820 | 77 | | | | |
| 1915 | 76 | | | | |
| 2010 | 75 | | | | |
| 2095 | 74 | | | | |
| 2185 | 73 | | | | |
| 2265 | 72 | | | | |
| 2345 | 71 | | | | |
| 2425 | 70 | | | | |

**These values are subject to change due to changes in system facilities or demands.**

### Meter Assembly Capacities

| Domestic Meters | |
|---|---|
| 1 inch = | 56 gpm |
| 1-1/2 inch = | 96 gpm |
| 2 inch = | 160 gpm |
| 3 inch = | 220 gpm |
| 4 inch = | 400 gpm |
| 6 inch = | 700 gpm |
| 8 inch = | 1500 gpm |
| 10 inch = | 2500 gpm |

| Fire Service | |
|---|---|
| 2 inch = | 250 gpm |
| 4 inch = | 600 gpm |
| 6 inch = | 1400 gpm |
| 8 inch = | 2500 gpm |
| 10 inch = | 5000 gpm |

| FM Services | |
|---|---|
| 8 inch = | 2500 gpm |
| 10 inch = | 5000 gpm |

**Notes:** WITH 160 GPM SIMULTANEOUS FLOW

**This information will be sent to the Department of Building and Safety for plan checking.**

This SAR is valid for one year from 06-27-24. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WESTERN (213) 367-1225**

| OSCAR TUPUL | OSCAR TUPUL | 094-171 |
|---|---|---|
| **Prepared by** | **Approved by** | **Water Service Map** |

**Attachment 3. LADWP Information of Fire Flow Availability (IFFAR)**

# City of Los Angeles

## Los Angeles Department of Water and Power - Water System

## INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: 12,000 GPM

Water Service Map No.: 094-171

LAFD Signature:

Date Signed:

Applicant: Samuel Jacoby, P.E.

Company Name: Cannon Corp

Address: 16842 Von Karman Ave., Suite 150, Irvine, CA 92606

Telephone: 949-236-1247

Email Address: SamJ@CannonCorp.US

Existing hydrants
See attached Exhibit

| | F- 42052 | F- 42477 | F- 42478 |
|---|---|---|---|
| Location: | N. side of Arbor Vitae St. 815' E. of Airport Blvd | N. side of Arbor Vitae St. 815' E. of Airport Blvd | NEC of Airport and Arbor Vitae St. |
| Distance from Neareast Pipe Location (feet): | 60' | 60' | 15' |
| Hydrant Size: | 4" | 2.5",4" | 2.5",4" |
| Water Main Size (in): | 8" | 8" | 12" |
| Static Pressure (psi): | 97 | 97 | 96 |
| Residual Pressure (psi): | 88 | 87 | 87 |
| Flow at 20 psi (gpm): | 1,500 | 1,500 | 1,500 |

RECEIVED/WDE
JUL 16 2024

**NOTE: Data obtained from hydraulic analysis using peak hour.**

Remarks:

W20240717002

Maximum flow of 12,000 GPM from 10 hydrants running simultaneously, granted 1 proposed hydrant is installed E/Airport Blvd, 250' S/O Interceptor St.

*Water Purveyor:* Los Angeles Department of Water & Power *Date:* 07/22/2024

*Signtature:* Oscar E. Tupul *Title:* Civil Engineering Associate

***Requests must be made by submitting this completed application, along with a*** $235 ***check payable to:***

**"Los Angeles Department of Water and Power", and mailed to:**

**Los Angeles Department of Water and Power**
**Distribution Engineering Section - Water**
**Attn: Business Arrangements**
**P.O. Box 51111 - Room 1425**
**Los Angeles, CA 90051-5700**

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**

# City of Los Angeles

## Los Angeles Department of Water and Power - Water System

## INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: 12,000 GPM

Water Service Map No.: 096-171 094-171

LAFD Signature:

Date Signed:

Applicant: Samuel Jacoby, P.E.

Company Name: Cannon Corp

Address: 16842 Von Karman Ave., Suite 150, Irvine, CA 92606

Telephone: 949-236-1247

Email Address: SamJ@CannonCorp.US

Existing hydrants
See attached Exhibit

| | F- 42479 | F- 42480 | F- 33075 |
|---|---|---|---|
| Location: | e. side of Airport blvd, 380' n. of Arbor Vitae St. | e. side of Airport blvd, 346' s. of Interceptor St. | SEC of Airport blvd, and Interceptor St. |
| Distance from Neareast Pipe Location (feet): | 15' | 15' | 15' |
| Hydrant Size: | 4" | 4" | 2.5",4" |
| Water Main Size (in): | 12" | 12" | 8" |
| Static Pressure (psi): | 96 | 96 | 95 |
| Residual Pressure (psi): | 87 | 96 | 86 |
| Flow at 20 psi (gpm): | 1,500 | 1,400 | 1,000 |

**NOTE: Data obtained from hydraulic analysis using peak hour.**

Remarks:

W20240717002

Maximum flow of 12,000 GPM from 10 hydrants running simultaneously, granted 1 proposed hydrant is installed E/Airport Blvd, 250' S/O Interceptor St.

*Water Purveyor:* **Los Angeles Department of Water & Power** *Date:* 07/22/2024

*Signtature:* Oscar E. Tupul *Title:* Civil Engineering Associate

***Requests must be made by submitting this completed application, along with a*** $235 ***check payable to:***

**"Los Angeles Department of Water and Power", and mailed to:**

**Los Angeles Department of Water and Power**
**Distribution Engineering Section - Water**
**Attn: Business Arrangements**
**P.O. Box 51111 - Room 1425**
**Los Angeles, CA 90051-5700**

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**

# City of Los Angeles

## Los Angeles Department of Water and Power - Water System

### INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: 12,000 GPM

Water Service Map No.: 096-171

LAFD Signature:

Date Signed:

Applicant: Samuel Jacoby, P.E.

Company Name: Cannon Corp

Address: 16842 Von Karman Ave., Suite 150, Irvine, CA 92606

Telephone: 949-236-1247

Email Address: SamJ@CannonCorp.US

Existing hydrants
See attached Exhibit

| | F- 42481 | F- 42482 | F- 33076 |
|---|---|---|---|
| Location: | s.side of interceptor st. 385' w of belford ave. | s.side of interceptor st. 185' w of belford ave. | s.side of interceptor st. 115 e. of belford ave. |
| Distance from Neareast Pipe Location (feet): | 10' | 10' | 10' |
| Hydrant Size: | 4" | 4" | 2.5",4" |
| Water Main Size (in): | 8" | 8" | 8" |
| Static Pressure (psi): | 95 | 95 | 96 |
| Residual Pressure (psi): | 85 | 95 | 86 |
| Flow at 20 psi (gpm): | 900 | 900 | 1,000 |

**NOTE: Data obtained from hydraulic analysis using peak hour.**

Remarks:

W20240717002

Maximum flow of 12,000 GPM from 10 hydrants running simultaneously, granted 1 proposed hydrant is installed E/Airport Blvd, 250' S/O Interceptor St.

*Water Purveyor:* **Los Angeles Department of Water & Power** *Date:* 07/22/2024

*Signtature:* Oscar E. Tupul *Title:* Civil Engineering Associate

***Requests must be made by submitting this completed application, along with a*** $235 ***check payable to:***

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**Los Angeles, CA 90051-5700**

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**

# City of Los Angeles

## Los Angeles Department of Water and Power - Water System

### INFORMATION OF FIRE FLOW AVAILABILITY

LAFD Fire Flow Requirement: 12,000 GPM

Water Service Map No.: 096-171

LAFD Signature:

Date Signed:

Applicant: Samuel Jacoby, P.E.

Company Name: Cannon Corp

Address: 16842 Von Karman Ave., Suite 150, Irvine, CA 92606

Telephone: 949-236-1247

Email Address: SamJ@CannonCorp.US

Existing hydrants
See attached Exhibit

| | F-NEW HYDRANT | F- | F- |
|---|---|---|---|
| Location: | E. side of Airport blvd, 250' s. of Interceptor St | | |
| Distance from Neareast Pipe Location (feet): | 15' | | |
| Hydrant Size: | 4" | | |
| Water Main Size (in): | 12" | | |
| Static Pressure (psi): | 95 | | |
| Residual Pressure (psi): | 86 | | |
| Flow at 20 psi (gpm): | 800 | | |

**NOTE: Data obtained from hydraulic analysis using peak hour.**

Remarks:

W2024071900Z

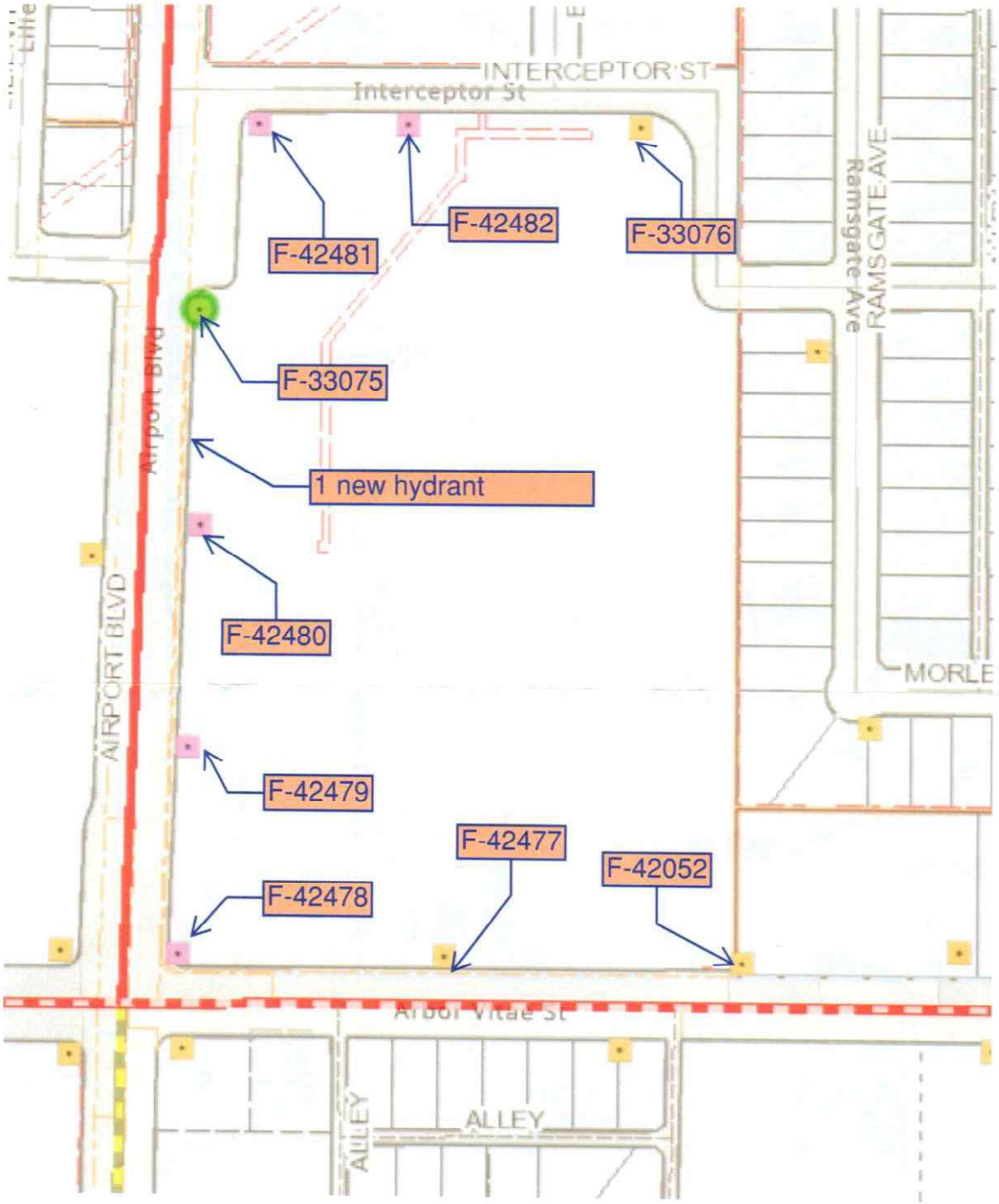
Maximum flow of 12,000 GPM from 10 hydrants running simultaneously, granted 1 proposed hydrant is installed E/Airport Blvd, 250' S/O Interceptor St.

*Water Purveyor:* Los Angeles Department of Water & Power *Date:* 07/22/2024

*Signature:* Oscar E. Tupul *Title:* Civil Engineering Associate

***Requests must be made by submitting this completed application, along with a*** $235 ***check payable to:***
**"Los Angeles Department of Water and Power", and mailed to:**
**Los Angeles Department of Water and Power**
**Distribution Engineering Section - Water**
**Attn: Business Arrangements**
**P.O. Box 51111 - Room 1425**
**Los Angeles, CA 90051-5700**

*** If you have any questions, please contact us at (213) 367-2130 or visit our web site at http://www.ladwp.com.**


INTERCEPTOR ST
Interceptor St
RAMSGATE AVE
Ramsgate Ave
F-42481
F-42482
F-33076
F-33075
1 new hydrant
F-42480
AIRPORT BLVD
Airport Blvd
F-42479
F-42477
F-42052
F-42478
ALLEY
ALLEY
MORLE

# Appendix IS-7

Sewer Infrastructure Assessment Report

# Sewer Infrastructure Assessment Report

9000 Airport

Los Angeles, California

*Prepared for*

Rexford Industrial Realty, Inc.
11620 Wilshire Blvd. Suite 610
Los Angeles, Ca 90025

*Prepared by*

Cannon
Samuel J. Jacoby, PE, QSD
16842 Von Karman Avenue
Suite 150
Irvine, CA 92606

July 17, 2024



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*Attachment 3. City of Los Angeles Sewer Capacity Availability Report (SCAR)*

## 1. INTRODUCTION

### 1.1 PROJECT DESCRIPTION

The proposed project includes the development of a 435,390 square foot warehouse building including 80,000 square feet of office space with surface parking ("Option #1") or the development of a warehouse campus comprised of three buildings, totaling 410,056 square foot, including a total of 90,000 square feet of office space with surface parking ("Option #2") on an approximately 789,989 square foot site located within the Westchester – Playa del Rey Community Plan area in the City of Los Angeles. The Project Site is bounded by Interceptor Street to the north, West Arbor Vitae Street to the south, Airport Boulevard to the west, and residential uses to the east.

The Project Site is currently developed with an approximately 37,860 rental car facility comprised of two single-story buildings and accessory structures, as well as associated surface parking areas which would be removed to accommodate the Project.

