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

New Beatrice West Project

Case Number: ENV-2020-3533-EIR

Project Location: 12541 West Beatrice Street, 12575 West Beatrice Street, 12553–12575 West Beatrice Street, and 5410–5454 South Jandy Place, Los Angeles, California 90066

Community Plan Area: Palms–Mar Vista–Del Rey

Council District: 11—Mike Bonin

Project Description: The Project includes the construction of an eight-story, 199,500-square-foot office building with 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. The Project is proposed on a 196,463-square-foot (4.51-acre) site located at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place (identified herein as 12575 W. Beatrice Street) and 12541 W. Beatrice Street (collectively, Project site). The Project site is currently occupied with a 23,072-square-foot office building and two accessory buildings of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street, and an 87,881-square-foot office building at 12541 W. Beatrice Street. As part of the Project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. The Project would adjust existing lot lines to accommodate a corner landscaped parcel, a building site for the construction of the proposed new building (at 12575 W. Beatrice Street), and a parcel for the existing building (at 12541 W. Beatrice Street). As a result, the lot line adjustment would create a 103,281-square-foot (2.37-acre) lot at 12575 W. Beatrice Street and a 93,182-square-foot (2.14-acre) lot at 12541 W. Beatrice Street. An approximately 389-square-foot lot would also be created at the corner of Jandy Place and Beatrice Street for landscaping and open space purposes.

The Project would provide 811 parking spaces, fulfilling the requirements of the Los Angeles Municipal Code. The majority of the parking spaces (791 spaces) would be provided in a five-level parking structure, including three levels above grade and two subterranean levels, with the remaining spaces (20 spaces) provided in a surface parking area. The Project would include landscaped courtyards and walkways to connect and integrate the proposed building with the office building to remain to create an integrated creative office campus. The Project would provide approximately 38,033 square feet of landscape throughout the Project site. Construction of the Project is anticipated to be completed in 2024.

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

PREPARED BY:
Eyestone Environmental, LLC

APPLICANT:
NSB Associates

December 2020

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Appendices

1 INTRODUCTION

The Project was previously considered and approved by the City of Los Angeles (City) under Case No. CPC-2016-1208-CU-SPR, which was approved by the City Planning Commission on August 18, 2017, and Case No. AA-2017-397-PMEX, which was approved by the Advisory Agency on June 7, 2018. To comply with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) (CEQA), the City prepared and adopted a mitigated negative declaration (Case No. ENV-2016-1209-MND). Two appeals were filed and heard by the City. The appeal of Case No. CPC-2016-1208-CU-SPR was denied by the City Council on February 7, 2018; and the appeal of Case No. AA-2017-397-PMEX was denied by the City Planning Commission on November 19, 2018.

Subsequently, two petitions for writ of mandate were filed and consolidated challenging the City's approvals of the Project, on the grounds, among others, that the City's mitigated negative declaration was inadequate under CEQA (*Karney Management v. City of Los Angeles*, Case No. BS172677 [Consolidated with Case No. 18STCP03226]). The Honorable John A. Torribio of the Los Angeles County Superior Court ruled that the mitigated negative declaration was inadequate as to aesthetics, noise and traffic. On January 21, 2020, the court entered a judgment granting the petition for writ of mandate as to the CEQA cause of action, and denying the remainder of the causes of action. The judgment vacates the City's approval of the mitigated negative declaration and requires that an environmental impact report (EIR) be prepared for the Project. However, the judgment does not invalidate the underlying approvals (i.e., CPC-2016-1208-CU-SPR and AA-2017-397-PMEX) which remain valid.

The City of Los Angeles, as Lead Agency is preparing this Initial Study pursuant to CEQA and the judgment in *Karney Management v. City of Los Angeles*, Case No. BS172677 (Consolidated with Case No. 18STCP03226). For purposes of this Initial Study, the Project is analyzed in the context existing prior to the adoption of any Project approvals or entitlements by the City. Thus, the impacts of the Project's discretionary approvals will be considered.

This Initial Study evaluates the potential environmental effects that could result from the approval, construction, implementation, and operation of the Project. This Initial Study has been prepared in accordance with CEQA, 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 uses Appendix G of the State CEQA Guidelines as the thresholds of significance unless another threshold of significance is expressly identified in the document. Based on the analysis provided within this Initial Study, the City has concluded the Project may result in significant impacts on the environment, and 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.

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 or Mitigated Negative Declaration is appropriate, an EIR is normally required.[1] As described above, the City is required to prepare an EIR pursuant to the judgment in *Karney Management v. City of Los Angeles*, Case No. BS172677.

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.

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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) 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.

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 (https://resources.ca.gov/admin/Legal).

1.3.1 Initial Study

At the onset of the environmental review process, the City has prepared this Initial Study to determine if the Project may have a significant effect on the environment. This Initial Study has determined that the 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 a 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 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 adequacy of 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 all 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 any revisions 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	**New Beatrice West Project**
ENVIRONMENTAL CASE NO.	ENV-2020-3533-EIR
RELATED CASES	CPC-2016-1208-CU-SPR, AA-2017-397-PMEX, ENV-2016-1209-MND

PROJECT LOCATION	12541 West Beatrice Street, 12575 West Beatrice Street, 12553–12575 West Beatrice Street, and 5410–5454 South Jandy Place
COMMUNITY PLAN AREA	Palms–Mar Vista–Del Rey
GENERAL PLAN DESIGNATION	Light Industrial
ZONING	M2-1
COUNCIL DISTRICT	11

LEAD AGENCY	**City of Los Angeles**
CITY DEPARTMENT	Department of City Planning
STAFF CONTACT	William Lamborn
ADDRESS	221 North Figueroa, Suite 1350 Los Angeles, CA 90012
PHONE NUMBER	(213) 847-3637
EMAIL	william.lamborn@lacity.org

APPLICANT	**NSB ASSOCIATES**
ADDRESS	C/O 10250 Constellation Boulevard, Floor 19 Los Angeles, CA 90067
PHONE NUMBER	(310) 282-6254

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

DETERMINATION

On the basis of this initial evaluation:

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

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because 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.

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 New Beatrice West Project (Project) includes the construction of a new eight-story office building with a total floor area of 199,500 square feet comprised of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space.[2] The Project is proposed on a 196,463-square-foot (4.51-acre) site located at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place (identified herein as 12575 W. Beatrice Street) and 12541 W. Beatrice Street (collectively, Project site) in the Palms–Mar Vista–Del Rey Community Plan area of the City of Los Angeles (City). The Project site is currently occupied with a 23,072-square-foot office building and two accessory buildings of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street, and an 87,881-square-foot office building at 12541 W. Beatrice Street. As part of the Project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. As part of the Project, the existing property lot lines would be adjusted to accommodate a corner landscaped parcel, a building site for the construction of the proposed new building (at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place), and a parcel for the existing building (12541 W. Beatrice Street). When the lot line adjustment is complete, the lot at 12575 W. Beatrice Street would contain approximately 103,281 square feet (2.37 acres) and the lot at 12541 W. Beatrice Street would contain approximately 93,182 square feet (2.14 acres). An approximately 389-square-foot lot would also be created at the corner of Jandy Place and Beatrice Street for landscaping and open space purposes.

The Project would provide 811 parking spaces, fulfilling the requirements of the Los Angeles Municipal Code (LAMC). The majority of the parking spaces (791 spaces) would be provided in five levels of structured parking, including three levels above grade and two subterranean levels, with the remaining spaces (20 spaces) provided in a surface parking area. The Project would include landscaped courtyards and walkways to connect and integrate the proposed building with the office building to remain to create an integrated creative office campus. The Project would provide approximately 38,033 square feet of landscaping throughout the Project site. Construction of the Project is anticipated to be completed in 2024.

The Project was previously considered and approved by the City under Case No. CPC-2016-1208-CU-SPR, which was approved by the City Planning Commission on August 18, 2017, and Case No. AA-2017-397-PMEX, which was approved by the Advisory Agency on June 7, 2018. To comply with CEQA, the City prepared and adopted a mitigated negative declaration (Case No. ENV-2016-1209-MND). Two appeals were filed and heard by the City. The appeal of Case No. CPC-2016-1208-CU-SPR was denied by the City Council on February 7, 2018; and the appeal of Case No. AA-2017-397-PMEX was denied by the City Planning Commission on November 19, 2018.

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[2] All square-footage numbers represent floor area as defined by the Los Angeles Municipal Code. Specifically, floor area includes the 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, and basement storage areas.

Subsequently, two petitions for writ of mandate were filed and consolidated challenging the City's approvals of the Project, on the grounds, among others, that the City's mitigated negative declaration was inadequate under CEQA (*Karney Management v. City of Los Angeles*, Case No. BS172677 [Consolidated with Case No. 18STCP03226]). The Honorable John A. Torribio of the Los Angeles County Superior Court ruled that the mitigated negative declaration was inadequate as to aesthetics, noise and traffic. On January 21, 2020, the court entered a judgment granting the petition for writ of mandate as to the CEQA cause of action, and denying the remainder of the causes of action. The judgment vacates the City's approval of the mitigated negative declaration and requires that an environmental impact report (EIR) be prepared for the Project. However, the judgment does not invalidate the underlying approvals (i.e., CPC-2016-1208-CU-SPR and AA-2017-397-PMEX) which remain valid.

This Initial Study is being prepared pursuant to the judgment in *Karney Management v. City of Los Angeles*, Case No. BS172677 (Consolidated with Case No. 18STCP03226). For purposes of this Initial Study, the Project is analyzed in the context existing prior to the adoption of any Project approvals or entitlements by the City. Thus, all impacts of the Project's discretionary approvals will be considered.

3.2 ENVIRONMENTAL SETTING

3.2.1 Project Location

The Project site consists of property located at 12541 W. Beatrice Street, 12575 W. Beatrice Street, 12553-12575 W. Beatrice Street, and 5410-5454 S. Jandy Place within the Palms–Mar Vista–Del Rey Community Plan area of the City of Los Angeles. The Project site is located within a generally commercial office and industrial area and is bounded by office uses and surface parking immediately to the north, with State Route 90 (SR 90) located further north; office and surface and structure parking immediately to the east with Grosvenor Boulevard located further east; Beatrice Street to the south; and Jandy Place to the west. Across Beatrice Street to the south is a five-story apartment building; across Jandy Place to the west are converted warehouse structures used for office uses and surface parking. A vicinity map of the Project site and surrounding area is provided in Figure 1 on page 9, and an aerial view of the Project site and vicinity is included in Figure 2 on page 10.

3.2.2 Existing Conditions

The Project site is currently developed with a one-story (20-foot tall), 23,072-square-foot office building and two single-story accessory buildings comprised of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street, and a two-story, (26-foot tall), 87,881-square-foot office building at 12541 W. Beatrice Street as well as surface parking. Vehicular and pedestrian access to the Project site is provided along W. Beatrice Street and along Jandy Place, with one driveway on Jandy Place and four driveways on W. Beatrice Street. The Project site contains limited to sparse landscaping in the form of non-native/non-protected trees,[3] hedges, and shrubs.

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3 The City of Los Angeles Protected Tree Regulations apply to Oak, Southern California Black Walnut, Western Sycamore, and California Bay tree species that are native to Southern California, and excludes trees grown by a nursery or trees planted or grown as part of a tree planting program.

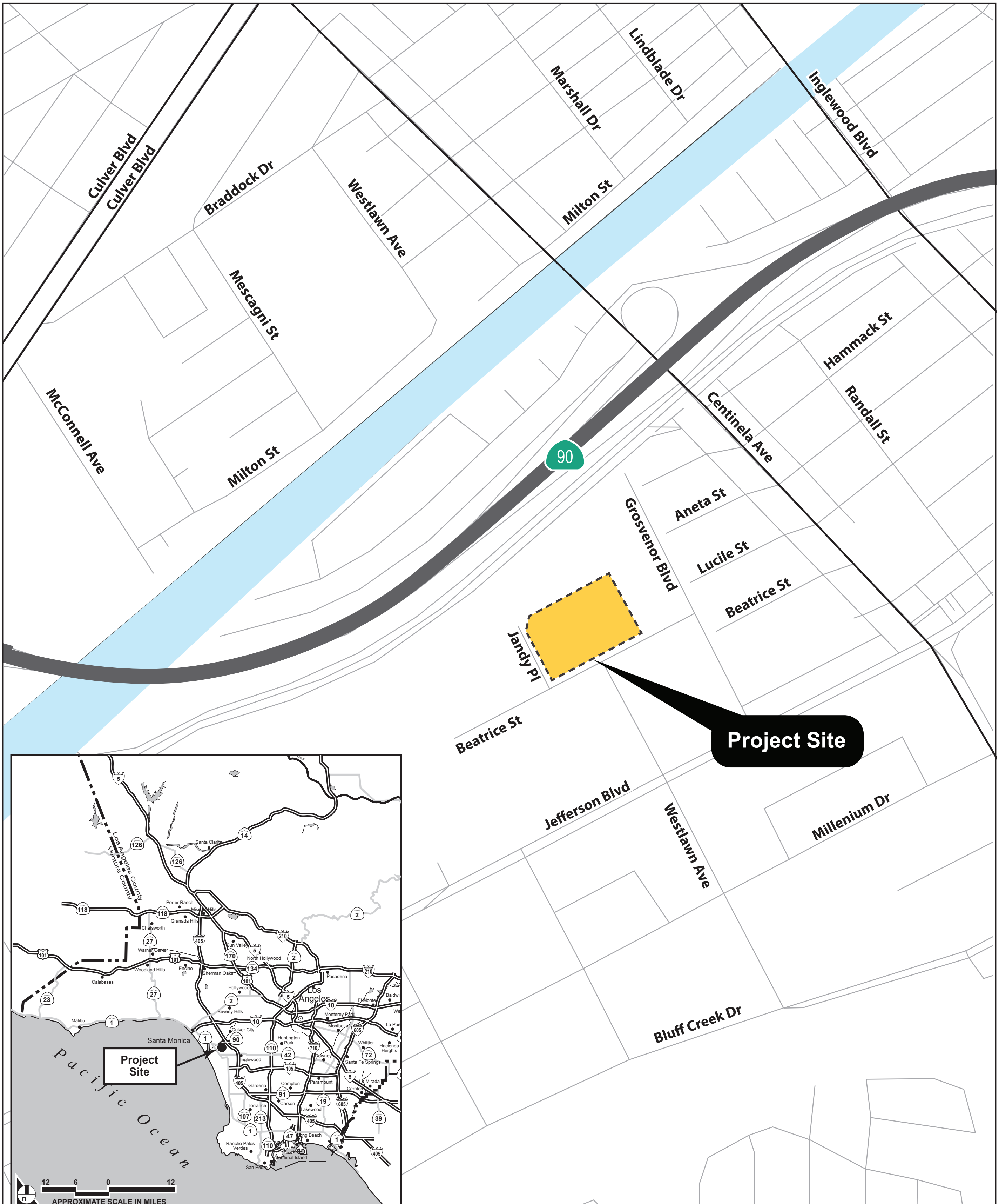


Figure 1
Project Location Map

Source: Eyestone Environmental, 2020.

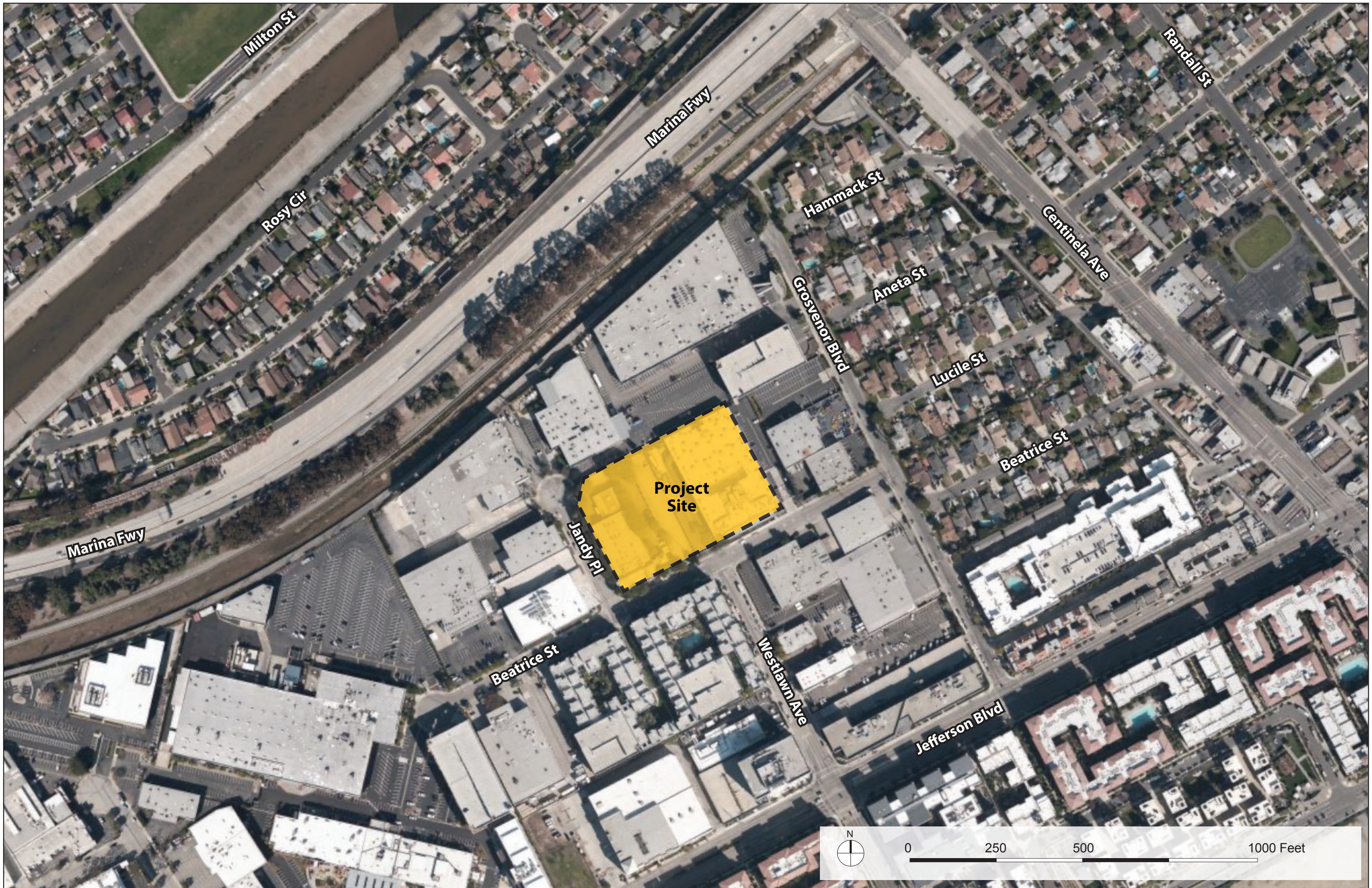


Figure 2

Aerial Photograph of the Project Vicinity

Source: Apple Maps, 2020; Eyestone Environmental, 2020.

The Project site is located within the Palms–Mar Vista–Del Rey Community Plan area of the City and has a Light Industrial land use designation. The Project site is zoned M2-1 (Light Industrial, Height District 1), which also permits M1 or MR2 uses; airport or aircraft landing field; automobile dismantling yard; cemetery; circus quarters; morgue; riding academy or stable; rifle range; curing, composting, and mulching facilities; and cargo container storage yard. Height District 1 within the M2 Zone has no height limit but restricts the maximum Floor Area Ratio (FAR) to 1.5 to 1.

3.2.3 Surrounding Land Uses

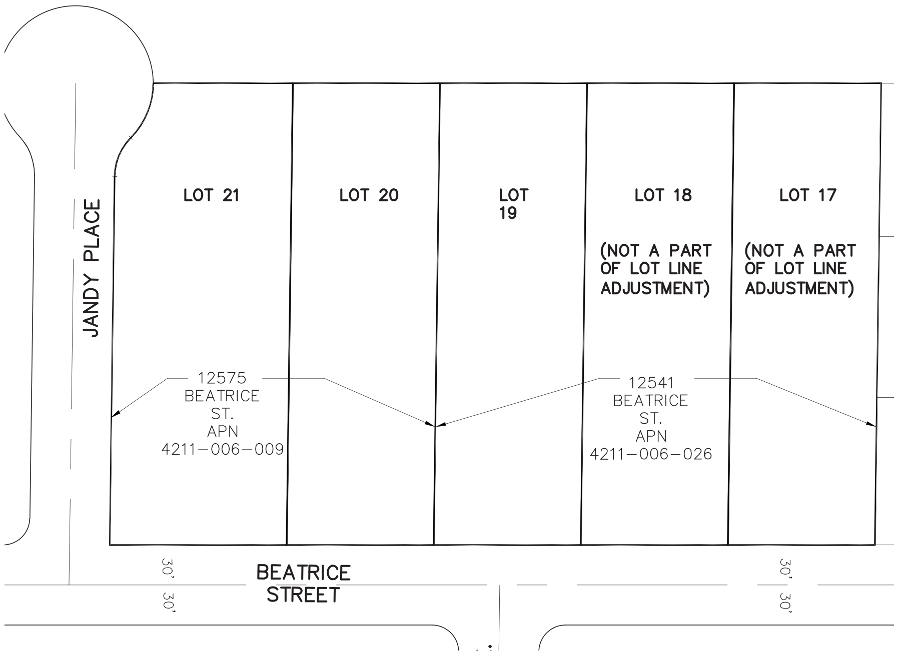
As previously noted, the Project site is located within a commercial office and industrial low- and medium-rise, mixed-use neighborhood. The area surrounding the Project site includes a variety of land uses, including office, light industrial, and manufacturing uses interspersed with multi-family and single-family residential uses. Specifically, land uses surrounding the Project site include office uses immediately north, east, and west of the Project site with commercial and multi-family uses located south of the Project site (across Beatrice Street). Adjacent to the eastern side of the Project site are two-story commercial office/industrial buildings. Further east of the Project site, across Grosvenor Boulevard, are single-family residences filling the area from Hammock Street to W. Beatrice Street. A five-level parking structure is located adjacent to the Project site's northeastern side. The Centinela Creek Channel and State Route 90 are also located further north of the Project site.

3.3 DESCRIPTION OF PROJECT

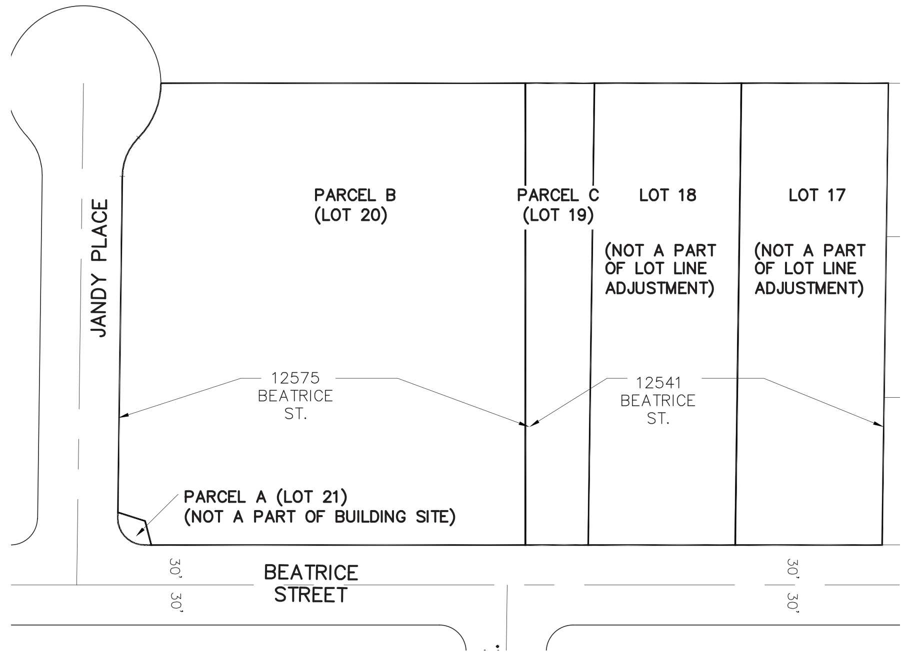
3.3.1 Project Overview

The Project includes the construction of a new eight-story office building with a total floor area of 199,500 square feet comprised of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. The height of the proposed building would be approximately 135 feet to the top of the roof and 155 feet to the top of the elevator tower. A mechanical penthouse component could extend approximately 20 feet above the roof or parapet height. As part of the Project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. As part of the Project, the existing property lot lines would be adjusted to accommodate a corner landscaped parcel, a building site for the construction of the proposed new building (at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place), and a parcel for the existing building (at 12541 W. Beatrice Street). When the lot line adjustment is complete, the lot at 12575 W. Beatrice Street would contain approximately 103,281 square feet (2.37 acres) and the lot at 12541 W. Beatrice Street would contain approximately 93,182 square feet (2.14 acres). An approximately 389-square-foot lot would also be created at the corner of Jandy Place and Beatrice Street for landscaping and open space purposes. The existing and proposed Project site lot lines are illustrated in Figure 3 on page 12. In addition, a conceptual site plan of the Project is illustrated in Figure 4 on page 13 and elevations of the proposed building are shown in Figure 5 on page 14 and in Figure 6 on page 15.

The Project would provide 811 parking spaces, fulfilling the requirements of the Los Angeles Municipal Code (LAMC). The majority of the parking spaces (791 spaces) would be provided in a five-level parking structure, including three levels above grade and two subterranean levels, with the remaining spaces (20 spaces) provided in a surface parking area.



Existing Project Site Lot Lines



Proposed Project Site Lot Lines

Figure 3
Existing and Proposed Project Site Lot Lines

Source: Eyestone Environmental, 2020.

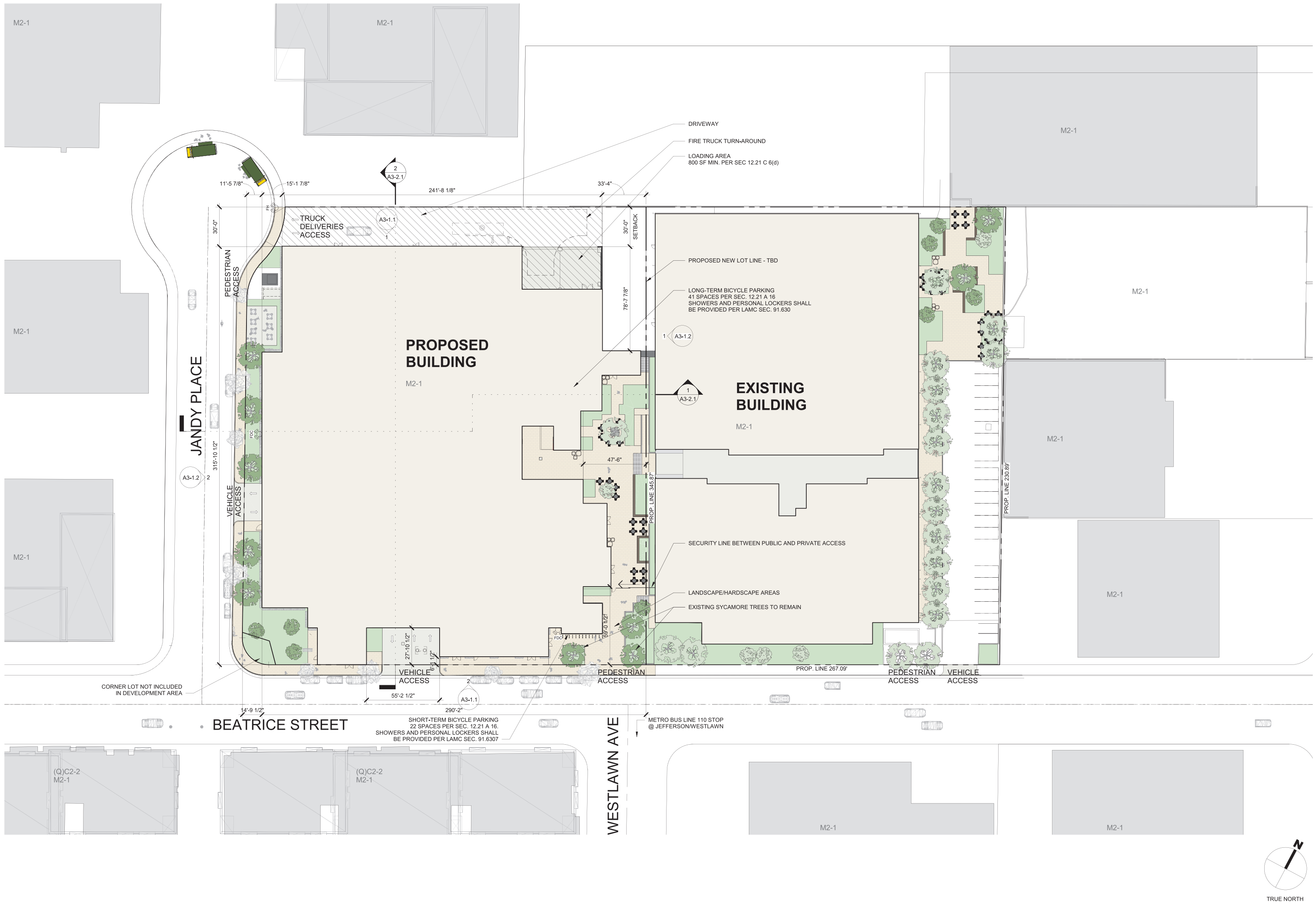
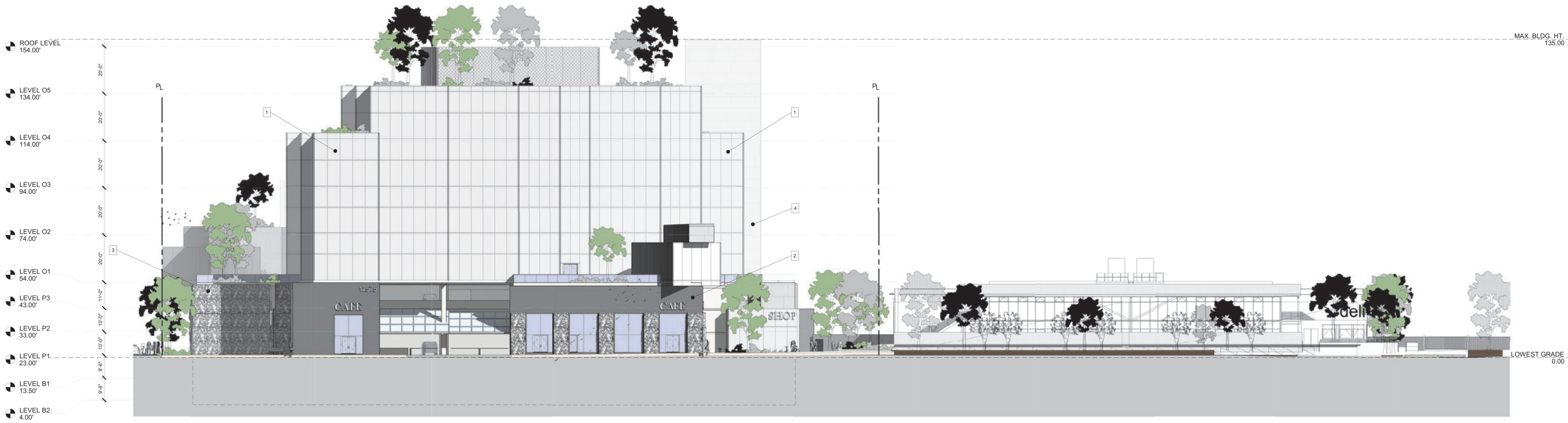


Figure 4

Conceptual Site Plan

Source: Eyestone Environmental, 2020.



South Building Elevation - Beatrice St.

EXTERIOR FINISHES	
1	LOW-E GLASS WINDOW WALL
2	WHITE PLASTER WALL
3	GREEN WALL (PLANTED)
4	INSULATED METAL PANEL

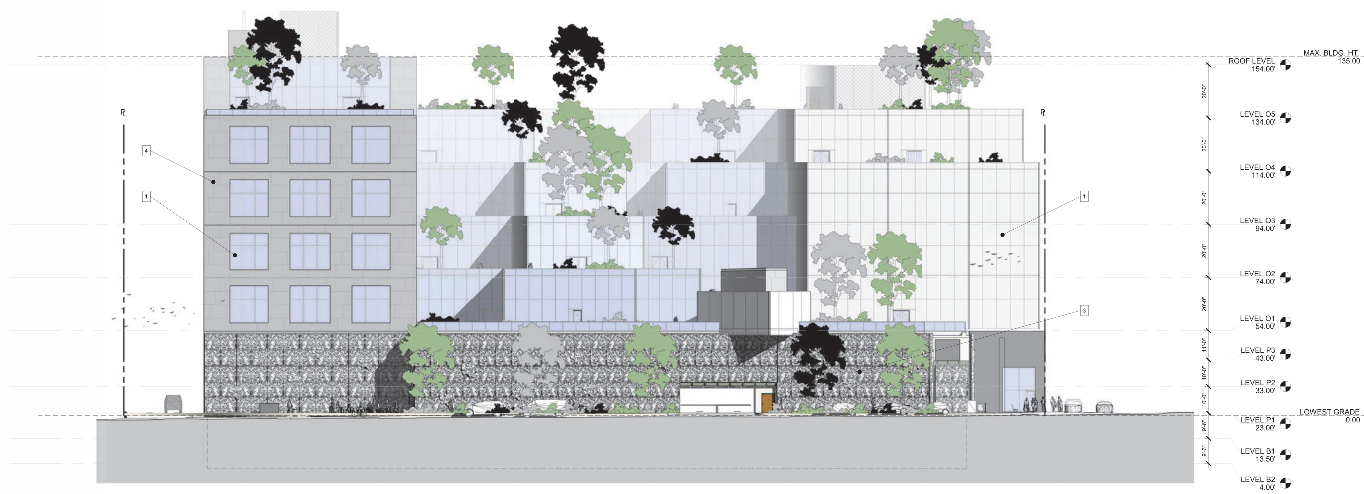
North Building Elevation

EXTERIOR FINISHES	
1	LOW-E GLASS WINDOW WALL
2	WHITE PLASTER WALL
3	GREEN WALL (PLANTED)
4	INSULATED METAL PANEL

Figure 5

Conceptual Elevations – North and South

Source: Eyestone Environmental, 2020.



West Building Elevation - Jandy Place

EXTERIOR FINISHES	
1	LOW-E GLASS WINDOW WALL
2	WHITE PLASTER WALL
3	GREEN WALL (PLANTED)
4	INSULATED METAL PANEL

East Building Elevation - Pedestrian Walk

EXTERIOR FINISHES	
1	LOW-E GLASS WINDOW WALL
2	WHITE PLASTER WALL
3	GREEN WALL (PLANTED)
4	INSULATED METAL PANEL

Figure 6

Conceptual Elevations – East and West

Source: Eyestone Environmental, 2020.

The Project would include landscaped courtyards and walkways to connect and integrate the proposed building with the office building to remain, to create an integrated creative office campus. The Project would provide approximately 38,033 square feet of landscaping throughout the Project site.

In recognition of the nearby single-family neighborhood to the east across Grovesnor Avenue, the Project's tallest elements are oriented away from the residential area. The Project steps down in size and scale modulating in height from the existing 25-foot office building on the eastern portion of the Project site, to the new construction up to 135 feet on the western portion of the Project site. The Project is accented by outdoor areas and extensive landscaping. Street level landscaping, pedestrian amenities, walkways, and retail uses would be added to activate the area. Above grade parking would be screened and integrated into the new building's architecture. Specifically, as illustrated in the conceptual elevations included in Figure 5 on page 14 and in Figure 6 on page 15, the majority of the proposed parking would not be visible as it would be wrapped by the proposed commercial uses on the ground floor and would be screened using architectural screening elements and landscaping. The creative office campus would involve the new construction of a structure that has been designed with floor plates and ceiling heights varying in size by level, which may be modified to offer flexible combinations of spaces to accommodate different user needs.

3.3.2 Open Space and Landscaping

The Project would provide approximately 38,033 square feet of landscaped area (e.g., trees, green space, etc.) and 54,583 square feet of hardscape area (e.g., courtyards, pathways, etc.) throughout the Project site and on the building terraces on the upper levels of the proposed building. As summarized in Table 1 on page 17, each of the Project's upper levels provide landscaped terrace areas that are accessible to future Project tenants. The eighth level provides a large terrace with seating and landscaped areas that is accessible to all future Project tenants.

In addition to the landscaped terraces described above, the Project provides an internal landscaped pedestrian courtyard at the ground level, varying between 32 feet to 48 feet wide, between the proposed building at 12575 W. Beatrice Street and the existing commercial building at 12541 W. Beatrice Street, lined with seating areas, trees, and landscaped area providing outdoor open space areas for tenants of both buildings. New hardscape and landscaped areas would also be added to the northeastern portion of 12541 W. Beatrice Street in a new courtyard area with seating, and new trees would be planted along Beatrice Street at the perimeter of the 12541 W. Beatrice Street building, creating a separation between the building and the existing surface parking lot. New street trees along Jandy Place would be planted as part of the Project, and a new landscaped seating area would be provided along Jandy Place, which is proposed to provide streetscape improvements, including pedestrian seating.

There are approximately 61 trees on the Project site, including 51 Tipuana (*Tipuana tipu*) trees, 8 Ficus species (*benjamina*, *retusa* and *rubiginosa*), and 2 California sycamore (*Platanus racemosa*) trees, which are considered a protected species under City of Los Angeles ordinance.[4] The two existing California Sycamore trees would remain on the Project site. In addition, the Project would replace the 59 non-protected trees to be removed throughout the Project site at a rate of at least 1:1. There are no existing street trees around the Project site perimeter.

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4 Arbor Essence. Tree Survey, September 15, 2020. Refer to Appendix IS-1 of this Initial Study.

Table 1
Summary of Proposed Landscaped Areas

Location	Size
Building Level 1, including perimeter and internal courtyard	17,069 sf
Building Level 2	0 sf
Building Level 3	0 sf
Building Level 4 terrace/patio	3,312 sf
Building Level 5 terrace/patio	2,358 sf
Building Level 6 terrace/patio	1,029 sf
Building Level 7 terrace/patio	2,994 sf
Building Level 8 terrace/patio	11,271 sf
Total	**38,033 sf**

sf = square feet

Source: Chait and Associates, 2020.

3.3.3 Access, Circulation, and Parking

Vehicular access to the Project site would continue to be provided from Beatrice Street and Jandy Place. On Jandy Place, the Project would include one driveway to access the parking garage with one lane in each direction, in addition to a driveway dedicated to truck deliveries, which is located on the northwestern corner of the Project site. These two driveways would replace the one existing driveway along Jandy Place. On W. Beatrice Street, the Project would provide one driveway to access the parking garage with two lanes entering and one lane exiting the garage, in addition to the existing driveway on Beatrice Street that currently serves the building at 12541 W. Beatrice Street. Pedestrian access to the Project site would be from Beatrice Street, Jandy Place, and from the internal courtyard at the ground level between the proposed building at 12575 W. Beatrice Street and the existing commercial building at 12541 W. Beatrice Street.

Per LAMC Section 12.21.A.4(c), the Project would be required to provide 586 parking spaces.[5] The Project would provide a total of 811 parking spaces, exceeding the requirements of the LAMC. Of the 811 parking spaces, 791 spaces would be provided in a five-level parking structure, including two levels of subterranean parking and three above ground parking levels. Excavation for the subterranean parking levels would extend to a depth of approximately 22 feet, with the finished floor at a depth of approximately 19 feet. The remaining 20 parking spaces would be provided in a surface parking area on the east side of the 12541 W. Beatrice Street office building to remain. The proposed parking would serve both the newly constructed office building as well as the existing office building to remain. Additionally, the Project would include 22 short-term and 41 long-term bicycle parking spaces along with showers and locker rooms, in compliance with Section 91.6307 of the LAMC (Ordinance No. 185480). The Project would also include 244 parking spaces capable of supporting future electric vehicle EV supply equipment, and 82 parking

5 Pursuant to LAMC Sections 12.21.A.4(c), (j)(3) and (k) both the office and retail components of the Project require one space for each 500 square feet of floor area; café uses are provided one space per 100 square feet of floor area.

spaces with EV chargers, which would include a label stating "EV CAPABLE" posted in a noticeable place at the service panel or subpanel and next to the raceway termination point (Ordinance No. 186485).

3.3.4 Lighting and Signage

The Project would include low-level exterior lights adjacent to the proposed building and along pathways for security and wayfinding purposes. In addition, low-level lighting to accent signage, architectural features, and landscaping elements would be incorporated throughout the Project site. All lighting would comply with current energy standards and codes, as well as design requirements while providing appropriate light levels. Project lighting would be designed to provide efficient and effective on-site lighting while minimizing light trespass from the Project site onto adjacent properties, reducing sky-glow, and improving nighttime visibility through glare reduction. Specifically, all on-site exterior lighting would be automatically controlled via photo sensors to illuminate only when required and would be shielded or directed toward areas to be illuminated to limit spill-over onto nearby residential uses. Where appropriate, interior lighting would be equipped with occupancy sensors and/or timers that would automatically extinguish lights when no one is present. All exterior and interior lighting would meet high energy efficiency requirements utilizing light-emitting diode (LED) or efficient fluorescent lighting technology.

Proposed signage would be designed to be aesthetically compatible with the existing and proposed architecture of the Project site and would comply with the LAMC. Proposed signage would include identity signage, building and tenant signage, and general ground level and way-finding pedestrian signage. No off-premises or billboard advertising is proposed as part of the Project. The Project would not include signage with flashing, mechanical, or strobe lights. New signage would be architecturally integrated into the design of the proposed building and would establish appropriate identification for the proposed uses. Project signage would be illuminated via low-level, low-glare external lighting, internal halo lighting, or ambient light. Exterior lighting for signage would be directed onto signs to avoid creating off-site glare. Illumination used for Project signage would comply with light intensities set forth in the LAMC and as measured at the property line of the nearest residentially zoned property.