Option 1 consists of a single building, detailed below:

**Table 1-1 Option 1 Building Summary**

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Option 1 | 435,390 s.f. | 355,390 s.f. | 80,000 s.f. |
| Landscaping | 94,400 s.f. | Impervious | 695,589 s.f. |

Option 2 consists of three buildings detailed below:

**Table 1-2 Option 2 Building Summary**

| | Footprint | Warehouse | Office |
|---|---|---|---|
| Building 1 | 102,930 s.f. | 87,930 s.f. | 30,000 s.f. |
| Building 2 | 139,083 s.f. | 124,083 s.f. | 30,000 s.f. |
| Building 3 | 123,043 s.f. | 108,043 s.f. | 30,000 s.f. |
| Option 2 Total | 365,056 s.f. | 320,056 s.f. | 90,000 s.f. |
| Landscaping | 120,400 s.f. | Impervious | 669,589 s.f. |

### 1.2 SCOPE OF WORK

As part of the environmental review for the Project, the purpose of this report is to analyze the potential impacts of each potential Project (Option 1 and Option 2) upon the existing wastewater infrastructure systems.

### 1.3 WASTEWATER

The Bureau of Sanitation of the City of Los Angeles Department of Public Works provides sanitary sewer service to the Project Site through a main system in the surrounding streets. Based on available record data from the City, there is an existing 15" sewer main in Airport Boulevard and an 18" sewer main in

Arbor Vitae Street. The site currently discharges from a single lateral into the main on Arbor Vitae Street.

Each of these sewer mains that are adjacent to the Project Site connect to a network of sewer lines that ultimately convey wastewater to the City's Hyperion Treatment Plant.

The following table shows the estimated existing wastewater generation for the Project Site:

### Table 1-3 Option 1 Wastewater Generation

**Option 1 Estimated Project Wastewater Generation**

| Land Use | Floor Area | Wastewater Generation Rate (gpd/unit) (b) | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | 1,893 |
| **Proposed** | | | |
| Warehouse | 355,390 | 0.03 | 10,662 |
| Office | 80,000 | 0.12 | 9,600 |
| **Total Proposed Wastewater Generation** | | | 20,262 |
| **Less Existing to be Removed** | | | 1,893 |
| **Net Wastewater Generation** | | | 18,369 |
| **(Proposed – Existing)** | | | |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

**Table 1-4 Option 2 Wastewater Generation**

**Option 2 Estimated Project Wastewater Generation**

| Land Use | Floor Area (sf) | Wastewater Generation Rate (gpd/unit) (b) | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility (a) | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9602 |
| Office | 90,000 | 0.12 | 10800 |
| **Total Proposed Wastewater Generation** | | | 20402 |
| **Less Existing to be Removed** | | | 1893 |
| **Net Wastewater Generation** | | | 18509 |
| **(Proposed – Existing)** | | | |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

## 2. SIGNIFICANCE THRESHOLDS

### 2.1 WASTEWATER

Appendix G of the CEQA Guidelines provides a set of questions that address impacts with regard to wastewater. These questions are as follows:

Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- 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?

In the context of these questions from the CEQA Guidelines, the City of Los Angeles CEQA Thresholds Guide states that a project would normally have a significant wastewater impact if:

- The project would cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or
- The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.[1]

These thresholds are applicable to the Project and as such are used to determine if the Project would have significant wastewater impacts.

## 3. METHODOLOGY

### 3.1 WASTEWATER

The methodology for determining the significance of a project as it relates to a project's impact on wastewater collection and treatment infrastructure is based on the City of Los Angeles CEQA Thresholds Guide. This methodology involves a review of the project's environmental setting, project impacts, and cumulative impacts. The following has been considered as part of the determination for each Project:

Environmental Setting

- Location of the Project and appropriate points of connection to the wastewater collection system on the pertinent Wye Map;
- Description of the existing wastewater system which would serve the Project, including its capacity and current flows.

Project Impacts

- Evaluate the Project wastewater needs (anticipated daily average wastewater flow), considering design or operational features that would reduce or offset service impacts;
- Compare the Project's wastewater needs to the appropriate sewer's capacity and/or the wastewater flows anticipated in the Wastewater Facilities Plan or General Plan.

This report analyzes the potential impacts of the Project on the existing public sewer infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

The Bureau of Sanitation, Wastewater Engineering Division made a preliminary analysis of the local and regional sewer conditions to determine if available wastewater conveyance and treatment capacity exists for future development. Refer to Attachment 3 for results of the Bureau of Sanitation preliminary analysis, also known as the Sewer Capacity Availability Request (SCAR). The Bureau of Sanitation's approach consisted of the study of a worst-case scenario envisioning peak demands from the relevant facilities occurring simultaneously on the wastewater system. A combination of flow gauging data and

[1] The Wastewater Facilities Plan referenced in the City of Los Angeles CEQA Thresholds Guide has since been superseded by the Integrated Resources Plan. Accordingly, when analyzing the Project, the Integrated Resource Plan is the applicable threshold.

computed results from the City's hydrodynamic model were used to project current and future impacts due to additional sewer discharge. The data used in this report are based on the findings of the Bureau of Sanitation's preliminary analysis.

## 4. PROJECT IMPACTS

### 4.1 CONSTRUCTION

#### 4.2.1 WASTEWATER

Construction activities for the Project could result in a temporary increase in wastewater generation as a result of construction workers on-site. However, such use would be temporary and nominal when compared with the wastewater generated by the Project. In addition, construction workers would typically utilize portable restrooms and hand wash areas, which would not contribute to wastewater flows to the City's wastewater system. Thus, wastewater generation from Project construction activities is not anticipated to cause any measurable increase in wastewater flows. Therefore, the Project's construction impacts to the wastewater system would be temporary and be less than significant.

The Project (Option 1 or Option 2) will require construction of new on-site wastewater infrastructure to serve the new buildings, and potential upgrade and/or relocation of existing wastewater infrastructure. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to public infrastructure. Installation of wastewater infrastructure will be limited to on-site wastewater distribution and minor off-site work associated with connections to the public main. Based on the SCAR analysis, no upgrades to the public main are anticipated. Any work that may affect services to the existing sewer lines will be coordinated with the City of Los Angeles. Furthermore, a Construction Management Plan, which would ensure safe pedestrian access as well as emergency vehicle access and safe vehicle travel in general, will be implemented to reduce any temporary pedestrian and traffic impacts occurring as a result of construction activities. Moreover, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. Therefore, Project impacts on wastewater associated with construction activities would be temporary and less than significant.

### 4.2 OPERATION

#### *4.2.1 WASTEWATER*

##### *4.2.1.1 Sewer Generation*

In accordance with the LA CEQA Thresholds Guide, the Project's estimated sewer flows were based on the Bureau of Sanitation's sewer generation factors for residential and commercial categories. Based on the proposed uses and generation factors, the Project's projected wastewater generation is approximately 20,262 gpd for Option 1 and 20,402 GPD for Option 2, representing a net increase in wastewater generation at the Project Site of approximately 18,369 to 18,509 gpd. A breakdown of these wastewater generation calculations are provided in Table 4-5 (Option 1) and Table 4-6 (Option 2).

## Table 4-1 Option 1 Wastewater Generation

**Option 1 Estimated Project Wastewater Generation**

| Land Use | Floor Area | Wastewater Generation Rate (gpd/unit) (b) | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility | 37,860 | 0.05 | 1,893 |
| **Total Existing** | | | 1,893 |
| **Proposed** | | | |
| Warehouse | 355,390 | 0.03 | 10,662 |
| Office | 80,000 | 0.12 | 9,600 |
| **Total Proposed Wastewater Generation** | | | 20,262 |
| **Less Existing to be Removed** | | | 1,893 |
| **Net Wastewater Generation (Proposed – Existing)** | | | 18,369 |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

**Table 4-2 Option 2 Wastewater Generation**

**Option 2 Estimated Project Wastewater Generation**

| Land Use | Floor Area (sf) | Wastewater Generation Rate (gpd/unit) (b) | Total Wastewater Generation (gpd) |
|---|---|---|---|
| **Existing** | | | |
| Rental Car Facility (a) | 37,860 | 0.05 | 1893 |
| **Total Existing** | | | 1893 |
| **Proposed** | | | |
| Warehouse | 320,056 | 0.03 | 9602 |
| Office | 90,000 | 0.12 | 10800 |
| **Total Proposed Wastewater Generation** | | | 20402 |
| **Less Existing to be Removed** | | | 1893 |
| **Net Wastewater Generation** | | | 18509 |
| **(Proposed – Existing)** | | | |

*sf = square feet*

*gpd = gallons per day*

*(a) The generation rate used for the rental car facility is based upon similar generation rates of car wash, commercial use, and industrial uses.*

*(b) Based on sewage generation rates provided by the City of Los Angeles Bureau of Sanitation (2012).*

A Sewer Capacity Availability Request (SCAR) (Attachment 3) was submitted to the Bureau of Sanitation to determine whether the existing wastewater infrastructure can accommodate the Project. On 2/24/24 Bureau of Sanitation approved the Project to discharge up to 20,262 gpd into the City's system by connecting to the existing sewer lines adjacent to the Project site (Southern side of project) in Arbor Vitae Street (see Attachment 1 for the sewer and water utility map) for Option 1, and approved 20,402 gpd on 5/14/24 for Option 2 . Since the Project's proposed wastewater flows do not impact sewer capacity, wastewater discharge impacts are less than significant.

#### *4.2.1.2 Infrastructure Capacity*

The 18-inch sewer main within Arbor Vitae Street will serve the Project. Sewage from the Project is ultimately conveyed to the City's Hyperion Treatment Plant. The Bureau of Sanitation's most current Integrated Resources Plan (IRP) notes that the existing design capacity of the Hyperion Service Area is approximately 550 MGD (consisting of 450 MGD at the Hyperion Treatment Plant, 80 MGD at the Donald C. Tillman Water Reclamation Plant, and 20 MGD at the Los Angeles- Glendale Water Reclamation Plant), and that the existing average daily flow for the system is approximately 300 MGD. The Hyperion Water Reclamation Plan, which provides water treatment for the project site, has a current remaining capacity of 175MGD. The Project's estimated wastewater generation increase of 18,369-18,509 gpd comprises less than 0.11 percent of the available capacity in the system. Therefore, based on the approved SCAR for the Project and the available wastewater treatment capacity, impacts on wastewater infrastructure would be less than significant.

## 5. CUMULATIVE IMPACTS

### 5.1 WASTEWATER

Either Option 1 or Option 2 of the Project would result in the additional generation of sewer flow. However, as discussed previously, the Bureau of Sanitation has conducted an analysis of existing and planned capacity and determined that adequate capacity exists to serve the Project. Related projects connecting to the same sewer system are required to obtain a sewer connection permit and submit a sewer capacity availability request to the Bureau of Sanitation as part of the related project's development review. If system upgrades are required as a result of a given project's additional flow, arrangements would be made between the related project and the Bureau of Sanitation to construct the necessary improvements. Impact determination will be provided following the completion of the final SCAR analysis.

Wastewater generated by either Option 1 or Option 2 of the Project would be conveyed (offsite) via the existing wastewater conveyance systems for treatment at the Hyperion Treatment Plant system. As previously stated, based on information from the Bureau of Sanitation, the existing design capacity of the Hyperion Service Area is approximately 550 million gallons per day (MGD) and the existing average daily flow for the system is approximately 300 MGD. The Project's estimated wastewater generation increase of 18,369 gpd (Option 1) and 18,509 (Option 1) summarized in Table 4A comprises less than 0.007% of the available capacity in the system. It is expected that the related projects would also be required to adhere to the Bureau of Sanitation's annual wastewater flow increase allotment.

Based on these forecasts, the Project's increase in wastewater generation would be adequately accommodated by the Hyperion Service Area. In addition, the Bureau of Sanitation's analysis confirms that the Hyperion Treatment Plant has sufficient capacity and regulatory allotment for the Proposed Project. Thus, operation of the Project would have a less than significant impact on wastewater treatment facilities.

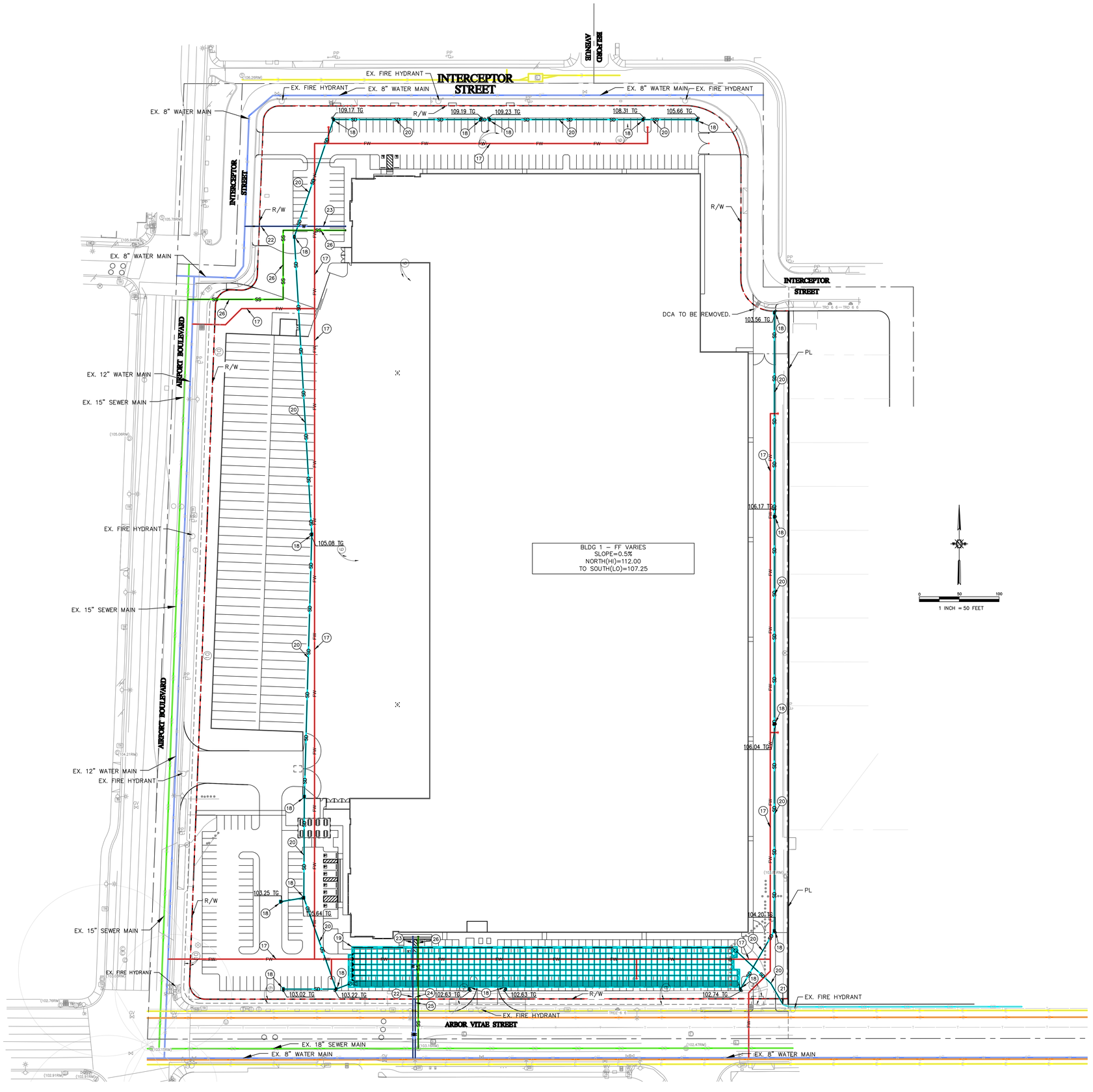
## 6. LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report, no significant wastewater impacts have been identified for either Option 1 or Option 2 of this Project.