3.3.5 Sustainability Features

The Project would be designed and constructed to incorporate features to support and promote environmental sustainability. “Green” principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code and the sustainability intent of the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED®) program to meet the standards of LEED Silver® or equivalent green building standards. These include energy conservation, water conservation, and waste reduction features to support and promote environmental sustainability, including but not limited to: Energy Star appliances; plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) that comply with the performance requirements specified in the City of Los Angeles Green Building Code; weather-based irrigation system; and water-efficient landscaping. The Project would comply with Los Angeles Green Building Code Section 95.05.211 to the satisfaction of the Department of Building and Safety, and as a result would provide at minimum 3,300 square feet of roof area reserved for a solar photovoltaic system. Electric vehicle (EV) wiring would be installed prior to occupancy of the building. As previously mentioned, the Project would provide parking spaces equipped with EV charging stations and/or outlets for plugin.

3.3.6 Anticipated Construction Schedule

Construction of the Project would commence with demolition of the existing on-site structures. This phase would be followed by grading and excavation for the subterranean parking. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to occur over an approximate 18-month period and be completed in 2024. It is estimated that approximately 59,000 cubic yards of export would be hauled from the Project Site.

3.4 REQUESTED PERMITS AND APPROVALS

As described above, the judgment in *Karney Management v. City of Los Angeles*, Case No. BS172677 (Consolidated with Case No. 18STCP03226), did not set aside the underlying Site Plan Review, Conditional Use Permit and Lot Line Adjustment approvals (i.e., CPC-2016-1208-CU-SPR and AA-2017-397-PMEX-1A). However, this EIR considers the context of the Project as the context existing prior to all Project approvals.

The list below includes the anticipated requests for approval of the Project. The Environmental Impact Report will analyze impacts associated with the Project and will provide 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:

- Pursuant to LAMC Section 16.05, Site Plan Review to authorize the Project's new buildings and uses;
- Pursuant to LAMC Section 12.24.U.14, a Conditional Use Permit (CUP) for "Major" development projects;
- Pursuant to LAMC Section 17.50B3c, a Parcel Map Exemption—Lot Line Adjustment;
- A haul route, if required, by the Los Angeles Department of Building and Safety; and
- Other discretionary and ministerial permits and approvals 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 with some discretionary authority over a project or a portion of it, but which has not been designated the Lead Agency (State CEQA Guidelines Section 15381). No responsible agencies have been identified for the Project.

4 ENVIRONMENTAL IMPACT ANALYSIS

As discussed in Section 3, Project Description, of this Initial Study, the Project was previously considered and approved by the City under Case Nos. CPC-2016-1208-CU-SPR and AA-2017-397-PMEX-1A. To comply with CEQA, the City prepared and adopted a mitigated negative declaration (MND) (Case No. ENV-2016-1209-MND). Two appeals were filed and heard by the City. The appeals were denied by the City. Subsequently, two petitions for writ of mandate were filed and consolidated challenging the City's approvals of the Project, on the grounds, among others, that the City's mitigated negative declaration was inadequate under CEQA (*Karney Management v. City of Los Angeles*, Case No. BS172677 [Consolidated with Case No. 18STCP03226]). On January 21, 2020, the court entered a judgment granting the petition for writ of mandate as to the CEQA cause of action, and denying the remainder of the causes of action. The judgment vacates the City's approval of the MND and requires that an environmental impact report (EIR) be prepared for the Project. However, the judgment does not invalidate the underlying approvals (i.e., CPC-2016-1208-CU-SPR and AA-2017-397-PMEX-1A) which remain valid. Accordingly, this Initial Study is being prepared pursuant to the judgment in *Karney Management v. City of Los Angeles*.

This Initial Study considers the Project in relation to the 2019 updated Appendix G of the State CEQA Guidelines as the thresholds of significance, and will incorporate mitigation measures as necessary.

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?

Potentially Significant Impact. A scenic vista is a panoramic view of a valued visual resource. 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. Examples of panoramic views include an urban skyline, valley mountain range, the ocean, or other water bodies.

As discussed in Section 3, Project Description, of this Initial Study, the Project site is located within a commercial office and industrial low- and medium-rise, mixed-use neighborhood. The area surrounding the Project site includes a variety of land uses, including office, light industrial, and manufacturing uses interspersed with multi-family and single-family residential uses. Specifically, land uses surrounding the Project site include office uses immediately north, east, and west of the Project site with commercial and multi-family uses located south of the Project site (across Beatrice Street). Adjacent to the eastern side of the Project site are two-story commercial office/industrial buildings. Further east of the Project site, across Grosvenor Boulevard, are single-family residences filling the area from Hammock Street to Beatrice Street. A five-level parking structure is located adjacent to the Project site's northeastern side. The Centinela Creek Channel and State Route 90 are also located further north of the Project site. Due to the highly urbanized and built out surroundings, it does not appear that publicly available scenic vistas of any valued visual resources are available adjacent to the Project site. However, the EIR will include further evaluation of the surrounding uses and the presence of visual resources in the vicinity of the Project Site.

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 (not yet designated) state scenic highway is along California State Route 1 (SR-1), specifically starting at Route 187 near Santa Monica, which is located approximately 2.3 miles northwest of the Project site and extends up to Route 101 near El Rio.[6] In addition, as discussed below in Checklist Section IV (Biological Resources) and Checklist Section V (Cultural Resources), the Project would not significantly impact trees or historic buildings. Therefore, as the Project site is not located along a state scenic highway, the Project would not substantially damage scenic resources within a state scenic highway. 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. As discussed in Section 3, Project Description, of this Initial Study, the Project site is located within the Palms–Mar Vista–Del Rey Community Plan area of the City of Los Angeles in an urbanized area characterized by a mixture of office, light industrial, and manufacturing uses interspersed with multi-family and single-family residential uses. Due to the urbanized and built out

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6 Caltrans, Scenic Highways, *List of eligible and officially designated State Scenic Highways (XLSX)*, accessed March 12, 2020.

surroundings as well as the types of uses within and surrounding the Project site, neither the Project site nor its surroundings reflect an area of special scenic quality. Notwithstanding, the EIR for the Project will include further evaluation of the Project's consistency with applicable zoning and other regulations governing scenic quality, including the City's General Plan Framework Element Urban Form and Neighborhood Design Chapter and the Citywide Design Guidelines.

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. As discussed in Section 3, Project Description, of this Initial Study, the Project includes the construction of a new eight-story office building with a total floor area of 199,500 square feet. As part of the Project, the existing structures at 12575 W. Beatrice Street with a combined floor area of 7,188 square feet would be removed while the existing office building at 12541 W. Beatrice Street would be retained. As the Project would increase the building area within the Project Site, there will be additional sources of light and glare compared to existing conditions. Therefore, the EIR will provide further analysis of the Project's potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

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.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
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))?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 office uses and surface parking. No agricultural uses or operations occur on-site or in the vicinity of the Project site. Further, the Project site and surrounding area[7] 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.[8] As such, the Project would not convert farmland to a non-agricultural use. No impacts would occur, and no mitigation measures are required. 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 as M2-1 (Light Industrial, Height District 1), which permits a variety of light industrial uses. The Project site is not zoned for agricultural use. Furthermore, no agricultural zoning is present in the surrounding area. The Project site and surrounding area are also not enrolled under a Williamson Act Contract.[9] Therefore, the Project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. No impacts would occur, and no mitigation measures are required. 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))?

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7 Immediately surrounding area APNs include: 4211006002, 4211006003, 4211006004, 4211006005, 4211006006, 4211006010, 4211005013, 4211005016, 4211005021, and 4211006025.

8 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4211006009 and 4211006026 http://zimas.lacity.org/, accessed March 3, 2020.

9 California Department of Conservation, The Williamson Act Status Report 2016-17, www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2018%20WA%20Status%20Report.pdf, accessed March 3, 2020.

No Impact. As previously discussed, the Project site is located in an urbanized area and is currently developed with office uses and surface parking. The Project site does not include any forest land or timberland. In addition, the Project site is currently zoned for light industrial uses and is not zoned for forest land and is not used as forest land.[10] 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 mitigation measures are required. 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, is currently developed with office uses and surface parking, 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 mitigation measures are required. 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?

No Impact. As discussed above, the Project site is located in an urbanized area of the City of Los Angeles and does not include farmland or forest land. Further, 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.[11] 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 mitigation measures are required. 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?	☒	☐	☐	☐

[10] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4211006009 and 4211006026, http://zimas.lacity.org/, accessed March 3, 2020.

[11] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4211006009 and 4211006026, http://zimas.lacity.org/, accessed March 3, 2020.

Immediately surrounding area APNs: 4211006002, 4211006003, 4211006004, 4211006005, 4211006006, 4211006010, 4211005013, 4211005016, 4211005021, and 4211006025.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 (the 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 non-attainment (i.e., ozone, particulate matter less than 2.5 microns in size [$PM_{2.5}$], and lead[12]).[13] SCAQMD's 2016 Air Quality Management Plan (AQMP) contains 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 and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment.[14] With regard to future growth, SCAG has prepared their Regional Transportation Plan/Sustainable Communities Strategy, 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.[15] Construction and operation of the Project, which would include the demolition of 30,260 square feet of office and accessory uses and the development of 199,500 square feet of new retail and office uses, would 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, the EIR will provide further analysis of the Project's consistency with SCAQMD's AQMP.

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12 Partial Nonattainment designation for lead for the Los Angeles County portion of the Basin only.

13 USEPA, Current Nonattainment Counties for All Criteria Pollutants, Los Angeles County, www3.epa.gov/airquality/greenbook/ancl.html, accessed April 22, 2020.

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

15 The Regional Council of Southern California Association of Governments (SCAG) formally adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) September 2020. However, the 2020–2045 RTP/SCS has not been formally adopted by the California Air Resources Board. As such, SCAG's 2016–2040 RTP/SCS is also considered in the discussion of population and housing provided below.

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 would result in the emission of air pollutants in the Basin, which is currently in non-attainment of federal air quality standards for ozone, $PM_{2.5}$ and lead, and State air quality standards for ozone, particulate matter less than 10 microns in size (PM_{10}), and $PM_{2.5}$. Therefore, implementation of the Project could potentially contribute to air quality impacts, which could cause a cumulative impact in the Basin. The EIR will provide further analysis of cumulative air pollutant emissions associated with the Project.

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, the Project could expose sensitive receptors to additional pollutant concentrations, and the EIR will provide further analysis of the Project's potential to result in substantial adverse impacts to sensitive receptors.

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 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. The Project proposes additional office uses with accessory ground floor retail uses within an existing commercial office development, and would not involve the operation of uses typically associated with odor complaints. On-site trash receptacles would also be contained, located, and maintained in a manner that promotes odor control, and would not result in substantially adverse odor impacts.

In addition, the construction and operation of the Project would comply with SCAQMD Rules 401, 402, and 403, regarding visible emissions violations.[16] These rules are designed to limit or control emissions from specific types of equipment and/or processes that may have an adverse effect on humans. In particular, Rule 401 provides that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour.[17] Rule 402 provides that a person shall not discharge from any source whatsoever such

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16 SCAQMD, Visible Emissions, Public Nuisance, and Fugitive Dust, www.aqmd.gov/home/regulations/compliance/inspection-process/visible-emissions-public-nuisance-fugitive-dust, accessed March 4, 2020.

17 SCAQMD, Rule 401, Visable Emissions, adopted February 4, 1977.

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.[18] In addition, the purpose of Rule 403 is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.[19]

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 mitigation measures are required. No further analysis 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

18 SCAQMD, Rule 402, Nuisance, adopted May 7, 1976.

19 SCAQMD, Rule 403, Fugitive Dust, adopted May 7, 1976.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?

No Impact. The Project site is located in an urbanized area and is currently developed with office uses and surface parking. Landscaping within the Project site is limited to common ornamental trees, grasses, and shrubs. The Centinela Creek Channel, which is classified by the U.S. Fish and Wildlife Service as a Riverine System,[20] is located approximately 300 feet north of the Project site and, construction of the Project would not result in its removal, filling, or other means of hydrological interruption. Specifically, construction activities would occur within the boundaries of the Project site and would be separated by an existing intervening property with a building and parking lot. Overall, due to the urbanized and disturbed nature of the Project site and the surrounding areas, and lack of large expanses of open space areas, species likely to occur on-site are limited to small terrestrial and avian species typically found in urbanized developed settings. Based on the lack of habitat on the Project site, it is unlikely any special status species listed by the California Department of Fish and Wildlife (CDFW)[21] or by the U.S. Fish and Wildlife Service (USFWS)[22] would be present on-site. Furthermore, the Project site is not located in or adjacent to a Biological Resource Area as defined by the City of Los Angeles.[23] Therefore, 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 or USFWS. Impacts would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

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?

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20 According to the U.S. Fish and Wildlife Service Wetlands Mapper, the Riverine System includes all wetlands and deepwater habitats contained within a channel, www.fws.gov/wetlands/data/Mapper.html, accessed April 27, 2020.

21 California Department of Fish and Wildlife, California Natural Diversity Database, Special Animals List, August 2019.

22 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/ecp0/reports/species-listed-by-state-totals-report, accessed June 10, 2020.

23 City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, P. 2-18-6.

No Impact. The Project site is located in an urbanized area and is currently developed with office uses and surface parking. No riparian or other sensitive natural community exists on the Project site.[24] The Centinela Creek Channel, which is classified by the U.S. Fish and Wildlife Service as a Riverine System,[25] is located approximately 300 feet north of the Project site. Construction activities would occur within the boundaries of the Project Site and would be separated from the Centinela Creek Channel by an existing intervening property with a building and parking lot. 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.[26,27] In addition, there are no other sensitive natural communities identified by the CDFW or the USFWS.[28,29,30] 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 mitigation measures are required. 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?

Less Than Significant Impact. As discussed above, the Project site is located in an urbanized area and is currently developed with office uses and surface parking. No water bodies or state and federally protected wetlands exist on the Project site.[31] The Centinela Creek Channel, which is classified by the U.S. Fish and Wildlife Service as a Riverine System,[32] is located approximately 300 feet north of the Project site and, construction of the Project would not result in its removal, filling, or other means of hydrological interruption. Specifically, construction activities would occur within the boundaries of the Project Site and would be separated by an existing intervening building. As discussed further below in Checklist Section X, Hydrology and Water Quality, of this Initial Study, in accordance with the requirements of the NPDES Construction General Permit, the Project would implement a Stormwater Pollution Prevention Plan that would set forth Best Management Practices (BMPs) to be used during construction for stormwater and non-stormwater discharges, including, but not limited to, sandbags, storm drain inlets protection, stabilized construction entrance/exit, wind erosion control, and stockpile management, to minimize the discharge of pollutants in stormwater runoff during construction. In

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[24] United States Environmental Protection Agency, NEPAssist, https://nepassisttool.epa.gov/nepassist/nepamap.aspx, accessed March 11, 2020.

[25] According to the U.S. Fish and Wildlife Service Wetlands Mapper, the Riverine System includes all wetlands and deepwater habitats contained within a channel, www.fws.gov/wetlands/data/Mapper.html, accessed April 27, 2020.

[26] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, P. 2-18-6.

[27] Department of Regional Planning, Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map, February 2015.

[28] California Department of Fish and Wildlife, Biogeographic Information and Observation System (BIOS), https://wildlife.ca.gov/Data/BIOS, accessed April 4, 2020.

[29] California Department of Fish and Wildlife, CDFW Lands, https://wildlife.ca.gov/Lands/Viewer, accessed April 4, 2020.

[30] United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/data/Mapper.html, accessed March 11, 2020.

[31] United States Environmental Protection Agency, NEPAssist, https://nepassisttool.epa.gov/nepassist/nepamap.aspx, accessed March 11, 2020.

[32] According to the U.S. Fish and Wildlife Service Wetlands Mapper, the Riverine System includes all wetlands and deepwater habitats contained within a channel, www.fws.gov/wetlands/data/Mapper.html, accessed April 27, 2020.

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. Furthermore, during operation, the Project would comply with the City's LID Ordinance, which requires that post-construction stormwater runoff from new projects must be infiltrated, evapotranspired, captured and used, and/or treated through high efficiency BMPs on-site for the volume of water produced by the 85th percentile storm event. Therefore, with the incorporation of LID BMPs, operation of the Project would not result in discharges that would violate any surface water quality standards or waste discharge requirements. As such, the Project would not have an adverse effect on state or federally protected wetlands. Impacts would be less than significant, and no mitigation measures are required. Therefore, no further evaluation of this topic in an EIR is required.

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 above, the Project site is located in an urbanized area and is currently developed with office uses and surface parking. In addition, the areas surrounding the Project site are fully developed and there are no large expanses of open space areas within and surrounding the Project site that provide linkages to natural open spaces 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.[33,34]

According to the Tree Survey prepared for the Project by Arbor Essence, dated September 15, 2020, and included in Appendix IS-1 of this Initial Study, a total of 61 trees are located within the Project site. There are no street trees located within the public right-of-way adjacent to the Project site. The Project would involve the removal of 59 of the 61 trees located on the Project Site. Trees to be removed could potentially provide nesting sites for migratory birds. The Project would comply with the Migratory Bird Treaty Act, which prohibits the take, possession, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, of 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. Additionally, California Fish & Game Code Section 3503 (Section 3503) 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." No exceptions are provided in the code and the CDFW has not promulgated regulations interpreting these provisions. To ensure regulatory compliance with the Migratory Bird Treaty Act and California Fish and Game Code, the Project would require that tree removal activities would take place outside of the nesting season (February 1–August 31), to the extent feasible. In addition, 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, a buffer would be established until the fledglings have left the nest. Therefore, with compliance with the Migratory Bird Treaty Act, 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 wildlife

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33 City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, p. 2-18-6.

34 Department of Regional Planning, Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map, February 2015.

corridors or impede the use of native wildlife nursery sites. Impacts would be less than significant, and no mitigation measures are required. 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 Ordinance (Chapter IV, Article 6 of the LAMC) regulates the relocation or removal of all Southern California native oak trees (excluding scrub oak), California black walnut trees, Western sycamore trees, and California Bay trees of at least four inches in cumulative diameter, four and one half feet above the ground level at the base of the tree. These tree species are defined as "protected" by the City of Los Angeles. Trees that have been planted as part of a tree planting program are exempt from the City's Protected Tree Ordinance and are not considered protected. The City's Protected Tree Ordinance prohibits, without a permit, the removal of any regulated protected tree, including "acts which inflict damage upon root systems or other parts of the tree [...]" and requires that all regulated protected trees that are removed be replaced on at least a 2:1 basis with trees that are of a protected variety.

According to the Tree Survey included in Appendix IS-1 of this Initial Study, a total of 61 trees are located within the Project site, including 51 Tipuana (Tipuana tipu) trees, 8 Ficus (*benjamina, retusa* and *macropylla*) trees, and two California sycamore (*Platanus racemose*) trees. All 61 trees on the Project site have a trunk diameter of eight inches or greater. In addition, as discussed above, the City's Protected Tree Ordinance identifies sycamore trees as a protected tree species. The Project would involve the removal of the 51 Tipuana (Tipuana tipu) trees and 8 Ficus (*benjamina, retusa* and *macropylla*) trees. As shown above in the conceptual site plan for the Project provided in Figure 4 on page 13, the two California sycamore trees identified along the southern perimeter of the Project site would be retained as part of the Project. In addition, no grading or excavation would impact these trees as no improvements or structures are located beneath or in the area of the trees. Specifically, as illustrated in Figure 4, the two California sycamore trees would be retained in their current locations and incorporated into the internal landscaped pedestrian courtyard proposed at the ground level between the proposed building at 12575 W. Beatrice Street and the existing commercial building at 12541 W. Beatrice Street that would remain. This proposed landscaped pedestrian courtyard would be lined with seating areas, trees, and landscaped area providing outdoor open space areas for tenants of both buildings. Additionally, in accordance with the Department of City Planning's policy, the on-site trees to be removed would be replaced on a 1:1 basis. There are no street trees located within the public right-of-way adjacent to the Project site. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources. Impacts would be less than significant, and no mitigation measures are required. 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 above, the Project site is located in an urbanized area and is currently developed with office uses and surface parking. As also previously discussed, landscaping within the Project site is limited, consisting of ornamental trees and shrubs and the Project site does not support any habitat or natural community.[35] No Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the Project site.[36] Thus, the Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other related plans. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

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

Less Than Significant Impact. CEQA Guidelines Section 15064.5 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 Public Resources Code Section 5020.1(k)); or (3) identified as significant in a historical resources survey (meeting the criteria in Public Resources Code Section 5024.1(g)). Additionally, 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 established SurveyLA, a comprehensive program to identify potentially significant historic resources throughout the City.

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35 United States Environmental Protection Agency, NEPAssist, https://nepassisttool.epa.gov/nepassist/nepamap.aspx, accessed March 11, 2020.

36 California Department of Fish and Wildlife, California Natural Community Conservation Plans, April 2019.

As discussed in Section 3, Project Description, of this Initial Study, the Project site is currently developed with a 23,072-square-foot office building and two accessory buildings comprised of 5,044 and 2,144 square feet at 12575 West Beatrice Street, and an 87,881-square-foot office building at 12541 West Beatrice Street as well as surface parking. As part of the Project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. According to the parcel profile report included in the City's Zone Information and Map Access System (ZIMAS), the structures proposed to be removed at 12575 W. Beatrice Street were built in 1969.[37] Given the age (1970s through 1990s) and unremarkable design of the existing structures, which are not considered to reflect a particular historical or architectural style, the on-site structures are not considered historic resources. In addition, based on a review of the SurveyLA Historic Resources Survey Report for the Palms–Mar Vista–Del Rey community, the HistoricPlacesLA database,[38] and the Los Angeles ZIMAS database, the Project site, including the existing structures within the Project site, has not been individually listed in or formally determined to be eligible for listing in the National Register or the California Register; nor has any of the adjacent sites. The Project site has also not been designated as a Historic-Cultural Monument and is not located within an existing Historic Preservation Overlay Zone; nor has any of the adjacent sites. Therefore, there are no historic resources within and adjacent to the Project site.[39] Furthermore, a records search was conducted for the Project area by the South Central Coastal Information Center (SCCIC) at California State University, Fullerton to identify previously recorded prehistoric and historic resources in and around the Project site (see Appendix IS-2 of this Initial Study). The records search includes a review of all recorded archeological sites within a 0.5-mile radius of the Project site as well as a review of cultural resource reports on file.[40] The California Points of Historical Interest, California Historical Landmarks, California Register of Historical Resources, National Register of Historic Places, California State Historic Resources Inventory, and City of Los Angeles Historic-Cultural Monuments listings were also reviewed for the Project site. The records search indicates that there are no historic resources located on-site or on adjacent sites. Therefore, as no identified historic resources are located on-site or on adjacent sites, impacts to historic resources would be less than significant, and no mitigation measures are required. No further evaluation 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?

Potentially 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 of Los Angeles and has been subject to grading and development in the past. Therefore, surficial archaeological resources that may have existed at one time have likely been previously disturbed. Nevertheless, the Project would require grading and excavation for the construction

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37 City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report, http://zimas.lacity.org/, accessed April 2, 2020.

38 City of Los Angeles, HistoricPlacesLA, www.historicplacesla.org/map, accessed April 2, 2020.

39 City of Los Angeles Department of City Planning, SurveyLA, Los Angeles Historic Resources Survey Report for the Palms–Mar Vista–Del Rey Community Plan Area, July 2012, https://planning.lacity.org/preservation-design/survey-la-results-palms-mar-vista-del-rey, accessed April 2, 2020.

40 The Project's potential impacts on archaeological resources are addressed below in threshold question (b).

of the proposed subterranean parking garage, which would extend to a depth of approximately 22 feet below ground surface. Therefore, the EIR will provide further analysis of the Project's potential impacts to archaeological resources.

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

Less Than Significant Impact. As discussed above, the Project site is located within an urbanized area and has been subject to previous grading and development. Therefore, the potential for uncovering human remains on the Project site is low. Nevertheless, the Project would require grading, excavation for two subterranean parking levels at a depth of 22 feet below ground surface, and other construction activities that could have the potential to disturb existing but undiscovered human remains. If human remains were discovered during construction of the Project, work in the immediate vicinity of the construction area would be halted, 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 Public Resources Code 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. Therefore, due to the low potential that any human remains are located on the Project site, and because compliance with the regulatory standards 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. As discussed above, the Project site is currently developed with office uses and surface parking. The Project would involve removal of the existing 23,072-square-foot office building and two accessory buildings comprised of 5,044 and 2,144 square feet at 12575 West Beatrice Street, and would retain the existing 87,881-square-foot office building at 12541 West Beatrice Street (located to east of the proposed building). The Project would include the construction of an approximately 199,500-square-foot building consisting of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. Due to the increased floor area and type of uses, the Project would generate an increased demand for electricity and natural gas services provided by the Los Angeles Department of Water and Power (LADWP) and the Southern California Gas Company, respectively. In addition, the Project would generate an increased demand on transportation energy. While development of the Project would not be anticipated to cause wasteful, inefficient, and unnecessary consumption of energy resources, further analysis 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 Senate Bill (SB) 1078, California's Renewable Portfolio Standard required retail sellers of electric services to increase procurement from eligible renewable energy resources to 20 percent of total retail sales by 2017.[41] The program was accelerated in 2015 with SB 350 which mandated a 50 percent RPS by 2030. In 2018, SB 100 was signed into law, which again increases the RPS to 60 percent by 2030 and requires all the state's electricity to come from carbon free resources by 2045. LADWP provides electrical service throughout the City and many areas of the Owens Valley. 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. In accordance with SB 100, LADWP is required to procure at least 60 percent of its energy portfolio from renewable sources by 2030

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 2019 Title 24 standards, which became effective on January 1, 2020.[42] The 2019 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers *(*ASHRAE) 90.1 2017 national standards.[43]

As previously described, the Project site is developed with office uses and surface parking. In addition to the retention and incorporation of the existing 87,881-square-foot office building at 12541 West Beatrice Street, the Project would include the construction of a 199,500-square-foot building consisting of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. The Project site

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41 CPUC, California Renewables Portfolio Standard (RPS), www.cpuc.ca.gov/rps/, accessed March 4, 2020.

42 CEC, 2019 Building Energy Efficiency Standards, www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency/, accessed March 4, 2020.

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

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, 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 further evaluated 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?	☐	☐	☒	☐
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 is based on the Geotechnical Engineering Investigation prepared for the Project by Geotechnologies, Inc., dated March 19, 2018 and revised March 19, 2020. All specific information on geologic and soils conditions in the discussion below is from this report unless otherwise noted. This report is included as Appendix IS-3 of this Initial Study.

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. Surface fault rupture occurs when movement on a fault breaks through to the earth's surface.[44] Based on criteria established by the California Geological Survey, faults can be classified as active, potentially active, or inactive. Active faults are faults that have historically produced earthquakes or shown evidence of movement within the past 11,000 years. Potentially active faults have demonstrated displacement within the last 1.6 million years. Inactive faults do no exhibit displacement younger than 1.6 million years before the present. Due to their buried nature, the existence of buried thrust faults is usually not known until they produce an earthquake.

The California Geological Survey establishes regulatory zones around active faults, called Alquist-Priolo Earthquake Fault Zones. These zones extend from 200 feet to 500 feet on each side of the known fault and identify areas where a potential surface rupture could provide 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 and are required to be set back a certain distance from the Alquist-Priolo Earthquake Fault Zone.

Based on a review of regulatory maps prepared by the California Department of Conservation and the City of Los Angeles General Plan Safety Element, the Project site is not located within an Alquist-Priolo Special Studies Zone or Fault Rupture Study Area.[45,46] In addition, according to the Geotechnical Engineering Investigation, included in Appendix IS-3, of this Initial Study, based on research of available literature as well as results of site reconnaissance, no known active faults or potentially active faults with the potential for surface rupture underlie the Project site. Therefore, as concluded in the Geotechnical Engineering Investigation, the potential for surface ground rupture at the Project site is considered low. The Project also would not involve mining operations that require deep excavations thousands of feet into the earth, or boring of large areas, which could create unstable seismic conditions or stresses in the Earth's crust. Accordingly, the Project would not directly or indirectly cause potential substantial adverse effects involving the rupture of a known earthquake fault. Impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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44 California Department of Conservation, Alquist-Priolo Earthquake Fault Zones, www.conservation.ca.gov/cgs/alquist-priolo, accessed March 6, 2020.

45 California Department of Conservation, Information Warehouse Regulatory Maps, https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/, accessed March 6, 2020.

46 Department of City Planning Los Angeles, Safety Element of the Los Angeles General Plan, Exhibit A—Alquist-Priolo Special Study Zones & Fault Rupture Study Areas in the City of Los Angeles, https://planning.lacity.org/eir/ConventionCntr/DEIR/files/references/City%20of%20Los%20Angeles,%20Safety%20Element%20of%20the%20General%20Plan.pdf, accessed March 6, 2020.

ii. Strong seismic ground?

Less Than Significant Impact. The Project site is located in the seismically active region of Southern California and would potentially be subject to strong seismic ground shaking if a moderate to strong earthquake occurs on a local or regional fault. As discussed above, no active faults are known to pass directly beneath the Project site and the Project site is not located in an Alquist-Priolo Earthquake Fault Zone. According to ZIMAS, the closest active fault is the Newport-Inglewood Fault located approximately 3.1 miles from the Project site. State and local code requirements ensure that buildings are designed and constructed in a manner that, although the buildings may sustain damage during a major earthquake, would reduce the substantial risk that buildings would collapse. 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 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 thereof 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. The Los Angeles Building Code incorporates current seismic design provisions of the 2019 California Building Code, with City amendments, to minimize seismic impacts. The 2019 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 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 the Los Angeles Department of Building and Safety, including the recommendations provided in a required final geotechnical report for the Project, as set forth in LAMC Section 91.7006.2, which will be subject to review and approval by the Los Angeles Department of Building and Safety as part of the standard development review plan check process.

Based on the above, through compliance with regulatory requirements and site-specific geotechnical recommendations, the Project would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking. Therefore, the Project's impact related to strong seismic ground shaking would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction occurs when loose, saturated, granular soils lose their strength due to excess water pressure that builds up during repeated movement from seismic activity. Liquefaction usually results in horizontal and vertical movements from lateral spreading of liquefied materials and post-earthquake settlement of liquefied materials. Factors that contribute to the potential for liquefaction include a low relative density of granular materials, a shallow groundwater table, and a long duration and high acceleration of seismic shaking. The effects of liquefaction include the loss of the soil's ability to support footings and foundations which may cause buildings and foundations to buckle.

According to the California Department of Conservation's Seismic Hazard Zones Map for the Venice Quadrangle, the Project site is located within a liquefaction hazard zone.[47] This determination is based on groundwater depth records, soil type, and distance to a fault capable of producing a substantial earthquake. The Safety Element of the Los Angeles City General Plan also indicates the Project site is located within a liquefiable area (recent alluvial deposits; ground water less than 30 feet deep).[48] Thus, the Geotechnical Engineering Investigation conducted a liquefaction analysis. As detailed in the Geotechnical Engineering Investigation, the analysis indicates that the underlying soils would be liquefiable under the maximum considered earthquake (6.7) ground motion.

As discussed above, liquefaction can result in settlement and lateral spreading. According to the Geotechnical Engineering Investigation, due to the loose nature of the underlying soil and the relatively high groundwater, the soils can behave like a liquid during a major seismic event. As a result, between 1.09 to 3.77 inches of seismic induced settlement could occur. However, this would be mitigated by the building foundation system (piles), which will be drilled to penetrate through the liquefiable layers and deepened into the Older Alluvium below the site. As discussed in the Geotechnical Engineering Investigation, the relative thickness of liquefiable soils to overlying non-liquefiable surface material on the Project site fall well outside the bounds within which the surface effects of liquefaction have been observed during past earthquakes. Therefore, as concluded in the Geotechnical Engineering Investigation, the likelihood that surface effects of liquefaction would occur on the Project site would be considered very low to non-existent. Accordingly, the Geotechnical Engineering Investigation determined that should liquefaction occur within the potentially liquefiable zones on the Project site, there would be a negligible effect on the proposed structures. Nonetheless, Project design and construction would comply with all applicable requirements of the LADBS for a site located within a potentially liquefiable area as well as site-specific design recommendations set forth in the Geotechnical Engineering Investigation.

With regard to lateral spreading, as discussed in the Geotechnical Engineering Investigation, lateral spreading is the most pervasive type of liquefaction-induced ground failure. During lateral spread, blocks of mostly intact surficial soil displace downslope. As provided in the Geotechnical Engineering Investigation, when the saturated cohesionless sediments/soils have a normalized standard penetration resistance $(N_1)_{60}$ that is greater than 15, significant displacement is not likely under an earthquake with a magnitude 8 or less. As provided in the Geotechnical Engineering Investigation, the saturated cohesionless sediments underlying the Project site have corrected $(N_1)_{60}$ values greater than 15 under a magnitude 6.7 earthquake. Therefore, as concluded in the Geotechnical Engineering Investigation, the potential for lateral spreading as a result of liquefaction is considered remote on the Project site. Nonetheless, Project design and construction would comply with all applicable requirements of the LADBS for a site located within a potentially liquefiable area as well as site-specific design recommendations set forth in the Geotechnical Engineering Investigation. Therefore, with adherence to existing regulations and site-specific design recommendations, impacts related to liquefaction would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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[47] California Department of Conservation, Information Warehouse Regulatory Maps, https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/, accessed March 6, 2020.

[48] Department of City Planning Los Angeles, Safety Element of the Los Angeles General Plan, Exhibit B—Areas Susceptible to Liquefaction in the City of Los Angeles, https://planning.lacity.org/eir/ConventionCntr/DEIR/files/references/City%20of%20Los%20Angeles,%20Safety%20Element%20of%20the%20General%20Plan.pdf, accessed March 6, 2020

iv. Landslides?

No Impact. Landslides generally occur in loosely consolidated, wet soils and/or rocks on steep sloping terrain. The Project site and surrounding area are fully developed and characterized by flat topography. According to the California Department of Conservation's Seismic Hazard Zones Map for the Venice Quadrangle, the Project site is not located within an earthquake-induced landslide area.[49] Furthermore, the Los Angeles General Plan Safety Element does not map the Project site in a landslide area.[50] According to the Geotechnical Engineering Investigation, the probability of seismically-induced landslides occurring on the Project site is considered to be low due to the general lack of elevation difference in slope geometry across or adjacent to the Project site. Development of the Project also would not include altering the existing topography of the Project site such that new steep slopes would be introduced. As such, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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

Less Than Significant Impact. The Project site is currently fully developed with buildings and surface parking areas. As such, there are no extensive open spaces with exposed topsoil. However, construction of the Project would require grading, excavation, and other construction activities that have the potential to disturb soils underneath the Project site and expose these soils to rainfall and wind, which can result in soil erosion. However, this potential soil erosion would be reduced by the implementation of standard erosion controls during site preparation and grading activities. Specifically, all grading activities would require grading permits from the Los Angeles Department of Building and Safety, which would include requirements and standards designed to limit potential effects associated with erosion to acceptable levels. In addition, on-site grading and site preparation would comply with all applicable provisions of Chapter IX, Article 1 of the LAMC, which addresses grading, excavation, and fills. Regarding soil erosion during Project operations, the potential is negligible since the Project site would mostly remain fully developed, except for some landscaping located throughout the Project site. However, the landscaping would include trees to prevent soil erosion. The Project would also be required to comply with the City's Low Impact Development (LID) ordinance and implement standard erosion controls to limit stormwater runoff, which can contribute to erosion. Therefore, with compliance with applicable regulatory requirements, impacts related to substantial soil erosion or the loss of topsoil would be less than significant, and no mitigation measures are required. No further analysis 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. Upon buildout of the Project, the existing topography of the Project site would not be substantially altered. Specifically, the

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49 California Department of Conservation, Division of Mines and Geology, Seismic Hazards Zones Map, Venice 7.5 Minute Quadrangle map, March 25, 1999.

50 Los Angeles General Plan Safety Element, November 1996, Exhibit C, Landslide Inventory & Hillside Areas, p. 51.

Project site would remain relatively flat and would not cause landslides. As such, no impacts related to landslides would occur, and no mitigation measures related to landslides are required.

As previously discussed, liquefaction-related effects include lateral spreading. Although the Project site is located in an identified liquefiable area, the potential for lateral spreading is considered remote. Nonetheless, Project design and construction would comply with all applicable requirements of the LADBS for a site located within a potentially liquefiable area, as well as site-specific design recommendations set forth in the Geotechnical Engineering Investigation. Therefore, with adherence to existing regulations and site-specific design recommendations, impacts related to lateral spreading would be less than significant, and no mitigation measures are required.

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. No large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring, or is planned at the Project site. Therefore, there is no potential for ground subsidence due to withdrawal of fluid or gas at the Project site. Thus, the Project's impact related to subsidence would be less than significant, and no mitigation measures are required.

As discussed above, the Project site is located within an area susceptible to liquefaction. However, as detailed in the Geotechnical Engineering Investigation, the relative thickness of liquefiable soils to overlying non-liquefiable surface material on the Project site fall well outside the bounds within which the surface effects of liquefaction have been observed during past earthquakes. Therefore, as concluded in the Geotechnical Engineering Investigation, the likelihood that surface effects of liquefaction would occur on the Project site would be considered very low to non-existent. Accordingly, the Geotechnical Engineering Investigation determined that should liquefaction occur within the potentially liquefiable zones on the Project site, there would be a negligible effect on the proposed structures. As such, the Project's impact related to liquefaction would be less than significant, and no mitigation measures are required.

Collapsible soils consist of loose, dry, low-density materials that collapse and compact under the addition of water or excessive loading. Soil collapse occurs when the land surface is saturated at depths greater than those reached by typical rain events.[51] According to the Geotechnical Engineering Investigation, the soils underlying the Project site consist of medium firm to stiff, moist to very moist, medium dense soils that are not considered prone to soil collapse when saturated. Therefore, the Project's impact related to collapse would be less than significant, and no mitigation measures are required.

Based on the above, the Project would not be located on a geologic unit or soil that is unstable or that would become unstable as a result of the Project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the 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?

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51 International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES). Foundations on Collapsible and Expansive Soils: An Overview, http://ijtimes.com/papers/finished_papers/150410131426.pdf, accessed April 21, 2020.

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. Due to high clay content, expansive soils expand with the addition of water and shrink when dried, which can cause damage to overlying structures. As provided in the Geotechnical Engineering Investigation, the on-site geologic materials are in the low to high expansion range. Specifically, the Expansion Index was found to be between 35 and 95. The Expansion Index is an indicator of the soil's swelling potential and ranges from very low (expansion index of 0 to 20), low (expansion index of 21 to 50), medium (expansion index of 51 to 90), high (expansion index of 91 to 130), and very high (expansion index of 130 or greater).[52] Project design and construction would comply with all applicable requirements of the LADBS for a site with underlying expansive soils as well as site-specific design recommendations set forth in the Geotechnical Engineering Investigation, including structural slabs deriving support from the pile foundation system and waterproofing interior building floor slabs designed to withstand hydrostatic uplift pressure. Therefore, with adherence to existing regulations and site-specific design recommendations provided in the Geotechnical Engineering Investigation, the proposed structure is feasible from a geotechnical engineering standpoint. Impacts related to expansive soils would be less than significant, and no mitigation measures are required. 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 not have an impact related to the ability of soils to support septic tanks or alternative wastewater disposal systems. No impact would occur, and no mitigation measures are required. 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. 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. Public Resources Code Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor. Furthermore, California Penal Code Section 622.5 includes penalties for damage or removal of paleontological resources.

The Project site is located within an urbanized area of the City of Los Angeles and has been subject to grading and development in the past. While the Project site has been previously disturbed, the Project would require additional grading and excavation for the construction of the proposed subterranean parking garage, which would extend to a depth of approximately 22 feet below ground surface. Project-related excavation for the subterranean parking level and building footing may have the potential to uncover

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52 ASTM International, Standard Test Method for Expansion Index of Soils, http://terra-testing.com/wp-content/uploads/D4829.1117501-1.pdf, accessed August 19, 2020.

paleontological resources. Therefore, the EIR will provide further analysis of the Project's potential impacts to paleontological resources.

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 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 greenhouse gas emissions, and to establish targets and emission reduction strategies for greenhouse gas emissions in California. Nevertheless, activities associated with the Project, including construction and operational activities, could result in greenhouse gas emissions that may have a significant impact on the environment. Therefore, the EIR will provide further analysis of the Project's greenhouse gas emissions.

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. As the Project would have the potential to emit greenhouse gases, the EIR will include 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 greenhouse gases (e.g., Assembly Bill [AB] 32 and the City of Los Angeles Green Building Code).

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
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?	☐	☐	☐	☒
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?

Potentially Significant Impact. During demolition, excavation, on-site grading, and building construction, hazardous materials such as fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners could be routinely used on the Project site through the duration of construction. In addition, operation of the Project would involve the routine use of small quantities of potentially hazardous materials typical of those used in office and commercial uses, including cleaning products, paints, and those used for maintenance of landscaping. Therefore, the potential for construction and operation of the Project to create a significant hazard through the transport, use, and/or disposal of hazardous materials will be further evaluated 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. The existing buildings on the Project Site proposed to be removed may contain asbestos-containing materials (ACM), polychlorinated biphenyls (PCBs) and lead based paint (LBP). Therefore, these materials may be present on the Project Site. In addition, the Project Site is located within a Methane Zone.[53] Thus, further analysis of this topic will be provided in the EIR.

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?

Potentially Significant Impact. There are no existing schools within 0.25 mile of the Project site. However, Playa del Rey Elementary School is located approximately 0.3 mile east of the Project site at 12221 Juniette Street. While the types and amounts of hazardous materials that would be used in connection with construction and operation of the Project would be typical of those used in commercial developments, as discussed above, the Project's potential to result in the transport and disposal of hazardous materials in proximity to schools will be further analyzed in an EIR.

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. California Government Code Section 65962.5 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 California Government Code Section 65962.5 makes reference 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 the California Department of Toxic Substances Control (DTSC), the State Water Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions or extensive investigations are planned or have occurred. The database provides a listing of federal Superfund sites, State response sites, voluntary cleanup sites, and school cleanup sites. As previously discussed, the Project Site is currently developed with a 23,072-square-foot office building and two accessory buildings comprised of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street, and an 87,881-square-foot office building at 12541 W. Beatrice Street as well as surface parking.

The Phase I ESA for the Project site to be discussed in the EIR will include a database search report that documents findings of various federal, state, and local regulatory database searches regarding properties with known or suspected releases of hazardous materials or petroleum hydrocarbons. Therefore, further analysis of this topic will be provided in an EIR.