## 7. LIST OF ATTACHMENTS

*Attachment 1. Sewer and Water Utility Maps*
*Attachment 2. City of Los Angeles Sewer Wye Map*
*Attachment 3. City of Los Angeles Sewer Capacity Availability Report (SCAR)*

## Attachment 1. Sewer and Water Utility Maps




## CIVIL NOTES

17. FIREWATER
18. STORM DRAIN INLET
19. UNDERGROUND INFILTRATION SYSTEM
20. STORM DRAIN PIPE
21. CONNECTION TO CITY OF LA STORM DRAIN
22. 2" DOMESTIC METER, BACKFLOW
23. 2" DOMESTIC SERVICE
24. 2" LANDSCAPE METER, BACKFLOW
25. 2" LANDSCAPE SERVICE
26. 6" SANITARY SERVICE

## LEGEND

| | |
|---|---|
| WATER LINE | W |
| SANITARY SEWER LINE | SS |
| STORM DRAIN LINE | SD |
| FIRE LINE | FW |
| ELECTRICAL LINE | E |
| GAS LINE | G |

| REV NO | DATE | REVISED | REV BY | CKD BY | APRD BY |
|---|---|---|---|---|---|
| | | DESTROY ALL PRINTS BEARING EARLIER DATE | | | |

Cannon
10842 Von Karman Avenue, Suite 150
Irvine, CA 92606
P 909.793.8111 F 909.793.0775

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CHECKED BY:
DATE 7/18/2024
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PROPOSED ONE STORY WAREHOUSE BUILDING

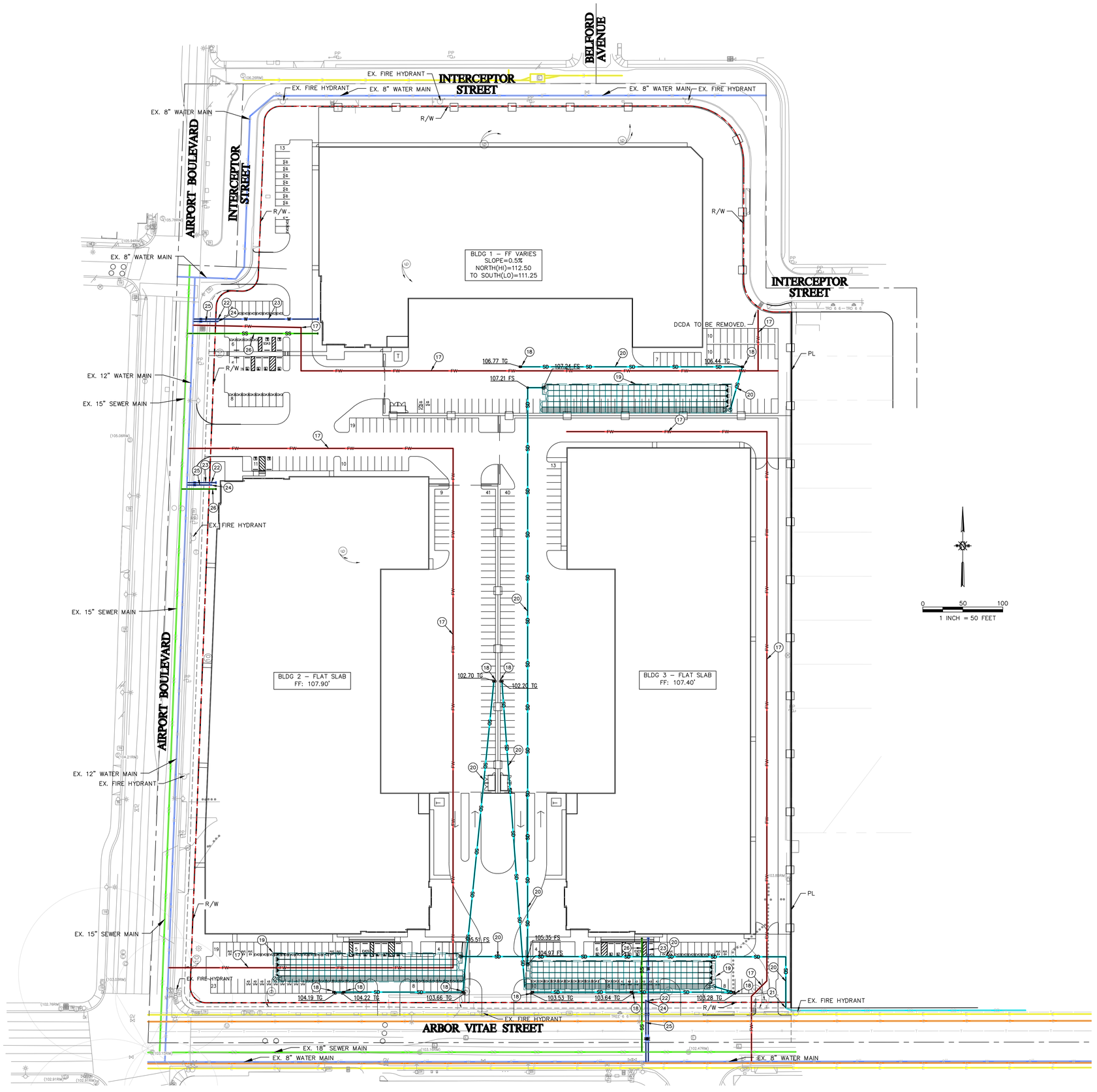
# PRELIMINARY UTILITY PLAN

9000 SOUTH AIRPORT BLVD.
LOS ANGELES, CA

SHEET
C5–1
OF GP5

811 Know what's below. Call before you dig.

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## CIVIL NOTES

17. FIREWATER
18. STORM DRAIN INLET
19. UNDERGROUND INFILTRATION SYSTEM
20. STORM DRAIN PIPE
21. CONNECTION TO CITY OF LA STORM DRAIN
22. 2" DOMESTIC METER, BACKFLOW
23. 2" DOMESTIC SERVICE
24. 2" LANDSCAPE METER, BACKFLOW
25. 2" LANDSCAPE SERVICE
26. 6" SANITARY SERVICE

## LEGEND

| | |
|---|---|
| WATER LINE | W |
| SANITARY SEWER LINE | SS |
| STORM DRAIN LINE | SD |
| FIRE LINE | FW |
| ELECTRICAL LINE | E |
| GAS LINE | G |

| REV NO | DATE | REVISED | REV BY | CKD BY | APPD BY |
|---|---|---|---|---|---|
| | | DESTROY ALL PRINTS BEARING EARLIER DATE | | | |

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PROPOSED ONE STORY WAREHOUSE BUILDING

# PRELIMINARY UTILITY PLAN

9000 SOUTH AIRPORT BLVD.
LOS ANGELES, CA

SHEET
C6 – 3
OF GP–6

Know what's below. Call before you dig.

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**Attachment 2. City of Los Angeles Sewer Wye Map**




0 75 150 300
Feet

N

Notes:

ENGINEERING
CITY OF LOS ANGELES

# WESTLA DISTRICT SEWER WYE MAP

**Sewer Structures**

- Clean Out
- Lamp Hole
- Terminal Cleanout
- Connectivity Node
- Physical Structure Abandoned
- Weir Maintenance Hole
- Gate Valve
- Other Valve
- Outfall
- Relief Valve
- Stub
- Transition-Non Structure
- Diversion Structure
- Drop Trap Maintenance Hole
- Flushing Structure
- Junction Chamber
- Junction Structure
- Maintenance Hole
- Offset Maintenance Hole
- Other Structure
- Siphon
- Special Shallow
- Special Structure
- Terminal Maintenance Structure
- Transition Structure
- Trap Structure
- Valve Vault
- Sewer Ease

**Wyes**

- Has Permit
- No Permit

**Sewer Pipes**

- In Service
- As Bid
- Inactive
- Proposed
- Abandoned
- Lateral

Land Development and GIS Division

Plotted Date: 12/7/2016
Revised :

093B169

**Attachment 3. City of Los Angeles Sewer Capacity Availability Report (SCAR)**

City of Los Angeles
Bureau of Engineering

# Sewer Capacity Availability Request (SCAR)

To: Bureau of Sanitation
The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation. Lateral connection of development shall adhere to Bureau of Engineering Sewer Design Manual Section F 480. **If not listed in the Proposed Facility Description section of the SCAR, sewer ejector use is prohibited.**

| | | | |
|---|---|---|---|
| Job Address: | **9000 S AIRPORT BLVD** | Sanitation Scar ID: | **72-7055-0524** |
| Date Submitted | 02/01/2024 | Request Will Serve Letter? | Yes |
| BOE District: | West LA District | | |
| Applicant: | Samuel Jacoby | | |
| Address: | 16842 Von Karman Ave, Suite 150 | City : | Irvine |
| State: | CA | Zip: | 92606 |
| Phone: | 949-236-1247 | Fax: | |
| Email: | samj@cannoncorp.us | BPA No. | N/A |
| S-Map: | 564 | Wye Map: | 7926-4 |

## SIMM Map - Maintenance Hole Locations

| No. | Street Name | U/S MH | D/S MH | Diam. (in) | Approved Flow % | Notes |
|---|---|---|---|---|---|---|
| 1 | ARBOR VITAE ST | 56405044 | 56405043 | 18 | 100.00 | 90,000 sf office 320,056 sf industrial warehouse |

## Proposed Facility Description

| No. | Proposed Use Description | Sewage Generation (GPD) | Unit | Qty | GPD |
|---|---|---|---|---|---|
| 1 | OFFICE BUILDING | 120 | KGSF | 90,000 | 10,800 |
| 2 | WAREHOUSE | 30 | KGSF | 320,056 | 9,602 |
| | | | | **Proposed Total Flow (gpd):** | **20,402** |

Remarks: 1] Approved for maximum allowable capacity of 20,402 GPD (14.17 gpd) 2] Developer to install and maintain a private odor trap in the public ROW. BOE to confirm connection methods. 3] This SCAR will supersede previous SCAR ID # 72-6941-0224.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

| | | | |
|---|---|---|---|
| Date Processed: | 05/14/2024 | Expires On: | 11/10/2024 |

Processed by: Albert Lew
Bureau of Sanitation
Phone: 323-342-6207
Sanitation Status: Approved
Reviewed by: Erick Medina
on 05/13/2024

Submitted by: Dinah Garin
Bureau of Engineering
West LA District
Phone:

| | | | |
|---|---|---|---|
| Fees Collected | Yes | SCAR FEE (W:37 / QC:704) | $1,430.00 |
| Date Collected | 05/10/2024 | SCAR Status: | **Completed** |

Scar Request Number: 5641

Scar Request Number: 5641

City of Los Angeles
Bureau of Engineering

**SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions**

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

1. Research and trace sewer flow levels upstream and downstream of the point of connection.
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
4. Perform gauging and CCTV inspection if recent data is not available.
5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
7. Correspond with the applicant for additional information and project and clarification as necessary.
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

## Questions and Answers:

1. **When is the SCARF applied, or charged?**
   *It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.*
2. **Why is the SCARF being charged now when it has not been in the past?**
   *The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.*
3. **Where does the SCARF get paid?**
   *The Department of Public Works, Bureau of Engineering (BOE) collects the fee at its public counters. Once the fee is paid then BOE prepares a SCAR request and forwards it to the BOS where it is reviewed and then returned to BOE. BOE then informs the applicant of the result. In some cases, BOS works directly with the applicant during the review of the SCAR to seek additional information and work out alternative solutions*

Scar Request Number: 5641

BOARD OF PUBLIC WORKS MEMBERS
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# CITY OF LOS ANGELES
CALIFORNIA

KAREN BASS
MAYOR

DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

TED ALLEN, PE
CITY ENGINEER

1149 S BROADWAY, SUITE 700
LOS ANGELES, CA 90015-2213

http://engineering.lacity.gov

05/14/2024

**SAMUEL JACOBY**
**16842 VON KARMAN AVE, SUITE 150**
**IRVINE, CA, 92606**

Dear Samuel Jacoby,

**SEWER AVAILABILITY: 9000 S AIRPORT BLVD**

The Bureau of Sanitation has reviewed your request of 02/01/2024 for sewer availability at **9000 S AIRPORT BLVD**. Based on their analysis, it has been determined on 05/14/2024 that there is capacity available to handle the anticipated discharge from your proposed project(s) as indicated in the attached copy of the Sewer Capacity Availability Request (SCAR) .

This determination is valid for 180 days from the date shown on the Sewer Capacity Availability request (SCAR) approved by the Bureau of Sanitation.

While there is hydraulic capacity available in the local sewer system at this time, availability of sewer treatment capacity will be determined at the Bureau of Engineering Public Counter upon presentation of this letter. A Sewer Connection Permit may also be obtained at the same counter provided treatment capacity is available at the time of application.

A Sewerage Facilities Charge is due on all new buildings constructed within the City. The amount of this charge will be determined when application is made for your building permit and the Bureau of Engineering has the opportunity to review the building plans. To facilitate this determination a preliminary set of plans should be submitted to Bureau of Engineering District Office, Public Counter.

Provision for a clean out structure and/or a sewer trap satisfactory to the Department of Building and Safety may be required as part of the sewer connection permit.

Lateral connection of development shall adhere to Bureau of Engineering Sewer Design Manual Section F 480. **If not listed in the Proposed Facility Description section of the SCAR, sewer ejector use is prohibited.**

Scar Request Number: 5641

Sincerely,

Dinah Garin

West LA District, Bureau of Engineering

City of Los Angeles
Bureau of Engineering

**SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions**

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

1. Research and trace sewer flow levels upstream and downstream of the point of connection.
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
4. Perform gauging and CCTV inspection if recent data is not available.
5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
7. Correspond with the applicant for additional information and project and clarification as necessary.
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

## Questions and Answers:

1. **When is the SCARF applied, or charged?**
   *It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.*
2. **Why is the SCARF being charged now when it has not been in the past?**
   *The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.*
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City of Los Angeles
Bureau of Engineering

# Sewer Capacity Availability Request (SCAR)

To: Bureau of Sanitation
The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation. Lateral connection of development shall adhere to Bureau of Engineering Sewer Design Manual Section F 480. **If not listed in the Proposed Facility Description section of the SCAR, sewer ejector use is prohibited.**

| | | | |
|---|---|---|---|
| Job Address: | **9000 S Airport Blvd** | Sanitation Scar ID: | **72-6941-0224** |
| Date Submitted | 02/01/2024 | Request Will Serve Letter? | Yes |
| BOE District: | West LA District | | |
| Applicant: | Samuel Jacoby | | |
| Address: | 16842 Von Karman Ave, Suite 150 | City : | Irvine |
| State: | CA | Zip: | 92606 |
| Phone: | 949-236-1247 | Fax: | |
| Email: | samj@cannoncorp.us | BPA No. | N/A |
| S-Map: | 564 | Wye Map: | 7926-5 7926-1 7926-4 |

## SIMM Map - Maintenance Hole Locations

| No. | Street Name | U/S MH | D/S MH | Diam. (in) | Approved Flow % | Notes |
|---|---|---|---|---|---|---|
| 1 | ARBOR VITAE ST | 56405044 | 56405043 | 18 | 100.00 | 80,000 sf office 355,390 sf industrial warehouse |

## Proposed Facility Description

| No. | Proposed Use Description | Sewage Generation (GPD) | Unit | Qty | GPD |
|---|---|---|---|---|---|
| 1 | OFFICE BUILDING | 120 | KGSF | 80,000 | 9,600 |
| 2 | WAREHOUSE | 30 | KGSF | 355,390 | 10,662 |
| | | | | **Proposed Total Flow (gpd):** | **20,262** |

Remarks: 1] This SCAR supersedes SSID 71-6796-1023. 2] Approved for the maximum allowable capacity of 20,262 GPD (14.07 gpm). 3] Developer to install and maintain a private odor trap in the public ROW outside of the property line and before the mainline that adheres to standard plan S-112. BOE to confirm connection methods.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

| | | | |
|---|---|---|---|
| Date Processed: | 02/24/2024 | Expires On: | 08/22/2024 |

Processed by: Albert Lew
Bureau of Sanitation
Phone: 323-342-6207
Sanitation Status: Approved
Reviewed by: Ricardo Avendano
on 02/21/2024

Submitted by: Dinah Garin
Bureau of Engineering
West LA District
Phone:

| | | | |
|---|---|---|---|
| Fees Collected | Yes | SCAR FEE (W:37 / QC:704) | $1,430.00 |

Scar Request Number: 5640

| | | | |
|---|---|---|---|
| Date Collected | 02/20/2024 | SCAR Status: | **Completed** |

Scar Request Number: 5640

City of Los Angeles
Bureau of Engineering

**SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions**

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

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2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
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Scar Request Number: 5640

# Appendix A.2

Notice of Preparation (NOP)

LOS ANGELES
DEPARTMENT OF CITY
PLANNING
221 North Figueroa St., Suite 1350
Los Angeles, CA 90012

# NOTICE OF PREPARATION
## OF ENVIRONMENTAL IMPACT REPORT

**August 21, 2024**

***Puede obtener información en Español acerca de esta junta llamando al (213) 847-3625.***

| | |
|---|---|
| **ENVIRONMENTAL CASE NO.:** | ENV-2023-6757-EIR |
| **PROJECT NAME:** | 9000 Airport Boulevard |
| **PROJECT APPLICANT:** | Rexford Industrial – 9000 Airport, LLC |
| **PROJECT ADDRESS:** | 9000-9160 S. Airport Boulevard; 5801-5881 W. Arbor Vitae Street; 5820-5880 W. Interceptor Street; 8941 and 8940-9000 S. Interceptor Street; Los Angeles, California 90045 |
| **COMMUNITY PLAN AREA:** | Westchester – Playa del Rey |
| **COUNCIL DISTRICT:** | 11 - Park |
| **PUBLIC COMMENT PERIOD:** | August 21, 2024–September 20, 2024 |

The City of Los Angeles (City) intends to prepare an Environmental Impact Report (EIR) for the proposed 9000 Airport Boulevard Project (Project). In accordance with Section 15082 of the California Environmental Quality Act (CEQA) Guidelines, the City has prepared this Notice of Preparation to provide the public, nearby residents and property owners, responsible agencies, and other interested parties with information regarding the Project and its potential environmental effects. The EIR will be prepared by outside consultants under the supervision of the City of Los Angeles, Department of City Planning.

The City requests your written comments as to the scope and contents of the EIR, including mitigation measures or project alternatives to reduce potential environmental impacts from the Project. Comments must be submitted in writing according to the directions below. If you represent a public agency, the City seeks written comments as to the scope and content of the environmental information in the EIR that are germane to your agency's statutory responsibilities in connection with the Project. Your agency may need to use the EIR prepared by the City when considering your permit or other approval for the Project.

**PROJECT LOCATION AND EXISTING ON-SITE USES:** The Project Site is located within the Westchester–Playa del Rey Community Plan area of the City. As shown in **Figure 1, Project Location Map**, the approximately 18-acre Project Site is bounded by W. Interceptor Street to the north, W. Arbor Vitae Street to the south, residential uses and surface parking to the east, and S. Airport Boulevard to the west.The Project Site is currently developed with an approximately 37,860-square-foot rental car facility within two single-story buildings, accessory structures including a carwash, solar panel canopies, and fueling station canopies, and surface parking.

**PROJECT DESCRIPTION:** The 9000 Airport Boulevard Project (Project) would develop up to 435,390 square feet of industrial uses on an approximately 18-acre site. The Project includes two options: Option 1 would develop one building comprised of up to 435,390 square feet of industrial floor area and a maximum building height of 50 feet. Option 2 would develop three buildings comprised of up to 410,056 square feet of industrial floor area a maximum building height of 46 feet. The Project would include truck trailer parking spaces and vehicle parking

spaces under Option 1, and vehicle parking spaces under Option 2. A total of 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas would be demolished.

The attached **Figure 2 and Figure 3** illustrate the conceptual development plans for Option 1 and Option 2 of the Project, respectively. The following table identifies the existing and proposed uses for the Project for environmental impact analysis purposes:

**Table 1**
**Summary of Existing and Proposed Floor Area**

| Land Use | Option 1 Floor Area | Option 2 Floor Area |
|---|---|---|
| **Existing (All to Be Removed)** | | |
| Commercial/Industrial (Rental Car Facility Structures) | 37,860 sf | 37,860 sf |
| *Total Existing Floor Area to Be Removed* | *37,860 sf* | *37,860 sf* |
| **New Construction** | | |
| Industrial | 355,390 sf | 320,056 sf |
| Office (Ancillary) | 80,000 sf | 90,000 sf |
| Total New Construction | 435,390 sf | 410,056 sf |
| **Total Floor Area Upon Completion** | **435,390 sf** | **410,056 sf** |

*sf = square feet*

[a] *Square footage is calculated pursuant to the Los Angeles Municipal Code (LAMC) definition of floor area for the purpose of calculating FAR. In accordance with LAMC Section 12.03, floor area is defined as "[t]he area in square feet confined within the exterior walls of a building, but not including the area of the following: exterior walls, stairways, shafts, rooms housing building-operating equipment or machinery, parking areas with associated driveways and ramps, space dedicated to bicycle parking, space for the landing and storage of helicopters, outdoor dining areas, and basement storage areas.*

*Source: Eyestone Environmental, 2024.*

**REQUESTED ACTIONS:**

- A **Vesting Class 2 Conditional Use Permit** for a Commercial Corner Development in an M zone, adjoining a R zoned lot, to allow:
  - Hours of operation outside the otherwise permitted hours of 7:00am to 11:00pm;
  - A maximum building height of 50 feet in lieu of the otherwise permitted height of 45 feet;
  - Commercial tandem parking, as otherwise not permitted; and
  - Less than 50 percent of the exterior walls and doors of a ground floor fronting adjacent streets containing transparent windows.

- A **Vesting Class 3 Conditional Use Permit** for a Major Development Project in the M1 Zone which creates more than 250,000 square feet of warehouse floor area.

- A **Project Review** to permit the development of a project which creates or results in an increase of 50,000 square feet or more of nonresidential floor area.

- Other discretionary and ministerial permits that may be deemed necessary, including, but not limited to, temporary street closure permits, grading permits, excavation permits, foundation permits, building permits, and sign permits.

**POTENTIAL ENVIRONMENTAL EFFECTS OF THE PROJECT:** Based on the Initial Study, the Project could have potentially significant environmental impacts in the following topic areas, which will be addressed in the EIR: Aesthetics, Air Quality, Energy, Geology and Soils (Paleontological Resources), Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise and Vibration, Transportation, Tribal Cultural Resources, and Utilities and Service Systems (Energy Infrastructure).

**FILE REVIEW AND COMMENTS:** A copy of this notice and the Initial Study prepared for the Project may be viewed with the environmental file or online at **https://planning.lacity.gov/development-services/eir** by searching for the Environmental Case No. or Project Name.

The environmental file is available for public review, by appointment only, at the City of Los Angeles, Department of City Planning, 221 North Figueroa Street, Suite 1350, Los Angeles, CA 90012, during office hours Monday–Friday, 9:00 A.M.–4:00 P.M. Please contact the Staff Planner listed below to schedule an appointment.

Digital copies are also available for review at the following library locations:

1. Los Angeles Central Library, 630 West Fifth Street, Los Angeles, CA 90071
2. Westchester – Loyola Village Branch Library, 7114 West Manchester Avenue, Los Angeles, CA 90045
3. Playa Vista Branch Library, 6400 Playa Vista Drive, Los Angeles, CA 90094

The City will consider all written comments regarding the potential environmental impacts of the Project and issues to be addressed in the EIR. If you wish to submit comments, please reference the Environmental Case No. above, and submit them in writing by **September 20, 2024, no later than 4:00 P.M.**

Please direct your comments to:

**Mail:** Kiersten Turner
City of Los Angeles, Department of City Planning
221 North Figueroa Street, Room 1350
Los Angeles, CA 90012

**E-mail:** Kiersten.Turner@lacity.org

VINCENT P. BERTONI, AICP
Director of Planning

Kiersten Turner

Kiersten Turner, Planning Assistant
Department of City Planning
(213) 756-1731

**Attachments:**

Figure 1: Project Location Map
Figure 2: Conceptual Site Plan – Option 1
Figure 3: Conceptual Site Plan – Option 2

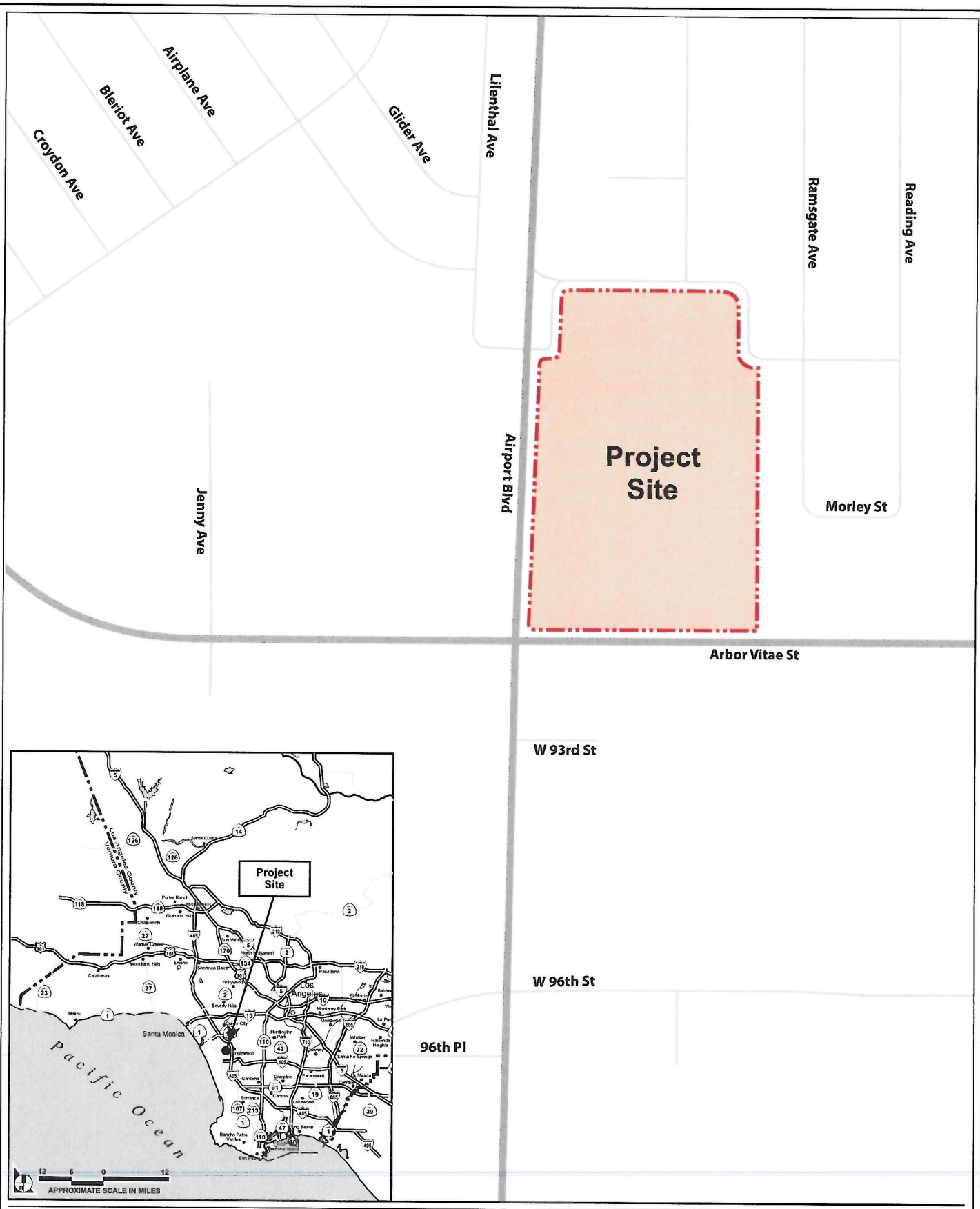



**Figure 1**
Project Site and Development Area

Source: Eyestone Environmental, 2023.