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[53] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4211006009 and 4211006026 http://zimas.lacity.org/, accessed March 3, 2020.

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?

No Impact. The Project site is not located within an airport land use plan. The Project is located approximately 2 miles north of the Los Angeles International Airport. Based on a report published by the Los Angeles International Airport, the Project site is not located within the 2015 65 dB CNEL noise contours for the airport, indicating airport noise is not an issue at the Project site.[54] As a result, the Project would not expose people working on the Project site to safety hazards or excessive noise. Therefore, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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

Less Than Significant Impact. The City of Los Angeles' General Plan Safety Element addresses public protection from unreasonable risks associated with natural disasters (e.g., fires, floods, earthquakes) and sets forth guidance for emergency response. Specifically, the Safety Element includes Exhibit H, Critical Facilities and Lifeline Systems, which identifies emergency evacuation routes, or disaster routes, along with the location of selected emergency facilities. The nearest emergency/disaster routes to the Project site are Lincoln Boulevard (1.0 mile) to the west, SR 90 (0.1 mile) and Venice Boulevard (1.5 miles) to the north, Sepulveda Boulevard (1.2 miles) to the east, and Manchester Avenue (1.6 miles) to the south.[55] 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 management plans that would be implemented to ensure adequate circulation and emergency access. With regard 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 as set forth in California Vehicle Code (CVC) 21806(a)(1). In addition, the Project would comply with LAFD access requirements and applicable LAFD regulations regarding safety. Specifically, during the plan check process, the Project would be subject to the review of the LAFD for compliance with emergency access requirements along with other site specific design and safety regulations prior to the issuance of building permits. After corrections are addressed from the plan check, the Project will receive approval and clearance from the LAFD and permits can be issued. An LAFD inspection will be required to determine if the Project complies with LAFD requirements during construction. Therefore, with compliance with applicable regulatory requirements, the Project would not impede emergency access within the Project site or vicinity that could cause an impediment along City designated disaster routes such that the Project would impair the implementation of the City's emergency response plan. As such, the Project's impact related to the implementation of the City's emergency response plan would be less

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[54] Los Angeles International Airport, Title 14 Code of Federal Regulations (CFR) Part 150 Noise Exposure Map Report Update August 2015, Exhibit 5-1 2015 Noise Exposure Map, www.lawa.org/-/media/lawa-web/noise-management/files/150-noise-exposure/final-lax-nem-entire-report.ashx, accessed March 3, 2020.

[55] City of Los Angeles, *Safety Element of the Los Angeles City General Plan, Critical Facilities and Lifeline Systems*, November 1996, Exhibit H.

than significant, and no mitigation measures are required. No further evaluation of this topic in an 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?

No Impact. The Project site is located in a highly urbanized area of the City. There are no wildlands located on or in the vicinity of the Project site. The Project site is also not located within a City-designated Very High Fire Hazard Severity Zone[56] or within a City-designated fire buffer zone.[57] Accordingly, the Project would not expose people or structures to a risk of loss, injury, or death involving wildland fires. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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	☐	☐	☒	☐

56 City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed March 3, 2020. The Very High Fire Hazard Severity Zone was first established in the City of Los Angeles in 1999 and replaced the older “Mountain Fire District” and “Buffer Zone” shown on Exhibit D of the Los Angeles General Plan Safety Element.

57 City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit D, p. 53.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, in part, on the *Drainage Technical Report* (Drainage Report) prepared for the Project by Barbara Hall, dated May 2020 and 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 provided by the following analysis, 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

During Project construction, particularly during the grading phase, stormwater runoff from precipitation events could cause exposed and stockpiled soils to be subject to erosion and convey sediments into municipal storm drain systems. In addition, on-site watering activities to reduce airborne dust could contribute to pollutant loading in runoff. Pollutant discharges relating to the storage, handling, use and disposal of chemicals, adhesives, coatings, lubricants, and fuel could also occur. However, as Project construction would disturb more than one acre of soil, the Project would be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. In accordance with the requirements of the NPDES Construction General Permit, the Project would implement a Stormwater Pollution Prevention Plan (SWPPP) adhering to the California Stormwater Quality Association BMP Handbook. The SWPPP would set forth Best Management Practices (BMPs) to be used during construction for stormwater and non-stormwater discharges, including, but not limited to, sandbags, storm drain inlets protection, stabilized construction entrance/exit, wind erosion control, and stockpile management, to minimize the discharge of pollutants in stormwater runoff during construction. 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.

As discussed in Section 3, Project Description, of this Initial Study, excavation for the subterranean parking levels would extend to a depth of approximately 22 feet, with the finished floor at a depth of approximately 19 feet. As provided in the Geotechnical Engineering Investigation included as Appendix IS-3 of this Initial Study, groundwater was encountered at depths between 22.5 and 30 feet below the existing site grade. In addition, based on review of the California Department of Conservation Division of

Mines and Geology Hazard Zone Report[58] for the Project site, the historic high groundwater level for the Project site was 7 feet below the ground surface. Thus, Project construction activities are expected to encounter groundwater which could require dewatering. Dewatering operations are practices that discharge non-stormwater, such as groundwater, that must be removed from a work location and discharged into the storm drain system to proceed with construction. Discharges from dewatering operations can contain high levels of fine sediments, which, if not properly treated, could lead to exceedance of the NPDES requirements. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance with all relevant NPDES requirements related to construction and discharges from dewatering operations. Furthermore, if dewatering is required, the treatment and disposal of the dewatered water would occur in accordance with the Los Angeles Regional Water Quality Control Board (LARWQCB) Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties.

With the implementation of site-specific BMPs included as part of the erosion control plan required to comply with the City grading permit regulations, the Project would significantly reduce or eliminate the discharge of potential pollutants from the stormwater runoff. Therefore, with compliance with NPDES requirements and City grading regulations, construction of the Project would not violate any water quality standard or waste discharge requirements or otherwise substantially degrade surface water quality. Furthermore, construction of the Project would not result in discharges that would cause regulatory standards to be violated. 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

Under the City's LID Ordinance, post-construction stormwater runoff from new projects must be infiltrated, evapotranspired, captured and used, and/or treated through high efficiency BMPs on-site for the volume of water produced by the 85th percentile storm event. 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 capture and use or biofiltration planter BMPs as established by the LID Manual. The installed BMP systems would be designed with an internal bypass overflow system to prevent upstream flooding during major storm events. As the majority of potential contaminants are anticipated to be contained within the "first flush" 85th percentile storm event, major storms are not anticipated to cause an exceedance of regulatory standards.

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, pathogens, 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. As discussed in the Drainage Report, the existing Project site does not have any structural or LID BMPs to treat or infiltrate stormwater. Specifically, stormwater runoff from the west parking area drains both north and west and south via sheet flow to existing driveways and

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58 USGS, Seismic Hazard Zone Report for the Venice 7.5-minute Quadrangle, https://gmw.conservation.ca.gov/SHP/EZRIM/Reports/SHZR/SHZR_036_Venice.pdf, accessed April 27, 2020.

out to Beatrice Street on the south or Jandy Street to the west. Runoff from the existing buildings drain via scuppers and downspouts to the parking lots. The east parking lot drains directly south to Beatrice Street. Therefore, 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. Implementation of the proposed BMP system would result in the treatment of the entire required volume for the Project site and the elimination of pollutant runoff up to the 85th percentile storm event. Therefore, with the incorporation of LID BMPs, 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 mitigation measures are required. No further analysis of this topic in an EIR is required.

Groundwater Quality

Construction

As discussed above, based on the historically highest groundwater level and depth of proposed excavation, Project construction activities could encounter groundwater and temporary dewatering may be required. In the event groundwater is encountered during construction, temporary dewatering systems such as dewatering tanks, sand media particulate, pressurized bag filters, and cartridge filters would be utilized in compliance with the NPDES permit. These temporary systems would comply with all relevant NPDES requirements related to construction. As such, groundwater quality would not be impacted from dewatering activities. In addition, as discussed above, in accordance with the requirements of the NPDES Construction General Permit, the Project would implement a SWPPP adhering to the California Stormwater Quality Association BMP Handbook. The SWPPP would set forth BMPs to be used during construction for stormwater and non-stormwater discharges, including, but not limited to, sandbags, storm drain inlets protection, stabilized construction entrance/exit, wind erosion control, and stockpile management, to minimize the discharge of pollutants in stormwater runoff during construction.

Other potential effects to groundwater quality could result from the presence of an underground storage tank (UST) or during the removal of an UST. No existing USTs are anticipated to be found beneath the Project site that could require removal during construction. Notwithstanding, in the unlikely event that USTs are found, they would be removed in accordance with all applicable federal, state, and local regulations. Therefore, the removal of USTs would not pose a significant hazard on groundwater quality.

As previously discussed, during on-site grading and building construction, hazardous materials, such as fuels, oils, 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 potential for hazardous materials to be released 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 into groundwater. Based on a review of the Los Angeles County Public Works Groundwater Wells inventory, groundwater Well 1281C is located approximately 0.42 mile north of the Project site.[59] However, construction activities would not be anticipated to affect this existing well due to the distance of the Project site from the well.

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59 Los Angeles County Public Works, Groundwater Wells, https://dpw.lacounty.gov/general/wells/, accessed August 13, 2020.

Based on the above, construction of the Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirements. Therefore, construction-related impacts on groundwater quality would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

Operation

Operational activities which could affect groundwater quality include spills of hazardous materials and leaking USTs. 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. However, as discussed above, the Project site does not contain known existing USTs, nor would the Project introduce any new USTs that would have the potential to expose groundwater to contaminants. In addition, the Project would comply with all applicable existing regulations that would prevent the Project from affecting or expanding any potential areas of contamination, increasing the level of contamination, or causing 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, the Project's use of BMPs for pre-treatment of stormwater would capture pollutants that could come in contact with groundwater. Therefore, operation of the Project would not result in discharges that would violate any groundwater quality standard or waste discharge requirements. The Project's potential impact on groundwater quality during operation would be less than significant, and no mitigation measures are required. No further analysis 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 discussed above, based on the historically highest groundwater level and depth of proposed excavation, Project construction activities could encounter groundwater and temporary dewatering may be required. If groundwater is encountered during construction, temporary pumps and filtration would be utilized in compliance all applicable regulations and requirements. Therefore, 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.

With regard to groundwater recharge, the percolation of precipitation that falls on pervious surfaces is variable, depending on the soil type, condition of the soil, vegetative cover, and other factors. According to the Drainage Report, the Project site is comprised of approximately 90 to 99 percent impervious surfaces under existing conditions (or an average of 94.91 percent). Therefore, the degree to which surface water infiltration and groundwater recharge would occur on-site is negligible. With implementation of the Project, the amount of landscaped area would increase, resulting in an overall decrease in the amount of impervious surfaces on the Project site to approximately 93 and 96 percent (or an average of 94.55 percent). The increase in pervious areas would improve the groundwater recharge capacity of the Project site over existing conditions. Therefore, the Project would not interfere substantially with groundwater recharge such that groundwater management would be impeded.

Based on the above, the Project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in the aquifer volume or lowering of the local groundwater table level. Therefore, impacts on groundwater supplies 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 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 activities for the Project would involve removal of the existing structures and associated hardscape as well as the excavation and removal of soil. These activities have the potential to temporarily alter existing drainage patterns on the Project site by exposing the 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 pollutant loading in runoff. 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 hydrology would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

As discussed in the Drainage Report, the Project site is comprised of approximately 90 percent impervious surfaces in Drainage Area 1 and 99 percent impervious surfaces in Drainage Area 2 under existing conditions (or an average of 94.91 percent). With implementation of the Project, the amount of landscaped area would increase, resulting in an overall decrease in the amount of impervious surfaces on the Project site to approximately 93 percent in Drainage Area 1 and 96 percent in Drainage Area 2 (or an average of 94.55 percent). As such, similar to existing conditions, there would be a limited potential for erosion or siltation to occur from exposed soils or large expanses of pervious areas. Therefore, the Project would not substantially alter the existing drainage pattern of the Project site or surrounding area such that substantial erosion or siltation on-site or off-site would occur. Operational impacts to hydrology would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an 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 activities for the Project would involve removal of the existing structures and associated hardscape as well as the excavation and removal of soil. These activities have the potential to temporarily alter existing drainage patterns on the Project site by exposing the underlying soils, modifying flow direction, and making the Project site temporarily more permeable. 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. 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 flooding on- or off-site. As such, construction-related impacts to hydrology would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

As discussed in the Drainage Report, the Project site is comprised of approximately 90 percent impervious surfaces in Drainage Area 1 and 99 percent impervious surfaces in Drainage Area 2 under existing conditions (or an average of 94.91 percent). With implementation of the Project, the amount of landscaped area would increase, resulting in an overall decrease in the amount of impervious surfaces on the Project site to approximately 93 percent in Drainage Area 1 and 96 percent in Drainage Area 2 (or an average of 94.55 percent). This overall increase in pervious surfaces would result in an overall reduction in stormwater runoff. Accordingly, there would be no increase in runoff volumes into the existing storm drain system. Therefore, the Project would not substantially alter the existing drainage pattern of the Project site or surrounding area such that on-site or off-site flooding would occur. Operational impacts to hydrology would be less than significant, and no mitigation measures are required. 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 discussed in the Drainage Report, stormwater runoff from the west parking area drains both north and west and south via sheet flow to existing driveways and out to Beatrice Street on the south or Jandy Street to the west. Runoff from the existing buildings drain via scuppers and downspouts to the parking lots. The east parking lot drains directly south to Beatrice Street. A City of Los Angeles storm drain exists in Jandy Street which conveys runoff from the Project site to the Centinela Creek, which is north of the Project Site and is fully improved. As discussed above, development of the Project would result in an increase in the landscaped areas throughout the Project site and would result in an overall reduction in the amount of impervious surfaces on the Project site. Accordingly, there would be an overall decrease in runoff volumes into the existing storm drain system. In addition, the implementation of BMPs required by the City's LID Ordinance would target runoff pollutants that could potentially be carried in stormwater runoff. 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 mitigation measures are required. No further evaluation of this topic in an 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 of Los Angeles.[60,61] A review of the Federal Emergency Management Agency flood insurance rate maps (FEMA MAP NUMBER 06037C1760F, effective on 09/26/2008) indicates that the Project site is located within Zone X, area of minimal flood hazard. Thus, the Project would not impede or redirect flood flows. No impacts would occur, and no mitigation measures would be 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 the Federal Emergency Management Agency (FEMA) or by the City of Los Angeles. In addition, the Safety Element of the City of Los Angeles General Plan does not map the Project site as being located within a flood control basin or within a potential inundation area.[62] The Project site is located approximately 2.6 miles east of the Pacific Ocean, and the Safety Element of the General Plan does not map the Project site as being located within an area potentially affected by a tsunami.[63] Therefore, no tsunami or tsunami events would be expected to impact the Project site. No impacts would occur, and no mitigation measures would be required. No further evaluation 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 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 Maximum Daily Load (TMDL). A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant. A TMDL determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.[64] The County of Los Angeles, the City of Los Angeles, and all other cities in the Los Angeles 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 Total Maximum Daily Load (TMDL) milestones. The objective of the EWMP Plan is to determine the network of control measures (often referred to as best management practices) that will achieve required

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

61 City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit F, p. 57.

62 City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit G, Inundation & Tsunami Hazard Areas, p. 59.

63 City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit G, p. 59.

64 United States Environmental Protection Agency, Impaired Waters and TMDLs, Overview of Total Maximum Daily Loads (TMDLs), www.epa.gov/tmdl/overview-total-maximum-daily-loads-tmdls, accessed August 13, 2020.

pollutant reductions while also providing multiple benefits to the community and leveraging sustainable green infrastructure practices.

The Project site, located in the Centinela Creek watershed, falls within the Ballona Creek EWMP and ultimately discharges into the Pacific Ocean at the Santa Monica Bay. According to the State Water Resources Control Board (SWRCB), Ballona Creek is listed as an impaired water body. Impairments for Ballona Creek Reach 2 include trash, toxic pollutants, bacteria, metals, and sediment.[65] Potential pollutants generated by the Project would be typical of office and commercial land uses and may include sediment, nutrients, pesticides, pathogens, 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 currently 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 Ballona Creek. In addition, development of the Project would result in an increase in the landscaped areas and would reduce the overall impervious surface area on the Project site. The increase in pervious areas would improve the groundwater recharge capacity of the Project site over existing conditions. Since the Project's LID BMP design is for biofiltration, treated runoff would be discharged into the storm drain system, away from the structures and groundwater table.

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 mitigation measures would be required. No further evaluation of this topic in an EIR is required.

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?

65 California Environmental Protection Agency, State Water Resources Control Board, Impaired Water Bodies, www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml?wbid=CAT4051700020000301101951, accessed June 10, 2020.

Less than Significant Impact. As discussed in Section 3, Project Description, of this Initial Study, the Project site is located within a generally commercial office and industrial area and is bounded by office uses and surface parking immediately to the north, with State Route 90 (SR 90) located further north; office and surface and structure parking immediately to the east with Grosvenor Boulevard located further east; Beatrice Street to the south; and Jandy Place to the west. Across Beatrice to the south is a five-story apartment building; across Jandy Place to the west are converted warehouse structures used for office uses and surface parking. The Project site is currently developed with an office building and two accessory buildings at 12575 W. Beatrice Street and an office building at 12541 W. Beatrice Street, as well as surface parking.

The Project would replace the existing structures at 12575 W. Beatrice Street with a new office building. The existing office building at 12541 W. Beatrice Street would remain. As part of the Project, the existing lot lines would be adjusted to accommodate a corner landscaped parcel, a building site for the construction of the proposed new building (at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place), and a parcel for the existing building (at 12541 W. Beatrice Street). When the lot line adjustment is complete, the lot at 12575 W. Beatrice Street would contain approximately 103,281 square feet (2.37 acres) and the lot at 12541 W. Beatrice Street would contain approximately 93,182 square feet (2.14 acres). An approximately 389-square-foot lot would also be created at the corner of Jandy Place and Beatrice Street for landscaping and open space purposes. All proposed development would occur within the boundaries of the Project site, and the Project would not require the vacation of any surrounding streets adjacent to the Project Site. The proposed office and commercial uses would also be consistent with the uses already on the Project site and immediately surrounding the Project site. In addition, the Project does not propose a freeway or other large infrastructure that would divide the existing surrounding community. 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 mitigation measures are required. 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. While the Project would not be anticipated to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, the EIR will provide further analysis of the Project's consistency with applicable land use plans, policies, and regulations that were adopted for the purpose of avoiding or mitigating an environmental effect.

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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. The Project site is located within an urbanized area and has been previously disturbed by development. As such, the potential for mineral resources to occur on-site is low. In addition, the Project site is not located within a mineral producing area as classified by the California Geological Survey,[66] or within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present.[67] The Project site is also not located within a City-designated oil field or oil drilling area.[68,69] Therefore, the Project would not result in the loss of availability of a mineral resource or a mineral resource recovery site, and, as such, no impact would occur. No further analysis of this topic in the 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. No mineral extraction operations currently occur on the Project site. Furthermore, as discussed above, the Project site is not located within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present, or within a mineral producing area as classified by the California Geological Survey. The Project site is also not located within a City designated oil field or oil drilling area. 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 mitigation measures are required. No further evaluation of this topic in an EIR is required.

66 California Geological Survey, Aggregate Sustainability in California, Fifty-Year Aggregate Demand Compared to Permitted Aggregate Reserves, 2018.

67 City of Los Angeles, Conservation Element of the Los Angeles City General Plan, January 2001, Exhibit A, p. 86.

68 City of Los Angeles Department of Public Works, Bureau of Engineering, NavigateLA, http://navigatela.lacity.org/navigatela/, accessed March 5, 2020.

69 California Department of Conservation, Division of Oil, Gas and Geothermal Resources, 2018, Well Finder, https://maps.conservation.ca.gov/doggr/wellfinder/#close/-118.41451/33.97878/16, accessed August 13, 2020.

XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.

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

Potentially Significant Impact. 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?

Less Than Significant Impact. The Project site is not located within the vicinity of a private airstrip or airport land use plan. The Project is, however, located approximately 2 miles north of the Los Angeles International Airport. As discussed above, based on a report published by the Los Angeles International

Airport, the Project site is not located within the 2015 65 dB CNEL noise contours for the airport, indicating airport noise is not an issue at the Project site.[70] Therefore, the Project would not expose people residing or working in the project area to excessive airport noise. Impacts would be less than significant, and no 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. The Project would include the construction of new office and commercial uses. Since the Project does not propose a housing component, it would not directly induce a new residential population which would contribute to population growth in the vicinity of the Project site or the Palms–Mar Vista–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 in which their specific skills are needed to complete a particular phase of the construction process. Thus, Project-related construction workers would not be anticipated to relocate their household's place of residence as a consequence of working on the Project and, therefore, no new permanent residents would be generated during construction of the Project which could induce substantial unplanned population growth.

As previously discussed, the Project includes the construction of a new office building with a total floor area of 199,500 square feet comprised of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. As part of the Project, the existing 23,072-square-foot office building and two accessory buildings of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street would be

70 Los Angeles International Airport, Title 14 Code of Federal Regulations (CFR) Part 150 Noise Exposure Map Report Update August 2015, Exhibit 5-1 2015 Noise Exposure Map, www.lawa.org/-/media/lawa-web/noise-management/files/150-noise-exposure/final-lax-nem-entire-report.ashx, accessed March 3, 2020.

removed while the existing 87,881-square-foot office building at 12541 W. Beatrice Street would be retained. Upon completion, the Project would result in a net new floor area of 169,240 square feet on the Project site. Based on employee generation factors from the City of Los Angeles Department of Transportation (LADOT)'s Vehicle Miles Traveled Calculator, the Project is estimated to generate a net increase of 670 new employees on the Project Site.[71] As noted above, the Project would not introduce new homes at the Project site and would therefore not result in a direct population growth in the area. While some of the new employment positions could be filled by persons who would relocate to the vicinity of the Project site, this potential increase in population would not be substantial since not all employees would move close to the Project site. Specifically, some employment opportunities may be filled by people already residing in the vicinity of the Project site and other persons would commute to the Project site from other communities in and outside of the City. According to SCAG's 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2020 is approximately 1,831,457 employees.[72] As projected by the 2016–2040 RTP/SCS, the City of Los Angeles Subregion is anticipated to have approximately 1,898,986 employees in 2024, the projected occupancy year of the Project.[73] Therefore, the projected employment growth in the City between 2020 and 2024 based on SCAG's 2016–2040 RTP/SCS is approximately 67,529 employees. Thus, the Project's estimated 670 new employees would constitute approximately 0.99 percent of the employment growth forecasted in SCAG's 2016–2040 RTP/SCS between 2020 and 2024. According to SCAG's 2020–2045 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2020 is approximately 1,887,969 employees.[74] In 2024, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,927,638 employees.[75] Therefore, the projected employment growth in the City between 2020 and 2024 based on SCAG's 2020–2045 RTP/SCS is approximately 39,669 employees. Thus, the Project's estimated 670 new employees would constitute approximately 1.7 percent of the employment growth forecasted between 2020 and 2024.

Overall, the provision of new jobs would constitute a small percentage of employment growth and would not be considered "unplanned growth" and would not produce such a high quantity of new jobs that it would have the possibility to induce unplanned residential growth. Therefore, the Project would not cause an exceedance of SCAG's employment projections or induce substantial indirect population or housing growth related to Project-generated employment opportunities. As such, given that the Project would not directly contribute to substantial unplanned population growth in the Project area through the development of residential uses and as some of the employment opportunities generated by the Project would be filled

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71 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. The existing office uses to be removed produces 121 employees (30,260 square feet X 0.004 = 121). The Project would produce 791 employees (office 199,500 square feet X 0.004 = 784) + (retail 3,400 square feet X 0.002 = 7). Therefore, the Project would produce 670 new net employees.

72 The 2020 interpolated value is calculated using SCAG's 2012 and 2040 values to find the average employment increase between years and then applying that annual increase to 2012: [(2,169,100 – 1,696,400) ÷ 28] × 8 + 1,696,400 = 1,831,457.

73 The 2024 interpolated value is calculated using SCAG's 2012 and 2040 values to find the average employment increase between years and then applying that annual increase to 2012: [(2,169,100 – 1,696,400) ÷ 28] × 12 + 1,696,400 = 1,898,986.

74 SCAG. ConnectSoCal (2020-045 RTP/SCS), Demographics and Growth Forecast Appendix, Table 14, page 35. Based on a linear interpolation of SCAG's employment data for 2016 (1,848,300) and 2045 (2,135,900). The 2020 value is extrapolated from 2016 and 2045 values: [(2,135,900 – 1,848,300) ÷ 29) * 4] + 1,848,300 = ~ 1,887,969.

75 SCAG. ConnectSoCal (2020-045 RTP/SCS), Demographics and Growth Forecast Appendix, Table 14, page 35. Based on a linear interpolation of SCAG's employment data for 2016 (1,848,300) and 2045 (2,135,900). The 2024 value is extrapolated from 2016 and 2045 values: [(2,135,900 – 1,848,300) ÷ 29) * 8] + 1,848,300 = ~ 1,927,638.

by people already residing in the vicinity of the Project site or who would commute, 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 a highly developed 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 unplanned population or housing growth. Impacts would be less than significant and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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

No Impact. The Project site is currently occupied by commercial uses and no housing currently exists on the Project site. The Project would not displace any existing people or housing. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

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?

Potentially Significant Impact. LAFD provides fire protection and emergency medical services for the Project site. The Project would increase the building square footage on-site and would introduce new commercial and office uses, which could result in the need for additional fire protection services. Therefore, further analysis of this issue will be included 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?

Potentially Significant Impact. Police protection for the Project site is provided by the City of Los Angeles Police Department. The Project would introduce new commercial and office uses to the Project Site, which could result in the need for additional police services. Therefore, the EIR will provide further analysis of this issue.

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 the Los Angeles Unified School District (LAUSD). LAUSD is divided into six local districts.[76] The Project site is located in Local District–West.[77] Nearby schools include Playa del Rey Elementary School, located approximately 0.3 mile east of the Project site at 12221 Juniette Street, Marina Del Rey Middle School, located approximately 0.33 mile north of the Project site at 12500 Braddock Drive, and Venice High School, located approximately 2.8 miles northwest of the Project site at 13000 Venice Boulevard.[78] Furthermore, based on the 2020 LAUSD Developer Justification Study, the Project would be anticipated to generate approximately 189 students.[79] 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 from the introduction of a residential population. In addition, it is anticipated that not all new employees of the Project would relocate to the vicinity of the Project site, which could otherwise trigger a demand for new or expanded school facilities. Furthermore, even if there were new school facilities that would need to be built, 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 mitigation of Project-related school impacts. Therefore, impacts to schools would be less than significant, and no mitigation measures are required. No further analysis of this issue in an EIR is required.

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[76] Los Angeles Unified School District, Local District Maps 2015–2016, http://achieve.lausd.net/Page/8652, accessed March 10, 2020.

[77] Los Angeles Unified School District, Local District - West Map, https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=22573&dataid=24308&FileName=West.pdf, accessed March 10, 2020.

[78] Los Angeles Unified School District. Resident School Identifier, https://rsi.lausd.net/ResidentSchoolIdentifier/, accessed October 2, 2020.

[79] Los Angeles Unified School District, 2020 Developer Fee Justification Study, March 2020, Table 15. Based on the "Standard Commercial Office" rate of 1.128/1,000 sf and the "Neighborhood Shopping" rate of 0.638 students/1,000 sf. The existing office use to be removed would generate 34 students (30,260 sf x 0.001128) = 34 students. The proposed office and commercial uses would generate 223 students: (196,100 sf x 0.001128) = 221 students for the office uses and (3,400 sf x 0.000638) = 2 students for the proposed commercial uses. The Project results in a net new increase of 189 students (223 students – 34 students).

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?

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 parks and recreational facilities within an approximate 2-mile radius of the Project site include: Glen Alla Park (located 0.9 mile north of the Project site); Culver Slauson Park and Recreation Center (located 1.02 miles northeast of the Project site); Westchester Skate Park and Tennis Courts (located 1.49 miles south of the Project site); Westchester Senior Citizen Center (located 1.56 miles south of the Project site); Westchester Recreation Center (located 1.61 miles south of the Project site); Westchester Pool (located 1.62 miles south of the Project site); and Venice High School Indoor Pool (located 1.90 miles north of the Project site).[80]

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 portion of the new employees generated by the Project could create a 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. Furthermore, the Project proposes on-site open space amenities such as landscaped courtyards with seating for use by employees, reducing the likelihood employees would use local parks. Specifically, the Project proposes approximately 38,033 square feet of landscaped area (e.g., trees, green space, etc.) and 54,583 square feet of hardscape area (e.g., courtyards, pathways, etc.) throughout the Project Site and on the building terraces on the upper levels of the proposed building. The Project would provide an internal landscaped courtyard between the proposed building at 12575 W. Beatrice Street and the existing commercial building at 12541 W. Beatrice Street lined with seating areas, trees, and landscaped area providing outdoor open space areas for tenants of both buildings. New hardscape and landscaped area would also be added to the northeastern portion of 12541 W. Beatrice Street in a new courtyard area with seating, and new trees would be planted along Beatrice Street and the perimeter of the 12541 W. Beatrice Street building creating a separation between the building and the existing surface parking lot. New street trees along Jandy Place would be planted as part of the Project, and a new landscaped seating area would be provided along Jandy Place, which is proposed to provide streetscape improvements, including pedestrian seating. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks or the need for new or physically altered parks. Impacts would be less than significant, and no mitigation measures are required. No further analysis of the issue in an EIR is required.

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80 City of Los Angeles Department of Recreation and Parks, Facility Map Locator, www.laparks.org/maplocator?cat_id=All&geo[radius]=2&geo[latitude]=33.9811315&geo[longitude]=-118.4158548&address=12575%20Beatrice%20St,%20Los%20Angeles,%20CA%2090066,%20USA, accessed March 10, 2020.

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 available include libraries. The Los Angeles Public Library (LAPL) provides library services to the City of Los Angeles through its Central Library, eight regional branch libraries, and 64 neighborhood branch libraries, as well as through Web-based resources.[81] The Project area is served by existing libraries within the Palms-Mar Vista-Del Rey Community Plan area, including the Mar Vista Branch Library, located 1.8 miles north of the Project site.[82]

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 Mar Vista Branch Library. In addition, Project employees would have internet access to LAPL and other web-based resources, decreasing the demand on library facilities. Furthermore, the net addition of 670 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. Since there is no residential component to the Project, the only potential new library visitors, if any, would be employees or visitors to the Project Site. The addition of 670 new employees to the Project Site would not materially change demand on local libraries. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities or the need for new or physically altered library facilities. Further, Measure L (City ballot measure passed in 2011) has provided funds to restore adequate services to the existing library system, restore service hours, and provided funds to purchase additional books and materials that were cut in the recession during 2010 and 2011.[83] Impacts would be less than significant, and no mitigation measures are required. No further analysis of this issue in an EIR is required.

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81 Los Angeles Public Library, Los Angeles Public Library Strategic Plan 2015–2020, www.lapl.org/sites/default/files/media/pdf/about/LAPL_Strategic_Plan_2015-2020.pdf, accessed March 10, 2020.

82 Los Angeles Public Library, Locations and Hours, www.lapl.org/branches?distance%5Bpostal_code%5D=90066&distance%5Bsearch_distance%5D=2&distance%5Bsearch_units%5D=mile&field_branch_resources_services_tid=All, accessed March 10, 2020.

83 Los Angeles Public Library, Measure L, www.lapl.org/measure-l, accessed October 2, 2020.

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 facilities would occur or be accelerated?

Less Than Significant Impact. As discussed above in Checklist Question XV.(d), the Project does not propose the development of residential uses which would create a demand on 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 portion of the new employees generated by the Project could create a demand for parks and recreational facilities. 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 and recreational facilities. In addition, Project employees would be more likely to use parks near their homes during non-work hours. There are several park facilities in proximity to the Project site such as Glen Alla Park (located 0.9 mile north of the Project site), Culver Slauson Park and Recreation Center (located 1.02 miles northeast of the Project site), and the Westchester Skate Park and Tennis Courts (located 1.49 miles south of the Project site). Any employee use of nearby parks and recreational facilities would likely be split among those facilities, thereby not resulting in the physical deterioration of any one facility. Therefore, the Project would not substantially increase the demand for off-site public parks and recreational facilities such that substantial physical deterioration of those facilities would occur or be accelerated. In addition, the Project proposes approximately 38,033 square feet of landscaped area (e.g., trees, green space, etc.) and 54,583 square feet of hardscape area (e.g., courtyards, pathways, etc.) throughout the Project site that will reduce the demand for nearby parks and/or recreational facilities. The Project proposes on-site open space amenities such as landscaped courtyards with seating for use by employees, reducing the likelihood employees would use local parks, which would reduce a demand on nearby parks and/or recreational facilities. Therefore, the impact on parks and recreational facilities would be less than significant, and mitigation measures would not be required. No further evaluation of this topic in an 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 does not include any residential uses and therefore would not result in any direct substantial population growth that would increase use of existing recreational facilities. Therefore, the Project would not necessitate construction of new recreational facilities. The Project would provide an internal landscaped courtyard between the proposed building at 12575 W. Beatrice Street and the existing commercial building at 12541 W. Beatrice Street lined with seating areas, trees, and landscaped area providing outdoor open space areas for tenants of both buildings. Also, new seating and landscaped areas would be added to the northern portion of 12541 W. Beatrice Street and new trees would be planted along the perimeter of the 12541 W. Beatrice Street building creating a separation between the building and the existing surface parking lot. New street trees along Jandy Place would be planted as part of the Project, and a new landscaped seating area would be provided along Jandy Place, which is proposed to provide streetscape improvements, including pedestrian seating. These Project features have been incorporated into the overall Project design. The construction of these recreational facilities as part of the Project would take place at the same time as the rest of the construction processes and would have no additional adverse physical effects on the environment as discussed in Public Services Checklist Question XV.d. Therefore, no impacts regarding construction or expansion of recreational facilities would occur, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

XVII. TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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. Operation of the proposed uses would generate vehicle and transit trips throughout the day. The resulting increase in the use of the area’s roadways could conflict with an applicable plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Therefore, further analysis of this issue will be provided 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 vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts, replacing LOS.

On July 30, 2019, the City of Los Angeles 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 *Transportation Assessment Guidelines* (July 2020), which defines the methodology for analyzing a project's transportation impacts in accordance with SB 743.

The Project would develop new office and commercial uses on the Project site. As a result, VMT would increase over existing conditions. Therefore, further analysis of this issue 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 roadways adjacent to the Project site are part of the existing urban roadway network and contain no sharp curves or dangerous intersections. The Project site is located in a highly urbanized area developed with roadways and infrastructure, and at the intersection of two roadways terminating in cul-de-sacs. All access and circulation associated with the Project would be designed and constructed in conformance with all applicable requirements established by the City's Department of Building and Safety, the LAFD, and the LAMC. The Project would not include any new roads that would result in an increase in hazards due to a design feature. In addition, the Project would not result in incompatible uses as the proposed uses are consistent with the types of commercial and office uses already present in the surrounding area. However, the EIR will address any potential hazards due to the Project access in relation to the adjacent roadways and cul-de-sacs.

d. Would the project result in inadequate emergency access?

Potentially Significant Impact. As discussed above, the Project Site is located at the intersection of two roadways terminating in cul-de-sacs. While the Project is anticipated to be designed in accordance with applicable emergency access requirements, the unique roadway configuration adjacent to the Project Site as it relates to emergency access will be evaluated further in an EIR.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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. 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). Approved by Governor Jerry Brown on September 25, 2014, AB 52 establishes 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 part of CEQA. As specified in AB 52, lead agencies 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.

As noted above, the Project would require grading, excavation to a depth of approximately 22 feet below ground surface, and other construction activities that could have the potential to disturb existing but undiscovered tribal cultural resources. Therefore, the potential exists for the Project to significantly impact a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. In compliance with AB 52, the City will notify all applicable tribes, and the City will participate in any requested consultations for the Project. This notice will specify any changes to the Project that occurred since the previous notification to aid review. 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?	☐	☐	☒	☐

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. 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. As discussed below, the Project would not result in a significant impact with respect to wastewater treatment, stormwater drainage, or telecommunications facilities.

With regard to water facilities/infrastructure, while domestic water demand is typically the main contributor to operational water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore, are the primary means for analyzing water infrastructure capacity. As discussed above in Checklist Section XV, Public Services, the Project's potential impacts regarding fire protection services will be further analyzed in the Draft EIR. Therefore, the Project's fire flow requirements would be determined by LAFD during the EIR consultation process. Accordingly, further analysis of the Project's potential impacts to water infrastructure will be provided in the EIR.

As discussed above in Checklist Question VI.a, due to the increased floor area and type of uses, the Project would generate an increased demand for electricity and natural gas services provided by the Los Angeles Department of Water and Power and the Southern California Gas Company, respectively. Therefore, further analysis of the Project's demand on existing energy resources will be provided in the EIR.

Wastewater

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),[84] and current average wastewater flows are at approximately 275 mgd.[85] Accordingly, the remaining available capacity at the HWRP is approximately 175 mgd. As shown in Table 2 on page 71, the Project would generate a net increase in wastewater flow from the Project site of approximately 29,182 gpd, or approximately 0.029 mgd. The Project's increase in average daily wastewater flow of 0.029 mgd would represent approximately 0.02 percent of the current estimated 175 mgd of remaining available capacity at the HWRP. Therefore, the Project-generated wastewater would be accommodated by the existing capacity of the Hyperion Water Reclamation Plant. Furthermore, wastewater flows would be typical of office and commercial developments. No industrial discharge into the wastewater system would occur. Discharge of effluent from the HWRP into Santa Monica Bay is also regulated by permits issued under the NPDES and is required to meet LARWQCB requirements. As LASAN monitors the treated wastewater, wastewater generated from the Project site would not exceed wastewater treatment requirements of LARWQCB.

Sewer service for the Project would be provided utilizing new or existing on-site sewer connections to the existing sewer lines adjacent to the Project site. Based on the Wastewater Service Information letter provided by LASAN, included in the Utility Technical Report provided in Appendix IS-5 of this Initial Study, the sewer infrastructure in the vicinity of the Project site includes an existing 8-inch line on Beatrice Street. The sewage from the existing 8-inch line feeds into a 12-inch line on Jandy Place then into a 30-inch line on McConnell Avenue before discharging into a 42-inch sewer line on Jefferson Boulevard. As determined by LASAN in their Wastewater Service Information letter, based the estimated flows of the Project, it is anticipated that the sewer system surrounding the Project site might be able to accommodate the total flow for the Project. In addition, ultimately, the Project's sewage flow would be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the Project. As required by LAMC

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84 LASAN, Water Reclamation Plants, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=vm8qwyj80_4&_afrLoop=18606279438697733#!, accessed January 2, 2020.

85 LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=grj40dmqj_1780&_afrLoop=3950078628628745#!, accessed January 2, 2020.

Table 2
Estimated Project Wastewater Generation

Land Use	Floor Area	Wastewater Generation Rate (gpd/unit)[a]	Wastewater Generation (gpd)
EXISTING TO BE REMOVED			
Existing Structures to be Removed (Office)	30,260 sf	0.17	5,144
Total Existing			***5,144***
PROPOSED			
Office	196,100 sf	0.17	33,337
Café	1,300 sf	0.72	936
Retail	2,100 sf	0.025	53
Proposed Wastewater Generation			**34,326**
Less Existing to be Removed			(5,144)
Net Additional Wastewater Generation (Proposed – Existing to be Removed)			**29,182**

sf = square feet

gpd = gallons per day

[a] *Wastewater generation rates are based on 2012 LASAN Sewer Generation Rates.*

Source: City of Los Angeles, Bureau of Sanitation, Request for Wastewater Service Information, September 2020; Eyestone Environmental, 2020.

Section 64.15, the Project would submit a Sewer Capacity Availability Request to LASAN to evaluate the capability of the existing wastewater system and obtain approval to discharge the Project's wastewater to the existing sewer system. Further detailed gauging and evaluation, as required by LAMC Section 64.14, would be conducted to obtain final approval of sewer capacity and connection permit for the Project during the Project's permitting process. 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 point where, and at a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained.

Based on the above, the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Therefore, impacts would be less than significant, and mitigation measures are not required. No further analysis of this topic in an EIR is required.

Stormwater drainage

With regard to stormwater drainage, as discussed above in Response to Checklist Question X.c.ii, the Project would result in an overall decrease in impervious surface area and stormwater flows. As such, the Project would not require or result in the relocation or construction of new or expanded stormwater drainage. No further analysis of this issue in an EIR is required.

Telecommunications Facilities

The Project would require construction of new on-site telecommunications infrastructure to serve the new building 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. Such activities could involve temporary closure of portions of sidewalks or travel lanes. However, the Project would ensure safe pedestrian access is maintained throughout construction, as well as emergency vehicle access and safe vehicle travel in general, 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 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 with 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 energy and telecommunications lines would be coordinated with service providers and the City, as applicable. Therefore, related impacts would be less than significant, and no mitigation measures are required. No further analysis of this topic in an EIR is required.

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. LADWP supplies water to the Project Site. As described in Section 3, Project Description, of this Initial Study, the Project includes the construction of a new office building with a total floor area of 199,500 square feet comprised of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. As part of the Project, the existing 23,072-square-foot office building and two accessory buildings of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street would be removed while the existing 87,881-square-foot office building at 12541 W. Beatrice Street would be retained. Upon completion, the Project would result in a net new floor area of 169,240 square feet on the Project Site. 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. As shown in Table 3 on page 73, assuming constant water use throughout the year, the Project would result in a net average daily water demand of 34,336 gallons per day.