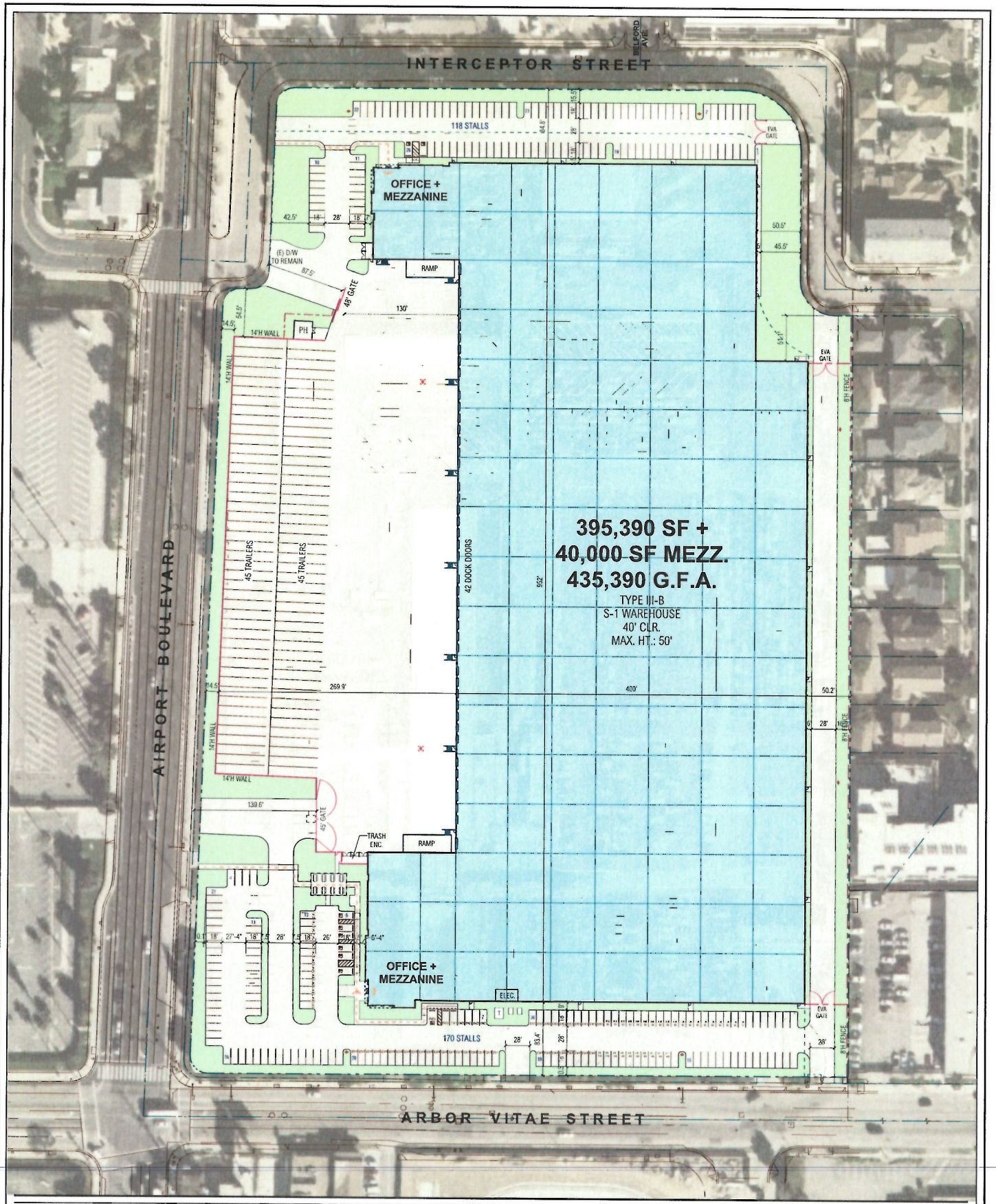



**Figure 2**
Conceptual Site Plan - Option 1

Source: RGA Office of Architectural Design, 2024.

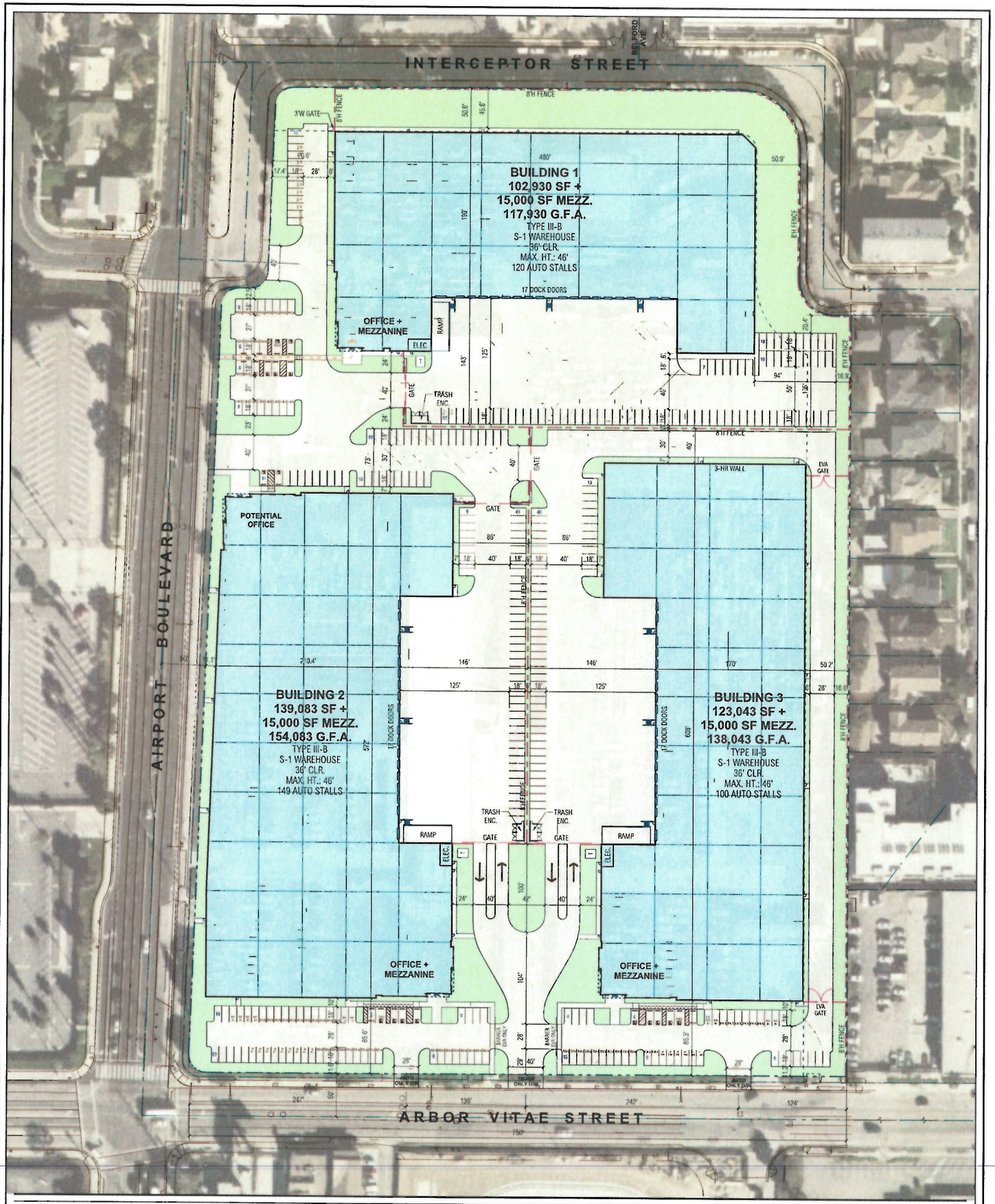



**Figure 3**
Conceptual Site Plan - Option 2

Source: RGA Office of Architectural Design, 2024.

# Appendix A.3

NOP Comment Letters

**Kiersten Turner <kiersten.turner@lacity.org>**

# Environmental Case No. ENV-2023-6757-EIR

1 message

**Alice Prasad** <avprasad54@gmail.com> Wed, Sep 4, 2024 at 4:56 PM
To: "kiersten.turner@lacity.org" <kiersten.turner@lacity.org>

**Subject: Concerns Regarding Development at Hertz Rental Car Site m- Project Applicant Rexford Industrial - 9000 Airport, LLC**

We express our concerns regarding the proposed development project at the Hertz Rental Car site. As residents of Westchester, I am particularly interested in the potential impacts of this project on our community and ourselves as we live right across from the site.

I would like to inquire about the specific measures that have been considered to mitigate noise pollution, both from construction activities and from the operations of the completed development. Additionally, I am concerned about the potential increase in traffic noise and congestion due to the project. Please provide details on the traffic studies conducted and the proposed mitigation strategies to address these concerns.

Furthermore, I would like to understand the plans for parking and ingress/egress, particularly for large trucks and other commercial vehicles that may be associated with the development. It is essential that these aspects are carefully considered to minimize disruptions to the surrounding neighborhood.

Finally, I would like to know if a community meeting has been held to discuss this project and gather input from local residents. Such a meeting would provide an opportunity for the community to voice their concerns and suggestions, ensuring that the development is aligned with the needs and desires of the neighborhood.

I would appreciate it if you could provide information on the timeline for this project, including when it is expected to go before the Planning Commission. Thank you for your attention to these important matters.

Sincerely

Vijay and Alice Prasad

***ROB BONTA***
***Attorney General***

***State of California***
***DEPARTMENT OF JUSTICE***

1300 I STREET, SUITE 125
P.O. BOX 944255
SACRAMENTO, CA 94244-2550

E-Mail: EJ@doj.ca.gov

August 27, 2024

Kiersten Turner, Planning Assistant
City of Los Angeles
221 N. Figueroa St., Room 1350
Los Angeles, CA 90012

RE: 9000 Airport Boulevard Project, SCH #2024080852

Dear Ms. Turner:

Thank you for the opportunity to provide comments on the Notice of Preparation for the 9000 Airport Boulevard Project. While the logistics industry is an important component of our modern economy, warehouses can bring various environmental impacts to the communities where they are located. For example, diesel trucks visiting warehouses emit nitrogen oxide ($NO_x$)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.[1] Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.[2] The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate can contribute to traffic jams, deterioration of road surfaces, traffic accidents, and unsafe conditions for pedestrians and bicyclists. Depending on the circumstances of an individual project, warehouses may also have other environmental impacts.

To help lead agencies avoid, analyze, and mitigate warehouses' environmental impacts, the Attorney General Office's Bureau of Environmental Justice has published a document containing best practices and mitigation measures for warehouse projects. We have attached a

[1] California Air Resources Board, Nitrogen Dioxide & Health, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health (NOx); California Air Resources Board, Summary: Diesel Particular Matter Health Impacts, https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts; Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf (DPM).

[2] Noise Sources and Their Effects, https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

copy of this document to this letter, and it is also available online.[3] We encourage you to consider the information in this document as you prepare the draft environmental impact report for this project.

Priority should be placed on avoiding land use conflicts between warehouses and sensitive receptors and on mitigating the impacts of any unavoidable land use conflicts. However, even projects located far from sensitive receptors may contribute to harmful regional air pollution, so you should consider measures to reduce emissions associated with the project to help the State meet its air quality goals. A distant warehouse may also impact sensitive receptors if trucks must pass near sensitive receptors to visit the warehouse.

The Bureau will continue to monitor proposed warehouse projects for compliance with the California Environmental Quality Act and other laws. We are available to discuss as you prepare the draft environmental impact report and consider how to guide warehouse development in your jurisdiction. Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

Sincerely,



CHRISTIE VOSBURG
Supervising Deputy Attorney General

For ROB BONTA
Attorney General

[3] https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf.

*l*

*ROB BONTA*
*Attorney General*

*State of California*
*DEPARTMENT OF JUSTICE*

# Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act

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VII. Traffic Impacts Analysis and Mitigation ..... 11
VIII. Other Significant Environmental Impacts Analysis and Mitigation ..... 12
IX. Conclusion ..... 13

In carrying out its duty to enforce laws across California, the California Attorney General's Bureau of Environmental Justice (Bureau)[1] regularly reviews proposed warehouse projects for compliance with the California Environmental Quality Act (CEQA) and other laws. When necessary, the Bureau submits comment letters to lead agencies regarding warehouse projects, and in rare cases the Bureau has filed litigation to enforce CEQA.[2] This document builds upon the Bureau's work on warehouse projects, collecting information gained from the Bureau's review of hundreds of warehouse projects across the state.[3] It is meant to help lead agencies pursue CEQA compliance and promote environmentally-just development as they confront warehouse project proposals.[4] While CEQA analysis is necessarily project-specific, this document provides information on feasible best practices and mitigation measures, nearly all of which have been adapted from actual warehouse projects in California.

## I. Background

In recent years, the proliferation of e-commerce and rising consumer expectations of rapid shipping have contributed to a boom in warehouse development.[5] California, with its ports, population centers, and transportation network, has found itself at the center of this trend. In 2020, the Ports of Los Angeles, Long Beach, and Oakland collectively accounted for over 34% of all United States international container trade.[6] The Ports of Los Angeles and Long Beach alone generate about 35,000 container truck trips every day.[7] Accordingly, the South Coast Air Basin now contains approximately 3,000 warehouses of over 100,000 square feet each, with a total warehouse capacity of approximately 700 million square feet, an increase of 20 percent over the last five years.[8] This trend has only accelerated, with e-commerce growing to

[1] https://oag.ca.gov/environment/justice.
[2] https://oag.ca.gov/environment/ceqa; *People of the State of California v. City of Fontana* (Super. Ct. San Bernardino County, No. CIVSB2121829); *South Central Neighbors United et al. v. City of Fresno et al.* (Super. Ct. Fresno County, No. 18CECG00690).
[3] This September 2022 version revises and replaces the prior March 2021 version of this document.
[4] Anyone reviewing this document to determine CEQA compliance responsibilities should consult their own attorney for legal advice.
[5] As used in this document, "warehouse" or "logistics facility" is defined as a facility consisting of one or more buildings that stores cargo, goods, or products on a short- or long-term basis for later distribution to businesses and/or retail customers.
[6] Data from the Bureau of Transportation Statistics, Container TEUs (Twenty-foot Equivalent Units) (2020), https://data.bts.gov/stories/s/Container-TEU/x3fb-aeda/ (Ports of Los Angeles, Long Beach, and Oakland combined for 14.157 million TEUs, 34% of 41.24 million TEUs total nationwide) (last accessed September 18, 2022).
[7] U.S. Dept. of Transportation, Federal Highway Administration, *FHWA Operations Support – Port Peak Pricing Program Evaluation* (2020), available at https://ops.fhwa.dot.gov/publications/fhwahop09014/sect2.htm (last accessed September 18, 2022).
[8] South Coast Air Qual. Mgmt. Dist., *Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305*, at 7-8, 41 (May 2021).