The 2015 Urban Water Management Plan forecasts adequate water supplies to meet all projected water demands in the City for normal, single-dry, and multiple-dry years through the year 2040. Furthermore, as outlined in the 2015 Urban Water Management Plan, LADWP is committed to providing a reliable water supply for the City. The 2015 Urban Water Management Plan takes into account 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. The 2015 Urban Water Management Plan also furthers the goals of the City's Executive Directive No. 5 and Sustainable City pLAn. The 2015 Urban Water Management Plan also addresses the

Table 3
Estimated Project Water Demand

Land Use	Floor Area	Water Demand Rate (gpd/unit)[a]	Water Demand (gpd)
EXISTING TO BE REMOVED			
Existing Structures to be Removed (Office)	30,260 sf	0.2	6,052
Total Existing			***6,052***
PROPOSED			
Office	196,100 sf	0.2	39,220
Café	1,300	0.85	1,105
Retail	2,100 sf	0.03	63
Proposed Water Demand			**40,388**
Less Existing to be Removed			(6,052)
Net Additional Water Demand (Proposed – Existing to be Removed)			**34,336**

sf = square feet

gpd = gallons per day

[a] *Water demand rates are based on 2012 LASAN Sewer Generation Rates conservatively increased by 18 percent.*

Source: City of Los Angeles, Bureau of Sanitation, Request for Wastewater Service Information, September 2020; Barbara L. Hall, Utility Technical Report, October 2020, included in Appendix IS-5 of this Initial Study; Eyestone Environmental, 2020.

current and future State Water Project supply shortages and concludes that MWD's actions in response to the threats to the State Water Project would ensure continued reliability of its water deliveries.

By focusing on demand reduction and alternative sources of water supplies, LADWP would further ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages. Additionally, water conservation and recycling will play an increasing role in meeting future water demands in the City.

The 2015 Urban Water Management Plan utilized SCAG's 2012–2035 RTP data that provide for reliable water demand forecasts, taking into account changes in population, housing units, and employment. As discussed above, the Project would not generate a new residential or household population on the Project site and would therefore not result in a direct population growth in the area. In addition, as provided above in Checklist Section XIV, Population and Housing, while some of the new employment positions could be filled by persons who would relocate to the vicinity of the Project site, this potential increase in population would not be substantial since not all employees would move close to the Project site. Specifically, some employment opportunities may be filled by people already residing in the vicinity of the Project site and other persons would commute to the Project site from other communities in and outside of the City. Additionally, the Project's estimated 670 new employees would constitute up to approximately 1.7 percent of the employment growth forecasted by SCAG between 2020 and 2024. Therefore, the Project would be well within SCAG's growth projections for the City of Los Angeles Subregion.

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 mitigation measures are required. 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. As shown in Table 2 on page 71, the Project would generate a net increase in wastewater flow from the Project Site of approximately 29,182 gpd, or approximately 0.029 mgd. The Project's increase in average daily wastewater flow of 0.029 mgd would represent approximately 0.02 percent of the current 175 mgd of remaining available capacity of the HWRP. Therefore, wastewater generated by the Project would be accommodated by the existing capacity of the HWRP.

Various factors, including future development of new treatment plants, upgrades and improvements to existing treatment capacity, development of new technologies, etc., will ultimately determine the available capacity of the Hyperion Service Area in 2024, the year by which construction of the Project is expected to be completed. The City has developed the One Water LA 2040 Plan, which includes a collaborative approach to develop an integrated framework for managing the City's water resources, watersheds, and water and wastewater facilities in an environmentally, economically, and socially beneficial manner. This includes the Final Draft Wastewater Facilities Plan. The purpose of the Wastewater Facilities Plan is to guide the Los Angeles Bureau of Sanitation with its decision-making related to the implementation of system improvements to its wastewater collection and treatment facilities through 2040. The Wastewater Facilities Plan provides the underlying documentation to make informed decisions when considering investments to repair, replace, or enhance existing facilities and construct new water conveyance and treatment facilities required to serve the City's needs through 2040.[86] Future updates to the One Water LA 2040 Plan and the accompanying Wastewater Facilities Plan would provide for improvements beyond 2040 to serve future population needs. It is conservatively assumed that no new improvements to the wastewater treatment plants would occur prior to 2024. Thus, based on this conservative assumption, the 2024 effective capacity of the Hyperion Sanitary Sewer System would continue to be 550 mgd. Similarly, the capacity of the HWRP in 2024 would continue to be 450 mgd.

Based on LASAN's average flow projections for the HWRP, it is anticipated that average flows in 2024, the Project build-out year, would be approximately 264 mgd.[87] Accordingly, the future remaining available capacity of the HWRP in 2024 would be approximately 186 mgd. The Project's increase in average daily wastewater flow of 0.029 mgd would represent approximately 0.016 percent of the estimated future

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86 LASAN, One Water LA 2040 Plan, Vol. 2—Final Draft Wastewater Facilities Plan, April 2018.

87 Los Angeles Department of Water and Power, One Water LA 2040 Plan-Volume 2, Table ES.1, Projected Wastewater Flows. Based on a straight-line interpolation of the projected flows for the Hyperion Water Reclamation Plant for 2020 (approximately 256 mgd) and 2030 (approximately 275 mgd). The 2024 value is extrapolated from 2020 and 2030 values: [(275 mgd – 256 mgd) ÷ 10) * 4] + 256 = ~ 264 mgd.

remaining available capacity of 186 mgd at the HWRP.[88] Therefore, wastewater generated under the Project would be accommodated by the future capacity of the HWRP.

Additionally, the Project's net increase in average daily wastewater generation of 0.029 mgd plus the current average flows of approximately 275 mgd to the HWRP would represent approximately 61.1 percent[89] of the HWRP's capacity of 450 mgd. With regard to future flows, the Project's net increase of 0.029 mgd plus the projected flows of approximately 264 mgd to the HWRP would also represent approximately 58.7 percent[90] of the HWRP's assumed future capacity of 450 mgd.

Based on the above, there is adequate treatment capacity to serve the Project's projected demand in addition to existing LASAN commitments. Furthermore, based on the Wastewater Service Information letter provided by LASAN, included in the Utility Report provided in Appendix IS-5 of this Initial Study, the Hyperion Water Reclamation Plant has sufficient capacity for the Project. As such, the Project would 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. Impacts would be less than significant, and no mitigation measures are required. 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 Bureau of Sanitation 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 and commercial 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 County are categorized as either Class III 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 are disposed of in inert waste landfills.[91] Nine Class III landfills and one inert waste landfill with solid waste facility permits are currently serving the County.[92] In addition, there is one solid waste transformation facility within Los Angeles County that converts, combusts, or otherwise processes solid waste for the purpose of energy recovery.

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88 (29,182 gpd ÷ 186 mgd) x 100 = 0.016 %

89 [(29,182 gpd + 275 mgd) ÷ 450 mgd] x 100 = ~ 61.1%

90 [(29,182 gpd + 264 mgd) ÷ 450 mgd] x 100 = ~ 58.7%

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

92 County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2018 Annual Report, December 2019. The 9 Class III landfills serving the County include the Antelope Valley Landfill, the Burbank Landfill, the Calabasas Landfill, Chiquita Canyon Landfill, Lancaster Landfill, Pebbly Beach Landfill, Savage Canyon Landfill, the Scholl Canyon Landfill, and the Sunshine Canyon City and County Landfill. Azusa Land Reclamation is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.

Based on 2018 Countywide Integrated Waste Management Plan (ColWMP) Annual Report, the most recent report available, the total remaining permitted Class III landfill capacity in the County is estimated at 163.39 million tons. The permitted inert waste landfill serving the County is Azusa Land Reclamation. This facility currently has 57.72 million tons of remaining capacity and an average daily in-County disposal rate of 1,148 tons per day.[93] Los Angeles County continually evaluates landfill disposal needs and capacity through preparation of the ColWMP 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.[94]

Based on the 2018 ColWMP Annual Report, the countywide cumulative need for Class III landfill disposal capacity through the year 2033 will not exceed the 2018 remaining permitted Class III landfill capacity of 163.39 million tons. The 2018 ColWMP Annual Report evaluated six scenarios to increase capacity and determined that the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period with existing capacity under six scenarios using in-county and out-of-county landfills. Only the scenario using in-county disposal capacity only would result in a shortfall. The 2018 ColWMP Annual Report also concluded that in order to maintain adequate disposal capacity, individual jurisdictions must continue to pursue strategies to maximize waste reduction and recycling; expand existing landfills; study, promote, and develop alternative technologies; expand transfer and processing infrastructure; and use out of county disposal, including waste by rail. The City's Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA) Plan sets a goal of becoming a "zero waste" city by 2030. To this end, the City of Los Angeles implements a number of source reduction and recycling programs such as curbside recycling, home composting demonstration programs, and construction and demolition debris recycling.[95] The City of Los Angeles is currently diverting 76 percent of its waste from landfills.[96] The City has adopted the goal of achieving 90 percent diversion by 2025, and zero waste by 2030.

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

Construction

As previously discussed, construction of the Project would include the removal of 30,260 square feet of office uses within the Project Site and the development of 199,500 square feet floor area consisting of 196,100 square feet of office space and 3,400 square feet of commercial space. Pursuant to the requirements of SB 1374, the Project would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of non-hazardous demolition and construction debris. Materials that could be recycled or salvaged include asphalt, glass, and concrete. Debris not recycled could be accepted at the unclassified landfill (Azusa Land Reclamation) within Los Angeles County and within the Class III landfills open to the City. Furthermore, pursuant to LAMC Sections 66.32 through 66.32.5

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93 County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2018 Annual Report, December 2019.

94 County of Los Angeles, Department of Public Works. Los Angeles County Integrated Waste Management Plan 2018 Annual Report, December 2019.

95 City of Los Angeles, Solid Waste Integrated Resource Plan FAQ, www.zerowaste.lacity.org/files/info/fact_sheet/SWIRPFAQS.pdf, accessed April 15, 2020.

96 LA Sanitation, Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=alxbkb91s_4&_afrLoop=18850686489149411#!, accessed April 9, 2019.

(Ordinance 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. Thus, although the total diversion rate may ultimately exceed 75 percent, this analysis conservatively assumes a diversion rate of 75 percent.

As shown in Table 4 on page 78, based on construction and debris rates established by the USEPA and after accounting for mandatory recycling, the Project would generate approximately 683 tons of construction-related waste. It should be noted that soil export is not typically included in the calculation of construction waste to be landfilled 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. Given the remaining permitted capacity at the Azusa Land Reclamation facility, which is approximately 57.72 million tons, as well as the remaining 163.39 million tons of capacity at the Class III landfills serving the County, the landfills serving the Project site would have sufficient capacity to accommodate the Project's construction solid waste disposal needs.

Based on the above, 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. Therefore, construction impacts to solid waste facilities would be less than significant, and no mitigation measures are required. No further evaluation of this topic in an EIR is required.

Operation

As shown in Table 5 on page 79, upon full buildout, the Project would result in a net increase in solid waste generation of 1,287 tons per year. The estimated solid waste is conservative because the waste generation factors used do not account for recycling or other waste diversion measures, such as compliance with AB 341, which requires California commercial enterprises and public entities that generate four cubic yards or more 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 Zero Waste Plan, which is expected to result in a reduction of landfill disposal Citywide with a goal of reaching a Citywide recycling rate of 90 percent by the year 2025.[97] The estimated net increase in solid waste that would be generated by the Project represents approximately 0.00079 percent of the remaining capacity (163.39 million tons) for the Class III landfills serving the County.[98]

The County will continue to address landfill capacity through the preparation of CoIWMP annual reports. The preparation of each annual report provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Solid waste disposal is an essential public service that must be provided without interruption in order to protect public health and safety, as well as the environment. Jurisdictions in the County of Los Angeles continue to implement and enhance the waste reduction, recycling, special waste, and public education programs identified in their respective planning directives. These efforts,

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97 LA Sanitation, Solid Waste Integrated Resources Plan, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_afrLoop=3608041245788654&_afrWindowMode=0&_afrWindowId=null&_adf.ctrl-state=8vrc5bges_179#!%40%40%3F_afrWindowId%3Dnull%26_afrLoop%3D3608041245788654%26_afrWindowMode%3D0%26_adf.ctrl-state%3D8vrc5bges_183, accessed April 15, 2020.

98 (1,287 tons per year/163.39 million tons) x 100 ≈ 0.00079%

Table 4
Project Demolition and Construction Waste Generation

Building	Size	Generation Rate (lbs/sf)[a]	Total (tons)
Construction Waste			
Office	196,100 sf	3.89	381.4
Commercial	3,400 sf	3.89	6.6
Construction Waste Subtotal			388
Demolition Waste			
Office	30,260 sf	155	2,345
Demolition Waste Subtotal			
Total for Construction and Demolition Waste			***2,733***
Total After 75-Percent Recycling			**683.3**

du = dwelling unit

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 3, Table 4, and Table 6. Generation rates used in this analysis are based on an average of individual rates assigned to specific building types.*

Source: Eyestone Environmental, 2020.

together with countywide and regional programs implemented by the County and the cities, acting in concert or independently, have achieved significant, measurable results, as documented in the 2018 Annual Report. As discussed below, the Project would be consistent with and would further City policies that reduce landfill waste streams. Such policies and programs serve to implement the strategies outlined in the 2018 Annual Report to adequately meet countywide disposal needs through 2033 without capacity shortages.

Based on the above, the landfills that serve the Project site would have sufficient permitted capacity to accommodate the solid waste that would be generated by the construction and operation of the Project. Therefore, impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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 AB 939, the California Integrated Waste Management Act of 1989, 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

Table 5
Estimated Project Solid Waste Generation

Building	Size	Estimated No. of Employees	Solid Waste Generation Rate[a]	Total Generation (tons/year)
Existing				
Office	30,260 sf[b]	121 emp	10.53/lbs/emp/day	233
Total Existing				**233**
Proposed				
Commercial (office and commercial)	199,500 sf	791 emp[c]	10.53/lbs/emp/day	1,520
Total Proposed				**1,520**
Total Net Increase				**1,287**

du = dwelling unit

emp = employees

lbs = pounds

sf = square feet

[a] *Commercial solid waste generation rate is from the City's L.A. City CEQA Thresholds Guide. The L.A. CEQA Thresholds Guide does not include a generation factor for office uses; hence, the commercial rate was used.*

[b] *This includes the two accessory structures that are currently on 12575 Beatrice Street.*

[c] *Based on employee generation factors from the City of Los Angeles Department of Transportation (LADOT)'s Vehicle Miles Traveled Calculator, the Project is estimated to generate a net increase of 670 new employees on the Project Site. The existing office uses to be removed produces 121 employees (30,260 square feet x 0.004 = 121). The Project would produce 791 employees (office 199,500 square feet x 0.004 = 784) + (retail 3,400 square feet x 0.002 = 7).*

Source: Eyestone Environmental, 2020.

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 four 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. 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[99] 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.

[99] 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.

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.[100] The Project's on-site recycling area is located adjacent to the loading area on the ground floor level and is accessed from the service drive along the north side of the property. 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 mitigation measures are required. 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?	☐	☐	☐	☒
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?

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?

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

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?

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 (a–d). As discussed above, the Project site is located in an urbanized area, and there are no wildlands located in the vicinity of the Project site. The Project site is not located within a City-designated Very High Fire Hazard Severity Zone,[101] nor is it located within a City-designated fire buffer zone.[102] Therefore, the Project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. No impacts regarding wildfire risks would occur, and no mitigation measures are required. No further evaluation of this topic in an 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?	☒	☐	☐	☐

[101] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report for APNs 4211006009 and 4211006026, http://zimas.lacity.org/, accessed March 3, 2020. The Very High Fire Hazard Severity Zone was first established in the City of Los Angeles in 1999 and replaced the older “Mountain Fire District” and “Buffer Zone” shown on Exhibit D of the Los Angeles General Plan Safety Element.

[102] City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit D, p. 53.

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, 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.

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

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. Located in the vicinity of the Project site are other current and reasonably foreseeable projects, the development of which, in conjunction with that of 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; cultural resources (archaeological resources); energy, including energy infrastructure; geology and soils (paleontological resources); greenhouse gas emissions; hazards and hazardous materials; land use and planning; noise; public services (fire protection and police protection); transportation; tribal cultural resources; and utilities and service systems (water infrastructure and energy).

With regard to agriculture and forestry resources, biological resources, and mineral resources, no such resources are located on the Project site or in the surrounding area. In addition, the Project would have no impact on these resources, and therefore could not combine with other projects to result in cumulative impacts. Therefore, cumulative impacts to agriculture and forestry resources, biological resources, and mineral resources would be less than significant.

While impacts to historic resources tend to be site-specific, cumulative impacts could occur if several projects affect local resources with the same level or type of designation or evaluation, affect other structures located within the same historic district, or involve resources that are significant within the same context. As discussed above, the Project would not result in any significant impacts to historic resources.

Specifically, none of the buildings on-site that would be removed by the Project are historical resources and therefore the Project would not result in direct impacts to historical resources. In addition, none of the adjacent sites have been designated as historical resources. The Project site and surrounding area also are not located within an existing Historic Preservation Overlay Zone. Therefore, there are no historic resources within and adjacent to the Project site. Thus, the Project would not contribute to any cumulative impacts associated with historic resources. Furthermore, it is anticipated that historical resources that may potentially be affected by other development projects would be subject to the same CEQA requirements as the Project and be evaluated as part of that project's environmental documentation. The determinations regarding impacts to historical resources from other development projects would be made on a case-by-case basis and the effects of cumulative development on historical resources would be mitigated to the extent feasible. Therefore, Project impacts with respect to historic resources in the vicinity of the Project site would not be cumulatively considerable, and cumulative impacts to historical resources would be less than significant.

As analyzed above, except for the potential to discover unknown paleontological resources, the Project would not result in significant impacts to geology and soils. Thus, except for the potential to discover unknown paleontological resources, the Project would not contribute to any cumulative impacts associated with geology and soils. In addition, the Project would not exacerbate existing conditions such as unstable geologic units or unstable soils. Specifically, since there are no known faults beneath the Project Site, the Project would not exacerbate existing environmental conditions such that people or structures would be exposed to rupture of a known earthquake fault. Furthermore, even though the Project would involve excavation for the underground parking levels, the proposed development would not involve mining operations, deep excavation into the earth, or boring of large areas, which could create unstable seismic conditions or stresses in the Earth's crust. The Project site is also located in a highly urbanized and fully developed area and these existing environmental conditions are not such that strong seismic ground shaking would be exacerbated by the Project. Due to the site-specific nature of geological conditions (i.e., soils, geological features, subsurface features, seismic features, etc.), geology and soils impacts are typically assessed on a project-by-project basis or for a particular localized area, rather than on a cumulative basis. Nonetheless, cumulative growth through the Project's anticipated build-out year could expose a greater number of people to potential seismic hazards. As with the Project, related projects and other future development projects would be subject to established guidelines and regulations pertaining to building design and seismic safety, including those set forth in the California Building Code and Los Angeles Building Code as well as site-specific geotechnical evaluations that would identify potential effects related to the underlying geologic and soil conditions for a particular related project site. 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. With adherence to applicable regulations and any site-specific recommendations set forth in a site-specific geotechnical evaluation, cumulative impacts related to geological and soils conditions would be less than significant.

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, related projects would be subject to the City's LID requirements and, for applicable projects, NPDES permit requirements, including development of SWPPPs for construction projects greater than one acre, compliance with SUSMP requirements during operation, and compliance with other local requirements pertaining to hydrology and surface water quality. It is anticipated that related projects would also be evaluated on an individual basis by City of Los Angeles Department of Public Works to determine appropriate BMPs and treatment measures to avoid significant impacts to hydrology and surface water quality, including as required by the City's LID program. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to hydrology and water quality. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

In terms of population and housing, while the Project would not include residential uses, some related projects could include residential uses that would directly generate a new population and provide additional housing in the vicinity of the Project site. It is anticipated that with the ongoing update of the Palms–Mar Vista–Del Rey Community Plan, the potential population and housing growth in the area, including from related projects would be considered. Other related projects like the Project would not include residential uses that would directly contribute to population growth. As with the Project, such related projects could also generate an increased demand for housing in the area due to the relocation of housing by employees in proximity to their place of work. As with the Project, such demand for housing in the area would be anticipated to be limited as some employees may already live in the area and other employees would chose to commute. To the extent employees decide to relocate to the area, such demand for housing would be met by existing vacancies and by other related projects that include residential uses. Notwithstanding, as discussed above in Checklist Section XIV, Population and Housing, the provision of new jobs as part of the Project would constitute a small percentage of employment growth and would not be considered unplanned growth and would not produce such a high quantity of new jobs that it would have the possibility to induce unplanned residential growth. Therefore, the Project would not cause an exceedance of SCAG's employment projections or induce substantial indirect population or housing growth related to Project-generated employment opportunities. With regard to the displacement of housing or people, while the Project would not displace housing or people, other projects might displace existing housing and people residing in them. However, even if construction of replacement housing were required elsewhere, such developments would likely occur on infill sites within the City and the appropriate level of environmental review would be conducted to analyze the extent to which the related projects could cause significant environmental impacts. Overall, the Project's contribution would not be cumulatively considerable, and cumulative impacts related to population and housing would be less than significant.

With regard to public services such as schools, parks, libraries, and recreation, the Project would not generate a residential population that could increase the demand for schools, parks and 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 Project and 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 recreation (i.e., existing neighborhood and regional parks), projects would be required by the LAMC to include open space and amenity spaces (e.g. gyms, outdoor decks with pools, etc.) and pay park in-lieu 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, libraries, and recreation. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

Due to the shared urban infrastructure, the Project and related projects would cumulatively increase water consumption, wastewater generation, and stormwater discharge. As concluded in LADWP's 2015 UWMP, projected water demand for the City would be met by the available supplies during an average year, single-dry year, and multiple-dry year through the year 2040. Further, with respect to additional growth within the LADWP service area, through LADWP's UWMP process, the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling. Therefore, LADWP would be able to supply the demands of the Project and projected future growth through 2040 and beyond. In addition, in accordance with the City's Green Building Ordinance, certain water conservation measures are required to be implemented by the City. Such measures would reduce water use associated with the Project and related projects. Furthermore, certain large related projects meeting the thresholds under Senate Bill 610 would be required to prepare and receive LADWP approval of a Water Supply Assessment that demonstrates how the project's water demand will be met. Therefore, the Project and related projects would not result in significant cumulative impacts with respect to water supply. As such, the Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.

Development of the related projects would result in an increase in the demand for sanitary sewer service in LA Sanitation's HWRP. As described above in Response to Checklist Question No. XIX.a, the existing design capacity of the HWRP is approximately 450 mgd and current wastewater flow levels are at 275 mgd. Based on the future wastewater flow and the wastewater treatment capacity of the HWRP, sufficient wastewater treatment capacity would be available to serve the Project and related projects. In addition, the City would continue to monitor wastewater flows and update infrastructure, as necessary, to accommodate the growth within the City. New development projects occurring in the vicinity of the Project site, including the related projects, would also be required to coordinate with LASAN via a sewer capacity availability request to determine adequate sewer capacity. Furthermore, new development projects would be subject to Los Angeles Municipal Code Sections 64.11 and 64.12, which require approval of a sewer permit prior to connection to the sewer system. 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, given the urbanized and built-out nature of most of the City, it is anticipated that other projects would similarly represent a minor percentage of the remaining capacity of the County's Class III landfills open to the City. Additionally, the demand for landfill capacity is continually evaluated by the County through preparation of the Countywide Integrated Waste Management Plan annual reports. Each annual Countywide Integrated Waste Management Plan report assesses future landfill disposal needs over a 15 year planning horizon. Based on the 2018 Countywide Integrated Waste Management Plan Annual Report, the County anticipates that future disposal needs can be adequately met for the next 15 years (i.e., 2033) with implementation of strategies to maximize waste reduction and recycling, expand existing landfills, promote and develop alternative technologies, expand transfer and processing infrastructure, and use out of county disposal, including waste by rail. The preparation of each annual Countywide Integrated Waste Management Plan provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Furthermore, in future years, it is anticipated that the rate of declining landfill capacity would slow considering the City's goal to achieve zero waste by 2030. Therefore, cumulative impacts with respect to solid waste would be less than significant.

As discussed above, 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. Specifically, Section 57.106.5.2 of the LAMC 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; Section 57.118 of the LAMC establishes LAFD's fire/life safety plan review and LAFD's fire/life safety inspection for new construction projects; and Section 57.507.3.1 establishes fire water flow standards. 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; cultural resources (archaeological resources); energy, including energy infrastructure; geology and soils (paleontological resources); greenhouse gas emissions; hazards and hazardous materials; land use and planning; noise; public services (fire protection and police protection); transportation; tribal cultural resources; and utilities and service systems (water infrastructure and energy). As a result, these potential effects will be analyzed further in the EIR.

Appendices

Appendix IS-1

Tree Survey

Arbor Essence

September 15, 2020

Mr. Michael Chait
Chait & Company
7306 Coldwater Canyon Ave., Unit 12
North Hollywood, CA 91605

Regarding: Tree Survey
12565/12575 Beatrice Street
Playa Del Rey, CA

Dear Michael,

At your request I visited the above referenced site September 14, 2020. I was asked to inventory existing trees, noting any protected species.

This report supersedes previous reports dated March 17, 2017 and January 28, 2020, and is my final report for trees on the refenced site.

There are approx. 61 trees on the referenced site. Predominant species around the building is Tipuana (*Tipuana tipu*) of which there are 51 trees, 8 Ficus species (*benjamina*, *retusa* and *Floida*), and 2 California sycamore (*Platanus racemosa*), which are protected under city of Los Angeles ordinance. All trees have trunk diameters measuring 8 inches or larger.

51- Tipu (*Tipuana tipu*)
5 Cuban laurel (*Ficus retusa*)
2 Ficus Florida (*Ficus macropylla* 'Florida')
1 Weeping fig (*Ficus benjamina*)
2 CA sycamore (*Platanus racemosa*)

All trees are located growing on site, there are no city street trees.

It should be noted that the study of trees is not an exact science and arboriculture does not detect or predict with any certainty. The arborist therefore is not responsible for tree defects or soil conditions that cannot be identified by a prudent and reasonable inspection.

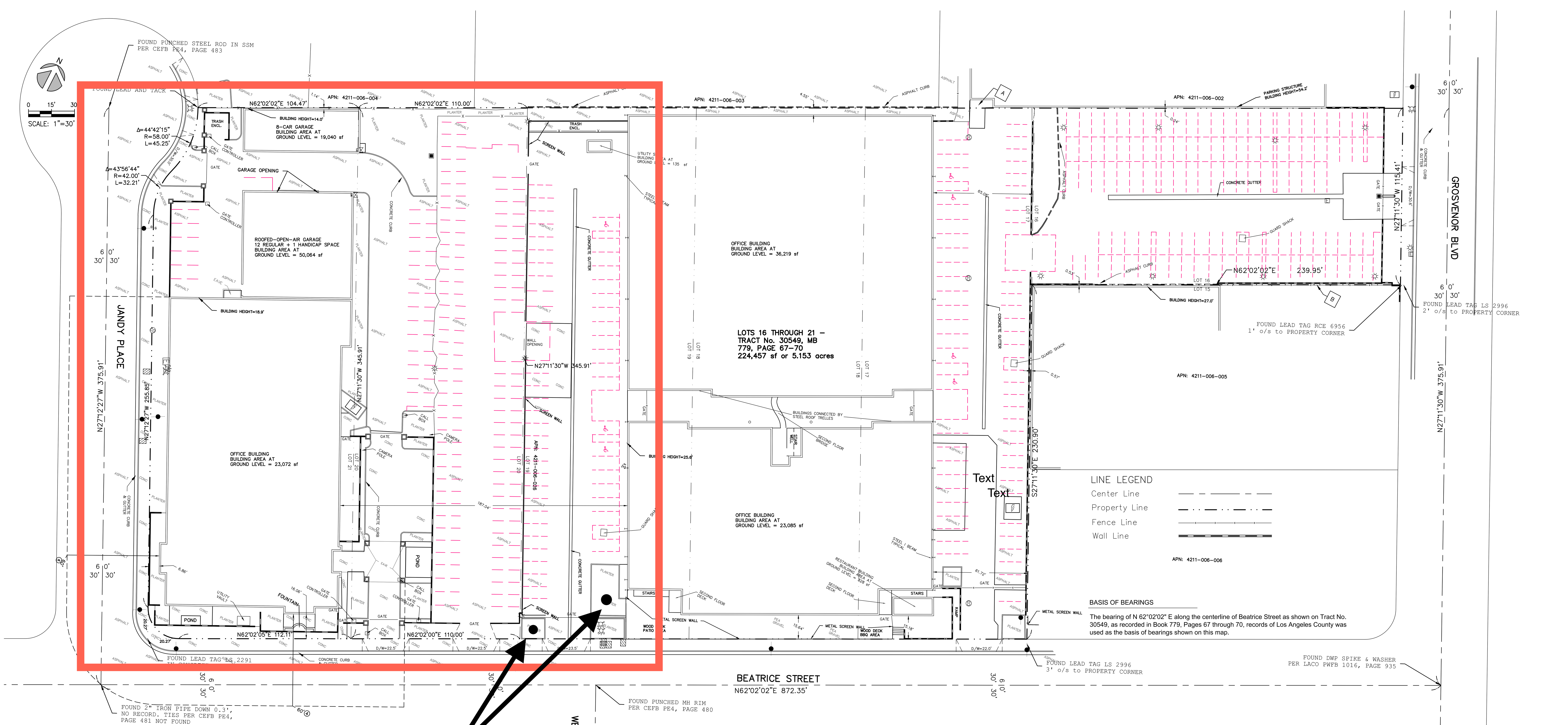
If you have any questions or require other services please contact me at the number listed below.

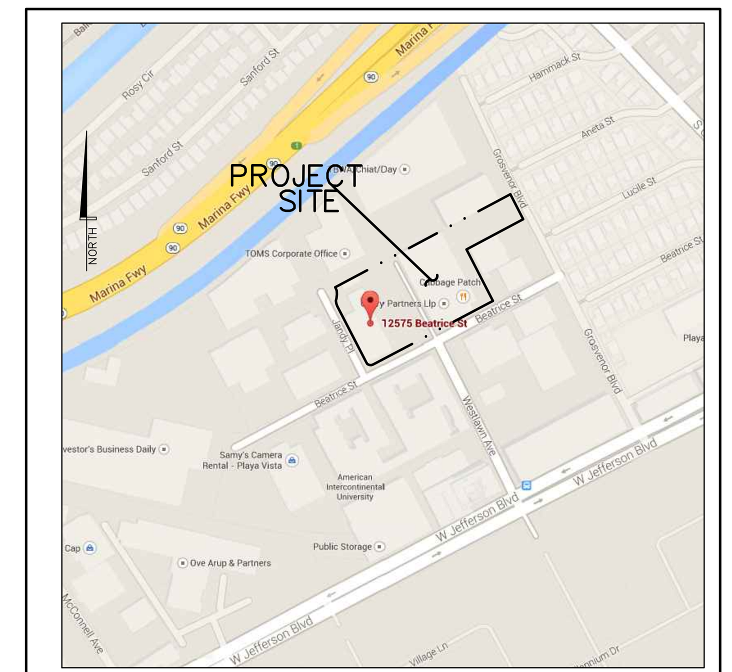
Respectfully,
Arbor Essence

Kerry Norman
ASCA, Registered Consulting Arborist #471
ISA Board-Certified Master Arborist #WE-3643B

KERRY NORMAN
asca
AMERICAN SOCIETY OF CONSULTING ARBORISTS
Registered Consulting Arborist #471

4730 Woodman Ave., Suite 400-H Sherman Oaks, CA 91423. Phone 310-592-1104





VICINITY MAP
NOT TO SCALE

Record Legal Description

AS PER CHICAGO TITLE COMPANY TITLE REPORT NUMBER: 00028320-016-AH, DATED AUGUST 22, 2014.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

LOTS 20 AND 21 OF TRACT NO. 30549, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 779 PAGES 67 TO 70 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THEREFROM AN UNDIVIDED ONE-HALF INTEREST IN AND TO ALL OIL, PETROLEUM, GAS AND ALL KINDRED SUBSTANCES AND OTHER MINERALS LYING 500 FEET OR MORE BELOW THE SURFACE OF THE LAND BUT WITHOUT ANY RIGHT WHATSOEVER TO THE USE OF THE SURFACE OR THE SUBSURFACE OF SAID LAND TO A DEPTH OF 500 FEET FROM SAID SURFACE FOR ANY PURPOSE INCIDENTAL TO THE OWNERSHIP OF SAID SUBSTANCES, AS RESERVED BY CARL M. BUCK BUILDING CO., A CALIFORNIA CORPORATION, IN DEED RECORDED FEBRUARY 5, 1969 AS INSTRUMENT NO. 1369, IN BOOK D-4270 PAGE 656, OFFICIAL RECORDS.

APN: 4211-006-009

Schedule "B" Easements

AS PER CHICAGO TITLE COMPANY TITLE REPORT NUMBER: 00028320-016-AH, DATED AUGUST 22, 2014.

1. Covenant and agreement establishing set backs as follows: Front 15'; Side: 5'; 10' Landscape at front setback line; 45' setback for loading doors from fron property line; Walls to be red brick or precast concrete; Storage areas to be 6' max and cinder block or other masonry; No signs or Billboards for advertisement to be permitted above roofs.

2. Recorded: November 8, 1968 as Instrument No. 4109, of Official Records Modification(s) of said covenants, conditions and restrictions recorded: April 29, 1969 as Instrument No. 1686, of Official Records.

3. Covenant and agreement wherein the owners agree to hold said Land as one parcel and not to sell any portion thereof separately. Said covenant is expressed to run with the Land and be binding upon future owners.

   Recording date: July 10, 1969, Recording No.: 3435 in Book M-3253, Page 35,Official Records

4. An instrument entitled "Acknowledgment Regarding Ordinance No. 160,394", Executed by:William M. Keck, II, in favor of the City of Los Angeles, recorded April 23, 1987, as Doc. No. 87-638306, Official Records. *(Nothing plottable therein)*

   An instrument entitled "Covenant and Agreement Regarding Maintenance of Yards for an Over-Sized Building", Executed by William M. Keck, II, in favor of the City of Los Angeles, recorded April 29, 1987, recording No 87-670959, Official Records. *(60 clear landscape area plotted herein)*

Legend of Symbols

AIR VACUUM	FOUND MONUMENT	SEWER MANHOLE	TRAFFIC PULL BOX
ARROW	GUARD POST	TELEPHONE MANHOLE	TRAFFIC SIGNAL
TURN-ARROW	GUY ANCHOR	CABLE TV MANHOLE	CONTROL POINT
CENTERLINE	HANDICAP ACCESS	WATER MANHOLE	BLOW-OFF VALVE
SEWER CLEAN-OUT	IRRIGATION BOX	MONITORING WELL	GAS VALVE
CABLE TV	LIGHT POST	ELEC TRANSFORMER	WATER VALVE
DROP INLET	STORM DRAIN MANHOLE	POWER POLE	WATER METER
ELECTRICAL PULL BOX	ELECTRICAL MANHOLE	PROPERTY LINE	TELEPHONE BOX
FIRE HYDRANT	GENERIC MANHOLE	SIGN POST	PARKING METER

Zoning Information

According to the City of Los Angeles Zoning as of September, 2014, the subject properties are zoned per SEC. 12.19. "M2" LIGHT INDUSTRIAL ZONE.
(Amended by Ord. No. 146,030, Eff. 7/11/74.)

In addition, Lot 16 (AP 4211-006-025 fronting on Grosvenor Blvd. has a Parking Buffer along Grosvenor Blvd. as described below.

The following regulations shall apply to the "M2" Light Industrial Zone:

A. Use - No building, structure or land shall be used and no building or structure shall be erected, structurally altered, enlarged, or maintained, except for the following uses, and, when a "Supplemental Use District" is created by the provisions of Article 3 of this chapter, for such uses as may be permitted therein:

1. Any open lot use permitted in an "A" or "R" Zone, which does not involve the use of buildings or structures other than accessory buildings incident to the use of the land.

1.5. (Amended by Ord. No. 146,030, Eff. 7/11/74.) Any use permitted in the M1 or MR2 Zone, whether conducted within or without a building or enclosed area, but not including any of the following:

(a) Any building, structure or portion thereof permitted in any "R" Zone, other than accessory buildings which are incidental to the use of the land.

(b) Any building containing dwelling units or guest rooms.

(c) The storage, display, processing or sales of second-hand boxes, crates, barrels, drums, furniture, or household appliances unless conducted in accordance with the limitations specified in Subsection A.4(b) of this section.

(d) The storage of impounded, abandoned, partially dismantled, obsolete or wrecked automobiles unless conducted in accordance with the limitations specified in Subsection A.4(b) of this section.

(e) The open air sale of merchandise from a privately owned vacant lot or drive-in theater. (Added by Ord. No. 156,684, Eff. 6/19/82.)

(f) Concrete or cement products manufactured in the open. (Added by Ord. No. 158,939, Eff. 6/21/84.)

(g) The open storage of materials and equipment, including used materials and equipment unless conducted in accordance with the limitations specified in Subsection A.4(b) of this section. The phrase "used materials and equipment" includes vehicles, boats, or airplanes which are inoperable, wrecked, damaged or unlicensed, i.e. not currently licensed by the Department of Motor Vehicles. (Added by Ord. No. 162,335. Eff. 6/6/87.)

(h) (Amended by Ord. No. 173,492, Eff. 10/10/00.) Indoor swap meets unless authorized pursuant to the provisions of Section 12.24W42.

(4) (Amended by Ord. No. 145,040, Eff. 1/15/73.) Paved off- street parking spaces are provided for buildings as required by Section 12.21 A. of this Code, and for all other portions of the lot, other than public parking areas, as follows:

(i) For up to the first acre a minimum of six spaces;

(ii) For the second acre - one space for each 12,000 square feet of lot area; and

(iii) For each acre exceeding two - one space for each acre of lot area.

Any of the uses permitted by Subsection A. of this section shall require prior approval in accordance with the provisions of Section 12.24.1 of this Code.

C. Area. No building or structure nor the enlargement of any building or structure shall be hereafter erected or maintained unless the following yards and lot areas are provided and maintained in connection with such building, structure or enlargement.

1. Front Yard - Not required.

2. Side Yard - Side yards conforming to the requirements of the "R5" Zone (Sec. 12.12 C.2.) shall be provided and maintained in connection with buildings erected and used principally for residential purposes.

3. Rear Yard - No rear yard shall be required for buildings erected used exclusively for commercial or industrial purposes. For buildings other than those erected and used exclusively for commercial or industrial purposes, a rear yard conforming to the requirements of the "R4" Zone (Sec. 12.11 C.3.) shall be provided and maintained at the floor level of the first story used in whole or in part for dwelling purposes.

4. Lot Areas - The lot area requirements of the "R5" Zone Sec. 12.12 C.4. shall apply to buildings erected and used exclusively for dwelling purposes. For buildings other than those erected and used exclusively for dwelling purposes such requirements shall apply only to that portion of a building used for dwelling purposes.

5. Loading Spaces - as required by Sec. 12.21 C.6.

Exceptions to area regulations are provided for in Sec. 12.22 C.

GROSVENOR BLVD. PARKING BUFFER

SEC. 12.12.1. "P" AUTOMOBILE PARKING ZONE.

Land classified as a "P" Zone may also be classified in either an "A" or "R" Zone. The following regulations shall apply to the "P" Automobile Parking Zone:

A. Use - No building, structure or land shall be used and no building or structure shall be erected, structurally altered, enlarged, or maintained, except for the following uses, and, when a "Supplemental Use District" is created by the provisions of Article 3 of this chapter, for such uses as may be permitted therein:

1. Public or private parking areas (subject to the regulations of Section 12.21-A,5 and 6), including the use of such parking areas for ingress to and egress from adjoining buildings. **(Amended by Ord. No. 144,082, Eff. 12/11/72.)**

2. Parking buildings which are located entirely below the natural or finished grade of the lot whichever is lower, and are designed to be obscured from view, including parking buildings which are attached to or integrated with buildings in other zones. Ducts and penthouses enclosing ventilating equipment, if not closer than 50 feet to an A or R Zone, stair shafts and guard railings around depressed ramps, may be located not to exceed 4 feet above grade. **(Amended by Ord. No. 117,399, Eff. 12/4/60.)**

3. **(Amended by Ord. No. 140,890, Eff. 10/17/70.)** -- The following signs located on a public parking area or parking building (see Sec 12.12.1 for full description)

EXCEPTION: (Amended by Ord. No. 173,268, Eff. 7/1/00, Oper. 7/1/00.)

The foregoing provisions shall not apply in those instances where a sign island of C2 Zone has been established within a P-zoned area by means of a zone change and/or the zone boundary adjustment procedure. In those instances, no building permits for the erection of signs in the surrounding P Zone shall be issued without prior determination and authorization by the Director of Planning in cases involving zone boundary adjustments, and for cases involving a zone change, the City Planning Commission or the Area Planning Commission pursuant to Section 12.32.

4. Uses customarily incident to the operation of a public parking area, including parking guard or attendant shelters. There may be one such shelter on each public parking area, and one additional shelter for each 300 feet of street frontage in excess of 300 feet. No such shelter shall have a floor area in excess of 50 square feet. Such shelter shall not be located within 15 feet of any street, in any required yard area, not within 30 feet of an A or R Zone. **(Added by Ord. No. 117,399, Eff. 12/4/60.)**

5. Where a lot in a P Zone is also classified in an A or R Zone, such lot may be used either for any purpose permitted in such A or R Zone, or for any purpose enumerated in this subsection but in no event for both purposes. **(Added by Ord. No. 117,399, Eff. 12/4/60.)**

6. **(Amended by Ord. No. 134,633, Eff. 7/17/67.)** Where a combination of the C and P Zones has been established on a lot, a sign or cantilevered canopy, which is permitted on the C Zone portion and is attached to a building thereon, may project not more than 15 feet into the P Zone, provided that such sign or cantilevered canopy is at least eight feet above the subjacent walkway or established grade and that no vertical supports are located in the P Zone.

Where an automobile service station development is to be located on property part of which is in a "C" Zone and part of which is in a "P" Zone, the underground storage tanks which are incidental to the service station my be located in the "P" Zone, and the temporary parking of trucks for purposes of servicing such tanks may be permitted in the "P" Zone.

7. Conditional uses as allowed pursuant to Section 12.24 W.49. of this Code when the location is approved pursuant to the provisions of that section. **(Added by Ord. No. 174,132, Eff. 9/3/01.)**

8. Dwelling unit or units constructed on a lot in a small lot subdivision and approved by the Advisory Agency, pursuant to Article 7 of this Chapter in conformity with the provision of 12.22 C.27. of this Code. **(Added by Ord. No. 176,354, Eff. 1/31/05.)**

B. Restriction. (Amended by Ord. No. 173,268, Eff. 7/1/00, Oper. 7/1/00.) For any lot designated as Public, Quasi-Public, Public/Quasi-Public Use, Other Public, or Open Space on the land use map of the applicable community or district plan; any lot shown on the map as having existing lakes, waterways, reservoirs, debris basins, or similar facilities; any lot shown on the map as the location of a freeway right-of-way; and any property annexed to the City of Los Angeles where a plan amendment was not adopted as part of the annexation proceedings:

Any of the uses permitted by Subsection A of this section shall require prior approval in accordance with the provisions of Section 12.24.1 of this Code.

C. Area. Where a lot in a "P" zone is also classified as an "A" or "R" Zone, the area regulations of such "A" or "R" Zone shall apply, except that for a public parking area the front yard may be as provided for in Section 12.21 A.6.(a) of this Code. **(Amended by Ord. No. 152,467, Eff. 7/14/79.)**

Record Legal Description

AS PER CHICAGO TITLE COMPANY TITLE REPORT NUMBER: 00028858-994-X49, DATED SEPTEMBER 8, 2014.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

LOTS 16 OF TRACT NO. 30549, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 779, PAGES 67 TO 70 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT AN UNDIVIDED ONE HALF INTEREST IN ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES LYING UNDER THE PREMISES DESCRIBED HEREIN, AS RESERVED IN DEED RECORDED IN BOOK 22482, PAGE 274, OFFICIAL RECORDS, AND IN DEED RECORDED IN BOOK 22477, PAGE 296, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM AN UNDIVIDED ONE HALF INTEREST IN AND TO ALL OIL, PETROLEUM, GAS AND ALL KINDRED SUBSTANCES AND OTHER MINERALS LYING 500 FEET OR MORE BELOW THE SURFACE OF THE LAND, BUT WITHOUT ANY RIGHT WHATSOEVER TO THE USE OF THE SURFACE OR THE SUBSURFACE OF SAID LAND TO A DEPTH OF 500 FEET FROM SAID SURFACE FOR ANY PURPOSE INCIDENTAL TO THE OWNERSHIP OF SAID SUBSTANCES AS PROVIDED IN THE DEED RECORDED FEBRUARY 11, 1969, AS INSTRUMENT NO. 1366, OFFICIAL RECORDS.

PARCEL 2:

LOTS 17, 18 AND 19 OF TRACT NO. 30549, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 779, PAGES 67 TO 70 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT AN UNDIVIDED ONE HALF INTEREST IN ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES LYING UNDER THE PREMISES DESCRIBED HEREIN, AS RESERVED IN DEED RECORDED IN BOOK 22482, PAGE 274, OFFICIAL RECORDS, AND IN DEED RECORDED IN BOOK 22477, PAGE 296, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM AN UNDIVIDED ONE HALF INTEREST IN AND TO ALL OIL, PETROLEUM, GAS AND ALL KINDRED SUBSTANCES AND OTHER MINERALS LYING 500 FEET OR MORE BELOW THE SURFACE OF THE LAND, BUT WITHOUT ANY RIGHT WHATSOEVER TO THE USE OF THE SURFACE OR THE SUBSURFACE OF SAID LAND TO A DEPTH OF 500 FEET FROM SAID SURFACE FOR ANY PURPOSE INCIDENTAL TO THE OWNERSHIP OF SAID SUBSTANCES AS PROVIDED IN THE DEED RECORDED FEBRUARY 11, 1969, AS INSTRUMENT NO. 1366, OFFICIAL RECORDS.

PARCEL 3:

AN EASEMENT FOR PARKING PURPOSES AND INGRESS AND EGRESS THERETO OVER LOT 16 OF TRACT NO. 30549, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 779, PAGES 67 TO 70 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT AN UNDIVIDED ONE HALF INTEREST IN ALL OIL, GAS AND OTHER HYDROCARBON SUBSTANCES LYING UNDER THE PREMISES DESCRIBED HEREIN, AS RESERVED IN DEED RECORDED IN BOOK 22482, PAGE 274, OFFICIAL RECORDS, AND IN DEED RECORDED IN BOOK 22477, PAGE 296, OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM AN UNDIVIDED ONE HALF INTEREST IN AND TO ALL OIL, PETROLEUM, GAS AND ALL KINDRED SUBSTANCES AND OTHER MINERALS LYING 500 FEET OR MORE BELOW THE SURFACE OF THE LAND, BUT WITHOUT ANY RIGHT WHATSOEVER TO THE USE OF THE SURFACE OR THE SUBSURFACE OF SAID LAND TO A DEPTH OF 500 FEET FROM SAID SURFACE FOR ANY PURPOSE INCIDENTAL TO THE OWNERSHIP OF SAID SUBSTANCES AS PROVIDED IN THE DEED RECORDED FEBRUARY 11, 1969, AS INSTRUMENT NO. 1366, OFFICIAL RECORDS.

APN: 4211-006-025, 4211-006-026

Schedule "B" Easements

AS PER CHICAGO TITLE COMPANY TITLE REPORT NUMBER: 00028858-994-X49, DATED SEPTEMBER 8, 2014.

1. Covenants, conditions and restrictions recorded November 8, 1968 as Instrument No. 4109, of Official and Records Modification(s) of said covenants, conditions and restrictions recorded April 29, 1969 as Instrument No. 1686, of Official Records.

   Covenant and agreement establishing set backs as follows: Front 15'; Side: 5'; 10' Landscape at front setback line; 45' setback for loading doors from fron property line; Walls to be red brick or precast concrete; Storage areas to be 6' max and cinder block or other masonry; No signs or Billboards for advertisement to be permitted above roofs.

2. "An easement for street purposes over that portion of said land shown as "future street" on the map of said Tract No. 30549, and accepted by resolution adopted by the Council of the City of Los Angeles a copy thereof being recorded June 21, 1973 as Instrument No. 1979, Official Records. *(Not within the subject property)*

3. A document entitled "Acknowledgement Regarding Ordinance No. 160,394", dated August 14, 1987 executed by BMW of North America, Inc., subject to all the terms, provision(s) and conditions therein contained, recorded August 19, 1987 as Instrument No. 87-1325742, Official Records. *(Blanket in Nature)*

4. A covenant and agreement wherein the owners of said land covenant and agree that said land shall be held as one parcel and no portion shall be sold separately, which covenant is expressed to run with the land and be binding upon future owners. Recorded September 27, 2002 as Instrument No. 02-2282010, of Official Records, affects Lots 17, 18 and 19. *(Shown hereon)*

5. A covenant and agreement upon and subject to the terms and conditions therein recorded June 13, 2003 as Instrument No. 03-1695011, of Official Records.

6. A covenant and agreement upon and subject to the terms and conditions therein recorded July 2, 2003 as Instrument No. 03-1903098, of Official Records. *(Affects Lots 16 and 18, nothing plottable)*

7. A covenant and agreement upon and subject to the terms and conditions therein recorded July 2, 2003 as Instrument No. 03-1903099, of Official Records. *(Affects Lots 16, 17, 18 and 19, nothing plottable)*

8. A covenant and agreement upon and subject to the terms and conditions therein recorded July 2, 2003 as Instrument No. 03-1907500, of Official Records. *(Affects Lots 17, 18 and 19, nothing plottable)*

Miscellaneous Notes

MN1 PROJECT ADDRESS:
12575 BEATRICE STREET, PLAYA DEL REY, CALIFORNIA

MN2 Parking Spaces:

Garaged Spaces: 8 Regular
Covered: 12 Regular + 1 Handicap
Outside spaces: 203 Regular
Outside tandem: 48 Regular
Outside tri-spaces: 60 Regular
Outside Handicap: 7

Total: 331 Regular + 8 Handicap

MN3 Building dimensions and areas shown hereon are measured to the exterior wall face.

MN4 Per on-site inspection, no evidence of earth moving work, building construction, or building additions was observed.

MN5 At the time of this survey, there is no indication of any proposed street right-of-way widening.

MN6 At the time of this survey, there is no indication of this site being used for solid waste dump, sump or sanitary landfill.

MN7 Flood Zone: Zone "X" (An area that is determined to be outside the 100- and 500-year floodplains). Zone No. 06037C1760F Effective date 9/26/2008.

Adjacent Owner List

APN: 4211-006-004 - KARLED JANDY LTD
APN: 4211-006-003 - KARLED JANDY LTD
APN: 4211-006-026 - SLG PARTNERS LLC
APN: 4211-006-002 - GVS REALTY LLC
APN: 4211-006-005 - LOT 15 ASSOCIATES
APN: 4211-006-006 - GROSVENOR PROPERTY CO

Utility Information

UN1 The location of Utilities shown hereon are from observed evidence of above ground appurtenances.

UN2 The surveyor was not provided with on-site underground plans or surface ground markings to determine the location of any on-site subterranean uses.

Statement of Encroachments

A The fact that there is pedestrian access across a common property line for parking.

B The fact that the SE face of a block wall lies 0.8 feet northwesterly of the property line.

ALTA/ACSM Land Title Survey

Surveyor's Certification
12565 and 12575 BEATRICE STREET
5410, 5416 and 5454 S JANDY PLACE
5415 S GROSVENOR BLVD
PLAYA DEL REY, CALIFORNIA

To: NSB Associates, Inc. and Chicago Title Company:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the "2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys", jointly established and adopted by ALTA and NSPS, and includes Items 2, 3, 4, 6, 7a, 7b1, 7c, 8, 9, 10 (if applicable), 11a, 12, 14, 16, 17, 18, and 21 of Table A thereof.

The field work was completed on September 23, 2014.

Frank J. Sobecki
Registration No. PLS 5975
In the State of California
Date of Survey: Setember 29, 2014
Date of Last Revision:

Survey Prepared By:
FJS Land Consulting
14818 Quezada Way
Santa Clarita, CA 91387
fjs@fjslandconsulting.com
Phone: 805-501-4075

LICENSED LAND SURVEYOR
FRANK J. SOBECKI
No. PLS 5975
STATE OF CALIFORNIA

Appendix IS-2

South Central Coastal Information Center Records Search Results

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395

California Historical Resources Information System
Los Angeles, Orange, Ventura and San Bernardino Counties
sccic@fullerton.edu

7/27/2020 SCCIC File #: 21363.7521

Stephanie Eyestone-Jones
Eyestone Environmental
2121 Rosecrans Avenue, Suite 3355
El Segundo, CA 90245

Re: Record Search Results for the New Beatrice West Project, City of Los Angeles, California

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Venice, CA USGS 7.5' quadrangle. The following summary reflects the results of the records search for the project area and a ½-mile radius. The search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), the California State Built Environment Resources Directory (BERD), and the City of Los Angeles Historic-Cultural Monuments (LAHCM) listings were reviewed for the above referenced project site and a ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released.

RECORDS SEARCH RESULTS SUMMARY

Archaeological Resources* (*see Recommendations section)	Within project area: 0 Within project radius: 5
Built-Environment Resources	Within project area: 0 Within project radius: 16
Reports and Studies	Within project area: 0 Within project radius: 23
OHP Built Environment Resources Directory (BERD) 2019	Within project area: 2 Within ¼-mile radius: 1
California Points of Historical Interest (SPHI) 2019	Within project area: 0 Within ¼-mile radius: 0
California Historical Landmarks (SHL) 2019	Within project area: 0 Within ¼-mile radius: 0
California Register of Historical Resources (CAL REG) 2019	Within project area: 0 Within ¼-mile radius: 0
National Register of Historic Places (NRHP) 2019	Within project area: 0 Within ¼-mile radius: 0

Archaeological Determinations of Eligibility (ADOE): 2012	Within project area: 0 Within project radius: 1
City of Los Angeles Historic-Cultural Monuments (LAHCM)	Within project area: 0 Within ¼-mile radius: 0

HISTORIC MAP REVIEW - Redondo, CA (1896, 1944) 15' USGS historic maps indicate that in 1896 there was no visible development within the project area. The Atchison Topeka and Santa Fe R.R. (Santa Monica Branch) and the Centinela stream ran to the south of the project area. The Ballona Creek ran to the north of the project area. The project search radius was located within the historic place name of La Ballona. In 1944, there was still no visible development within the project area. There were several new roads and buildings within the project search radius. The historic place names of Del Rey and Alsace were located nearby. The Ballona Creek appeared to have been rerouted.

RECOMMENDATIONS

**When we report that no archaeological resources are recorded in your project area or within a specified radius around the project area; that does not necessarily mean that nothing is there. It may simply mean that the area has not been studied and/or that no information regarding the archaeological sensitivity of the property has been filed at this office. The reported records search result does not preclude the possibility that surface or buried artifacts might be found during a survey of the property or ground-disturbing activities.*

The project area is potentially sensitive for archaeological resources. Because most of the project's ground-surface area is obscured by urban development, an archaeological survey is not likely to result in the observation of surface artifacts. Therefore, it is recommended that a qualified archaeologist be retained to monitor all ground-disturbing activities. In the event that any cultural resources are observed, all work within the vicinity of the find should be diverted until the archaeologist can assess and record the find and make recommendations. Excavation of potential cultural resources should not be attempted by project personnel. It is also recommended that the Native American Heritage Commission be consulted to identify if any additional traditional cultural properties or other sacred sites are known to be in the area. The NAHC may also refer you to local tribes with particular knowledge of potential sensitivity. The NAHC and local tribes may offer additional recommendations to what is provided here and may request an archaeological monitor during ground-disturbing activities or additional research. Additionally, any structures 45 years or older should be evaluated for historical significance if required by the lead agency.

For your convenience, you may find a professional consultant**at www.chrisinfo.org. Any resulting reports by the qualified consultant should be submitted to the South Central Coastal Information Center as soon as possible.

**The SCCIC does not endorse any particular consultant and makes no claims about the qualifications of any person listed. Each consultant on this list self-reports that they meet current professional standards.

If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm. Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Stacy St. James

Stacy St. James

Digitally signed by Stacy St. James
Date: 2020.07.27 18:29:40 -07'00'

Isabela Kott
GIS Technician/Staff Researcher

Enclosures:

(X) Invoice #21363.7521

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

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Appendix IS-3

Geotechnical Engineering Investigation

Geotechnologies, Inc.
Consulting Geotechnical Engineers

439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

March 19, 2018
Revised March 19, 2020
File Number 21194

Chait Company Architects
7306 Coldwater Canyon Avenue, Unit 12
North Hollywood, California 91605

Attention: Michael Chait

Subject: Geotechnical Engineering Investigation
Proposed Office Building
12575 Beatrice Street, Los Angeles, California

Ladies and Gentlemen:

This letter transmits the Geotechnical Engineering Investigation for the subject property prepared by Geotechnologies, Inc. This report provides geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, excavations, and foundation design.

A Preliminary Geotechnical Engineering Investigation report was previously prepared by this firm on April 4, 2016. The preliminary report was prepared based on the results of four Cone Penetration Test Soundings (CPTs) performed at the subject site. The preliminary report was submitted to the LADBS Grading Division for review. Subsequently, the LADBS Grading Division prepared a Soils Report Review Letter (Log # 97201), dated March 23, 2017, requesting a comprehensive investigation be performed at the subject site, which would include geotechnical borings, laboratory testing, liquefaction analysis, and foundation analysis. A copy of the review letter by the Grading Division is included in the Appendix of this report for reference.

In order to comply with the LADBS requirements, three geotechnical borings and laboratory testing were performed as part of this current investigation. The results of the prior CPT analyses have been incorporated into the finding and analyses of this report. The recommendations presented in this report shall supersede those presented previously in the Preliminary Geotechnical Engineering Investigation report. The subsurface conditions described herein have been projected from subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

REGISTERED PROFESSIONAL ENGINEER
STANLEY S'U KEI TANG
No 56178
Exp 12/31/20
CIVIL
STATE OF CALIFORNIA

STANLEY S. TANG
R.C.E. 56178

Distribution: (2) Addressee
(2) City of Los Angeles

Email to: [michael@chaitco.com]

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GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED OFFICE BUILDING
12575 BEATRICE STREET
LOS ANGELES, CALIFORNIA

INTRODUCTION

This report presents the results of the geotechnical engineering investigation performed on the subject property. The purpose of this investigation was to identify the distribution and engineering properties of the earth materials underlying the site, and to provide geotechnical recommendations for the design of the proposed development.

A Preliminary Geotechnical Engineering Investigation report was previously prepared by this firm on April 4, 2016. The preliminary report was prepared based on the results of four Cone Penetration Test Soundings (CPTs) performed at the subject site. The preliminary report was submitted to the LADBS Grading Division for review. Subsequently, the LADBS Grading Division prepared a Soils Report Review Letter (Log # 97201), dated March 23, 2017, requesting a comprehensive investigation be performed at the subject site, which would include geotechnical borings, laboratory testing, liquefaction analysis, and foundation analysis. A copy of the review letter by the Grading Division is included in the Appendix of this report for reference.

In order to comply with the LADBS requirements, three geotechnical borings and laboratory testing were performed as part of this current investigation. The results of the prior CPT analyses have been incorporated into the finding and analyses of this report. The recommendations presented in this report shall supersede those presented previously in the Preliminary Geotechnical Engineering Investigation report.

PROPOSED DEVELOPMENT

Information concerning the proposed development was furnished by the client. The site is proposed to be developed with a 4 to 5-story office building, which will be constructed over 3 above grade parking levels and 2 subterranean parking levels. It is anticipated that the proposed subterranean levels will extend on the order of 20 feet below the existing site grade. Based on the latest design plans, the finished floor elevation at the ground floor level will be at approximately 23.0 feet above Mean Sea Level (MSL), and the finished floor elevation of the B2 subterranean parking level will be at approximately 4.0 feet above MSL.

Maximum column gravity loads are estimated to be on the order of 1,700 kips. Maximum wall gravity loads are estimated to be between 24 kips per lineal foot. It is anticipated that excavation on the order of 25 feet will be required for the proposed subterranean levels and foundation elements.

Any changes in the design of the project or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained in this report should not be considered valid until reviewed and modified or reaffirmed, in writing, subsequent to such review.

SITE CONDITIONS

The property is located at 12575 Beatrice Street, in the City of Los Angeles, California. The project site consists of a rectangular shaped lot, and is bounded by adjacent properties to the north and to the east, and by Beatrice Street to the south and by Jandy Place to the west. The site is currently developed with an existing office building, garage, and associated parking lots. The existing structures will be demolished as part of the proposed development.

Based on available survey by AJA Surveying, the current site elevation varies approximately between 22.0 and 27.0 feet above MSL. Drainage across the site is by sheetflow to the city streets. The vegetation on the site consists of isolated trees, and planters. The neighboring development consists primarily of commercial and residential structures.

GEOTECHNICAL EXPLORATION

FIELD EXPLORATION

The site was explored between March 17, 2016, and December 20, 2017, by excavating three exploratory borings, and performing four Cone Penetration Test Soundings (CPTs). The exploratory borings varied between 80 and 120 feet in depth below the existing site grade. The borings were excavated with the aid of a rotary wash drill rig, equipped with an automatic hammer, and using 5-inch diameter hollowstem augers. The exploration locations are shown on the Plot Plan and the geologic materials encountered are logged on Plates A-1 through A-3.

The CPT soundings were advanced to refusal, which generally occurred at depths between 53½ and 56¼ feet below the existing site grade. CPT-04 encountered refusal at a depth of 4 feet below the existing site grade, possibly due to buried utility lines. The CPT sounding locations are shown on the Plot Plan and interpretations of the geologic materials encountered are provided in the enclosed CPT Sounding Data Logs in the Appendix.

Geologic Materials

Fill materials underlying the subject site consist primarily of sandy to silty clays, with mixtures of sandy silts and silty sands. The fill materials are dark brown to dark gray in color, moist to very moist, medium firm to stiff, medium dense, fine grained. Fill thickness on the order of 12½ feet was encountered in the exploratory borings.

The upper native soils consist of stratified younger alluvial soil layers of silts, clays, silty sands, and gravelly sands. The upper native soils are dark brown to grayish brown in color, moist to very moist to wet, fine to coarse grained, with occasional gravel.

Older alluvium was generally encountered below a depth of 55 to 57½ feet below the existing site grade. The older alluvium consists of sands to gravelly sands, which are gray to dark gray in color, wet, dense to very dense, fine to coarse grained, with varying amount of gravel and cobbles. All of the CPT soundings, except for CPT-04, encountered refusal within the Older Alluvium. More detailed soil profiles may be obtained from individual boring and CPT logs presented in the Appendix of this report.

Groundwater

Groundwater was encountered at depths between 22½ and 30 feet below the existing site grade during exploration. Review of the Hazard Zone Report of the Venice 7½-Minute Quadrangle (CDMG, 1998, Revised 2006) indicates the historic high groundwater level for the subject site was approximately 7 feet below the ground surface.

It should be noted that the site elevations for this vicinity of Playa Del Rey had been raised by past grading activities. It has been the policy of the Los Angeles Department of Building and Safety (LADBS) to establish the historic high groundwater surface elevation in the Playa Vista area to be at an elevation of 9.0 feet above MSL, which corresponds to an approximate depth of 15 feet below the existing ground surface.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can result in changed conditions.

SEISMIC EVALUATION

REGIONAL GEOLOGIC SETTING

The subject property is located in the northern portion of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the Transverse Ranges.

REGIONAL FAULTING

Based on criteria established by the California Division of Mines and Geology (CDMG) now called California Geologic Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary-age). Faults showing no evidence of surface displacement within the last 1.6 million years are considered inactive for most purposes, with the exception of design of some critical structures.

Buried thrust faults are faults without a surface expression but are a significant source of seismic activity. They are typically broadly defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in the southern California area. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake. The risk for surface rupture potential of these buried thrust faults is inferred to be low (Leighton, 1990). However, the seismic risk of these buried structures in terms of recurrence and maximum potential magnitude is not well established. Therefore, the potential for surface rupture on these surface-verging splays at magnitudes higher than 6.0 cannot be precluded.

SEISMIC HAZARDS AND DESIGN CONSIDERATIONS

The primary geologic hazard at the site is moderate to strong ground motion (acceleration) caused by an earthquake on any of the local or regional faults. The potential for other earthquake-induced hazards was also evaluated including surface rupture, liquefaction, dynamic settlement, inundation and landsliding.

Surface Rupture

In 1972, the Alquist-Priolo Special Studies Zones Act (now known as the Alquist-Priolo Earthquake Fault Zoning Act) was passed into law. The Act defines "active" and "potentially active" faults utilizing the same aging criteria as that used by California Geological Survey (CGS). However, established state policy has been to zone only those faults which have direct evidence of movement within the last 11,000 years. It is this recency of fault movement that the CGS considers as a characteristic for faults that have a relatively high potential for ground rupture in the future.

CGS policy is to delineate a boundary from 200 to 500 feet wide on each side of the known fault trace based on the location precision, the complexity, or the regional significance of the fault. If a site lies within an Earthquake Fault Zone, a geologic fault rupture investigation must be performed that demonstrates that the proposed building site is not threatened by surface displacement from the fault before development permits may be issued.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active faults or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazards Maps of the State of California (CDMG, 1999), classifies the site as part of the potentially "Liquefiable" area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake.

Site-specific liquefaction analyses were performed following the Recommended Procedures for Implementation of the California Geologic Survey Special Publication 117A, Guidelines for Analyzing and Mitigating Seismic Hazards in California (CGS, 2008), and the EERI Monograph (MNO-12) by Idriss and Boulanger (2008).

Liquefaction analyses were performed utilizing the Standard Penetration Test data and the laboratory testing of the soils samples collected from the exploratory borings, and supplemented by the Cone Penetration Test (CPT) soundings data. CPT Sounding Number 1 was performed adjacent to Boring Number 2 for the purpose of comparison and correlation of soil data.

The enclosed SPT liquefaction analyses were performed using a spreadsheet developed based on Idriss and Boulanger (2008). This semi-empirical method is based on a correlation between measured values of Standard Penetration Test (SPT) resistance and field performance data.

The Cone Penetration Test data was analyzed utilizing a spreadsheet program developed based on the published article, "Evaluating Cyclic Liquefaction Potential Using the Cone Penetration Test" (P.K. Robertson and C.E. Wride, 1998), to estimate the grain size characteristics directly from the CPT data and to incorporate the interpreted results into evaluating the resistance to cyclic loading.

The enclosed liquefaction analyses were analyzed using the modal magnitude and peak ground motion for the project site. A modal magnitude (M_W) of 6.7 is obtained using the USGS Probabilistic Seismic Hazard Deaggregation program (USGS, 2014).

Downhole seismic velocity measurement was performed by GeoPentech within boring B1, which was excavated to a depth of 120 feet below the existing site grade. According to the seismic survey, an average shearwave velocity (V_{S30}) of 850 feet/second was measured between 0 and 100 feet. This shearwave velocity measurement corresponds to a site classification for seismic design of Site Class D ($600 < V_{S30} < 1{,}200$ feet/sec). Using the ASCE 7 Hazard Tool website (https://asce7hazardtool.online/), a code-based peak ground acceleration (PGA_M) of 0.88g was obtained.

A Site-Specific Ground Motion Development Report was prepared by GeoPentech. The ground motion report indicated that the site-specific ground surface MCE_R spectral acceleration of 0.806g at a period of 0.01-second may be used in lieu of the code-based value for the purpose of liquefaction evaluation. However, for the purpose of conservatism, this firm has elected to use the higher PGA_M of 0.88g, which was obtained from the ASCE 7 Hazard Tool, for the enclosed liquefaction evaluation.

It has been the policy of the Los Angeles Department of Building and Safety (LADBS) to establish the historic high water surface elevation in the Playa Vista area to be at an elevation of 9.0 feet above MSL, which corresponds to an approximate depth of 15 feet below the existing ground surface. This historically highest groundwater level was conservatively utilized for the enclosed liquefaction analyses.

The enclosed SPT liquefaction analyses were performed based on blowcount data collected from the three exploratory borings, B1 through B3. Standard Penetration Test (SPT) data were collected at 5-foot intervals for all three borings. Alternating California Modified Ring Samples were collected in between the SPT data in order to collect relatively undisturbed soil samples for testing and analyses. Samples of the collected materials were conveyed to the laboratory for testing and analysis. Fines content, as defined by percentage passing the #200 sieve, were utilized for the fines correction factor in computing the corrected blowcount. In addition, Atterberg Limit tests were performed for the underlying samples and the results are presented in Plates F-1 through F-3 of this report.

According to the SP117A (which referenced papers by Bray and Sancio, 2006), soils having a Plastic Index greater than 18, or a moisture content not greater than 80% of the liquid limit, are considered to be not susceptible to liquefaction. Therefore, where the results of Atterberg Limits testing showed a Plastic Index greater than 18, the soils would be considered non-liquefiable, and the analysis of these clayey soil layers was turned off in the liquefaction susceptibility column.

Both the SPT and CPT liquefaction analyses indicate that the underlying soils would be liquefiable under the MCE ground motions.

Dynamic Settlement

Seismically-induced settlement can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures. Total seismic-induced liquefaction settlement, between 1.09 inches to 3.77 inches, is anticipated to occur as a result of liquefaction. The following table presents the results of the liquefaction settlement obtained from the analyses.

Exploration Point	Liquefiable Zones (generalized profile)	Total Liquefaction Settlement (inches)
B1	27.5’-37.5’ 50’-57.5’	3.77”
B2	30’-32.5’ 40’-45’	2.02”
B3	30’-32.5’ 42.5’-47.5’ 50’-55’	2.74”
CPT-01	27’-35’ (Stratified Layers) 39’-42.5’ (Stratified Layers) 43’-47.5’ (Stratified Layers)	1.09”
CPT-02	16’-17’ 29’-40’ (Stratified Layers) 42’-46’ 47’-48.5’ 51’-55’ (Stratified Layers)	2.33”
CPT-03	26.5’-27.5’ 33’-33.5’ 39’-41’ 43.5’-53’ (Stratified Layers)	1.40”

It should be noted, due to the inherent limitation of the borehole sampling methodology (which the SPT blowcount data were collected at 5-foot intervals), numerous thin, granular, liquefiable layers could be mischaracterized or missed by the sampling procedure. Reliance on the SPT blowcount data could also overestimate the thickness of the potentially liquefiable layers due to sampling frequency. One of the advantages of the Cone Penetration Test (CPT) is its repeatability and reliability, and its ability to provide a relatively continuous profiling of the underlying soils. The CPT method is extremely helpful especially in highly stratified soil conditions.

Surface Manifestation

It has been shown in recent studies by O’Rourke and Pease (1997) and Youd and Garris (1995), building upon work by Ishihara (1985), that the visible effects of liquefaction on the ground surface are only manifested if the relative and absolute thicknesses of liquefiable soils to overlying non-liquefiable surface material fall within a certain range. On the subject site, the relative thicknesses of liquefiable soils to overlying non-liquefiable surface material fall well outside the bounds within which surface effects of liquefaction have been observed during past earthquakes. As a result, the likelihood that surface effects of liquefaction would occur on the subject site would be considered very low to non-existent. Therefore, it is the opinion of Geotechnologies, Inc. that, should liquefaction occur within the potentially liquefiable zones, there would be a negligible effect on the proposed structures.

Lateral Spreading

Lateral spreading is the most pervasive type of liquefaction-induced ground failure. During lateral spread, blocks of mostly intact, surficial soil displace downslope or towards a free face along a shear zone that has formed within the liquefied sediment. According to the procedure provided by Bartlett, Hansen, and Youd, "Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement", ASCE, Journal of Geotechnical Engineering, Vol. 128, No. 12, December 2002, when the saturated cohesionless sediments with $(N_1)_{60} > 15$, significant displacement is not likely for $M < 8$ earthquakes.

The saturated cohesionless sediments underlying the subject site have corrected $(N_1)_{60}$ value greater than 15. The modal earthquake magnitude which contributes the majority of the ground motion to the site is 6.7. Therefore, the potential for lateral spread is considered to be remote for the subject site.

Tsunamis, Seiches and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the County of Los Angeles Flood and

Inundation Hazards Map, Leighton (1990), indicates the site does not lie within the mapped tsunami inundation boundaries.

Seiches are oscillations generated in enclosed bodies of water which can be caused by ground shaking associated with an earthquake. No major water-retaining structures are located immediately up gradient from the project site. Therefore, the risk of flooding from a seismically-induced seiche is considered to be remote.

According to the County of Los Angeles General Plan (Leighton, 1990), the site is located within the potential inundation boundaries of several upgradient reservoirs, should any of the dams retaining these reservoirs fail during a major earthquake. A determination of whether a higher site elevation would remove the site from the potential inundation zones is beyond the scope of this investigation.

Landsliding

The probability of seismically-induced landslides occurring on the site is considered to be low due to the general lack of elevation difference slope geometry across or adjacent to the site.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration, laboratory testing, and research, it is the finding of Geotechnologies, Inc. that construction of the proposed structure is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations presented herein are followed and implemented during construction.

On the order of 12½ feet of existing fill materials was encountered in the exploratory borings. Due to the highly variable nature of the underlying fill materials, the existing fill are considered to be unsuitable for support of the proposed foundations, floor slabs, or additional fill.

Groundwater was encountered at depths between 22½ and 30 feet below the existing site grade during exploration. The upper native soils consist of younger alluvial deposits to approximate depths between 55 and 57½ feet below the existing site grade. The younger alluvial deposits comprise primarily of highly expansive clay soils with stratified layers of medium dense silty sands to sands. Based on the enclosed liquefaction analyses, these thin granular younger alluvial deposits are potentially liquefiable during the MCE level ground motion with estimated total seismic settlement between 1.09 and 3.77 inches.

Very dense Older Alluvium, consisting of sands and gravelly sands, was encountered generally below a depth of 55 to 57½ feet below the existing site grade. Due to the liquefaction potential of the younger alluvial deposits, it is recommended that the proposed structure be supported on a pile foundation system bearing in the underlying Older Alluvium.

The use of driven pre-cast concrete piles for support of the proposed structures is not recommended due to noise and vibration concerns impacting the existing and neighboring developments. It is recommended that the proposed structure be supported on a system of Auger Cast Displacement Piles (ACDP). A summary of pile design recommendations is provided in the "Foundation Design" section below. No predrilling is allowed. The proposed floor slab shall be designed as a structural slab, deriving support entirely from the foundation piles.

Prior to installation of the production piles, an indicator test pile program must be performed. Indicator test pile program shall include additional CPT soundings, Gamma-Gamma tests (GDL), low strain Pile Integrity Tests (PIT), and static pile load tests. In addition, one test pile shall be exhumed to examine the pile integrity.

Based on available survey by AJA Surveying, the current site elevation varies approximately between 22.0 and 27.0 feet above MSL. It is the policy of the Los Angeles Department of Building and Safety (LADBS) for the historic high water surface elevation in the Playa Vista area to be at an elevation of 9.0 feet above MSL. Based on the latest design plans, the finished floor elevation of the B2 subterranean parking level will be at approximately 4.0 feet above MSL, which corresponds to 5 feet below the historically highest groundwater level. Since the lowest subterranean level will extend below above the historically highest groundwater level, it is recommended that the proposed structure be designed for hydrostatic pressure.

Due to the anticipated liquefaction potential, it is recommended that buried utilities and drain lines be equipped with flexible or swing joints to allow for differential vertical displacements.

The validity of the conclusions and design recommendations presented herein is dependent upon review of the geotechnical aspects of the proposed construction by this firm. The subsurface conditions described herein have been projected from explorations on the site as indicated and should in no way be construed to reflect any variations which may occur between these explorations or which may result from changes in subsurface conditions. Any changes in the design or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained herein should not be considered valid until reviewed and modified or reaffirmed subsequent to such review.

SEISMIC DESIGN CONSIDERATIONS

Seismic Velocity Measurements

Downhole seismic velocity measurements were performed by GeoPentech within boring B1, which was excavated to a depth of 120 feet below the existing site grade. According to the seismic survey, an average shearwave velocity (V_{S30}) of 850 feet/second was measured between 0 and 100 feet. An average shearwave velocity (V_{S30}) of 950 feet/second was measured between

20 and 120 feet. These velocities correspond to a site classification for seismic design of Site Class D (600 < V_{S30} <1,200 feet/sec). A copy of the GeoPentech's Ground Motion Development Report, dated June 15, 2018, is presented in the Appendix of this report.

2019 California Building Code Seismic Parameters

According to Table 20.3-1 presented in ASCE 7-16, the subject site is classified as Site Class F due to the liquefiable nature of the underlying soils. According to Section 20.3.1 (site class definition for Site Class F) found in Chapter 20, titled "Site Classification Procedure for Seismic Design", ASCE 7-10, Minimum Design Loads for Buildings and Other Structures, an exception is provided under Site Classification F.

EXCEPTION: *For structures having fundamental periods of vibration equal to or less than 0.5 s, site-response analysis is not required to determine spectral accelerations for liquefiable soils. Rather, a site class is may be determined in accordance with Section 20.3 and the corresponding values of F_a and F_v determined from Tables 11.4-1 and 11.4-2. (This can be C, D or E)*

The following code based seismic parameters may be utilized for the design of structures with fundamental period of vibration equal to or less than 0.5 seconds. Due to the building period, it is likely that the code based design parameters will be superseded by the Site-Specific Design Response Spectrum analysis, however, the code based seismic parameters are presented herein for completeness. Based on the shearwave velocity measurement (V_{S30}), the subject site may be classified as Site Class D, which corresponds to a "Stiff Soil" Profile, in accordance with the ASCE 7 standard. This information and the site coordinates were input into the USGS U.S. Seismic Design Maps tool (Version 3.1.0) to calculate the ground motions for the site.

2019 CALIFORNIA BUILDING CODE SEISMIC PARAMETERS	
Site Class	D
Mapped Spectral Acceleration at Short Periods (S_S)	1.871g
Site Coefficient (F_a)	1.0
Maximum Considered Earthquake Spectral Response for Short Periods (S_{MS})	1.871g
Five-Percent Damped Design Spectral Response Acceleration at Short Periods (S_{DS})	1.247g
Mapped Spectral Acceleration at One-Second Period (S_1)	0.660g
Site Coefficient (F_v)	1.7*
Maximum Considered Earthquake Spectral Response for One-Second Period (S_{M1})	1.122g*
Five-Percent Damped Design Spectral Response Acceleration for One-Second Period (S_{D1})	0.748g*

ASCE 7-16 Site-Specific Design Response Spectrum Analysis

The structure's fundamental period of vibration is anticipated to be greater than 0.5 seconds (which will need to be confirmed by the project structural engineer). Therefore, a site-specific ground motion evaluation is required in conformance with the ASCE 7-16 and the 2019 California Building Code. A site-specific ground motion evaluation was completed by GeoPentech as part of this investigation. Tables 3 and 4 of the GeoPentech report provide the site-specific Surface MCE_R Spectrum and the Surface Design Response Spectrums (DRS). A more detailed discussion of the ground motion evaluation methodology and assumptions is provided in the Ground Motion Development Report by GeoPentech, dated March 18, 2020. A copy of GeoPentech's report is presented in the Appendix. Following the ASCE 7-16, Section 21.4, the site-specific design acceleration parameters are summarized in the following table.

- S_{DS} = 1.238 g, based on 90% of the spectral acceleration at a period of 0.3-seconds
- S_{D1} = 0.820 g, based on the site V_{S30} and T*Sa at a period of 1.5-second
- S_{MS} = 1.856 g, based on 1.5 times S_{DS}
- S_{M1} = 1.230 g, based on 1.5 times S_{D1}

SITE SPECIFIC DESIGN ACCELERATION PARAMETERS	
Seismic Parameters	ASCE 7-16 Site Specific Site Class D
S_{MS}	1.856g
S_{M1}	1.230g
S_{DS}	1.238g
S_{D1}	0.820g

In addition, a peak ground acceleration (PGA_M) of 0.806g was obtained from the site-specific spectral development by GeoPentech, which could be utilized for the enclosed liquefaction analyses. However, for the purpose of conservatism, this firm has elected to use the higher PGA_M of 0.88g, which was obtained from the ASCE 7 Hazard Tool, for the enclosed liquefaction evaluation.

FILL SOILS

On the order of 12½ feet of existing fill materials was encountered in the exploratory borings. Excavation of the proposed subterranean level will remove the existing fill materials from the project site. Due to the highly variable nature of the underlying fill materials, the existing fill are considered to be unsuitable for support of the proposed foundations, floor slabs, or additional fill. This material and any fill generated during demolition should be penetrated by the proposed pile foundation system.

EXPANSIVE SOILS

The onsite geologic materials are in the low to high expansion range. The Expansion Index was found to be between 35 and 95 for bulk samples remolded to 90 percent of the laboratory maximum density. Recommended reinforcing is noted in the “Slabs-on-Grade" section of this report.

SOIL CORROSION POTENTIAL

The results of soil corrosion potential testing performed by HDR, Inc. indicate that the electrical resistivities of the soils were in the moderately to severely corrosive categories in the as-received moisture conditions and at saturation. Soil pH values of the samples ranged between 7.4 and 7.6, indicating mildly alkaline condition. The soluble salt content of the samples ranged from moderate to high. Nitrate was detected in low concentrations. Ammonium concentration was high enough to be aggressive to copper. Sulfate content is considered negligible.

In summary, the soils are classified as severely corrosive to ferrous metals, aggressive to copper, and sulfate attack on concrete is negligible. Detailed results, discussion of results and recommended mitigating measures are provided within the report by HDR, Inc. resented herein. Any questions regarding the results of the soil corrosion report should be addressed to HDR, Inc.

METHANE ZONES

According to the NavigateLA website, the site is located within a Methane Zone as designated by the City. A qualified methane consultant should be retained to consider the requirements and implications of the City’s Methane Zone designation. A copy of the Methane Zone Map is enclosed herein.

GRADING GUIDELINES

The following grading guidelines may be utilized for any miscellaneous site grading which may be required as part of the proposed development.

Site Preparation

- A thorough search should be made for possible underground utilities and/or structures. Any existing or abandoned utilities or structures located within the footprint of the proposed grading should be removed or relocated as appropriate.
- All vegetation and soft or disturbed geologic materials should be removed from the areas to receive controlled fill. All existing fill materials and any disturbed geologic materials resulting from grading operations shall be completely removed and properly recompacted prior to foundation excavation.
- Any vegetation or associated root system located within the footprint of the proposed structures should be removed during grading.
- Subsequent to the indicated removals, the exposed grade shall be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted in excess of the minimum required comparative density.
- The excavated areas shall be observed by the geotechnical engineer prior to placing compacted fill.

Compaction

The City of Los Angeles Department of Building and Safety requires a minimum 90 percent of the maximum density, except for cohesionless soils having less than 15 percent finer than 0.005 millimeters, which shall be compacted to a minimum 95 percent of the maximum density in accordance with the most recent revision of the Los Angeles Building Code.

All fill should be mechanically compacted in layers not more than 8 inches thick. All fill shall be compacted to at least 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum laboratory density for the materials used. The maximum density shall be determined by the laboratory operated by Geotechnologies, Inc. using the test method described in the most recent revision of ASTM D 1557.

Field observation and testing shall be performed by a representative of the geotechnical engineer during grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until a minimum of 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) compaction is obtained.

Acceptable Materials

The excavated onsite materials are considered satisfactory for reuse in the controlled fills as long as any debris and/or organic matter is removed. Any imported materials shall be observed and tested by the representative of the geotechnical engineer prior to use in fill areas. Imported materials should contain sufficient fines so as to be relatively impermeable and result in a stable subgrade when compacted. Any required import materials should consist of geologic materials with an expansion index of less than 90. The water-soluble sulfate content of the import materials should be less than 0.1% percentage by weight.

Imported materials should be free from chemical or organic substances which could affect the proposed development. A competent professional should be retained in order to test imported materials and address environmental issues and organic substances which might affect the proposed development.

Utility Trench Backfill

Utility trenches should be backfilled with controlled fill. The utility should be bedded with clean sands at least one foot over the crown. The remainder of the backfill may be onsite soil compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the laboratory maximum density. Utility trench backfill should be tested by representatives of this firm in accordance with the most recent revision of ASTM D-1557.

Wet Subgrade Soils

It is anticipated that the subgrade soils will be well above the optimum moisture content. Therefore, the excavated material to be placed as compacted fill, and the materials exposed at the bottom of excavated plane may require significant drying and aeration prior to recompaction.