13% of all retail sales and 2021 being a second consecutive record year for new warehouse space leased.[9] The latest data and forecasts predict that the next wave of warehouse development will be in the Central Valley.[10]

When done properly, these activities can contribute to the economy and consumer welfare. However, imprudent warehouse development can harm local communities and the environment. Among other pollutants, diesel trucks visiting warehouses emit nitrogen oxide ($NO_x$)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.[11] Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.[12] The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate contribute to traffic jams, deterioration of road surfaces, and traffic accidents.

These environmental impacts also tend to be concentrated in neighborhoods already suffering from disproportionate health impacts and systemic vulnerability. For example, a comprehensive study by the South Coast Air Quality Management District found that communities located near large warehouses scored far higher on California's environmental justice screening tool, which measures overall pollution and demographic vulnerability.[13] That

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[9] U.S. Census Bureau News, Quarterly Retail E-Commerce Sales 4th Quarter 2021 (February 22, 2022), https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf (last accessed September 18, 2022); CBRE Research, *2022 North America Industrial Big Box Report: Review and Outlook*, at 2-3 (March 2022), *available at* https://www.cbre.com/insights/reports/2022-north-america-industrial-big-box#download-report (last accessed September 18, 2022).

[10] CBRE Research, *supra note* 9, at 4, 36; New York Times, *Warehouses Are Headed to the Central Valley, Too* (Jul. 22, 2020), *available* at https://www.nytimes.com/2020/07/22/us/coronavirus-ca-warehouse-workers.html.

[11] California Air Resources Board, Nitrogen Dioxide & Health, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health (last accessed September 18, 2022) (NOx); California Air Resources Board, Summary: Diesel Particular Matter Health Impacts, https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts (last accessed September 18, 2022); Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf (last accessed September 18, 2022) (DPM).

[12] Noise Sources and Their Effects, https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm (last accessed September 18, 2022) (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

[13] South Coast Air Quality Management District, "Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305" (May 2021), at 4-5.

study concluded that, compared to the South Coast Air Basin averages, communities in the South Coast Air Basin near large warehouses had a substantially higher proportion of people of color; were exposed to more diesel particulate matter; had higher rates of asthma, cardiovascular disease, and low birth weights; and had higher poverty and unemployment rates.[14] Each area has its own unique history, but many of these impacts and vulnerabilities reflect historic redlining practices in these communities, which devalued land and concentrated poverty, racial outgroups, and pollution into designated areas.[15]

## II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies

To systematically guide warehouse development, we encourage local governing bodies to proactively plan for logistics projects in their jurisdictions. Proactive planning allows jurisdictions to prevent land use conflicts before they materialize and direct sustainable development. Benefits also include providing a predictable business environment, protecting residents from environmental harm, and setting consistent expectations jurisdiction-wide.

Proactive planning can take many forms. Land use designation and zoning decisions should channel development into appropriate areas. For example, establishing industrial districts near major highway and rail corridors but away from sensitive receptors[16] can help attract investment while avoiding conflicts between warehouse facilities and residential communities. Transition zones with lighter industrial and commercial land uses may also help minimize conflicts between residential and industrial uses.

In addition, general plan policies, local ordinances, and good neighbor policies should set minimum standards for logistics projects. General plan policies can be incorporated into existing economic development, land use, circulation, or other related general plan elements. Many jurisdictions alternatively choose to consolidate policies in a separate environmental justice element. Adopting general plan policies to guide warehouse development may also help

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[14] *Id*. at 5-7.

[15] Beginning in the 1930s, federal housing policy directed investment away from Black, immigrant, and working-class communities by color-coding neighborhoods according to the purported "riskiness" of loaning to their residents. In California cities where such "redlining" maps were drawn, nearly all of the communities where warehouses are now concentrated were formerly coded "red," signifying the least desirable areas where investment was to be avoided. *See* University of Richmond Digital Scholarship Lab, Mapping Inequality, https://dsl.richmond.edu/panorama/redlining/#loc=12/33.748/-118.272&city=los-angeles-ca (Los Angeles), https://dsl.richmond.edu/panorama/redlining/#loc=13/32.685/-117.132&city=san-diego-ca (San Diego), https://dsl.richmond.edu/panorama/redlining/#loc=11/37.81/-122.38&city=oakland-ca (Oakland), https://dsl.richmond.edu/panorama/redlining/#loc=13/37.956/-121.326&city=stockton-ca (Stockton), https://dsl.richmond.edu/panorama/redlining/#loc=12/36.751/-119.86&city=fresno-ca (Fresno) (all last accessed September 18, 2022).

[16] In this document, "sensitive receptors" refers to residences, schools, public recreation facilities, health care facilities, places of worship, daycare facilities, community centers, or incarceration facilities.

jurisdictions comply with their obligations under SB 1000, which requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities.[17]

Local ordinances and good neighbor policies that set development standards for all warehouses in the jurisdiction are a critical and increasingly common tool that serve several goals. When well-designed, these ordinances direct investment to local improvements, provide predictability for developers, conserve government resources by streamlining project review processes, and reduce the environmental impacts of industrial development. While many jurisdictions have adopted warehouse-specific development standards, an ordinance in the City of Fontana provides an example to review and build upon.[18] Good neighbor policies in Riverside County and by the Western Riverside Council of Government include additional measures worth consideration.[19]

The Bureau encourages jurisdictions to adopt their own local ordinances that combine the strongest policies from those models with measures discussed in the remainder of this document.

## III. Community Engagement

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial. Examples of best practices for community engagement include:

- Holding a series of community meetings at times and locations convenient to members of the affected community and incorporating suggestions into the project design.
- Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The

[17] For more information about SB 1000, *see* https://oag.ca.gov/environment/sb1000.
[18] https://oag.ca.gov/system/files/attachments/press-docs/Final%20Signed%20Fontana%20Ordinance.pdf (last accessed September 18, 2022).
[19] For example, the Riverside County policy requires community benefits agreements and supplemental funding contributions toward additional pollution offsets, and the Western Riverside Council of Governments policy sets a minimum buffer zone of 300 meters between warehouses and sensitive receptors. https://www.rivcocob.org/wp-content/uploads/2020/01/Good-Neighbor-Policy-F-3-Final-Adopted.pdf (last accessed September 18, 2022) (Riverside County); http://www.wrcog.cog.ca.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId= (last accessed September 18, 2022) (Western Riverside Council of Governments).

information should be in a format that is easy to navigate and understand for members of the affected community.

- Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.
- Providing translation or interpretation in residents' native language, where appropriate.
- For public meetings broadcast online or otherwise held remotely, providing for access and public comment by telephone and supplying instructions for access and public comment with ample lead time prior to the meeting.
- Partnering with local community-based organizations to solicit feedback, leverage local networks, co-host meetings, and build support.
- Considering adoption of a community benefits agreement, negotiated with input from affected residents and businesses, by which the developer provides benefits to the affected community.
- Creating a community advisory board made up of local residents to review and provide feedback on project proposals in early planning stages.
- Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community liaison to the surrounding community.
- Requiring signage in public view at warehouse facilities with contact information for a local designated representative for the facility operator who can receive community complaints, and requiring any complaints to be answered by the facility operator within 48 hours of receipt.

## IV. Warehouse Siting and Design Considerations

The most important consideration when planning a logistics facility is its location. Warehouses located in residential neighborhoods or near sensitive receptors expose community residents and those using or visiting sensitive receptor sites to the air pollution, noise, traffic, and other environmental impacts they generate. Therefore, placing facilities away from sensitive receptors significantly reduces their environmental and quality of life harms on local communities. The suggested best practices for siting and design of warehouse facilities does not relieve lead agencies' responsibility under CEQA to conduct a project-specific analysis of the project's impacts and evaluation of feasible mitigation measures and alternatives; lead agencies' incorporation of the best practices must be part of the impact, mitigation and alternatives analyses to meet the requirements of CEQA. Examples of best practices when siting and designing warehouse facilities include:

- Per California Air Resources Board (CARB) guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors.[20]
- Providing adequate amounts of on-site parking to prevent trucks and other vehicles from parking or idling on public streets and to reduce demand for off-site truck yards.
- Establishing setbacks from the property line of the nearest sensitive receptor to warehouse dock doors, loading areas, and truck drive aisles, and locating warehouse dock doors, loading areas, and truck drive aisles on the opposite side of the building from the nearest sensitive receptors—e.g., placing dock doors on the north side of the facility if sensitive receptors are near the south side of the facility.
- Placing facility entry and exit points from the public street away from sensitive receptors—e.g., placing these points on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Ensuring heavy duty trucks abide by the on-site circulation plans by constructing physical barriers to block those trucks from using areas of the project site restricted to light duty vehicles or emergency vehicles only.
- Preventing truck queuing spillover onto surrounding streets by positioning entry gates after a minimum of 140 feet of space for queuing, and increasing the distance by 70 feet for every 20 loading docks beyond 50 docks.
- Locating facility entry and exit points on streets of higher commercial classification that are designed to accommodate heavy duty truck usage.
- Screening the warehouse site perimeter and onsite areas with significant truck traffic (e.g., dock doors and drive aisles) by creating physical, structural, and/or vegetative buffers that prevent or substantially reduce pollutant and noise dispersion from the facility to sensitive receptors.
- Planting exclusively 36-inch box evergreen trees to ensure faster maturity and four-season foliage.
- Requiring all property owners and successors in interest to maintain onsite trees and vegetation for the duration of ownership, including replacing any dead or unhealthy trees and vegetation.
- Posting signs clearly showing the designated entry and exit points from the public street for trucks and service vehicles.
- Including signs and drive aisle pavement markings that clearly identify onsite circulation patterns to minimize unnecessary onsite vehicle travel.
- Posting signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

[20] CARB, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), at ES-1. CARB staff has released draft updates to this siting and design guidance which suggests a greater distance may be warranted in some scenarios. CARB, Concept Paper for the Freight Handbook (December 2019), *available at* https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf (last accessed September 18, 2022).

## V. Air Quality and Greenhouse Gas Emissions Analysis and Mitigation

Emissions of air pollutants and greenhouse gases are often among the most substantial environmental impacts from new warehouse facilities. CEQA compliance demands a proper accounting of the full air quality and greenhouse gas impacts of logistics facilities and adoption of all feasible mitigation of significant impacts. Although efforts by CARB and other authorities to regulate the heavy-duty truck and off-road diesel fleets have made excellent progress in reducing the air quality impacts of logistics facilities, the opportunity remains for local jurisdictions to further mitigate these impacts at the project level. Lead agencies and developers should also consider designing projects with their long-term viability in mind. Constructing the necessary infrastructure to prepare for the zero-emission future of goods movement not only reduces a facility's emissions and local impact now, but it can also save money as demand for zero-emission infrastructure grows. In planning new logistics facilities, the Bureau strongly encourages developers to consider the local, statewide, and global impacts of their projects' emissions.

Examples of best practices when studying air quality and greenhouse gas impacts include:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts. In general, new warehouse developments are not ministerial under CEQA because they involve public officials' personal judgment as to the wisdom or manner of carrying out the project, even when warehouses are permitted by a site's applicable zoning and/or general plan land use designation.[21]
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds.
- Preparing a quantitative air quality study in accordance with local air district guidelines.
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines.
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is required regardless of CEQA.
- Disclosing air pollution from the entire expected length of truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.

[21] CEQA Guidelines § 15369.

- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California's Cap-and-Trade Program.

Examples of measures to mitigate air quality and greenhouse gas impacts from construction are below. To ensure mitigation measures are enforceable and effective, they should be imposed as permit conditions on the project where applicable.

- Requiring off-road construction equipment to be hybrid electric-diesel or zero-emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.
- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.

Examples of measures to mitigate air quality and greenhouse gas impacts from operation include:

- Requiring all heavy-duty vehicles engaged in drayage[22] to or from the project site to be zero-emission beginning in 2030.

[22] "Drayage" refers generally to transport of cargo to or from a seaport or intermodal railyard.

- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of

trucks.

- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

## VI. Noise Impacts Analysis and Mitigation

The noise associated with logistics facilities can be among their most intrusive impacts to nearby sensitive receptors. Various sources, such as unloading activity, diesel truck movement, and rooftop air conditioning units, can contribute substantial noise pollution. These impacts are exacerbated by logistics facilities' typical 24-hour, seven-days-per-week operation. Construction noise is often even greater than operational noise, so if a project site is near sensitive receptors, developers and lead agencies should adopt measures to reduce the noise generated by both construction and operation activities.

Examples of best practices when studying noise impacts include:

- Preparing a noise impact analysis that considers all reasonably foreseeable project noise impacts, including to nearby sensitive receptors. All reasonably foreseeable project noise impacts encompasses noise from both construction and operations, including stationary, on-site, and off-site noise sources.
- Adopting a lower significance threshold for incremental noise increases when baseline noise already exceeds total noise significance thresholds, to account for the cumulative impact of additional noise and the fact that, as noise moves up the decibel scale, each decibel increase is a progressively greater increase in sound

pressure than the last. For example, 70 dBA is ten times more sound pressure than 60 dBA.

- Disclosing and considering the significance of short-term noise levels associated with all aspects of project operation (i.e. both on-site noise generation and off-site truck noise). Considering only average noise levels may mask noise impacts sensitive receptors would consider significant—for example, the repeated but short-lived passing of individual trucks or loading activities at night.

Examples of measures to mitigate noise impacts include:

- Constructing physical, structural, or vegetative noise barriers on and/or off the project site.
- Planning and enforcing truck routes that avoid passing sensitive receptors.
- Locating or parking all stationary construction equipment as far from sensitive receptors as possible, and directing emitted noise away from sensitive receptors.
- Verifying that construction equipment has properly operating and maintained mufflers.
- Requiring all combustion-powered construction equipment to be surrounded by a noise protection barrier
- Limiting operation hours to daytime hours on weekdays.
- Paving roads where truck traffic is anticipated with low noise asphalt.
- Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line.

## VII. Traffic Impacts Analysis and Mitigation

Warehouse facilities inevitably bring truck and passenger car traffic. Truck traffic can present substantial safety issues. Collisions with heavy-duty trucks are especially dangerous for passenger cars, motorcycles, bicycles, and pedestrians. These concerns can be even greater if truck traffic passes through residential areas, school zones, or other places where pedestrians are common and extra caution is warranted.

Examples of measures to mitigate traffic impacts include:

- Designing, clearly marking, and enforcing truck routes that keep trucks out of residential neighborhoods and away from other sensitive receptors.
- Installing signs in residential areas noting that truck and employee parking is prohibited.
- Requiring preparation and approval of a truck routing plan describing the facility's hours of operation, types of items to be stored, and truck routing to and from the facility to designated truck routes that avoids passing sensitive receptors. The plan should include measures for preventing truck queuing, circling, stopping, and parking on public streets, such as signage, pavement markings, and queuing analysis and enforcement. The plan should hold facility operators responsible for violations of the truck routing plan, and a revised plan should be required from any new tenant that occupies the property before a business license

is issued. The approving agency should retain discretion to determine if changes to the plan are necessary, including any additional measures to alleviate truck routing and parking issues that may arise during the life of the facility.
- Constructing new or improved transit stops, sidewalks, bicycle lanes, and crosswalks, with special attention to ensuring safe routes to schools.
- Consulting with the local public transit agency and securing increased public transit service to the project area.
- Designating areas for employee pickup and drop-off.
- Implementing traffic control and safety measures, such as speed bumps, speed limits, or new traffic signs or signals.
- Placing facility entry and exit points on major streets that do not have adjacent sensitive receptors.
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.
- Constructing roadway improvements to improve traffic flow.
- Preparing a construction traffic control plan prior to grading, detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.

## VIII. Other Significant Environmental Impacts Analysis and Mitigation

Warehouse projects may result in significant environmental impacts to other resources, such as to aesthetics, cultural resources, energy, geology, or hazardous materials. All significant adverse environmental impacts must be evaluated, disclosed and mitigated to the extent feasible under CEQA. Examples of best practices and mitigation measures to reduce environmental impacts that do not fall under any of the above categories include:

- Appointing a compliance officer who is responsible for implementing all mitigation measures, and providing contact information for the compliance officer to the lead agency, to be updated annually.
- Creating a fund to mitigate impacts on affected residents, schools, places of worship, and other community institutions by retrofitting their property. For example, retaining a contractor to retrofit/install HVAC and/or air filtration systems, doors, dual-paned windows, and sound- and vibration-deadening insulation and curtains.
- Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.
- Directing all lighting at the facility into the interior of the site.
- Using full cut-off light shields and/or anti-glare lighting.
- Requiring submission of a property maintenance program for agency review and approval providing for the regular maintenance of all building structures, landscaping, and paved surfaces.
- Using cool pavement to reduce heat island effects.

- Planting trees in parking areas to provide at least 35% shade cover of parking areas within fifteen years to reduce heat island impacts.
- Using light colored roofing materials with a solar reflective index of 78 or greater.
- Including on-site amenities, such as a truck operator lounge with restrooms, vending machines, and air conditioning, to reduce the need for truck operators to idle or travel offsite.
- Designing skylights to provide natural light to interior worker areas.
- Installing climate control and air filtration in the warehouse facility to promote worker well-being.

## IX. Conclusion

California's world-class economy, ports, and transportation network position it at the center of the e-commerce and logistics industry boom. At the same time, California is a global leader in environmental protection and environmentally just development. The guidance in this document furthers these dual strengths, ensuring that all can access the benefits of economic development. The Bureau will continue to monitor proposed projects for compliance with CEQA and other laws. Lead agencies, developers, community advocates, and other interested parties should feel free to reach out to us as they consider how to guide warehouse development in their area.

Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

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*Making Conservation a California Way of Life*

September 19, 2024

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Los Angeles, CA 90012

RE: 9000 Airport Boulevard
SCH # 2024080852
Vic. LA-405/PM 22.73, LA-1/PM 27.4
GTS # LA-2024-04611-NOP

Dear Kiersten Turner:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced NOP. The Project would develop up to 435,390 square feet of industrial uses on an approximately 18-acre site. The Project includes two options: Option 1 would develop one building comprised of up to 435,390 square feet of industrial floor area and a maximum building height of 50 feet. Option 2 would develop three buildings comprised of up to 410,056 square feet of industrial floor area a maximum building height of 46 feet. The Project would include truck trailer parking spaces and vehicle parking spaces under Option 1, and vehicle parking spaces under Option 2. A total of 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas would be demolished.

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Senate Bill 743 (2013) has codified into CEQA law and mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. You may reference the Governor's Office of Planning and Research (OPR) for more information:

https://opr.ca.gov/ceqa/#guidelines-updates

As a reminder, VMT is the standard transportation analysis metric in CEQA for land use projects after July 1, 2020, which is the statewide implementation date.

Caltrans is aware of the challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, this development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing. Overall, the environmental report should ensure all modes are served well by planning and development activities. This includes reducing single occupancy vehicle trips, ensuring safety, reducing vehicle miles traveled, supporting accessibility, and reducing greenhouse gas emissions.

Caltrans has published the VMT-focused Transportation Impact Study Guide (TISG), dated May 20, 2020 and the Caltrans Interim Land Development and Intergovernmental Review (LD-IGR) Safety Review Practitioners Guidance, prepared in On December 18, 2020. You can review those document at the following link:

https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf

https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-12-22-updated-interim-ldigr-safety-review-guidance-a11y.pdf

We encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. For additional TDM options, please refer to the Federal Highway Administration's *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8). This reference is available online at:

http://ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf

The Transportation section of the Draft Environmental Impact Report (DEIR) should include a VMT analysis. Caltrans recommends including an analysis, using actual signal timing, for current and projected conditions at impacted off-ramps on Freeway 405 and La Tijera Blvd., Florence/Manchester Ave., and Century Blvd. This ensures off-ramp vehicles don't back up onto the mainline, creating a speed differential safety concern. The turning pocket queue length at the intersections should not exceed the storage capacity and resulting in a safety concern. Transportation consultants may coordinate with Caltrans on study locations.

Mitigation measures should prioritize reducing Vehicle Miles Traveled (VMT) and enhancing safety. This can be achieved through:

- Implementing a Transportation Demand Management (TDM) program to lower traffic impacts, such as promoting transit access, shared mobility options, and expanding pedestrian/bicycle infrastructure.
- Implementing a Transportation System Management (TSM) strategies to reduce personal vehicle trips and encourage alternate modes of transportation.
- Investing in active transportation infrastructure or improving transit amenities to decrease dependency on single-occupancy vehicles.
- Modifying ramp terminal operations, such as lane reassignment and signal timing adjustments, thereby reducing potential safety impacts from project trips.
- Including complete street elements such as ADA curb ramps, Accessible Pedestrian Signals (APS), Leading Pedestrian Intervals (LPI), sidewalks, bike lanes, and high-visibility crosswalks for enhanced safety and accessibility.

Additionally, a Transportation Impact Study should assess construction-related impacts on freeway/highway and local intersections. Appropriate signage should indicate construction traffic access or single-lane conditions during truck movements, as needed. Temporary traffic control measures, such as flaggers, should be implemented to maintain safe conditions in construction zones.

Caltrans encourages lead agencies to prepare traffic safety impact analysis for this development in the California Environmental Quality Act (CEQA) review process using Caltrans guidelines above on the State facilities so that, through partnerships and collaboration, California can reach zero fatalities and serious injuries by 2050.

If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 269-1124 and refer to GTS # LA-2024-04611-NOP.

Sincerely,

Anthony Higgins

Anthony Higgins
Acting LDR/CEQA Branch Chief

Cc: State Clearinghouse

Department of Toxic Substances Control

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

*Yana Garcia*
Secretary for
Environmental Protection

*Gavin Newsom*
Governor

**SENT VIA ELECTRONIC MAIL**

September 19, 2024

Kiersten Turner
Planning Assistant
City of Los Angeles
211 N. Figueroa Street, Room 1350
Los Angeles, CA 90012
Kiersten.turner@lacity.org

RE: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE 9000 AIRPORT BOULEVARD PROJECT DATED AUGUST 21, 2024, STATE CLEARINGHOUSE NUMBER 2024080852

Dear Kiersten Turner,

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the 9000 Airport Boulevard Project (Project). The proposed Project would develop up to 435,390 square feet of industrial uses on an approximately 18-acre site. The Project includes two options: One option would develop a building comprised of up to 435,390 square feet of industrial floor area and a maximum building height of 50 feet; the second would develop 3 buildings comprised of up to 410,056 square feet of industrial floor area and a maximum building height of 46 feet. A total of 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas would be demolished. After reviewing the Project, DTSC recommends the following comments for your consideration:

1. The proposed Project location overlays the formerly used defense site designated as Los Angeles Air Force Station Annex No. 1, Westchester, California, Site No. J09CA045300. Please incorporate information about site history and any site remediation efforts conducted by the U.S. Army Corps of Engineers for this property.
2. There is indication that aqueous firefighting foam (AFFF) was used, stored, or released at the property, DTSC recommends sampling for per- and poly-fluoroalkyl substances (PFAS) in accordance with the protocols identified by the U.S. Environmental Protection Agency. Please incorporate remediation efforts and findings in the EIR.
3. In Section IX, under the evaluation of Hazards and Hazardous Materials subsection (b), the Initial Study (IS) states that "given the age of the existing structures and previous uses, asbestos containing materials (ACM), lead-based paints (LBP), and/or other recognized environmental conditions may be present on the site." DTSC appreciates that a more in-depth evaluation of the historical site uses, and potential contaminants will be conducted in the Environmental Impact Report.
    a. If upon completing the evaluation, it is made known that any volatile materials may have been released to the environment, DTSC recommends conducting a comprehensive soil vapor investigation to determine the nature and extent of any vapors that could potentially cause an indoor air exposure to future buildings.
    b. The IS references the potential presence of ACM. While DTSC is not the oversight agency for ACM, it is prudent to ensure that the appropriate measures are taken, in consultation with the South Coast Air Quality Management District on proper handling and disposal procedures, as necessary.
    c. Additionally, if buildings or other structures are to be demolished on any Project sites included in the proposed Project, surveys should be conducted for the presence of LBP or products, mercury, ACMs, and

polychlorinated biphenyl caulk. Removal, demolition, and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's Preliminary Endangered Assessment (PEA) Guidance Manual.

d. As an added precaution, due to the proximity of residential homes, perimeter air monitoring during demolition activities is advised.

4. DTSC recommends the City of Los Angeles enter into a voluntary agreement to address contamination at brownfields and other types of properties or receive oversight from a self-certified local agency, DTSC or Regional Water Quality Control Board. If entering into one of DTSC's voluntary agreements, please note that DTSC uses a single standard Request for Lead Agency Oversight Application for all agreement types. Please apply for DTSC oversight using this link: Request for Agency Oversight Application. Submittal of the online application includes an agreement to pay costs incurred during agreement preparation. If you have any questions about the application portal, please contact your Regional Brownfield Coordinator.
5. DTSC recommends that all imported soil and fill material should be tested to assess any contaminants of concern meet screening levels as outlined in DTSC's PEA Guidance Manual. Additionally, DTSC advises referencing the DTSC Information Advisory Clean Imported Fill Material Fact Sheet if importing fill is necessary. To minimize the possibility of introducing contaminated soil and fill material there should be documentation of the origins of the soil or fill material and, if applicable, sampling be conducted to ensure that the imported soil and fill material are suitable for the intended land use. The soil sampling should include analysis based on the source of the fill and knowledge of the prior land use. Additional information can be found by visiting DTSC's Human and Ecological Risk Office (HERO) webpage.

DTSC believes the City of Los Angeles must address these comments to determine if any significant impacts under the California Environmental Quality Act (CEQA) will occur and, if necessary, avoid significant impacts under CEQA. DTSC looks forward to reviewing the EIR once available and reserves the right to provide applicable comments at that time.

DTSC appreciates the opportunity to comment on the NOP of a DEIR for the 9000 Airport Boulevard Project. Thank you for your assistance in protecting California's people and environment from the harmful effects of toxic substances. If you have any questions or would like clarification on DTSC's comments, please respond to this letter or via email for additional guidance.

Sincerely,



Tamara Purvis
Associate Environmental Planner
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control
Tamara.Purvis@dtsc.ca.gov

cc: (via email)

Governor's Office of Planning and
Research State Clearinghouse
State.Clearinghouse@opr.ca.gov

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South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL: September 20, 2024

kiersten.turner@lacity.org
Kiersten Turner, Planning Assistant
City of Los Angeles, Department of City Planning
221 N Figueroa St #1350,
Los Angeles, CA 90012

**Notice of Preparation of a Draft Environmental Impact Report for the ENV-2023-6757-EIR: 9000 Airport Boulevard Project (Proposed Project) (SCH No. 2024080852)**

South Coast Air Quality Management District (South Coast AQMD) staff appreciate the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send a copy of the Draft EIR upon its completion and public release directly to South Coast AQMD as copies of the Draft EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses (electronic versions of all emission calculation spreadsheets, air quality modeling, and health risk assessment input and output files, not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

## CEQA Air Quality Analysis

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website[1] as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod[2] land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's air quality significance thresholds[3] and localized significance thresholds (LSTs)[4] to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

[1] South Coast AQMD's CEQA Air Quality Handbook and other resources for preparing air quality analyses can be found at: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.
[2] CalEEMod is available free of charge at: www.caleemod.com.
[3] South Coast AQMD's air quality significance thresholds can be found at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf
[4] South Coast AQMD's guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's air quality significance thresholds for *operation* to determine the level of significance.

If the Proposed Project generates diesel emissions from long-term construction or attracts diesel-fueled vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment.[5]

Also, if implementation of the Proposed Project would require the use of new stationary and portable sources, including but not limited to emergency generators, fire water pumps, boilers, spray booths, etc., one or more air permits from South Coast AQMD will be required, and the role of South Coast AQMD would change from a Commenting Agency to a Responsible Agency under CEQA. The assumptions in the air quality analysis in the EIR will be the basis for evaluating the air permit(s) under CEQA and imposing permit conditions and limits. Questions about air permit requirements should be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

In addition, if air permits are required and the South Coast AQMD is identified as a Responsible Agency in the EIR, per CEQA Guidelines Sections15086, the Lead Agency is required to consult with South Coast AQMD. CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of evaluating the applications for air permits. For these reasons, the EIR should include a discussion about any new stationary and portable equipment requiring South Coast AQMD air permits and identify South Coast AQMD as a Responsible Agency for the Proposed Project, if applicable.

The California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective*[6] is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making

[5] South Coast AQMD's guidance for performing a mobile source health risk assessment can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.

[6] CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* can be found at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf.

process with additional guidance on strategies to reduce air pollution exposure near high-volume roadways available in CARB's technical advisory[7].

The South Coast AQMD's *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*[8] includes suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. It is recommended that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions.