The subgrade soils should be expected to be wet, soft, and prone to pumping under operation of construction equipment. The placement of a mat of crushed rock over the bottom of the excavations will most likely be necessary to stabilize and protect the subgrade soils from pumping under construction traffic and to create a firm working surface.

A representative of this office should observe the subgrade as it becomes exposed so that the recommendations provided herein may be revised or reaffirmed as necessary. It is recommended the subgrade be protected and/or stabilized as it becomes exposed.

Protection or stabilization of the subgrade may be accomplished by placement of a minimum one-foot thick layer of angular 1 to 3-inch crushed rocks. The crushed rock should be placed and vibrated to a dense state as the subgrade becomes exposed. The elevation at the bottom of excavation will require adjustment to provide space for the mat of crushed rock. The client should be aware that subgrade stabilization is a trial and error process. There is no way to accurately predict the amount of rock that will be required to adequately stabilize the bottoms. The mat of rock may be several feet thick. A representative of this firm should be on site during stabilization efforts in order to assist the contractor in obtaining a stabilized bottom.

Rubber tire construction equipment shall not be attempted to operate directly on the subgrade soils prior to placing the stabilization rock. Direct operation of rubber tire equipment on soft subgrade soils will likely result in excessive disturbance to the soils, and will result in a delay to the construction schedule. In either case, it is recommended track mounted equipment be utilized. Extreme care should be utilized to place crushed rock as the subgrade becomes exposed.

Due to the anticipated heavy weight of the pile drilling machines, it is recommended the pile contractor observe and evaluate the subgrade conditions as it becomes exposed in order to evaluate its suitability for support of the drilling equipment. Other stabilization methods (such as soil cement mixing or mud mats) may also be suitable for treatment of the subgrade.

Shrinkage

Shrinkage results when a volume of soil removed at one density is compacted to a higher density. A shrinkage factor between 5 and 15 percent should be anticipated when excavating and recompacting the existing fill and underlying native geologic materials on the site to an average comparative compaction of 92 percent.

Weather Related Grading Considerations

When rain is forecast all fill that has been spread and awaits compaction shall be properly compacted prior to stopping work for the day or prior to stopping due to inclement weather.

These fills, once compacted, shall have the surface sloped to drain to an area where water can be removed.

Temporary drainage devices should be installed to collect and transfer excess water to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope.

Work may start again, after a period of rainfall, once the site has been reviewed by a representative of this office. Any soils saturated by the rain shall be removed and aerated so that the moisture content will fall within three percent of the optimum moisture content.

Surface materials previously compacted before the rain shall be scarified, brought to the proper moisture content and recompacted prior to placing additional fill, if considered necessary by a representative of this firm.

Geotechnical Observations and Testing During Grading

Geotechnical observations and testing during grading are considered to be a continuation of the geotechnical investigation. It is critical that the geotechnical aspects of the project be reviewed by representatives of Geotechnologies, Inc. during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise this office at least twenty-four hours prior to any required site visit.

FOUNDATION DESIGN – AUGER CAST DISPLACEMENT PILES

Auger Cast Displacement Piles (ACDP)

The use of driven pre-cast concrete piles for support of the proposed structures is not recommended due to noise and vibration concerns impacting the existing and neighboring developments. Therefore, it is recommended that the proposed structure be supported on a system of Auger Cast Displacement Piles (ACDP). The proposed floor slab shall be designed as a structural slab, deriving support entirely from the foundation piles.

The ACDP piles are full displacement piles, installed by using a closed tip displacement tool connected with a forward flight auger below and a reverse auger above. The proposed piles shall be a minimum of 16 inches in diameter, and shall be drilled to penetrate through all fill, and the upper native soils, and bear a minimum of 3 pile diameters into the underlying Older Alluvium (consisting of very dense sands and gravelly sands).

The elevation of the Older Alluvium varies across the site. Once the project design achieves more definition with foundation gridlines, it is recommended that additional CPTs and borings be performed at the site prior to performing the indicator pile program to better define the elevation of the Older Alluvium.

A net allowable axial capacity of 200 kips (with a minimum safety factor of 2) may be utilized for design using the 16-inch diameter ACDP piles, bearing in the Older Alluvium. An ultimate axial capacity (static and seismic) of 570 kips with pile head deflection of less than 1.0 inch may be assumed for the ADCP piles. The ultimate capacity includes a downdrag force of 170 kips, as a result of the potentially liquefiable soils.

(Ultimate Axial Capacity – Downdrag Forces) / Safety Factor of 2 = Net Allowable Axial Capacity
570 kips (ultimate) – 170 kips (downdrag) / 2 = 200 kips (allowable)

A summary of the pile recommendations is presented below, and a more detailed specification is presented in the Appendix of this report.

- Minimum pile diameter shall be 16 inches.
- No predrilling will be allowed.
- Piles shall extend to a minimum depth of 55 feet below the existing site grade, and shall be embedded a minimum of 3 pile diameters into the older alluvial soils (consisting of very dense sands, and gravelly sands), whichever is greater.
- Recommended Net Allowable Axial Compression Capacity of 200 kips (with a safety factor of 2).
- Recommended Allowable Axial Tension Capacity of 100 kips (50 percent of the allowable axial compression capacity).
- Recommended Lateral Capacity Charts provided at the end of the report may be utilized for free head and fixed head conditions, with a maximum 0.5 inch lateral deflection.
- Piles in groups should be spaced at least 3 diameters on center. If the piles are so spaced, no reduction in the downward or upward capacities need be considered due to group action.
- Settlement of pile foundations is anticipated to be less than 1 inch.
- An indicator test pile program shall be performed at the project site prior to production pile, to verify the pile design capacities. All pile load tests shall be performed in accordance with ASTM D1143M. The test piles shall be sacrificial and shall not be utilized for foundation support.
- Low Strain Pile Integrity Tests (PIT) shall be performed on a minimum of 10 percent of the production piles to verify the structural integrity of the piles.

Lateral Design for Pile Foundation

Lateral loads may be resisted by the piles in contact with the underlying soils. Maximum recommended allowable lateral capacities for 0.5-inch deflection for single, isolated, fixed-head and free-head piles are presented in the Appendix. No factors of safety have been applied to the lateral load values calculated to induce 0.5-inch lateral deflection.

Single isolated piles may be classified as piles spaced at or greater than 8 widths on center. For pile groups where piles will be spaced closer than 8 diameters on center in the direction of loading, the following reduction factor may be utilized to determine the allowable lateral pile capacities to maintain a 0.5-inch pile deflection.

Pile Spacing	Percentage of Lateral Passive Resistance
7B	70%
6B	55%
5B	45%
4B	38%
3B	33%

Where B is the diameter of the proposed piles

Lateral capacities provided are for drilled, cast-in-place concrete piles, penetrating the materials encountered during the course of this investigation. Assumed as part of these lateral capacity calculations are a concrete modulus of elasticity of at least 3,000,000 pounds per square inch.

A one-third increase may be used for transient loading such as wind or seismic forces. The capacities presented are based on the strength of the soils. The compressive and tensile strength of the pile sections should be checked to verify the structural capacity of the piles.

Settlement

The maximum settlement of pile-supported foundations is not expected to exceed 1 inch. Differential settlement is not expected to exceed ½ inch.

Piling Equipment

The piling equipment used for the project shall conform to the specifications below.

- *Piling Rig* – The contractor shall use equipment of adequate torque, crowd force, and power, to achieve the design tip elevation. As a minimum, the piling rig shall be capable of providing a minimum torque of 150,000 ft-lbs, and 25 tons of down crowd thrust.

- *Automated Monitoring Equipment* – The drilling rig shall be equipped with an automated monitoring equipment (AME) designed to monitor the pile installation process. During the drilling process, the AME shall record auger depth, drill torque, and elapsed time. During the grouting process, the AME shall record the auger depth, grout pressure, and elapsed time.

- *Displacement Tool* – The drilling tool shall consist of a minimum 10-inch diameter drill stem, 16-inch diameter displacement element, connected with a forward flight auger below and a reverse flight auger above. The diameter of the flights of both augers shall be the same as that of the diameter of the displacement element.

- *Grouting Equipment* – A grout port shall be located near the tip of the displacement auger. A continuous system of grout mixing, pumping, and agitating equipment shall be utilized. Equipment shall be maintained in good working order to maintain a continuous flow of concrete during auger withdrawal. The grout pump shall be capable of developing displacement pressures of 250-psi.

Pile Installation Procedures

The following installation procedures may be followed to install the ACDP.

1. Contractor is responsible for using equipment of adequate torque, crowd, and power to achieve the design tip elevation. The piling rig and displacement tool used for the production pile installation shall be of identical design to that used for the indicator pile test program.

2. The forward flight auger is advanced until it reaches the design tip elevation. The grout port in the displacement tool shall be closed with a plug that prevents soil and/or water from entering the hollow shaft while the displacement tool is advanced into the ground.

3. The displacement element and the reverse flight auger displace the soil cuttings laterally into the wall of the shaft and create a smooth walled shaft with diameter equivalent to the displacement element (both test piles and production piles shall be a minimum of 16 inches in diameter).

4. A minimum delivery pressure of 250 psi plus the hydraulic pressure developed by the grout column in the drill stem shall be applied to create the pile. The operator shall maintain positive rotation of the displacement auger continuously throughout the grouting process until the displacement element is completely retracted from the ground.

5. The piling rig shall be equipped with automated monitoring equipment (AME) to record the auger depth, drill torque, grout pressure, and elapsed time. All recorded data shall be provided for review.

6. Once the grouted pile shaft is filled with concrete, the steel reinforcing cage shall be inserted into the concrete pile. All reinforcing elements are fitted with centralizers or clip spacers.

Indicator Test Pile Program

An indicator pile test program must be performed and approved by the City of Los Angeles prior to installation of the production piles. The number of test piles shall be equivalent to a minimum of 2 test piles, or 1 percent of the production piles for the proposed structure, whichever is greater. All pile load tests shall be performed in accordance with ASTM D1143 to verify the pile design capacities. The test piles and reaction piles shall be considered sacrificial and shall not be utilized for foundation support of the proposed buildings.

Additional foundation piles may be necessary if the actual load tests do not meet the recommended allowable loads.

- Load tests shall be performed on sacrificial test piles in accordance with ASTM D1143M. The design load shall be held until the measured creep does not exceed 0.01 inch per hour. Piles with a settlement rate exceeding 0.01 inch/hour under the design load during a pile test will be rejected.

- Pile load tests shall be performed to a minimum load equivalent to the ultimate capacity of 570 kips.

- Test piles and reaction piles shall be sacrificial and shall not be incorporated as foundation piles. Sacrificial test piles and reaction piles shall be cut off 3 feet below the finished grade and abandoned in place following the completion of the testing program.

- Gamma-Gamma density logging (GDL) and Low Strain Pile Integrity Tests (PIT) shall be performed on all test piles and reaction piles. GDL shall be performed in accordance with Caltrans CT 233. PIT shall be performed in accordance with ASTM D5882.

- One test pile shall be exhumed from the ground to physically examine the pile integrity.

- Results of the pile load testing will be submitted as a summary letter to the LADBS Grading Division for review and approval.

<u>Geotechnical Inspections</u>

During pile installation, a City of Los Angeles Deputy Grading Inspector shall record and maintain data for each pile, including the following:

- Pile Number
- Installed pile length
- Auger torque vs. depth
- Head pressure inside the tremie pipe vs. depth
- Drilling rate vs. depth
- Concrete volume vs. depth
- Unanticipated site conditions if any

Non-Destructive Testing

None-destructive testing methods shall be employed to evaluate the integrity of the piles installed to provide quality control and assurance of the pile construction method.

- Gamma-Gamma density logging (GDL) and Low Strain Pile Integrity Tests (PIT) shall be performed on all test piles and reaction piles. GDL shall be performed in accordance with Caltrans CT 233. PIT shall be performed in accordance with ASTM D5882.
- Low Strain Pile Integrity Tests (PIT) shall be performed on 10 percent of the production piles.
- If any PIT test indicates a discontinuity within a tested pile, that pile shall be evaluated by the geotechnical and structural engineers. Unsatisfactory piles may be abandoned in place and shall be replaced with replacement piles.

Miscellaneous Foundations

Foundations for small miscellaneous outlying structures, such as property line fence walls, planters, exterior canopies, exterior staircases and ramps, and trash enclosures, which will not be tied-in to the proposed structure may be supported on conventional foundations bearing in compacted fill. impractical

Up to 12½ feet of existing fill was encountered during exploration. Records of certification of the existing fill could not be found during research of available records at the City of Los Angeles. Due to the depth of the existing fill, removal and recompaction of all existing fill materials would be unfeasible and cost prohibitive. The client should be aware that removal of all existing fill in the area of small miscellaneous outlying structures is not required, however, small outlying structures constructed in this manner will most likely have a shorter design life and increased maintenance costs, and may potentially be damaged and will require replacement should liquefaction occurs during a major seismic event. In addition, the City will require a modification request for placement of compacted fill over existing uncertified fill, and the use of existing uncertified fill for support of foundations for small miscellaneous outlying structures.

It is recommended that existing fill materials be removed and recompacted to a minimum depth of 2 feet below the bottom of the proposed footings for small outlying miscellaneous structures. Additional removal and recompaction may be necessary if additional loose or soft soils are encountered during grading.

Continuous wall footings may be designed for a bearing value of 1,500 pounds per square foot, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 24 inches into the recommended bearing material. No bearing value increases are recommended. All continuous foundations should be reinforced with a minimum of four #4 steel bars. Two should be placed near the top of the foundation, and two should be placed near the bottom.

Since the recommended bearing capacity is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Resistance to lateral loading may be provided by friction acting at the base of foundations and by passive earth pressure. An allowable coefficient of friction of 0.3 may be used with the dead load forces.

Passive geologic pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 100 pounds per cubic foot with a maximum earth pressure of 1,500 pounds per square foot. The passive and friction components may be combined for lateral resistance without reduction. A one-third increase in the passive value may be used for short duration loading such as wind or seismic forces.

RETAINING WALL DESIGN

It is anticipated that the proposed subterranean level will extend on the order of 20 feet below the existing site grade. Based on the latest design plans, the finished floor elevation of the lowest B2 subterranean parking level will be at approximately 4.0 feet above MSL, which corresponds to 5 feet below the historically highest groundwater level. Since the lowest subterranean level will extend below above the historically highest groundwater level, it is recommended that the proposed structure be designed for hydrostatic pressure.

Cantilever retaining walls supporting a level backslope may be designed utilizing a triangular distribution of active earth pressure. Restrained retaining walls may be designed utilizing a triangular distribution of at-rest earth pressure. Retaining walls may be designed utilizing the following table:

Height of Retaining Wall (feet)	Cantilever Retaining Wall Triangular Distribution of Active Earth Pressure with Hydrostatic Pressure (pcf)	Restrained Retaining Wall Triangular Distribution of At-Rest Earth Pressure with Hydrostatic Pressure (pcf)
Up to 25 feet	80 pcf	105 pcf

The lateral earth pressures recommended above for retaining walls assume that the proposed retaining walls will be designed for full hydrostatic pressure based on the ground surface, and a permanent drainage system behind the retaining walls will be eliminated. Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures.

Small miscellaneous site cantilever retaining walls (such as property line walls, ramps, and planters), up to 5 feet in height, may be designed for a triangular distribution of active earth pressure of 35 pcf. This wall pressure assumes that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Miscellaneous structures may be supported on conventional foundations following the recommendations provided in the “Miscellaneous Foundation” section above.

The upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected. Foundations may be designed using the allowable bearing capacities, friction, and passive earth pressure found in the “Foundation Design” section above.

Dynamic (Seismic) Earth Pressure

Retaining walls exceeding 6 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A triangular pressure distribution should be utilized for the additional seismic loads, with an equivalent fluid pressure of 25 pounds per cubic foot. The seismic earth pressure should be combined with the lateral active earth pressure for analyses of restrained basement walls under seismic loading condition.

Surcharge from Adjacent Structures

As indicated herein, additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures for retaining walls and shoring design.

The following surcharge equation provided in the LADBS Information Bulletin Document No. P/BC 2008-83, may be utilized to determine the surcharge loads on basement walls and shoring system for existing structures located within the 1:1 (h:v) surcharge influence zone of the excavation and basement.

Resultant lateral force: $R = (0.3*P*h^2)/(x^2+h^2)$

Location of lateral resultant: $d = x*[(x^2/h^2+1)*\tan^{-1}(h/x)-(x/h)]$

where:

R	=	resultant lateral force measured in pounds per foot of wall width.
P	=	resultant surcharge loads of continuous or isolated footings measured in pounds per foot of length parallel to the wall.
x	=	distance of resultant load from back face of wall measured in feet.
h	=	depth below point of application of surcharge loading to top of wall footing measured in feet.
d	=	depth of lateral resultant below point of application of surcharge loading measure in feet.
$\tan^{-1}(h/x)$	=	the angle in radians whose tangent is equal to h/x.

The structural engineer and shoring engineer may use this equation to determine the surcharge loads based on the loading of the adjacent structures located within the surcharge influence zone.

Waterproofing

Moisture effecting retaining walls is one of the most common post construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water inside the building. Efflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts such as gypsum, calcite, or common salt. Efflorescence is common to retaining walls and does not affect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection to below grade walls.

Retaining Wall Drainage

Unless the retaining walls are structurally designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain in order to minimize the potential for future hydrostatic pressure buildup behind the proposed retaining walls. Subdrains may consist of four-inch diameter perforated pipes, placed with perforations facing down. The pipe shall be encased in at least one-foot of gravel around the pipe. The gravel may consist of three-quarter inch to one inch crushed rocks.

Where retaining walls are to be constructed adjacent to property lines or shoring system, there is usually not enough space for placement of a standard perforated pipe and gravel drainage system. As an alternative to the recommended perforated drain pipe and gravel system, 2-inch diameter weepholes with 1 cubic foot of gravel pockets may be placed at the 8 feet on center along the base of the wall. The gravel may consist of three-quarter inch to one inch crushed rocks. A collector is placed within the gravel which directs collected waters through the wall to a sump or standard pipe and gravel system constructed under the slab.

A compacted fill blanket or other seal shall be provided at the surface. Retaining walls may be backfilled with gravel adjacent to the wall to within 2 feet of the ground surface. The onsite earth materials are acceptable for use as retaining wall backfill as long as they are compacted to a minimum of 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum density as determined by the latest revision of ASTM D 1557.

Certain types of subdrain pipe are not acceptable to the various municipal agencies, it is recommended that prior to purchasing subdrainage pipe, the type and brand is cleared with the proper municipal agencies. Subdrainage pipes should outlet to an acceptable location.

Retaining Wall Backfill

Any required backfill should be mechanically compacted in layers not more than 8 inches thick, to at least 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum density obtainable by the latest revision of ASTM D 1557 method of compaction. Flooding should not be permitted. Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

TEMPORARY EXCAVATIONS

It is anticipated that excavations on the order of 20 to 25 feet in vertical height will be required for the proposed subterranean levels, pile caps, and grade beams. The excavations are expected to expose fill and dense native soils, which are suitable for vertical excavations up to 5 feet where not surcharged by adjacent traffic or structures.

Surcharged excavations are currently not anticipated. Should the design or location of any structures, as outlined in this report, be changed or altered, the recommendations contained herein should not be considered valid until reviewed and modified or reaffirmed subsequent to such review.

Where sufficient space is available, temporary unsurcharged embankments could be sloped back without shoring. Excavations over 5 feet in height should may be excavated at a uniform 1:1

(h:v) slope gradient in its entirety to a maximum height of 15 feet. A uniform sloped excavation does not have a vertical component.

Where sloped embankments are utilized, the tops of the slopes should be barricaded to prevent vehicles and storage loads within seven feet of the tops of the slopes. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. The soils exposed in the cut slopes should be inspected during excavation by personnel from this office so that modifications of the slopes can be made if variations in the soil conditions occur.

Excavation Observations

It is critical that the soils exposed in the cut slopes are observed by a representative of Geotechnologies, Inc. during excavation so that modifications of the slopes can be made if variations in the geologic material conditions occur. Many building officials require that temporary excavations should be made during the continuous observations of the geotechnical engineer. All excavations should be stabilized within 30 days of initial excavation.

SHORING

The following information on the design and installation of the shoring is as complete as possible at this time. It is suggested that a review of the final shoring plans and specifications be made by this office prior to bidding or negotiating with a shoring contractor.

The recommended method of shoring consists of steel soldier piles, placed in drilled holes and backfilled with concrete. The soldier piles may be designed as cantilevers or laterally braced utilizing drilled tie-back anchors or raker braces.

Soldier Piles

Drilled cast-in-place soldier piles should be placed no closer than 2½ diameters on center. The minimum diameter of the piles is 18 inches. Structural concrete should be used for the soldier piles below the excavation; lean-mix concrete may be employed above that level. As an alternative, lean-mix concrete may be used throughout the pile where the reinforcing consists of a wideflange section. The slurry must be of sufficient strength to impart the lateral bearing pressure developed by the wideflange section to the earth materials. For soldier pile design purposes, an allowable passive value for the earth materials below the bottom plane of excavation may be assumed to be 230 pounds per square foot per foot of depth, up to a maximum of 2,300 pounds per square foot. This assumes a saturated condition. To develop the full lateral value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed earth materials.

The frictional resistance between the soldier piles and retained earth material may be used to resist the vertical component of the anchor load. The coefficient of friction may be taken as 0.25 based on uniform contact between the steel beam and lean-mix concrete and retained earth. The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The downward capacity may be determined using a frictional resistance of 200 pounds per square foot. The minimum depth of embedment for shoring piles is 7 feet below the bottom of excavated plane for restrained shoring system, and 10 feet below the bottom of excavated plane for cantilever shoring system.

Groundwater was encountered at depths between 22½ and 30 feet below the existing site grade during exploration. Caving of the saturated earth materials below the groundwater level should be expected to occur during drilling of piles. Casing or polymer drilling fluid will most likely be required during drilling in order to maintain open shafts. If casing is used, extreme care should be employed so that the pile is not pulled apart as the casing is withdrawn. At no time should the distance between the surface of the concrete and the bottom of the casing be less than 5 feet.

Depending on the draw down level associated with the future dewatering program, it is anticipated that the proposed piles will likely encounter water. Piles placed below the water level will require the use of a tremie to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 6 inches with a hopper at the top. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete. The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength of 1,000 psi over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

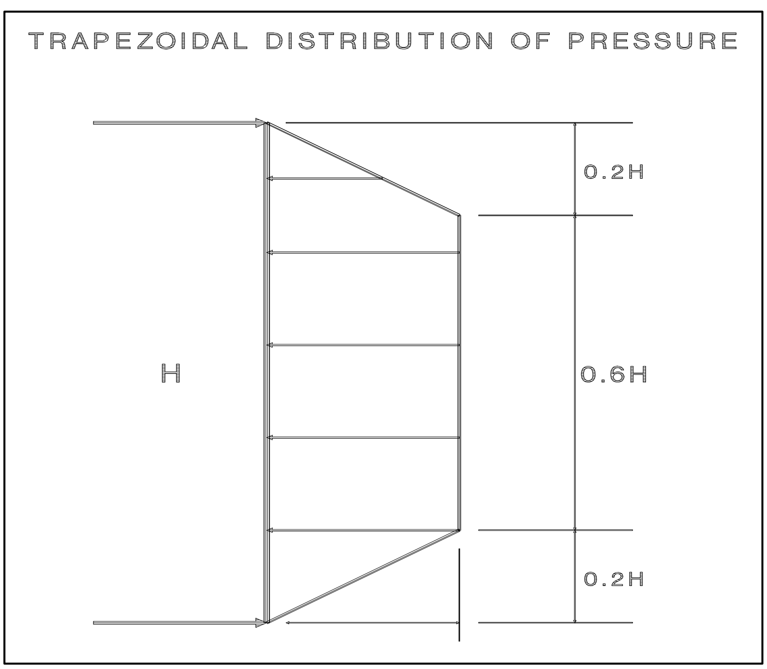
Lagging

At this time, it is anticipated that most or all of the excavation will require continuous lagging. It is recommended that the exposed soils be observed by a representative of the geotechnical engineer to verify the cohesive nature of the earth materials, and determine whether any lagging may be omitted.

Soldier piles and anchors should be designed for the full anticipated pressures. Due to arching in the earth materials, the pressure on the lagging will be less. It is recommended that the lagging be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot.

Lateral Pressures

A triangular distribution of lateral earth pressure should be utilized for the design of a cantilever shoring system. A trapezoidal distribution of lateral earth pressure (as shown in the diagram below) would be appropriate where shoring is to be restrained at the top by tie backs or raker braces. The lateral pressures provided below assume temporary dewatering will be maintained during the use of the shoring system, and hydrostatic forces will not develop on the shoring.



Pressures for the design of cantilevered and restrained shoring supporting level back slopes are presented in the following table.

Height of Shoring (feet)	Cantilever Shoring System Equivalent Fluid Pressure (pcf) Triangular Distribution of Pressure	Restrained Shoring System Lateral Earth Pressure (psf)* Trapezoidal Distribution of Pressure
Up to 25 feet	48 pcf	30H psf

*Where H is the height of the shoring in feet.

Where a combination of sloped embankment and shoring is utilized, the pressure will be greater and must be determined for each combination.

Surcharge from Adjacent Traffic or Structures

Additional active pressures should be applied where the shoring will be surcharged by adjacent traffic or structures. Traffic and/or structure surcharge pressures should be determined in accordance with the "Retaining Wall Design" section of this report.

Tieback Anchor Design and Installation

Tieback anchors may be used to resist lateral loads. Friction anchors are recommended. For design purposes, it may be assumed that the active wedge is defined by a plane drawn 35 degrees with the vertical through the bottom plane of the excavation. Friction anchors should extend a minimum of 20 feet beyond the potentially active wedge.

Tieback anchors may be installed between 20 and 40 degrees below the horizontal. Caving may occur within granular materials or in shafts drilled below the groundwater level. Measures should be implemented to handle caving materials, including the use of drill casing during drilling. Where caving occurs the following provisions should be implemented in order to minimize such caving. The anchor shafts should be filled with concrete by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. In order to minimize the chances of caving, it is recommended that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

Depending on the techniques utilized, and the experience of the contractor performing the installation, it is anticipated that a skin friction of 1,250 pounds per square foot could be utilized for post-grouted anchors, provided the design does not rely on end-bearing plates to provide the necessary capacity. It is anticipated that multiple grouting stages will be required for post-grouted anchors. Only the frictional resistance developed beyond the active wedge should be utilized in resisting lateral loads. Anchors should be placed at least 6 feet on center to be considered isolated.

Tieback Anchor Testing

At least 10 percent of the anchors should be selected for “Quick”, 200 percent tests. It is recommended that at least three anchors be selected for 24-hour, 200 percent tests. It is recommended that the 24-hour tests be performed prior to installation of additional tiebacks. The purpose of the 200 percent tests is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Where satisfactory tests are not achieved on these initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

The total deflection during the 24-hour 200 percent test should not exceed 12 inches. During the 24-hour tests, the anchor deflection should not exceed 0.75 inches measured after the 200 percent test load is applied.

For the "quick" 200 percent tests, the 200 percent test load should be maintained for 30 minutes. The total deflection of the anchor during the 200 percent quick tests should not exceed 12 inches; the deflection after the 200 percent load has been applied should not exceed 0.25 inch during the 30-minute period.

All of the remaining anchors should be tested to at least 150 percent of design load. The total deflection during the 150 percent test should not exceed 12 inches. The rate of creep under the 150 percent test load should not exceed 0.1 inch over a 15-minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. This should be verified by rechecking the load in the anchor. The load should be within 10 percent of the design load. Where satisfactory tests are not attained, the anchor diameter and/or length should be increased or additional anchors installed until satisfactory test results are obtained. Where post-grouted anchors are utilized, additional post-grouting may be required. The installation and testing of the anchors should be observed by a representative of the soils engineer.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. Where there are structures within a 1:1 plane drawn upward from the bottom of the excavation, it is recommended that the shoring be designed for a maximum deflection of ½-inch at the top of the shored embankment. Where there are not structures within a 1:1 projection from the bottom of the excavation, it is recommended the shoring be designed for a maximum deflection of 1 inch. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of adjacent buildings and streets.

Pre-Construction Survey

Prior to shoring installation and excavation, it is recommended the adjacent improvements be surveyed to provide a documented record of their condition. Such a survey would aid in the resolution of any disputes that may arise concerning damage to adjacent facilities caused by the proposed construction.

Monitoring

Because of the depth of the excavations, some means of monitoring the performance of the shoring system is suggested. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all soldier piles and the lateral movement along the entire lengths of selected soldier piles.

Shoring Observations

It is critical that the installation of shoring is observed by a representative of this office. Many local agencies require that shoring installation be performed under the continuous observation of the geotechnical engineer. The observations are made so that modifications of the recommendations can be made if variations in the earth material or groundwater conditions occur. Also, the observations will allow for a report to be prepared on the installation of shoring for the use of the local building official.

SLABS-ON-GRADE

Interior Building Floor Slab

The proposed building floor slabs shall be designed as structural slabs deriving support from the pile foundation system. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Hydrostatic Considerations for Interior Building Floor Slabs

Where constructed below the historic high groundwater elevation, interior building floor slabs shall be waterproofed and designed to withstand the hydrostatic uplift pressure based on the historic high water elevation of 9.0 feet above MSL. The uplift pressure to be used in design should be 62.4(H) pounds per square foot, where "H" is the height of the height of the historic high water level above the bottom of the building floor slab in feet. It is recommended a qualified waterproofing consultant be retained in order to provide waterproofing recommendations for the proposed project.

Outdoor Concrete Flatwork

Outdoor concrete flatwork should be a minimum of 4 inches in thickness, and should be reinforced with a minimum of #3 steel bars on 12-inch centers each way. Outdoor concrete flatwork should be cast over undisturbed natural geologic materials or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Design of Slabs That Receive Moisture-Sensitive Floor Coverings

Geotechnologies, Inc. does not practice in the field of moisture vapor transmission evaluation and mitigation. Therefore, it is recommended that a qualified consultant be engaged to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The qualified consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure.

It is recommended that the floor slabs in the lowest subterranean level should be waterproofed. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection for concrete slabs-on-grade.

All concrete slabs-on-grade should be supported on vapor retarder. The design of the slab and the installation of the vapor retarder should comply with the most recent revisions of ASTM E 1643 and ASTM E 1745. The vapor retarder should comply with ASTM E 1745 Class A requirements.

Where a vapor retarder is used, a low-slump concrete should be used to minimize possible curling of the slabs. The barrier can be covered with a layer of trimmable, compactible, granular fill, where it is thought to be beneficial. See ACI 302.2R-32, Chapter 7 for information on the placement of vapor retarders and the use of a fill layer.

Concrete Crack Control

The recommendations presented in this report are intended to reduce the potential for cracking of concrete slabs-on-grade due to settlement. However even where these recommendations have been implemented, foundations, stucco walls and concrete slabs-on-grade may display some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer.

Complete removal of the existing fill soils beneath outdoor flatwork such as walkways or patio areas, is not required, however, due to the rigid nature of concrete, some cracking, a shorter design life and increased maintenance costs should be anticipated. In order to provide uniform support beneath the flatwork it is recommended that a minimum of 12 inches of the exposed subgrade beneath the flatwork be scarified and recompacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) relative compaction.

PAVEMENTS

Prior to placing paving, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 95 percent of the maximum density as determined by the most recent revision of ASTM D 1557. The client should be aware that removal of all existing fill in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs. The following pavement sections are recommended:

Service	Asphalt Pavement Thickness Inches	Base Course Inches
Passenger Cars	3	4
Moderate Truck	4	6
Heavy Truck	6	9

A subgrade modulus of 100 pounds per cubic inch may be assumed for design of concrete paving. Concrete paving for passenger cars and moderate truck traffic shall be a minimum of 6 inches in thickness, and shall be underlain by 4 inches of aggregate base. Concrete paving for heavy truck traffic shall be a minimum of 7½ inches in thickness, and shall be underlain by 6 inches of aggregate base. For standard crack control maximum expansion joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended.

Aggregate base should be compacted to a minimum of 95 percent of the most recent revision of ASTM D 1557 laboratory maximum dry density. Base materials should conform to Sections 200-2.2 or 200-2.4 of the "Standard Specifications for Public Works Construction", (Green Book), latest edition.

SITE DRAINAGE

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage should be collected and transferred to the street in non-erosive drainage devices. The proposed structure should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within five feet of the building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located within a distance equal to the depth of a retaining wall should be sealed to prevent moisture adversely affecting the wall. Planters which are located within five feet of a foundation should be sealed to prevent moisture affecting the earth materials supporting the foundation.

STORMWATER DISPOSAL

Regulatory agencies have been requiring the disposal of a certain amount of stormwater generated on a site by infiltration into the site soils. Increasing the moisture content of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. This means that any overlying structure, including buildings, pavements and concrete flatwork, could sustain damage due to saturation of the subgrade soils. Structures serviced by subterranean levels could be adversely impacted by stormwater disposal by increasing the design fluid pressures on retaining walls and causing leaks in the walls. Proper site drainage is critical to the performance of any structure in the built environment.

Due to the liquefaction potential, the depth of fill materials, and the historically highest groundwater level, infiltration of stormwater is considered to be unfeasible for the subject site.

DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Building Official is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnologies, Inc. at least twenty-four hours prior to any required site visit.

If conditions encountered during construction appear to differ from those disclosed herein, notify Geotechnologies, Inc. immediately so the need for modifications may be considered in a timely manner.

It is the responsibility of the contractor to ensure that all excavations and trenches are properly sloped or shored. All temporary excavations should be cut and maintained in accordance with applicable OSHA rules and regulations.

EXCAVATION CHARACTERISTICS

The exploration performed for this investigation is limited to the geotechnical excavations described. Direct exploration of the entire site would not be economically feasible. The owner, design team and contractor must understand that differing excavation and drilling conditions may be encountered based on boulders, gravel, oversize materials, groundwater and many other conditions. Fill materials, especially when they were placed without benefit of modern grading codes, regularly contain materials which could impede efficient grading and drilling. Southern California sedimentary bedrock is known to contain variable layers which reflect differences in depositional environment. Such layers may include abundant gravel, cobbles and boulders. Similarly, bedrock can contain concretions. oncretions are typically lenticular and follow the bedding. They are formed by mineral deposits. Concretions can be very hard. Excavation and drilling in these areas may require full size equipment and coring capability. The contractor should be familiar with the site and the geologic materials in the vicinity.

CLOSURE AND LIMITATIONS

The purpose of this report is to aid in the design and completion of the described project. Implementation of the advice presented in this report is intended to reduce certain risks associated with construction projects. The professional opinions and geotechnical advice contained in this report are sought because of special skill in engineering and geology and were prepared in accordance with generally accepted geotechnical engineering practice. Geotechnologies, Inc. has a duty to exercise the ordinary skill and competence of members of the engineering profession. Those who hire Geotechnologies, Inc. are not justified in expecting infallibility, but can expect reasonable professional care and competence.

The scope of the geotechnical services provided did not include any environmental site assessment for the presence or absence of organic substances, hazardous/toxic materials in the soil, surface water, groundwater, or atmosphere, or the presence of wetlands.

Proper compaction is necessary to reduce settlement of overlying improvements. Some settlement of compacted fill should be anticipated. Any utilities supported therein should be designed to accept differential settlement. Differential settlement should also be considered at the points of entry to the structure.

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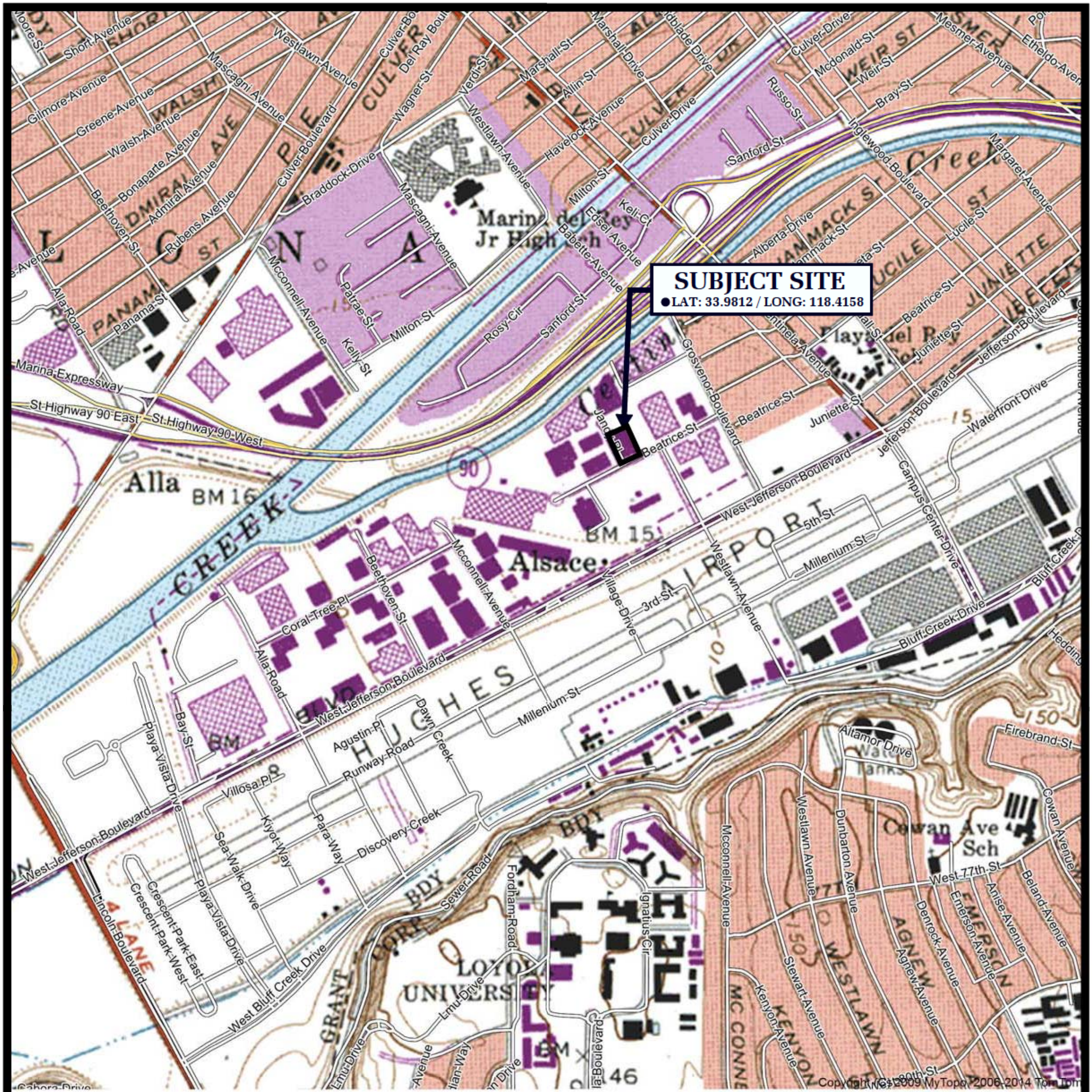

SCALE 1:12000

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MILES

0 1000 2000 3000
FFFT

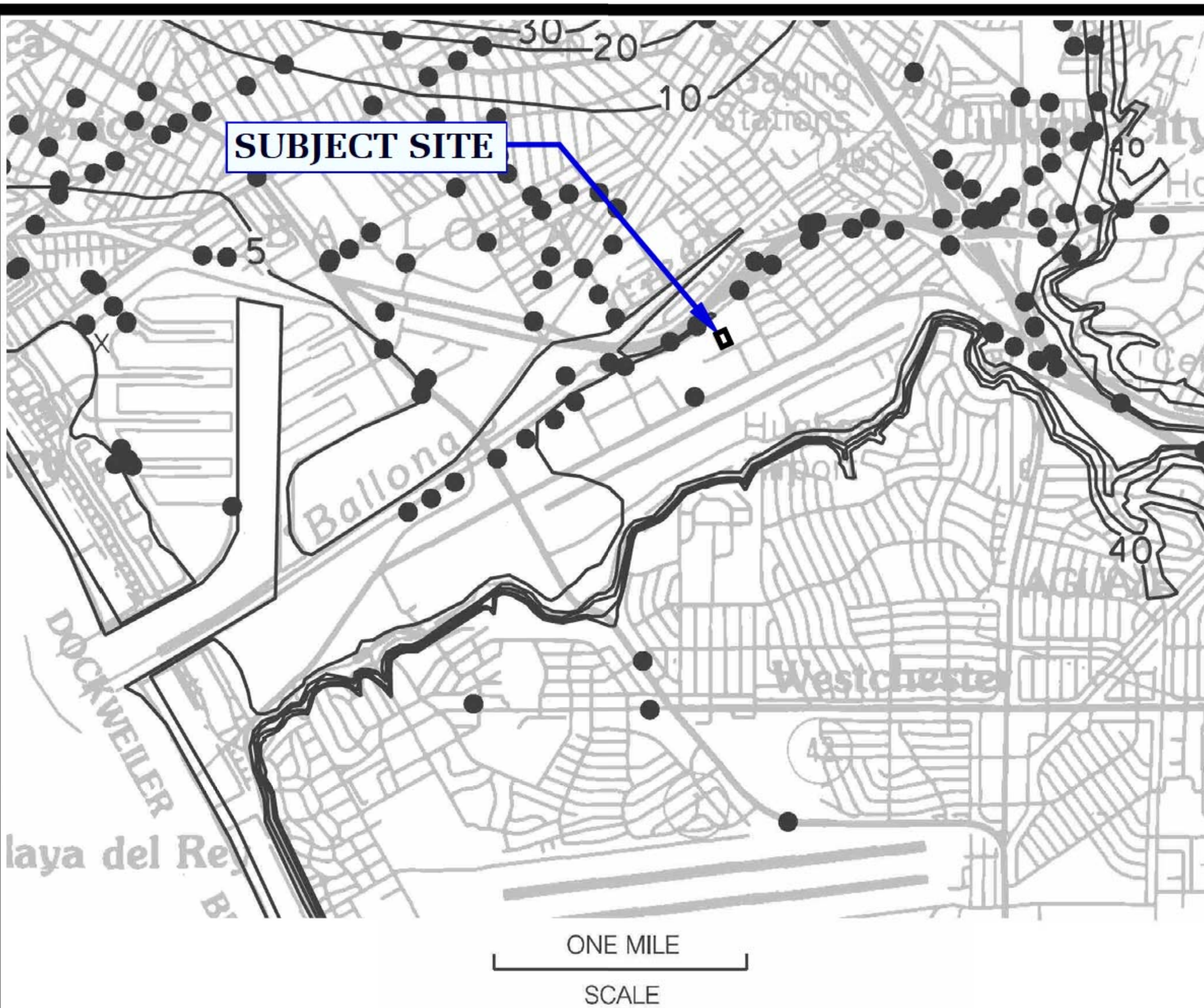
REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, VENICE, CA QUADRANGLE

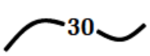
VICINITY MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY

FILE NO. 21194





Depth to groundwater in feet

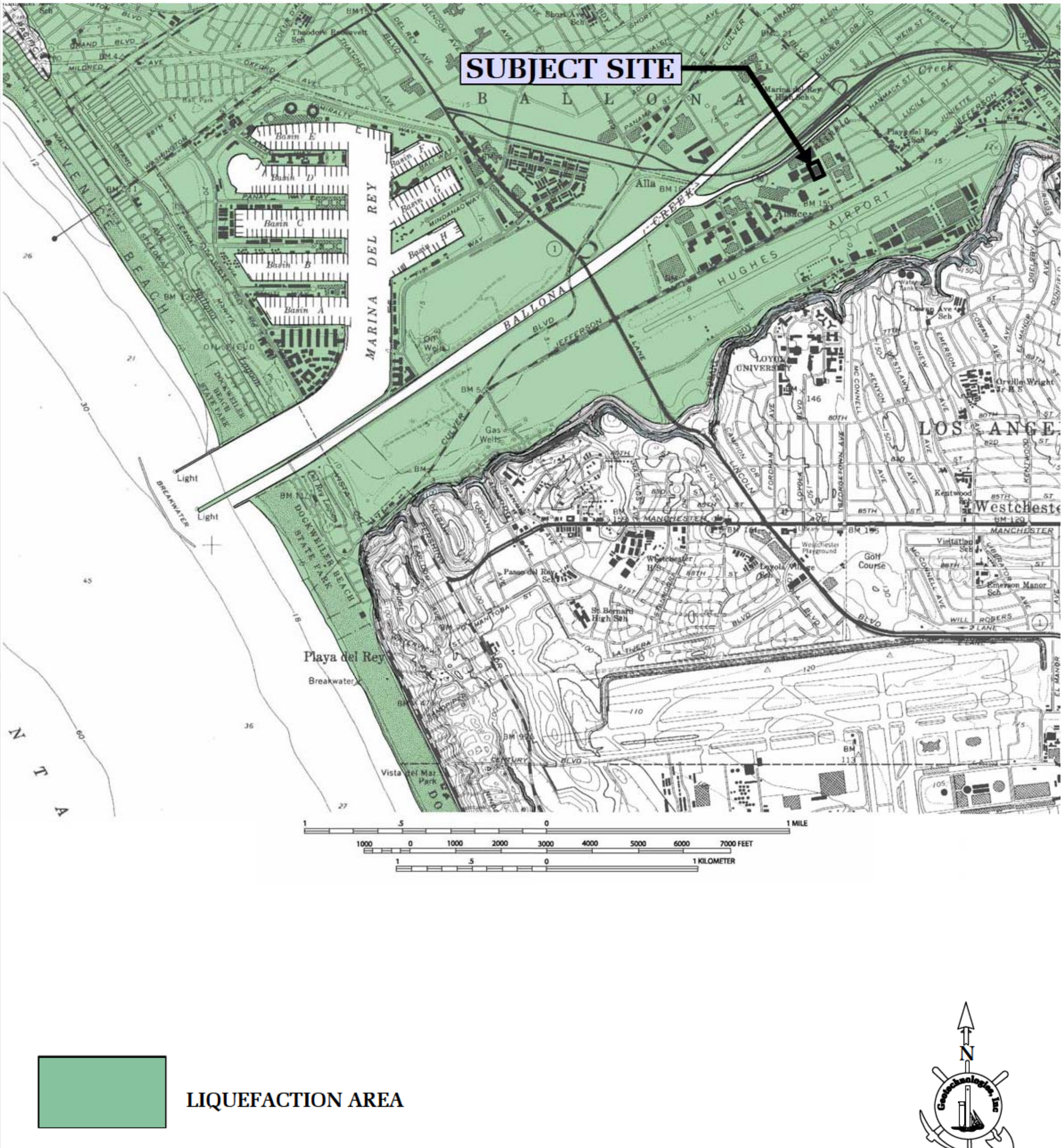
REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 036
VENICE 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2006)

HISTORICALLY HIGHEST GROUNDWATER LEVELS

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY

FILE NO. 21194



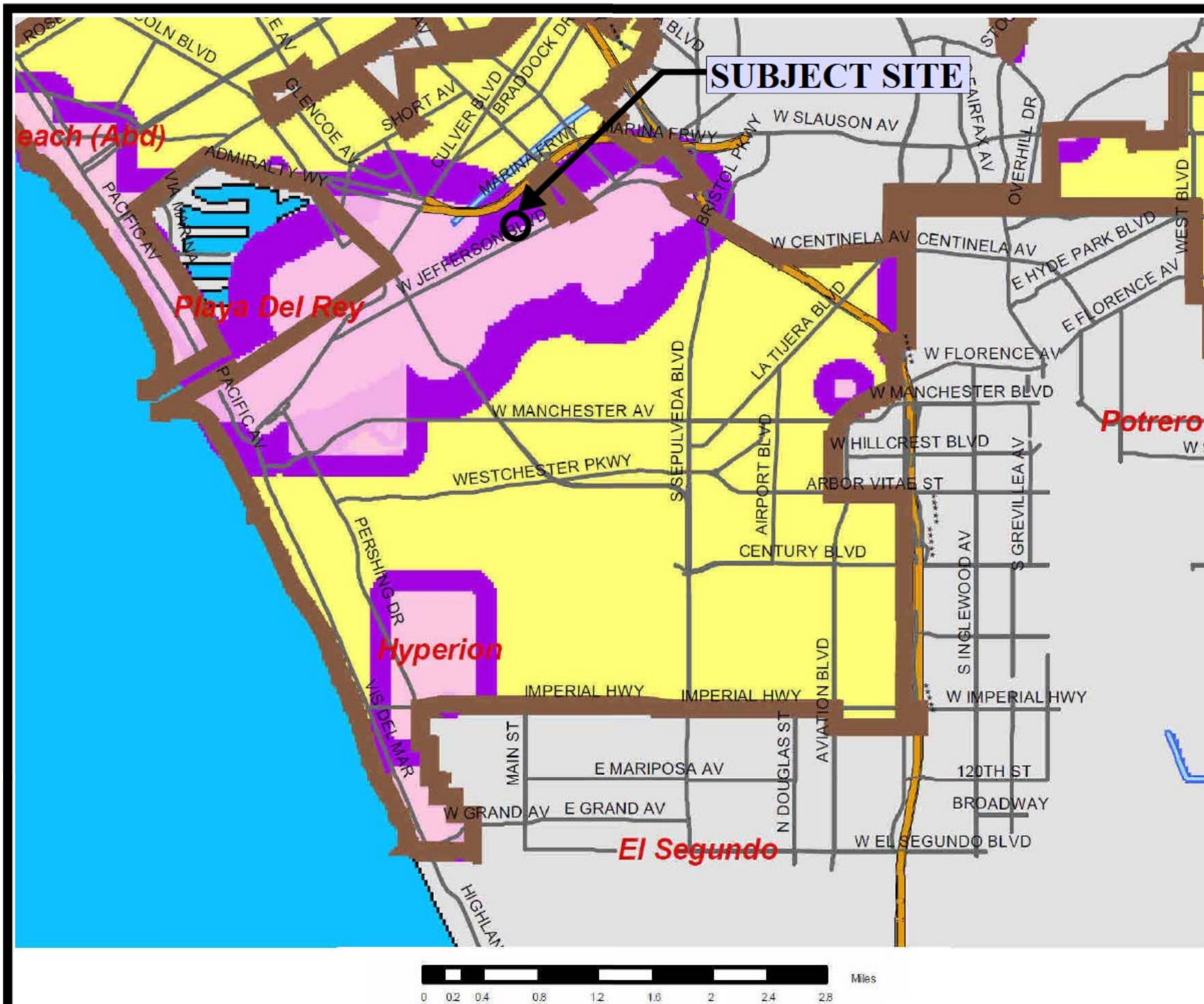
REFERENCE: SEISMIC HAZARD ZONES, VENICE QUADRANGLE OFFICIAL MAP (CDMG, 1999)

SEISMIC HAZARD ZONE MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY

FILE NO. 21194



Methane Zone

Methane Buffer Zone

Council District Boundary

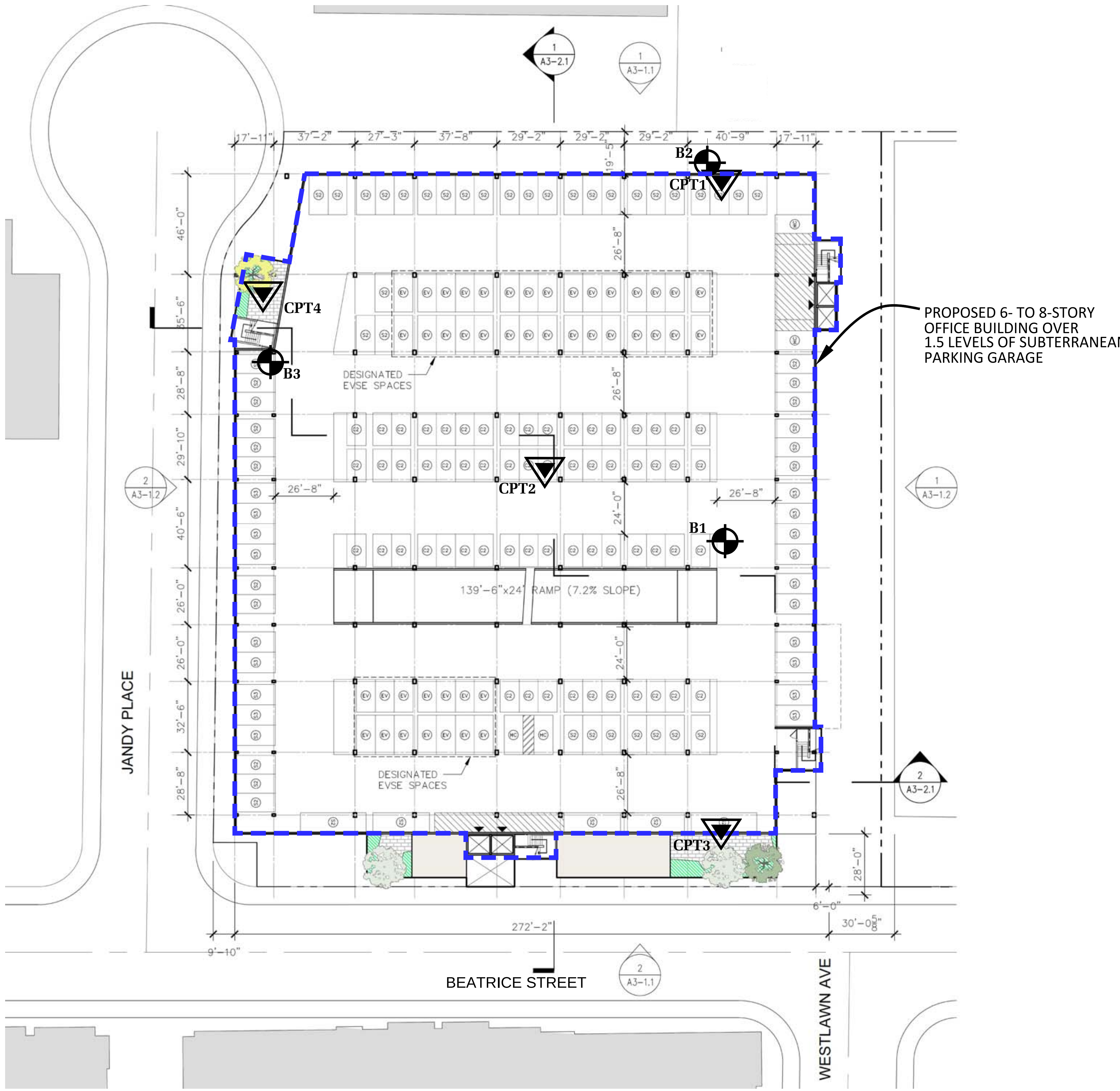
REFERENCE: GIS Mapping, Bureau of Engineering, Department fo Public Works - 09/24/03

METHANE ZONE RISK MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY

FILE NO. 21194



SCALE IN FEET

0 30 50 100

LEGEND

B3 LOCATION & NUMBER OF BORING

CPT4 LOCATION & NUMBER OF CONE PENETROMETER TEST PERFORMED BY GEOTECHNOLOGIES, INC.

LIMITS OF SUBTERRANEAN PARKING LEVEL

REFERENCE: FLOOR PLAN PARKING LEVEL 2 PROVIDED BY CLIENT DATED FEBRUARY 22, 2017

PLOT PLAN

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY ARCHITECTS
12575 BEATRICE ST., LOS ANGELES

FILE No. 21194	DRAWN BY: TC
DATE: March 2018	

BORING LOG NUMBER 1

Chait Company Architects **Date: 12/18/17**

File No. 21194 **Method: Used 5-inch diameter Rotary Wash Drill Rig**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt for Parking
				0 --		4-inch Asphalt over 4-inch Base
				-		
				1 --		FILL: Sandy Clay, dark brown, moist, stiff
				-		
				2 --		
				-		
				3 --		Sandy Clay, dark and gray, moist, medium firm to stiff
				-		
				4 --		
				-		
5	12	26.2	SPT	5 --		
				-		
				6 --		
				-		
				7 --		
7.5	18	14.4	115.3	-		
				8 --		Sandy Silt, dark gray, moist, stiff
				-		
				9 --		
				-		
10	6	27.1	SPT	10 --		
				-		Silty Clay, dark gray, moist, medium firm to stiff
				11 --		
				-		
				12 --		
12.5	13	30.7	93.1	-		
				13 --	CH	Silty Clay, dark gray, very moist, stiff
				-		
				14 --		
				-		
15	6	40.2	SPT	15 --		
				-		Silty Clay, dark gray, very moist, soft to medium firm
				16 --		
				-		
				17 --		
17.5	9	29.1	93.3	-		
				18 --		
				-		
				19 --		
				-		
20	5	32.3	SPT	20 --		
				-		
				21 --		
				-		
				22 --		
22.5	12	30.7	87.4	-		
				23 --	CL	Silty Clay, dark gray, moist, medium firm
				-		
				24 --		
				-		
25	8	29.8	SPT	25 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
27.5	12	28.9	95.8	-		
				28 --	ML	Sandy Silt, dark gray, very moist, stiff
				-		
				29 --		
				-		
30	8	31.3	SPT	30 --		
				-		
				31 --		
				-		
				32 --		
32.5	26	23.4	103.0	-		
				33 --	SC	Clayey Sand, dark gray, wet, medium dense, fine grained
				-		
				34 --		
				-		
35	14	23.7	SPT	35 --		
				-		
				36 --		
				-		
				37 --		
37.5	53	16.9	112.6	-		
				38 --	SP/SW	Sand to Gravelly Sand, gray, wet, dense, fine to coarse grained
				-		
				39 --		
				-		
40	35	16.9	SPT	40 --		
				-		
				41 --		
				-		
				42 --		
42.5	43	12.9	112.1	-		
				43 --		
				-		
				44 --		
				-		
45	24	15.1	SPT	45 --		
				-	SP	Sand, dark gray, wet, medium dense, fine to medium grained, occasional gravel
				46 --		
				-		
				47 --		
47.5	22	25.2	96.2	-		
				48 --	SC/ML	Clayey Sand to Sandy Silt, dark gray, wet, medium dense to medium firm, fine grained
				-		
				49 --		
				-		
50	19	27.1	SPT	50 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				51		
				52		
52.5	19	22.6	99.6	53	ML	Sandy Silt, dark gray, wet, medium firm, fine grained
				54		
55	11	34.2	SPT	55		
				56	SC	Clayey Sand, dark gray, wet, medium dense, fine grained
				57		
57.5	44	22.2	101.7	58	SP	Sand, dark gray, wet, dense, fine grained
				59		
60	73	15.5	SPT	60		
				61		
				62		
62.5	84	7.2	129.1	63	SW	Gravelly Sand, gray, wet, very dense, fine to coarse grained
				64		
65	91	9.0	SPT	65		
				66	SP	Sand, dark gray, wet, very dense, fine to medium grained, occasional gravel
				67		
67.5	39 50/4"	11.1	120.1	68		
				69		
70	80	19.6	SPT	70		
				71		Sand, dark gray, wet, very dense, fine grained
				72		
72.5	41 50/3"	17.9	108.4	73		
				74		
75	83	17.3	SPT	75		

GEOTECHNOLOGIES, INC. **Plate A-1c**

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				76 --		
				-		
				77 --		
77.5	42	20.7	108.4	-		
	50/3"			78 --		Sand, gray, wet, very dense, fine grained
				-		
				79 --		
				-		
80	84	15.6	SPT	80 --		
				-		
				81 --		
				-		
				82 --		
82.5	40	17.7	112.7	-		
	50/3"			83 --		Sand, dark gray, wet, very dense, fine to medium grained
				-		
				84 --		
				-		
85	65	10.6	SPT	85 --		
				-		Sand, gray, wet, dense, fine grained
				86 --		
				-		
				87 --		
87.5	35	16.9	112.9	-		
	50/4"			88 --		Sand, gray to dark gray, wet, very dense, fine to medium grained
				-		
				89 --		
				-		
90	81	17.0	SPT	90 --		
				-		
				91 --		
				-		
				92 --		
92.5	39	16.0	113.9	-		
	50/3"			93 --		Sand, gray, wet, very dense, fine grained
				-		
				94 --		
				-		
95	71	18.9	SPT	95 --		
				-		
				96 --		
				-		
				97 --		
97.5	30	16.5	106.1	-		
	50/5"			98 --		
				-		
				99 --		
				-		
100	62	16.0	SPT	100 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				101 --		
				-		
				102 --		
102.5	29	16.1	114.8	-		- - - - - - - - - - - - - - -
	50/5"			103 --		Sand, gray, wet, very dense, fine grained
				-		
				104 --		
				-		
105	79	19.8	SPT	105 --		
				-		
				106 --		
				-		
				107 --		
107.5	40	20.5	106.3	-		
	50/3"			108 --		
				-		
				109 --		
				-		
110	34	14.6	SPT	110 --		- - - - - - - - - - - - - - -
	50/5"			-		Sand, gray, wet, very dense, fine grained
				111 --		
				-		
				112 --		
112.5	100/9"	13.0	121.0	-		- - - - - - - - - - - - - - -
				113 --		Sand, gray, wet, very dense, fine to medium grained
				-		
				114 --		
				-		
115	43	15.0	SPT	115 --		
	50/5.5"			-		
				116 --		
				-		
				117 --		
117.5	100/10"	14.0	121.2	-		
				118 --		
				-		
				119 --		
				-		
120	90	23.8	SPT	120 --		
				-		Total Depth 120 feet
				121 --		Water at 22½ feet
				-		Fill to 12½ feet
				122 --		
				-		
				123 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				124 --		
				-		Used 5-inch diameter Rotary Wash Drill Rig
				125 --		
				-		

BORING LOG NUMBER 2

Chait Company Architects | **Date: 12/15/17**

File No. 21194 | **Method: 5-inch diameter Rotary Wash Drill Rig**

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt for Parking
				0 --		4-inch Asphalt over 4-inch Base
				-		
				1 --		FILL: Silty Sand to Sandy Silt, dark brown, moist, medium dense, fine grained, stiff
				-		
				2 --		
2.5	28	14.3	120.3	-		
				3 --		
				-		
				4 --		
				-		
5	17	19.6	SPT	5 --		
				-		Sandy Clay, dark brown, moist, medium firm to stiff, fine grained
				6 --		
				-		
				7 --		
7.5	19	16.7	112.7	-		
				8 --		
				-		
				9 --		
				-		
10	11	28.2	SPT	10 --		
				-		Silty Clay, gray, very moist, medium firm to stiff, fine grained
				11 --		
				-		
				12 --		
12.5	13	24.0	100.1	-		
				13 --	CL	Sandy Clay, gray to yellowish brown, very moist, stiff
				-		
				14 --		
				-		
15	6	45.9	SPT	15 --		
				-	CH	Silty Clay, dark gray, very moist, medium firm
				16 --		
				-		
				17 --		
17.5	8	41.0	80.7	-		
				18 --		
				-		
				19 --		
				-		
20	6	29.5	SPT	20 --		
				-		
				21 --		
				-		
				22 --		
22.5	11	27.1	97.4	-		
				23 --	CL	Sandy Clay, gray, very moist, soft to medium firm
				-		
				24 --		
				-		
25	5	31.2	SPT	25 --		
				-		

BORING LOG NUMBER 2

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26		
				27		
27.5	12	26.4	98.9			
				28		Sandy Clay, dark gray, moist, soft to medium firm
				29		
30	5	31.6	SPT	30		
				31		
				32		
32.5	30	23.4	101.1			
				33	SM/ML	Silty Sand to Sandy Silt, gray, wet, medium dense to stiff, fine grained
				34		
35	27	24.3	SPT	35		
				36		
				37		
37.5	52	8.3	128.4			
				38	SP/SW	Sand to Gravelly Sand, dark gray, wet, dense, fine to coarse grained
				39		
40	14	14.8	SPT	40		
					SM	Silty Sand, gray and dark brown, wet, medium dense, fine to coarse grained, with occasional gravel
				41		
				42		
42.5	23	16.9	116.8			
				43		
				44		
45	43	14.7	SPT	45		
					SP/SM	Sand to Silty Sand, gray to dark gray, wet, dense, fine to coarse grained, occasional gravel
				46		
				47		
47.5	57	9.3	132.1			
				48	SW	Gravelly Sand, gray, wet, dense, fine to coarse grained
				49		
50	21	21.4	SPT	50		
					SM	Silty Sand, gray to dark gray, wet, dense, fine to medium grained

BORING LOG NUMBER 2

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				51		
				52		
52.5	18	45.9	77.1			
				53	CH	Silty Clay, dark gray, moist, stiff
				54		
55	36	21.8	SPT	55		
					SP	Sand, dark brown to light gray, wet, dense, fine to medium grained
				56		
				57		
57.5	86	9.2	123.3			
				58		
				59		
60	38	12.9	SPT	60		
						Sand, dark gray, wet, dense, fine to medium grained, with occasional cobbles
				61		
				62		
62.5	91	8.8	129.4			
				63		
				64		
65	71	15.2	SPT	65		
					SW	Sand to Gravelly Sand, dark to yellowish brown, wet, very dense, fine to medium grained, occasional cobbles
				66		
				67		
67.5	36 50/4"	14.1	112.5			
				68		
				69		
70	30 50/5"	13.1	SPT	70		
						Sand, gray to dark gray, wet, very dense, fine to medium grained, with gravel and cobbles
				71		
				72		
72.5	45 50/3"	20.0	105.8			
				73		
				74		
75	83	16.4	SPT	75		

BORING LOG NUMBER 2

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				76 --		
				-		
				77 --		
77.5	53	10.0	129.1	-		
	50/2"			78 --		Sand, gray, wet, very dense, fine grained
				-		
				79 --		
				-		
80	31	16.5	SPT	80 --		
	50/5"			-		Total Depth 80 feet
				81 --		Water at 24 feet
				-		Fill to 12½ feet
				82 --		
				-		
				83 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				84 --		
				-		Used 5-inch diameter Rotary Wash Drill Rig
				85 --		
				-		
				86 --		
				-		
				87 --		
				-		
				88 --		
				-		
				89 --		
				-		
				90 --		
				-		
				91 --		
				-		
				92 --		
				-		
				93 --		
				-		
				94 --		
				-		
				95 --		
				-		
				96 --		
				-		
				97 --		
				-		
				98 --		
				-		
				99 --		
				-		
				100 --		
				-		

BORING LOG NUMBER 3

Chait Company Architects | **Date: 12/20/17**

File No. 21194 | **Method: 8-inch diameter Hollow Stem Auger**

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt for Parking
				0		4-inch Asphalt over 4-inch Base
				1		FILL: Sandy Silt, dark brown, moist, stiff
				2		
2.5	25	11.3	117.9			
				3		Clayey Sand, dark grayish brown, moist, medium dense, fine grained
				4		
5	23	20.5	SPT	5		
				6		Sandy Silt to Silty Sand, dark gray, moist, stiff to medium dense, fine grained
				7		
7.5	26	15.7	115.2			
				8		Silty Sand to Sandy Clay, gray to dark gray, moist, medium dense to medium firm, fine grained
				9		
10	13	17.0	SPT	10		
						Sandy Clay, dark gray, moist, medium firm to stiff
				11		
				12		
12.5	14	32.6	84.8			
				13	CH	Silty Clay, dark brown, very moist, soft to medium firm
				14		
15	6	40.4	SPT	15		
				16		
				17		
17.5	5	44.6	77.4			
				18		Silty Clay, dark gray, very moist, soft
				19		
20	3	33.3	SPT	20		
				21		
				22		
22.5	9	32.4	88.9			
				23		
				24		
25	5	30.1	SPT	25		
					CL	Sandy Clay, dark gray, moist, soft to medium firm

BORING LOG NUMBER 3

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26		
				27		
27.5	18	28.5	96.8			
				28		Sandy Clay, dark gray, very moist, stiff
				29		
30	16	23.2	SPT	30		
					SM	Silty Sand, dark gray, wet, medium dense, fine grained
				31		
				32		
32.5	38	14.4	115.7			
				33	SP/SW	Sand to Gravelly Sand, dark to yellowish brown, wet, dense, fine to coarse grained
				34		
35	30	12.5	SPT	35		
				36		
				37		
37.5	51	10.5	127.5			
				38		Sand to Gravelly Sand, dark gray, wet, dense, fine to coarse grained
				39		
40	33	11.8	SPT	40		
				41		
				42		
42.5	24	19.7	109.5			
				43	SM	Silty Sand, dark gray, wet, medium dense, fine grained
				44		
45	14	24.5	SPT	45		
				46		
				47		
47.5	57	9.8	124.9			
				48	SP	Sand, gray to dark gray, wet, dense, fine to medium grained
				49		
50	14	23.6	SPT	50		
					CL	Sandy Clay, dark gray, wet, medium firm, fine grained

BORING LOG NUMBER 3

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				51 --		
				-		
				52 --		
52.5	27	30.7	91.8	-		
				53 --		Sandy Clay, dark gray, wet, firm to stiff, fine grained
				-		
				54 --		
				-		
55	25	21.1	SPT	55 --		
				-	SP	Sand, gray to dark gray, wet, medium dense, fine grained
				56 --		
				-		
				57 --		
57.5	49	19.8	91.2	-		
				58 --		
				-		
				59 --		
				-		
60	24	17.3	SPT	60 --		
				-		
				61 --		
				-		
				62 --		
62.5	41	7.8	131.5	-		
				63 --		Sand, gray to dark gray, wet, dense, fine to medium grained
				-		
				64 --		
				-		
65	41	12.3	SPT	65 --		
	50/5"			-	SW	Sand to Gravelly Sand, gray to dark gray, wet, very dense, fine to medium grained, occasional cobbles
				66 --		
				-		
				67 --		
67.5	38	14.1	119.2	-		
	50/3"			68 --		
				-		
				69 --		
				-		
70	81	13.7	SPT	70 --		
				-		
				71 --		
				-		
				72 --		
72.5	41	21.2	107.6	-		
	50/3"			73 --		Sand to Gravelly Sand, gray to dark gray, wet, very dense, fine to medium grained, occasional gravel and cobbles
				-		
				74 --		
				-		
75	79	20.9	SPT	75 --		
				-		

BORING LOG NUMBER 3

Chait Company Architects

File No. 21194

km/ae

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				76 --		
				-		
				77 --		
77.5	37	17.9	108.9	-		
	50/3"			78 --		Gravelly Sand, gray, very dense, fine to medium grained, with cobbles
				-		
				79 --		
				-		
80	40	19.0	SPT	80 --		
	50/5"			-		Total Depth 80 feet
				81 --		Water at 30 feet
				-		Fill to 12½ feet
				82 --		
				-		
				83 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				84 --		
				-		Used 5-inch diameter Rotary Wash Drill Rig
				85 --		
				-		
				86 --		
				-		
				87 --		
				-		
				88 --		
				-		
				89 --		
				-		
				90 --		
				-		
				91 --		
				-		
				92 --		
				-		
				93 --		
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				94 --		
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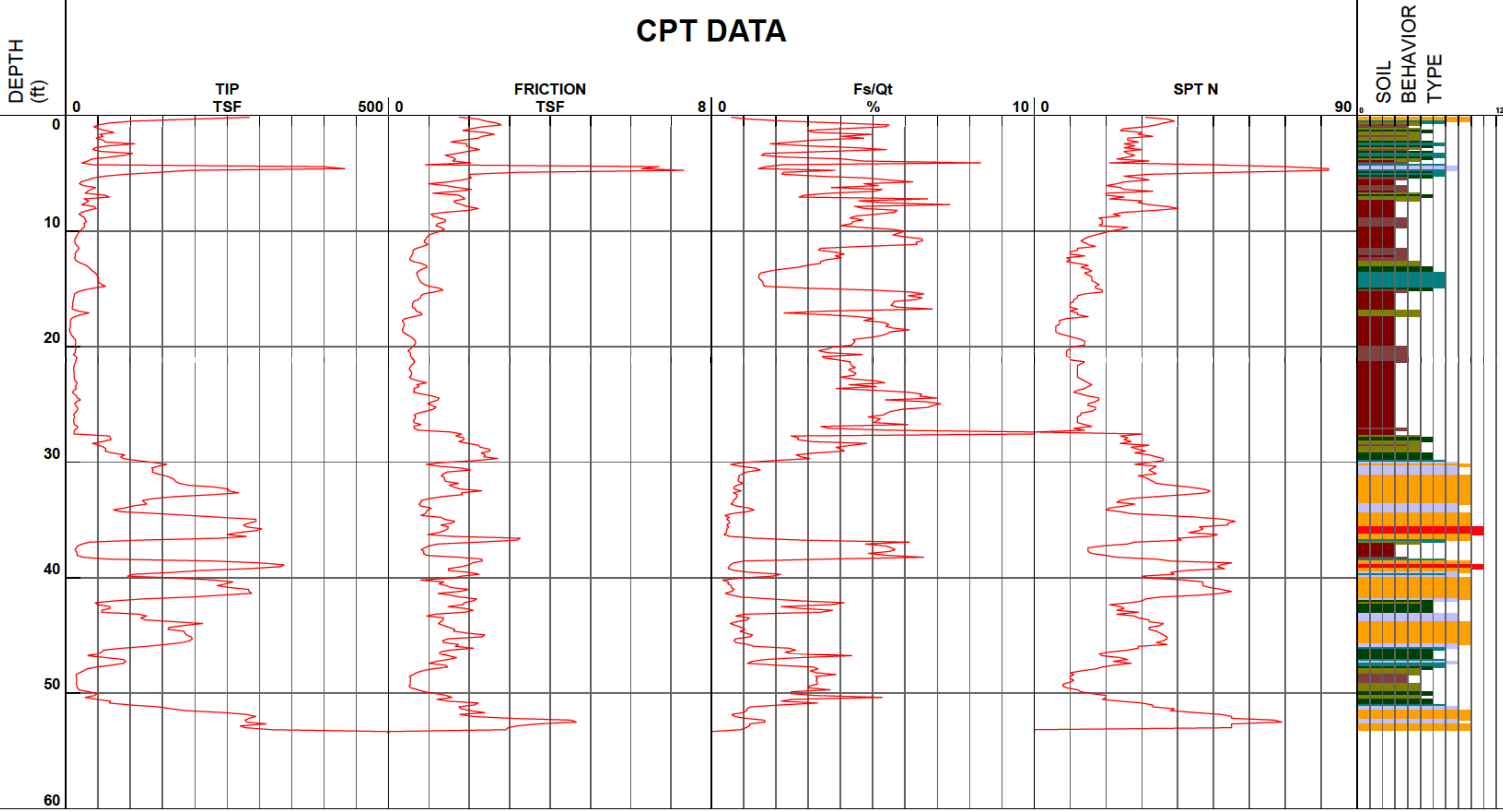
				-		
				96 --		
				-		
				97 --		
				-		
				98 --		
				-		
				99 --		
				-		
				100 --		
				-		

Geotechnologies Inc

Project	New Beatrice West Development	Operator	RC-DG	Filename	SDF(244).cpt
Job Number	21194	Cone Number	DDG1333	GPS	
Hole Number	CPT-01	Date and Time	3/17/2016 9:32:37 AM	Maximum Depth	53.48 ft
EST GW Depth During Test		20.00 ft			

Net Area Ratio .8

CPT DATA



- 1 - sensitive fine grained
- 2 - organic material
- 3 - clay
- 4 - silty clay to clay
- 5 - clayey silt to silty clay
- 6 - sandy silt to clayey silt
- 7 - silty sand to sandy silt
- 8 - sand to silty sand
- 9 - sand
- 10 - gravelly sand to sand
- 11 - very stiff fine grained (*)
- 12 - sand to clayey sand (*)

Cone Size 10cm squared

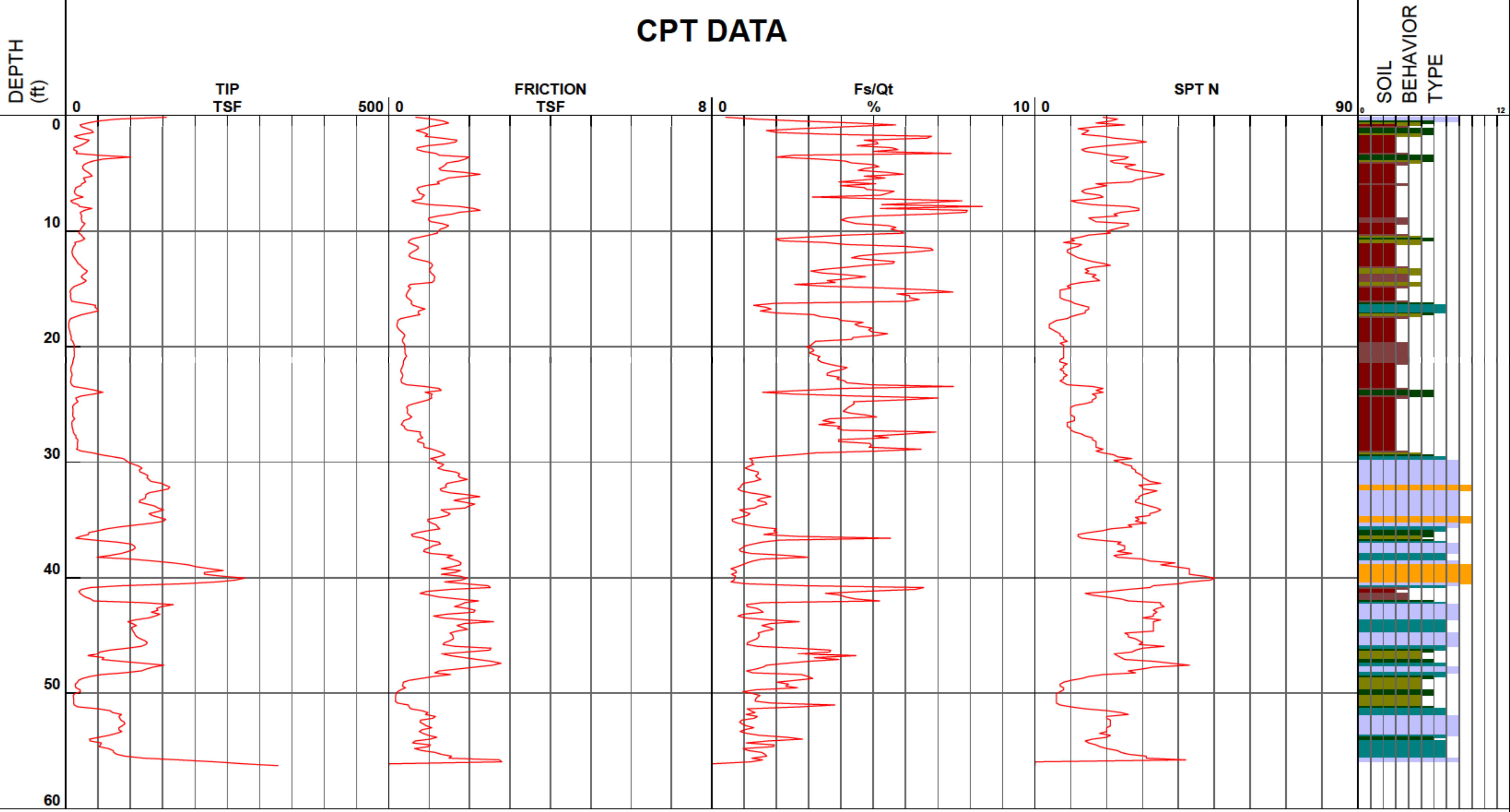
S*Soil behavior type and SPT based on data from UBC-1983

Geotechnologies Inc

Project	New Beatrice West Development	Operator	RC-DG	Filename	SDF(246).cpt
Job Number	21194	Cone Number	DDG1333	GPS	
Hole Number	CPT-02	Date and Time	3/17/2016 11:45:53 AM	Maximum Depth	56.27 ft
EST GW Depth During Test		20.00 ft			

Net Area Ratio .8

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

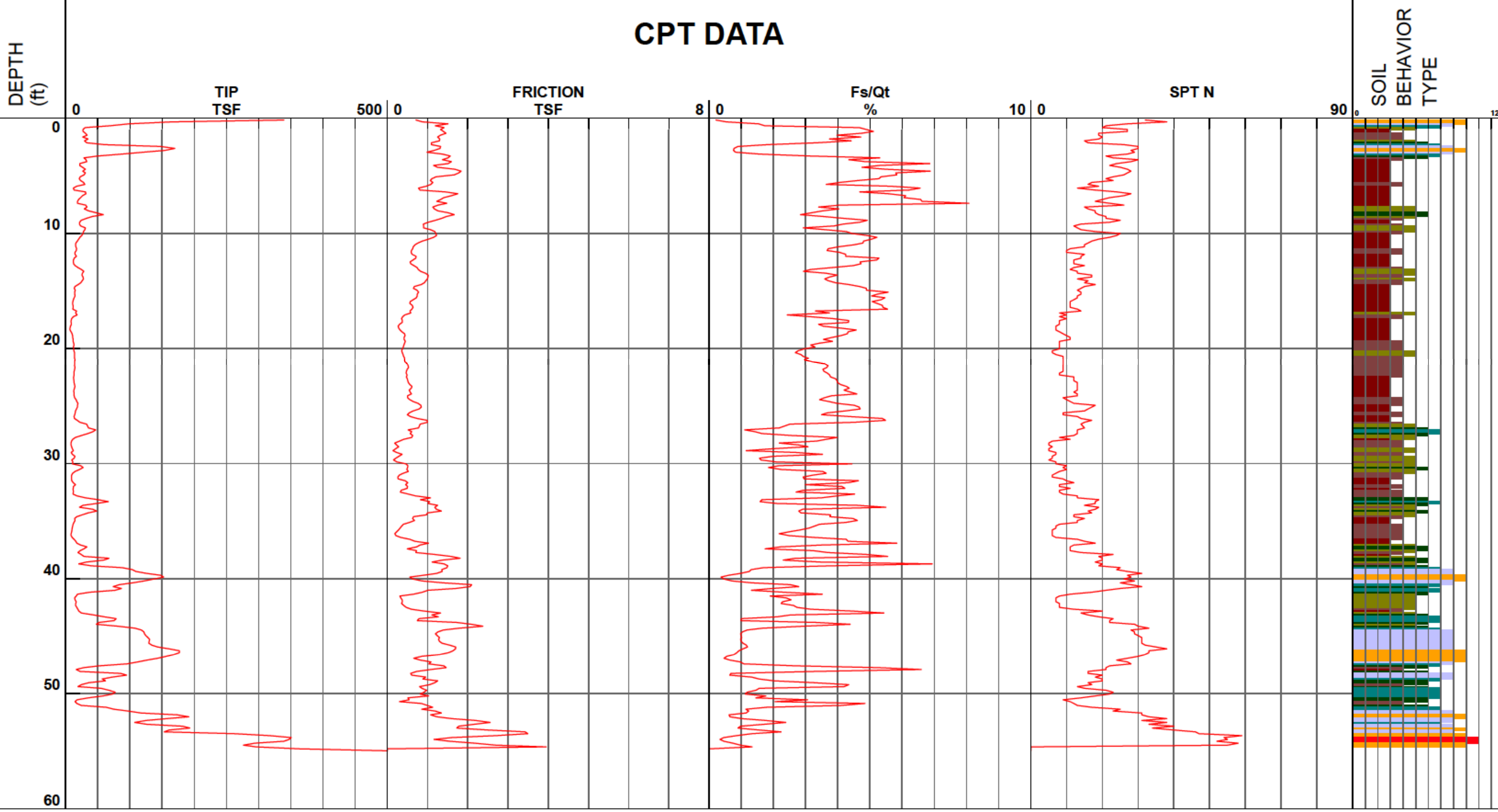
S*Soil behavior type and SPT based on data from UBC-1983

Geotechnologies Inc

Project	New Beatrice West Development	Operator	RC-DG	Filename	SDF(243).cpt
Job Number	21194	Cone Number	DDG1333	GPS	
Hole Number	CPT-03	Date and Time	3/17/2016 8:40:28 AM	Maximum Depth	54.95 ft
EST GW Depth During Test		20.00 ft			