South Coast AQMD staff is concerned about potential public health impacts of siting warehouses within close proximity of sensitive land uses, especially in communities that are already heavily affected by the existing warehouse and truck activities. The South Coast AQMD's Multiple Air Toxics Exposure Study (MATES V), completed in August 2021, concluded that the largest contributor to cancer risk from air pollution is diesel particulate matter (DPM) emissions[9]. According to the MATES V carcinogenic risk interactive map, the area surrounding the Proposed Project has an estimated cancer risk of over 600 in one million[10]. Operation of warehouses generates and attracts heavy-duty diesel-fueled trucks that emit DPM. When the health impacts from the Proposed Project are added to those existing impacts, residents living in the communities surrounding the Proposed Project will possibly face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks.

**Mitigation Measures**

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook,[11] South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2022 Air Quality Management Plan,[12] and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.[13].

Mitigation measures for operational air quality impacts from mobile sources that the Lead Agency should consider in the Draft EIR may include the following:

- Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when

[7] CARB's technical advisory can be found at: https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.
[8] South Coast AQMD. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Available at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.
[9] South Coast AQMD. August 2021. *Multiple Air Toxics Exposure Study in the South Coast Air Basin V*. Available at: http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.
[10] South Coast AQMD. MATES V Data Visualization Tool. Accessed at: MATES Data Visualization (arcgis.com).
[11] https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook
[12] South Coast AQMD's 2022 Air Quality Management Plan can be found at: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan (Chapter 4 - Control Strategy and Implementation).
[13] Southern California Association of Governments' 2020-2045 RTP/SCS can be found at: https://www.connectsocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf.

feasible. Given the state's clean truck rules and regulations aiming to accelerate the utilization and market penetration of ZE and NZE trucks such as the Advanced Clean Trucks Rule[14] and the Heavy-Duty Low NOx Omnibus Regulation[15], ZE and NZE trucks will become increasingly more available to use. The Lead Agency should require a phase-in schedule to incentivize the use of these cleaner operating trucks to reduce any significant adverse air quality impacts. South Coast AQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency. At a minimum, require the use of 2010 model year[16] that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include environmental analyses to evaluate and identify sufficient electricity and supportive infrastructures in the Energy and Utilities and Service Systems Sections in the CEQA document, where appropriate. Include the requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure compliance.

- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing this higher activity level.
- Provide electric vehicle (EV) charging stations or, at a minimum, provide electrical infrastructure and electrical panels should be appropriately sized. Electrical hookups should be provided for truckers to plug in any onboard auxiliary equipment.

Mitigation measures for operational air quality impacts from other area sources that the Lead Agency should consider in the Draft EIR may include the following:

- Maximize use of solar energy by installing solar energy arrays.
- Use light colored paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113.

Design considerations for the Proposed Project that the Lead Agency should consider to further reduce air quality and health risk impacts include the following:

[14] CARB. June 25, 2020. *Advanced Clean Trucks Rule*. Accessed at: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks.

[15] CARB has recently passed a variety of new regulations that require new, cleaner heavy-duty truck technology to be sold and used in state. For example, on August 27, 2020, CARB approved the Heavy-Duty Low NOx Omnibus Regulation, which will require all trucks to meet the adopted emission standard of 0.05 g/hp-hr starting with engine model year 2024. Accessed at: https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox.

[16] CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulation is available at: https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

- Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses (e.g., residences, schools, day care centers, etc.).
- Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors and trucks will not travel past sensitive land uses to enter or leave the Proposed Project site.
- Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.
- Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors.
- Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

On May 7, 2021, South Coast AQMD's Governing Board adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, and Rule 316 – Fees for Rule 2305. Rules 2305 and 316 are new rules that will reduce regional and local emissions of nitrogen oxides (NOx) and particulate matter (PM), including diesel PM. These emission reductions will reduce public health impacts for communities located near warehouses from mobile sources that are associated with warehouse activities. Also, the emission reductions will help the region attain federal and state ambient air quality standards. Rule 2305 applies to owners and operators of warehouses greater than or equal to 100,000 square feet. Under Rule 2305, operators are subject to an annual WAIRE Points Compliance Obligation that is calculated based on the annual number of truck trips to the warehouse. WAIRE Points can be earned by implementing actions in a prescribed menu in Rule 2305, implementing a site-specific custom plan, or paying a mitigation fee. Warehouse owners are only required to submit limited information reports, but they can opt in to earn Points on behalf of their tenants if they so choose because certain actions to reduce emissions may be better achieved at the warehouse development phase, for instance the installation of solar and charging infrastructure. Rule 316 is a companion fee rule for Rule 2305 to allow South Coast AQMD to recover costs associated with Rule 2305 compliance activities. Since the Proposed Project consists of the development of warehouses totaling 400,579-square-foot, the Proposed Project's warehouse owners and operators will be required to comply with Rule 2305 once the warehouse is occupied. Therefore, South Coast AQMD staff recommends that the Lead Agency review South Coast AQMD Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented at the Proposed Project that may help future warehouse operators meet their compliance obligation[17]. South Coast AQMD staff is available to answer questions concerning Rule 2305 implementation and compliance by phone or email at (909) 396-3140 or waire-program@aqmd.gov. For implementation guidance documents and compliance and reporting tools, please visit South Coast AQMD's WAIRE Program webpage[18].

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and

[17] South Coast AQMD Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. Accessed at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf.
[18] South Coast AQMD WAIRE Program. Accessed at: http://www.aqmd.gov/waire.

mitigated where feasible. If you have any questions regarding this letter, please contact me at swang1@aqmd.gov.

Sincerely,

*Sam Wang*

Sam Wang
Program Supervisor, CEQA IGR
Planning, Rule Development & Implementation

SW
LAC240821-07
Control Number

LOS ANGELES COUNTY
AIRPORT LAND USE
COMMISSION

PAM O'CONNOR
Chair

DAVID W. LOUIE
Vice Chair

YOLANDA DUARTE-WHITE
Commissioner

ELVIN W. MOON
Commissioner

MICHAEL R. HASTINGS
Commissioner

September 19, 2024

Kiersten Turner
City of Los Angeles, Department of City Planning
221 North Figueroa Street, Room 1350
Los Angeles, CA 90012

**SUBJECT: 9000 Airport Boulevard, Los Angeles, CA 90045**
**Notice of Preparation of Draft Environmental Impact Report**

Dear Ms. Turner:

Thank you for the opportunity to comment on the proposal for the industrial development project with office space at 9000 Airport Boulevard in the City of Los Angeles. The project involves the demolition of existing buildings on an 18-acre lot and the construction of either one industrial building of 435,390 square-feet with a maximum height of 50 feet (Option 1), or three industrial buildings totaling 410,056 square-feet with a maximum height of 46 feet (Option 2). Staff of the Los Angeles County Airport Land Use Commission (ALUC) reviewed the submitted document and has the following comments.

In December 1991 in its capacity as the ALUC, the Los Angeles County Regional Planning Commission adopted the Airport Land Use Plan (ALUP) for the county's fifteen public use airports in accordance with the California Public Utilities Code (PUC) Section 21675. The ALUC adopted planning boundaries for each airport, also known as the Airport Influence Area (AIA), in which certain proposed local actions must be submitted to the ALUC for review. The project location is within the AIA for Los Angeles International Airport (LAX).

Pursuant to Section 1.5.1(b) of the ALUC Review Procedures, any proposed change or variance to a local zoning ordinance or building regulation must be submitted for ALUC review if issues of noise, safety, airspace protection, or overflight are involved. Pursuant to Sections 1.5.2(a) and 1.5.3(a)(5) of the ALUC Review Procedures, the project shall be subject to ALUC review as the City's General Plan and the Los Angeles Coastal Transportation Specific Plan have not been reviewed by ALUC for consistency with the County's ALUP, and the project constitutes a major land use action for being a nonresidential development with over 40,000 square feet of building floor area within an AIA.

The project is seeking discretionary actions in the form of two vesting conditional use permits and a project review to allow for a building(s) exceeding 45 feet in height, a warehouse floor area of more than 250,000 square feet, and an increase of over 50,000 square feet of nonresidential floor area. The project is located entirely within the AIA of LAX and partially within an established Inner Safety Zone on the western side of the lot, but not within a Runway Protection Zone. It is approximately 0.9 miles from the end of the nearest runway. The project is located within both 65 dB and 70 dB CNEL noise contours. According to the ALUP Land Use Compatibility Table, industrial uses are compatible with the 65 dB CNEL and may be compatible with the 70 dB CNEL subject to review of the noise insulation needs. The project's Initial Study acknowledges the need for lighting to be shielded and directed at the project site, as well as the use of materials with low reflectivity, to minimize any glare and light spill-over to adjacent properties.

ALUC staff has determined the project does not include any significant issues with the compatibility criteria in the ALUP. Therefore, the project does not need further ALUC review for compliance with the policies of the County ALUP.

If you have any questions regarding this matter, please contact Lauren De La Cruz at (213) 974-6432 or via email at ldelacruz@planning.lacounty.gov, between 7:30 am and 5:30 PM, Monday through Thursday. Our office is closed on Fridays.

Sincerely,

DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director

for BD
Bruce Durbin, Supervising Regional Planner
Ordinance Studies Section/ALUC Staff

09/20/2024

Kiersten Turner
City of Los Angeles, Department of City Planning
221 North Figueroa Street, Room 1350
Los Angeles, CA 90012
Kiersten.Turner@lacity.org

**RE: NOP Comments for The 9000 Airport Boulevard Project**

Dear Ms. Turner,

On behalf of The Coalition for Responsible Equitable Economic Development ("CREED LA") thank you for the opportunity to provide comments on the Notice of Preparation (“NOP”) for environmental review of the 9000 Airport Boulevard Project (“Project”). The proposed project includes the construction of a building with 435,390 square feet of industrial space or three buildings totaling 410,056 square feet of industrial space on an approximately 18-acre site.

The goal of an EIR is to provide decisionmakers and the public with detailed information about the effects of a proposed project on the environment, how significant impacts will be minimized and alternatives to the project (Pub. Res. Code § 21002.2). Ideally, the discussion should include sufficient detail to allow those who do not participate in the DEIR’s preparation to understand and meaningfully deliberate the issues raised by the Project. We, therefore, respectfully request a complete analysis of all identified impacts, imposition of all feasible mitigation and study of a reasonable range of alternatives.

Since the informational sufficiency of an EIR should be at the heart of its preparation, we ask the City to consider the following requests:

Industrial Uses: The City, as lead agency, must make certain assumptions regarding the type and mix of light industrial uses that would likely occupy the proposed building. The DEIR should reflect a good faith effort at full disclosure by including as much information on the nature of operations as can be reasonably obtained. If such information is unavailable, the City should study a reasonable worst-case scenario (i.e., most impactful) so that a broad and diverse range of environmental impacts are included in the analysis.

Public Health: The DEIR should also make all efforts to minimize air quality effects and likely health consequences to the greatest extent possible. This is especially important because the project is located next to a residential neighborhood. In addition, we urge the City to adopt quantitative thresholds that embody climate change's existential threat to humankind to determine the significance of the Project's GHG emissions.

Mitigation Measures: Finally, we encourage the City to incorporate modern technology in the mitigation measures and ensure that the measures are effective and enforceable. In addition, the City should consult extensively and adopt Industrial Good Neighbor Policies from neighboring cities in the Inland Empire. A Statement of Overriding Considerations should be considered only after ALL feasible mitigation measures are included in the MMRP.

Thank you for the opportunity to submit NOP comments. Again, CARE CA respectfully requests full analysis of the environmental impacts, feasible mitigation, and reasonable alternatives to the Project.

Sincerely,



Jeff Modrzejewski
*Executive Director*

Kiersten Turner <kiersten.turner@lacity.org>

# EIR comment on CPC-2023-6756-CU-SPR, 9000 Airport Blvd, Los Angeles, CA 90045

1 message

**Robert Acherman** <robertacherman@aol.com> Fri, Sep 20, 2024 at 4:28 PM
To: "kiersten.turner@lacity.org" <kiersten.turner@lacity.org>

September 20, 2024

Kiersten Turner
Planning Assistant
City of Los Angeles
221 N Figueroa St, Suite 1350
Los Angeles, CA 90012
Kiersten.turner@lacity.org

Re: CPC-2023-6756-CU-SPR, 9000 Airport Blvd, Los Angeles, CA 90045

Dear Kiersten Turner:

Please extend the EIR comment period by an additional 90 days.

The 30 day time period is too short for the public to review the EIR documentation and provide comments back to the City of Los Angeles.

The level of public awareness is very low. We understand that the Neighborhood Council of Westchester / Playa's Planning and Land Use Committee (PLUC) will have a presentation on the 9000 Airport Blvd project on Tuesday, September 16. Their next board meeting is in early October.

I am concerned that the proposed warehouse is under the flight path of LAX Runway 24 Right. If there was a fire or an explosion at the proposed warehouse, the flames and/or debris could affect aircraft navigation. Will there be any restrictions on dangerous goods or chemicals at the proposed warehouse?

Sincerely,
Robert Acherman
(310) 927-2127

**Kiersten Turner <kiersten.turner@lacity.org>**

# ENV-2023-6757-EIR

1 message

**kay gee** <keegiles@gmail.com> Thu, Sep 5, 2024 at 8:31 AM
To: "kiersten.turner@lacity.org" <kiersten.turner@lacity.org>

Dear Ms. Turner,

I am writing in regard to the environmental impact for the proposed warehouse encompassing 9000 Airport Blvd and the surrounding areas of Interceptor and Arbor Vitae.

I am a resident of Belford Avenue and this directly affects me as this area on Interceptor is within one block of my apartment. As Amazon has put a warehouse on 96th Street, I assume that this will be an Amazon warehouse.

I am concerned that diesel trucks, delivery trucks and delivery vans will be using Belford Avenue in addition to the other streets to access the warehouse. The application also is to operate outside of standard permitted hours of 7:00 AM-11:00 PM. This would mean that there would be no respite for residents from the sound of trucks and traffic. We already deal with the noise from airplanes, but there is at least a quiet period during the night.

Additionally, the Inland Empire is currently trying to get warehouse restrictions because of the warehouses that have been placed into the residential areas creating health hazards for its residents due to the over 600,000 trips trucks make a day to the various warehouses.

I am concerned for the health of my neighborhood from the truck exhaust, the noise, and the 24 hour operation of the warehouse.

Sincerely,

Keena Giles

**Kiersten Turner <kiersten.turner@lacity.org>**

# ENV-2023-6757-EIR

1 message

**Patti Peterman** <pdobies3@aol.com> Mon, Sep 9, 2024 at 7:34 PM
To: "Kiersten.Turner@lacity.org" <Kiersten.Turner@lacity.org>

In regard to the above Case #, I would select Figure 3. Thank you for.

Patti Peterman
8900 Yorktown Ave.
Los Angeles, CA 90045
310-686-6664