Net Area Ratio .8

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

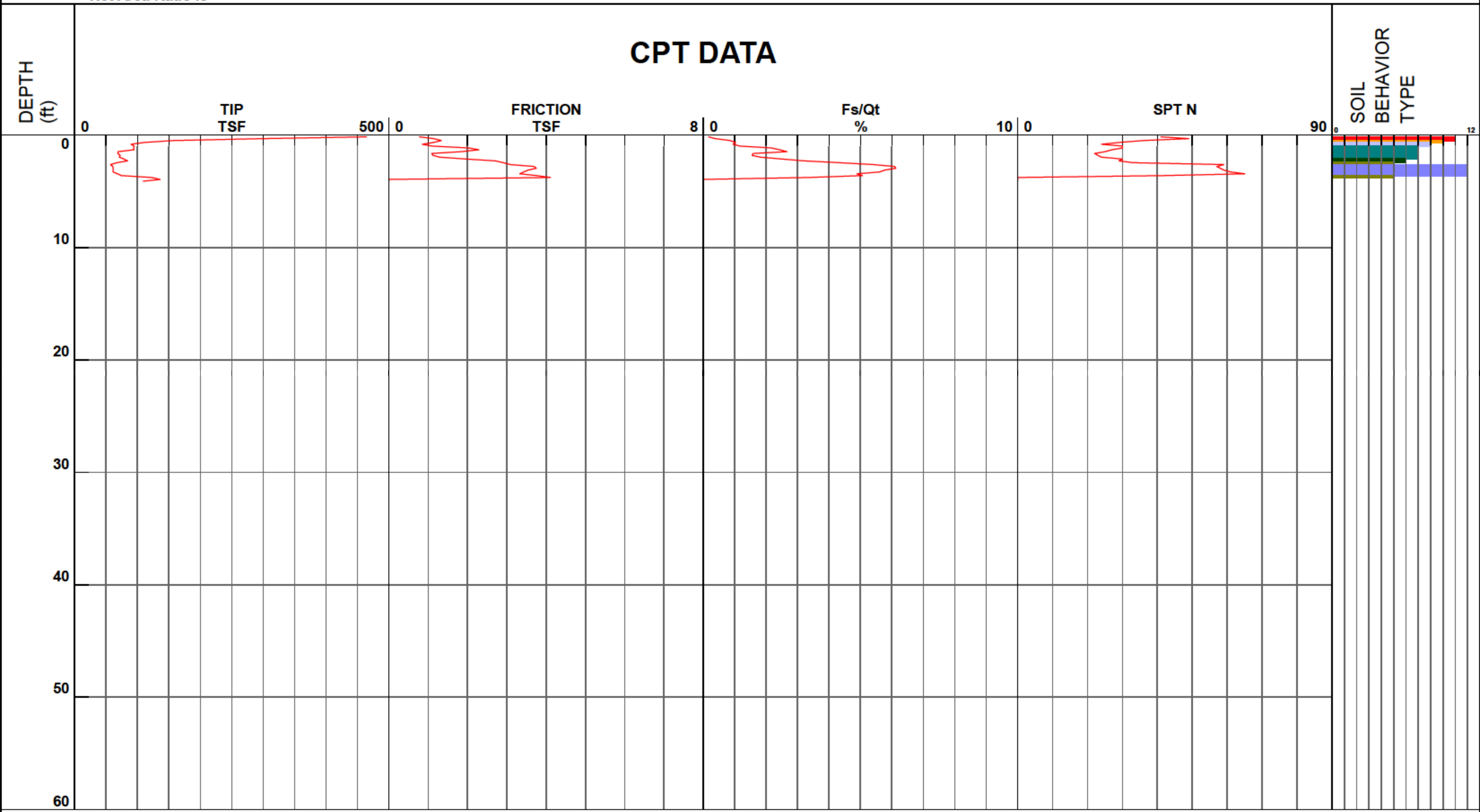
S*Soil behavior type and SPT based on data from UBC-1983

Geotechnologies Inc

Project	New Beatrice West Development	Operator	RC-DG	Filename	SDF(245).cpt
Job Number	21194	Cone Number	DDG1333	GPS	
Hole Number	CPT-04	Date and Time	3/17/2016 10:52:32 AM	Maximum Depth	4.10 ft
EST GW Depth During Test		20.00 ft			

Net Area Ratio .8

CPT DATA

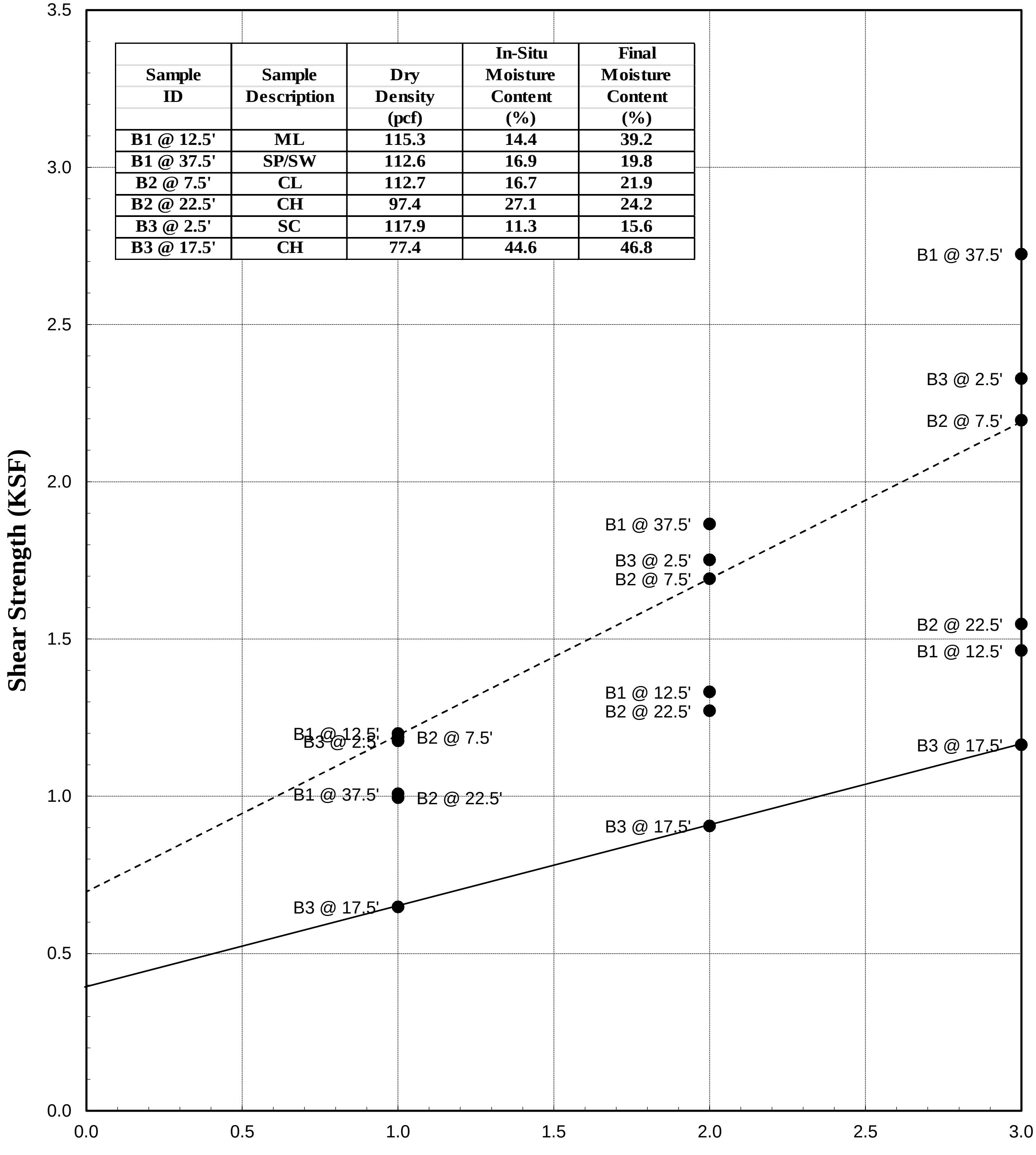


1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Cone Size 10cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Saturated Shear



Sample ID	Sample Description	Dry Density (pcf)	In-Situ Moisture Content (%)	Final Moisture Content (%)
B1 @ 12.5'	ML	115.3	14.4	39.2
B1 @ 37.5'	SP/SW	112.6	16.9	19.8
B2 @ 7.5'	CL	112.7	16.7	21.9
B2 @ 22.5'	CH	97.4	27.1	24.2
B3 @ 2.5'	SC	117.9	11.3	15.6
B3 @ 17.5'	CH	77.4	44.6	46.8

Exist Fill:	ϕ:	26.5 degrees	Alluvium:	ϕ:	14.5 degrees
	c:	685.0 psf		c:	390.0 psf

SHEAR TEST DIAGRAM

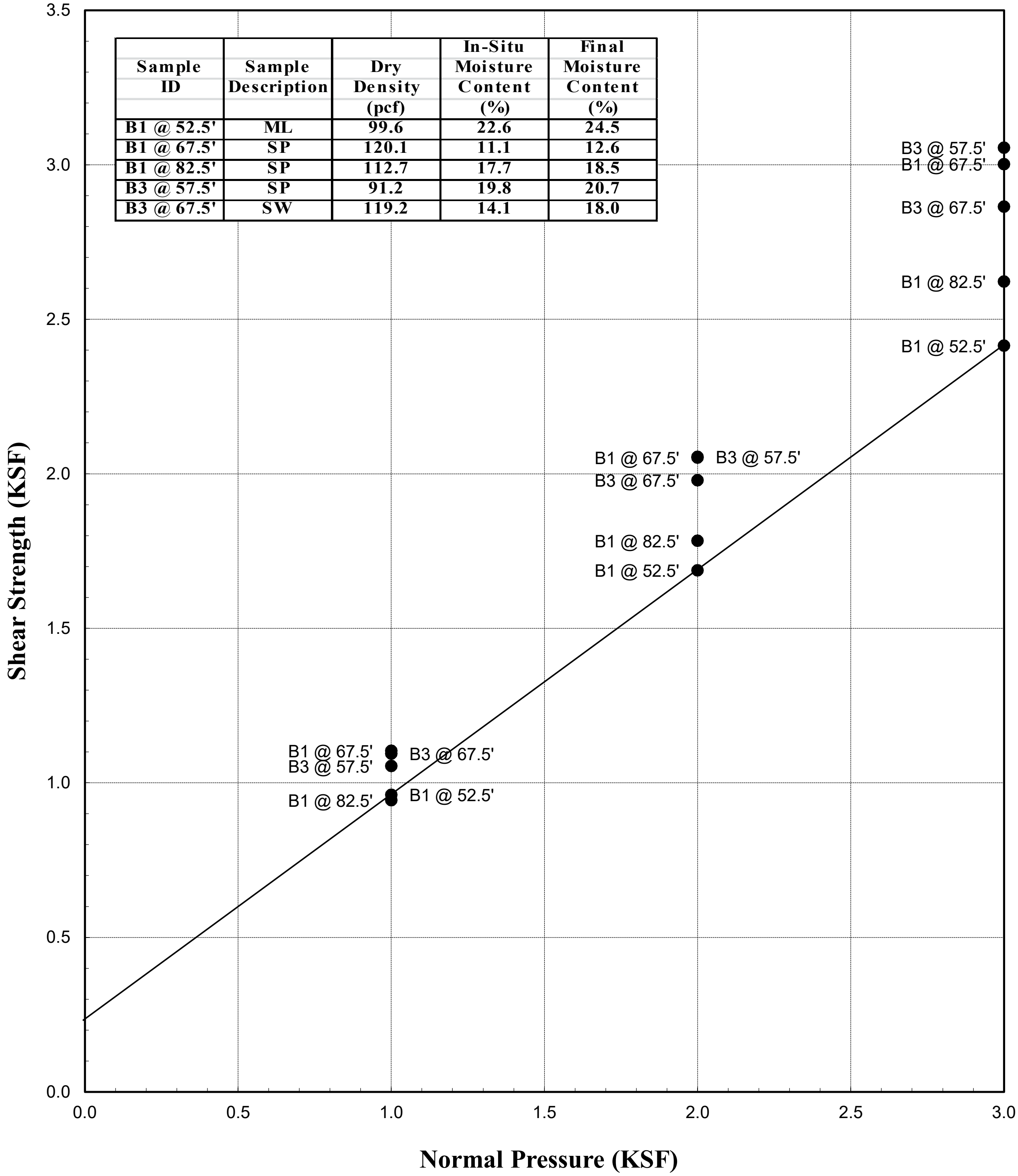
Geotechnologies, Inc.
Consulting Geotechnical Engineers

PROJECT: CHAIT COMPANY

FILE NO.: 21194

PLATE: B-1

Saturated Shear



Sample ID	Sample Description	Dry Density (pcf)	In-Situ Moisture Content (%)	Final Moisture Content (%)
B1 @ 52.5'	ML	99.6	22.6	24.5
B1 @ 67.5'	SP	120.1	11.1	12.6
B1 @ 82.5'	SP	112.7	17.7	18.5
B3 @ 57.5'	SP	91.2	19.8	20.7
B3 @ 67.5'	SW	119.2	14.1	18.0

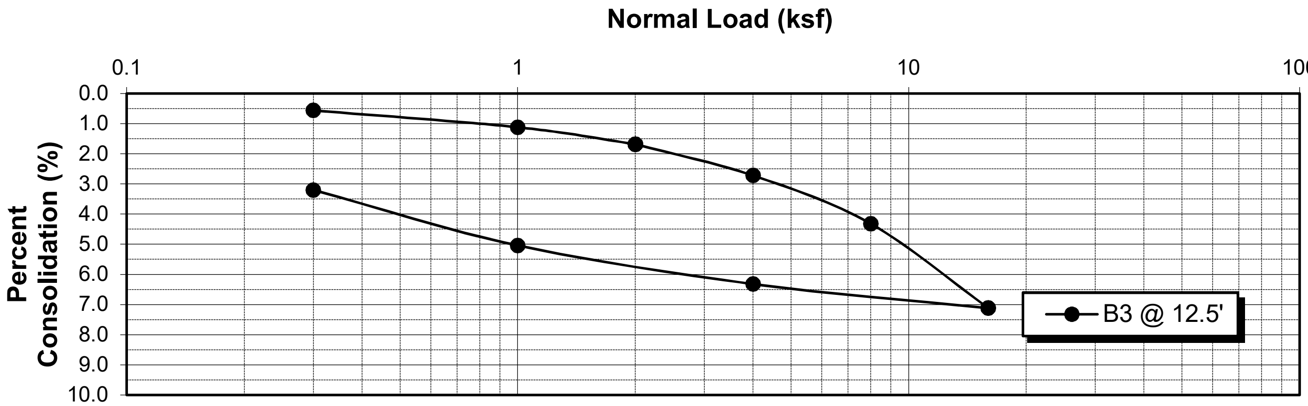
ϕ: 36.0 degrees
c: 235.0 psf

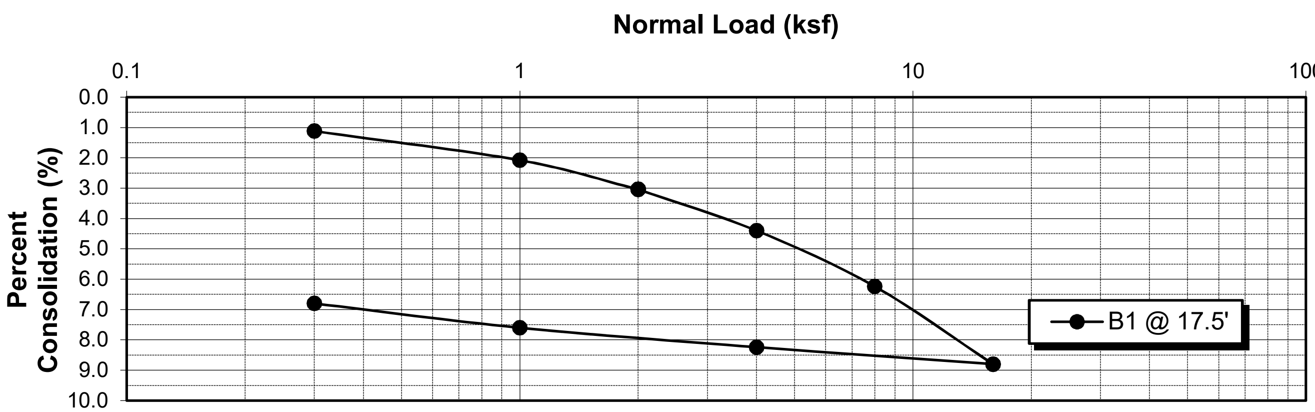
SHEAR TEST DIAGRAM

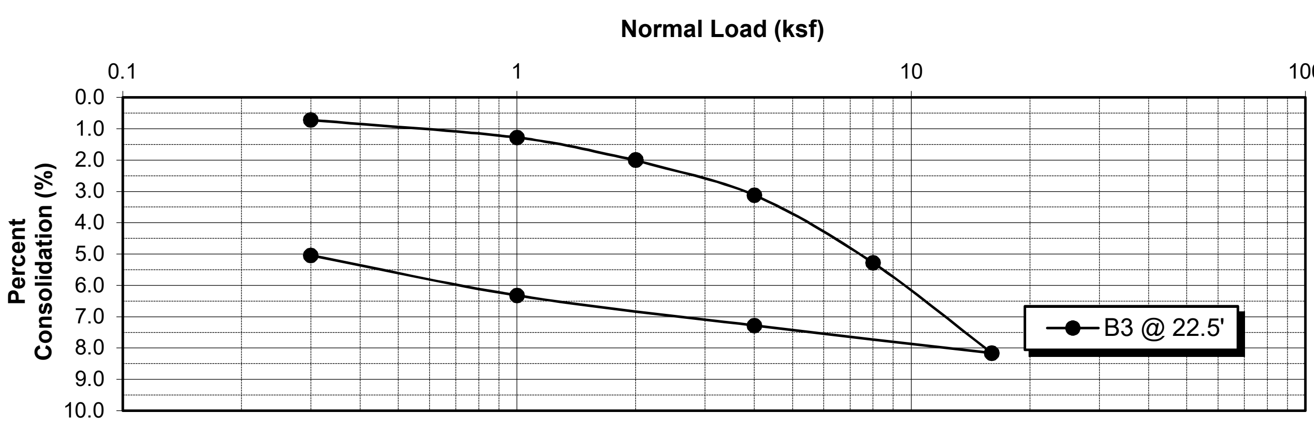
Geotechnologies, Inc.
Consulting Geotechnical Engineers

PROJECT: CHAIT COMPANY

FILE NO.: 21194 | PLATE: B-2





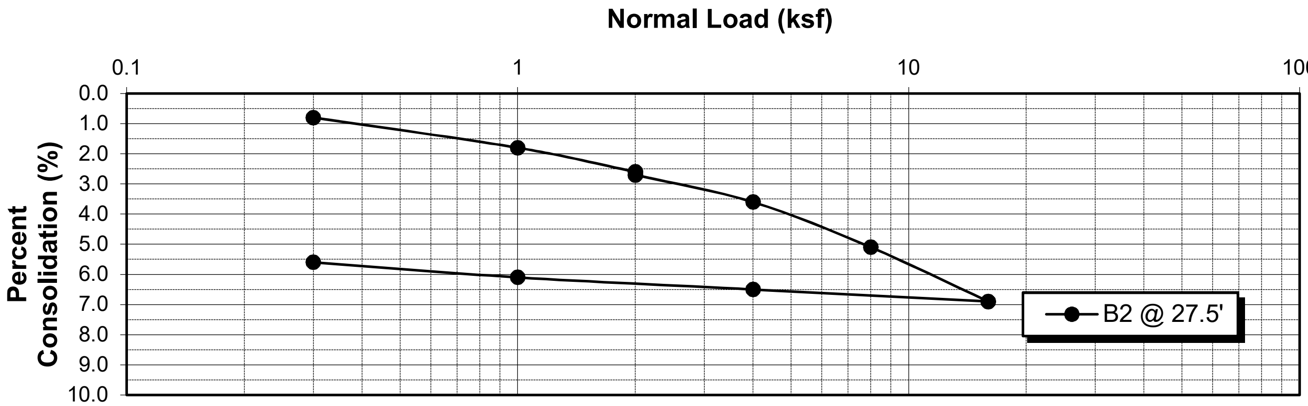


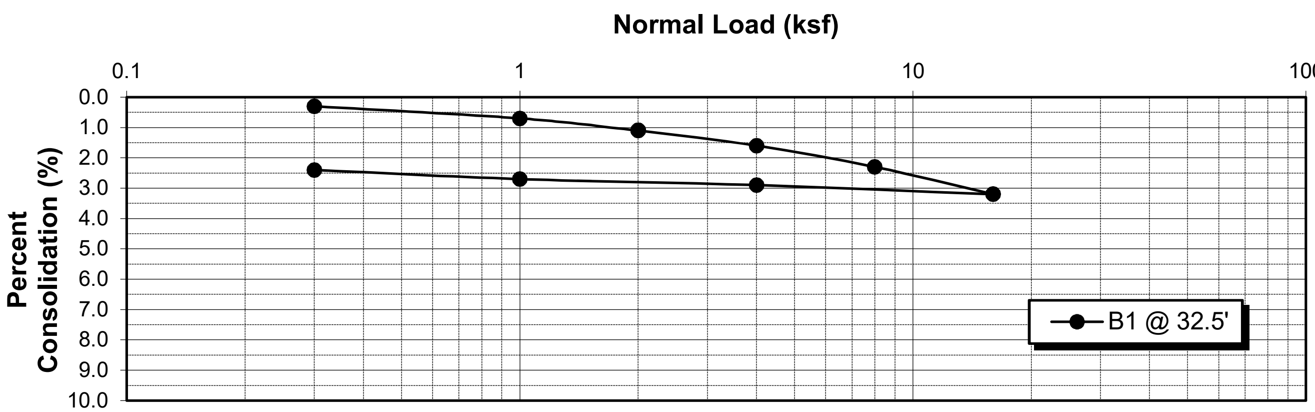
Water added at 2 KSF

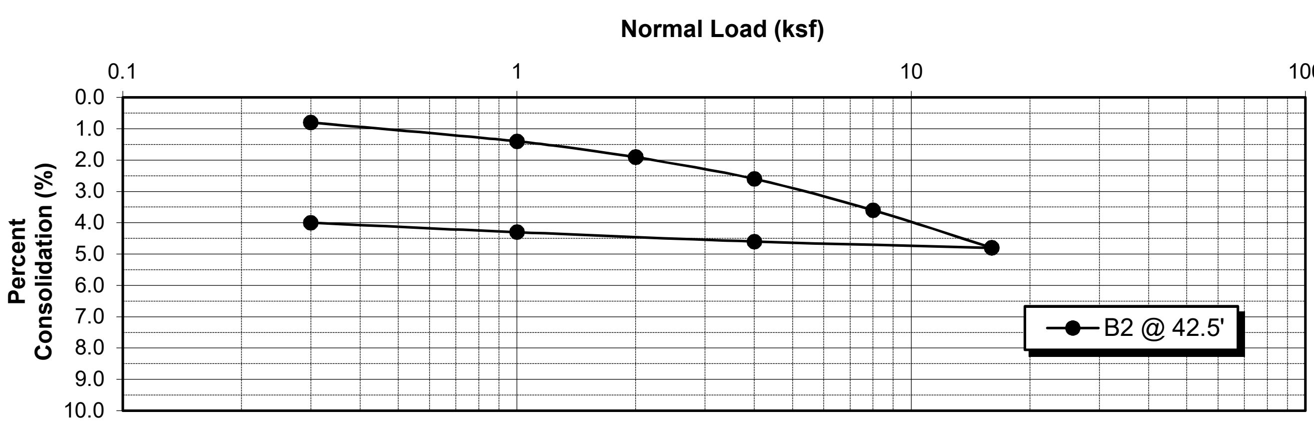
CONSOLIDATION

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: CHAIT COMPANY	
FILE NO. 21194	PLATE: C-1







Water added at 2 KSF

CONSOLIDATION

Geotechnologies, Inc. CONSULTING GEOTECHNICAL ENGINEERS	PROJECT: CHAIT COMPANY	
	FILE NO. 21194	PLATE: C-2

ASTM D-1557

SAMPLE	B1 @ 1-5'	B3 @ 1-5'
SOIL TYPE:	SM/CL	SC/CL
MAXIMUM DENSITY pcf.	129.0	121.0
OPTIMUM MOISTURE %	10.0	13.5
PERCENT FINER THAN 0.005MM %	<15%	>15%

ASTM D 4829

SAMPLE	B1 @ 1-5'	B3 @ 1-5'
SOIL TYPE:	SM/CL	SC/CL
EXPANSION INDEX UBC STANDARD 18-2	35	95
EXPANSION CHARACTER	LOW	HIGH

SULFATE CONTENT

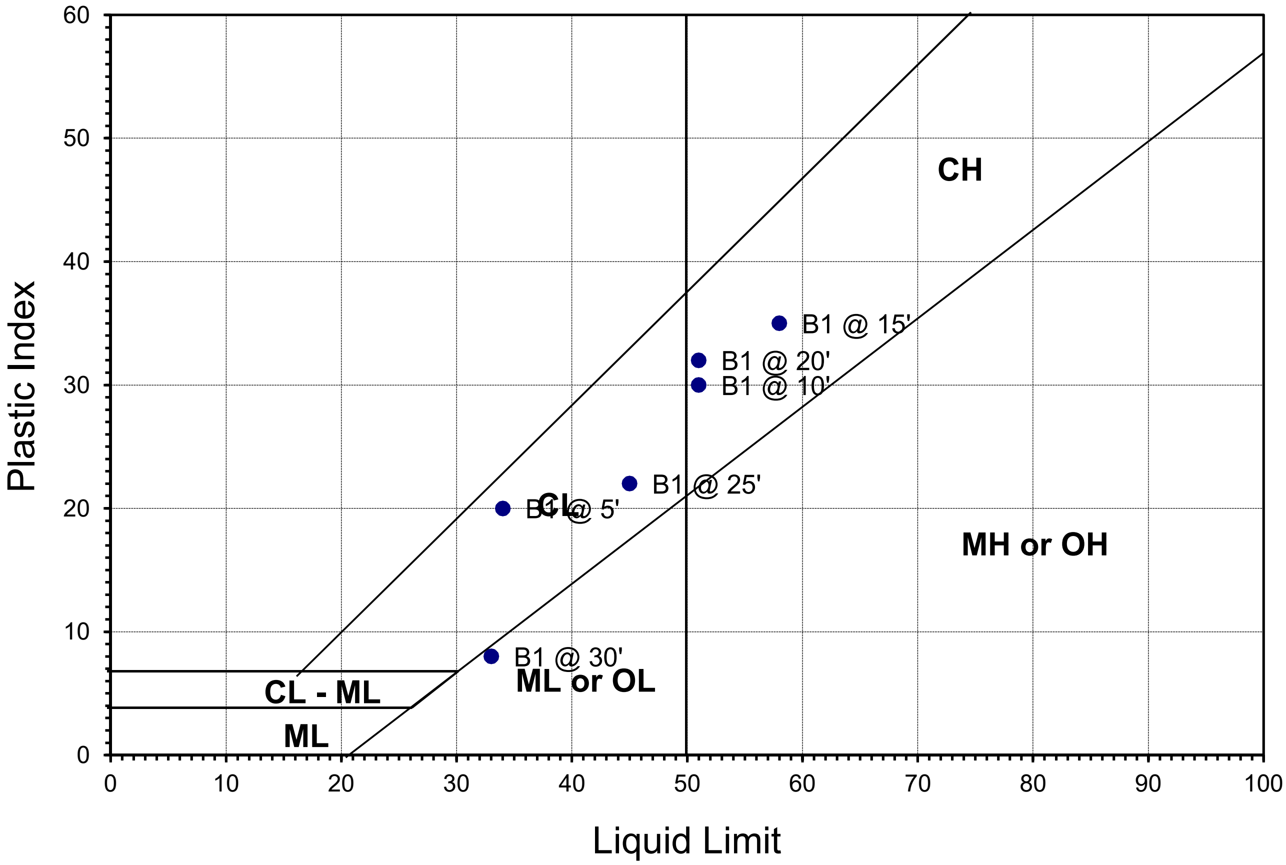
SAMPLE	B1 @ 1-5'	B3 @ 1-5'
SULFATE CONTENT: (ppm)	<250	<250

COMPACTION/EXPANSION/SULFATE DATA SHEET

Geotechnologies, Inc.
Consulting Geotechnical Engineers

CHAIT COMPANY ARCHITECTS

FILE NO. 21194 | PLATE: D



Sample ID	Descriptions	Passing #200	Liquid Limit	Plastic Limit	Plastic Index
B1 @ 5'	CL	62.6	34.0	14.0	20.0
B1 @ 10'	CH	84.8	51.0	21.0	30.0
B1 @ 15'	CH	89.7	58.0	23.0	35.0
B1 @ 20'	CH	81.2	51.0	19.0	32.0
B1 @ 25'	CL	80.2	45.0	23.0	22.0
B1 @ 30'	ML	79.8	33.0	25.0	8.0
B1 @ 35'	SC	31.1			
B1 @ 40'	SW	14.2			
B1 @ 50'	SC/ML	41.5			
B1 @ 55'	SC	46.7			

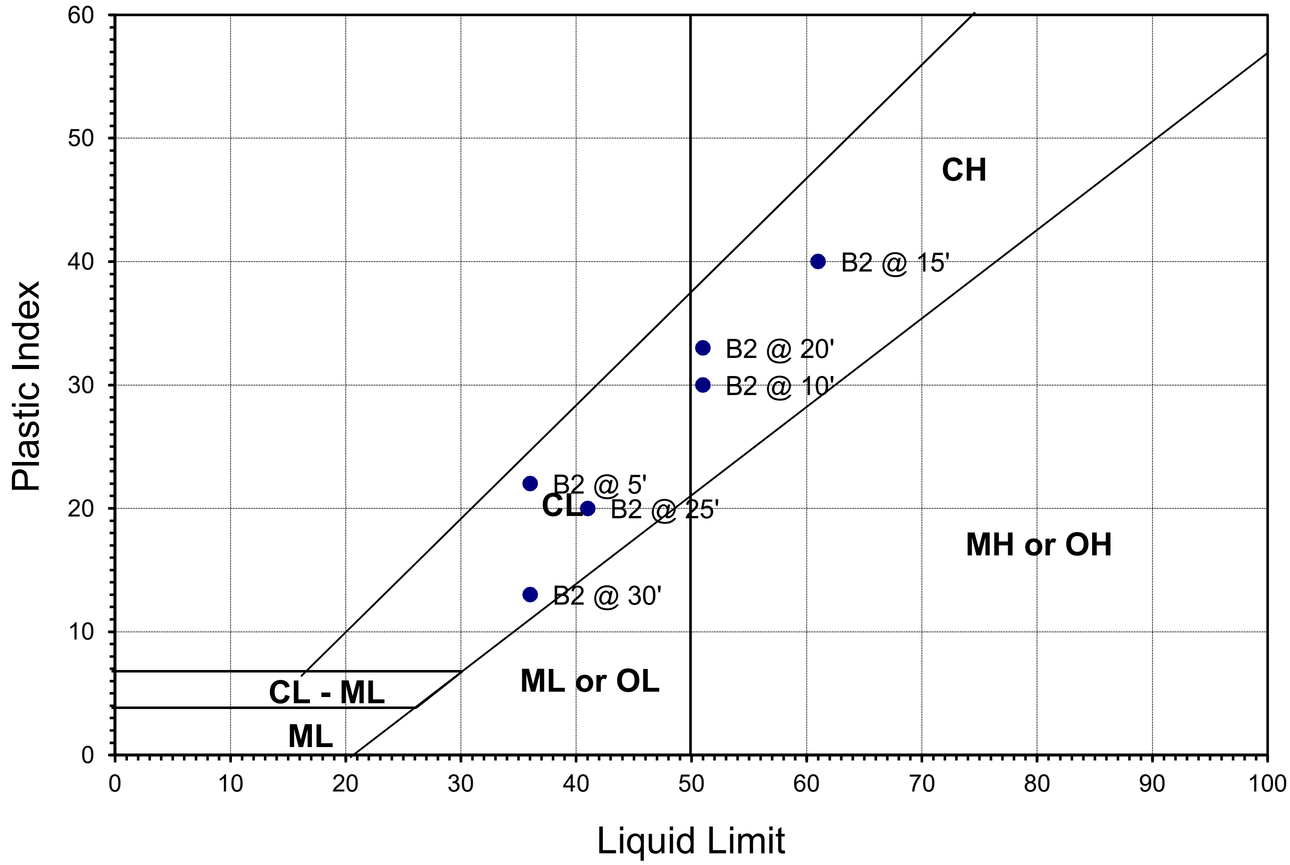
ATTERBERG LIMITS

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: CHAIT COMPANY

FILE NO. 21194

PLATE: F-1



Sample ID	Descriptions	Passing #200	Liquid Limit	Plastic Limit	Plastic Index
B2 @ 5'	CL	59.2	36.0	14.0	22.0
B2 @ 10'	CH	80.3	51.0	21.0	30.0
B2 @ 15'	CH	93.5	61.0	21.0	40.0
B2 @ 20'	CH	78.6	51.0	18.0	33.0
B2 @ 25'	CL	91.3	41.0	21.0	20.0
B2 @ 30'	CL	82.8	36.0	23.0	13.0
B2 @ 40'	SM	23.0			
B2 @ 50'	SM	32.1			

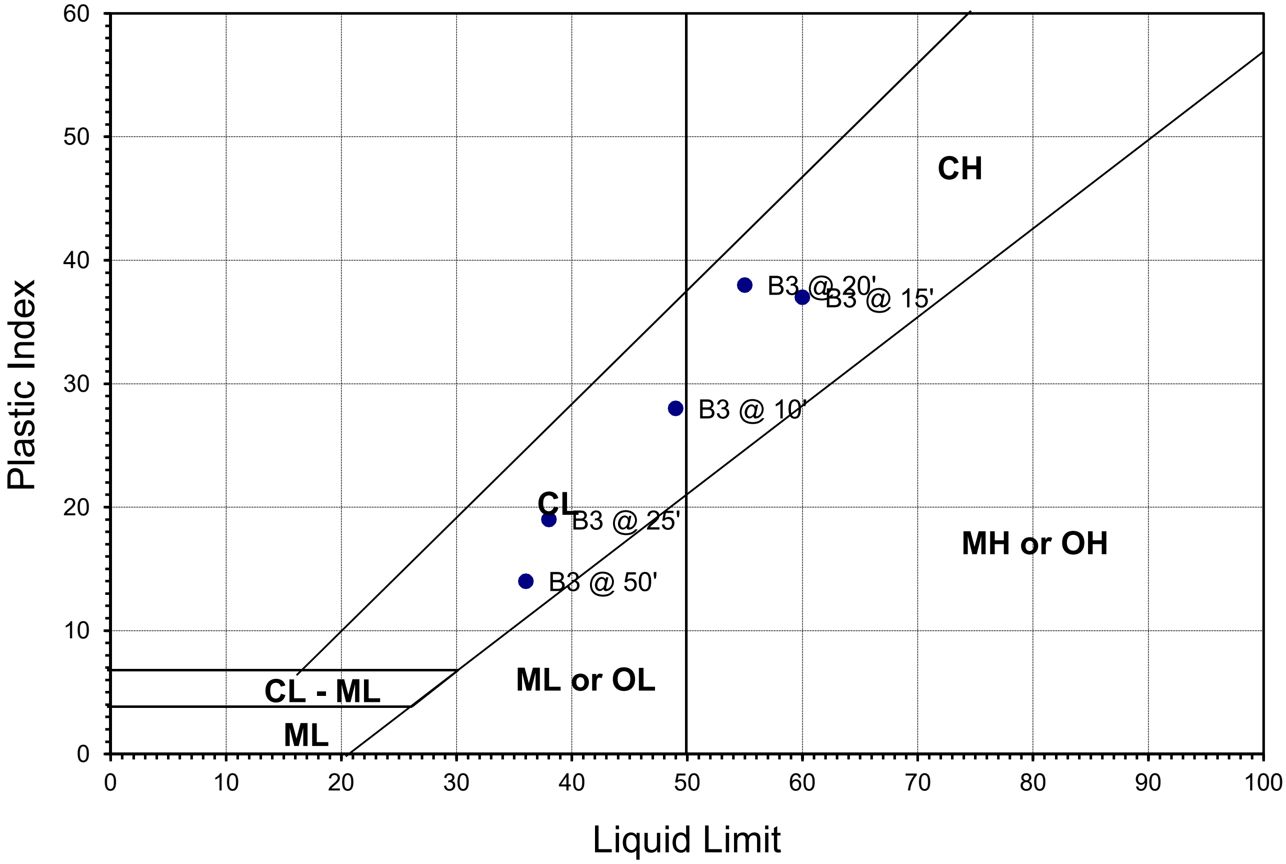
ATTERBERG LIMITS

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: CHAIT COMPANY

FILE NO. 21194

PLATE: F-2



Sample ID	Descriptions	Passing #200	Liquid Limit	Plastic Limit	Plastic Index
B3 @ 10'	CL	51.6	49.0	21.0	28.0
B3 @ 15'	CH	78.8	60.0	23.0	37.0
B3 @ 20'	CH	85.7	55.0	17.0	38.0
B3 @ 25'	CL	88.7	38.0	19.0	19.0
B3 @ 30'	SM	30.7			
B3 @ 45'	SM	17.4			
B3 @ 50'	CL	53.0	36.0	22.0	14.0
B3 @ 55'	SP	9.6			
B3 @ 60'	SP	5.5			

ATTERBERG LIMITS

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: CHAIT COMPANY

FILE NO. 21194

PLATE: F-3

Geotechnologies, Inc.
Project: Chait Company
File No.: 21194
Description: Liquefaction Analysis
Boring Numb(1

LIQUEFACTION EVALUATION (Idriss & Boulanger, EERI NO 12)

EARTHQUAKE INFORMATION:

Earthquake Magnitude (M):	6.7
Peak Ground Horizontal Acceleration, PGA (g):	0.88
Calculated Mag.Wtg.Factor:	1.234

GROUNDWATER INFORMATION:

Current Groundwater Level (ft):	22.5
Historically Highest Groundwater Level* (ft):	15.0
Unit Weight of Water (pcf):	62.4

* Based on California Geological Survey Seismic Hazard Evaluation Report

BOREHOLE AND SAMPLER INFORMATION:

Borehole Diameter (inches):	5
SPT Sampler with room for Liner (Y/N):	Y

LIQUEFACTION BOUNDARY:

Plastic Index Cut Off (PI):	18
Minimum Liquefaction FS:	1

Depth to Base Layer (feet)	Total Unit Weight (pcf)	Current Water Level (feet)	Historical Water Level (feet)	Field SPT Blowcount N	Depth of SPT Blowcount (feet)	Fines Content #200 Sieve (%)	Plastic Index (PI)	Vetical Stress σ_{vc}, (psf)	Effective Vert. Stress σ_{vc}', (psf)	Fines Corrected $(N_1)_{60-cs}$	Stress Reduction Coeff, r_d	Cyclic Shear Ratio CSR	Cyclic Resistance Ratio (CRR)	Factor of Safety CRR/CSR (F.S.)	Liquefaction Settlment ΔS_i (inches)
1	132.0	Unsaturated	Unsaturated	12	5	62.6	20	132.0	132.0	32.4	1.00	0.574	0.936	Non-Liq.	0.00
2	132.0	Unsaturated	Unsaturated	12	5	62.6	20	264.0	264.0	32.4	1.00	0.572	0.936	Non-Liq.	0.00
3	132.0	Unsaturated	Unsaturated	12	5	62.6	20	396.0	396.0	32.4	1.00	0.571	0.936	Non-Liq.	0.00
4	132.0	Unsaturated	Unsaturated	12	5	62.6	20	528.0	528.0	32.4	0.99	0.568	0.936	Non-Liq.	0.00
5	132.0	Unsaturated	Unsaturated	12	5	62.6	20	660.0	660.0	34.6	0.99	0.566	1.376	Non-Liq.	0.00
6	132.0	Unsaturated	Unsaturated	12	5	62.6	20	792.0	792.0	32.4	0.99	0.564	0.935	Non-Liq.	0.00
7	132.0	Unsaturated	Unsaturated	12	5	62.6	20	924.0	924.0	30.2	0.98	0.562	0.679	Non-Liq.	0.00
8	132.0	Unsaturated	Unsaturated	12	5	62.6	20	1056.0	1056.0	28.5	0.98	0.559	0.550	Non-Liq.	0.00
9	132.0	Unsaturated	Unsaturated	12	5	62.6	20	1188.0	1188.0	28.5	0.97	0.557	0.549	Non-Liq.	0.00
10	132.0	Unsaturated	Unsaturated	12	5	62.6	20	1320.0	1320.0	27.2	0.97	0.554	0.474	Non-Liq.	0.00
11	132.0	Unsaturated	Unsaturated	6	10	84.8	30	1452.0	1452.0	15.5	0.96	0.552	0.206	Non-Liq.	0.00
12	132.0	Unsaturated	Unsaturated	6	10	84.8	30	1584.0	1584.0	15.0	0.96	0.549	0.199	Non-Liq.	0.00
13	121.7	Unsaturated	Unsaturated	6	15	89.7	35	1705.7	1705.7	14.6	0.96	0.546	0.193	Non-Liq.	0.00
14	121.7	Unsaturated	Unsaturated	6	15	89.7	35	1827.4	1827.4	14.3	0.95	0.543	0.188	Non-Liq.	0.00
15	121.7	Unsaturated	Unsaturated	6	15	89.7	35	1949.1	1949.1	14.9	0.95	0.541	0.194	Non-Liq.	0.00
16	121.7	Unsaturated	Saturated	6	15	89.7	35	2070.8	2008.4	14.8	0.94	0.554	0.191	Non-Liq.	0.00
17	121.7	Unsaturated	Saturated	6	15	89.7	35	2192.5	2067.7	14.6	0.93	0.567	0.189	Non-Liq.	0.00
18	120.4	Unsaturated	Saturated	6	15	89.7	35	2312.9	2125.7	14.5	0.93	0.578	0.187	Non-Liq.	0.00
19	120.4	Unsaturated	Saturated	6	15	89.7	35	2433.3	2183.7	14.4	0.92	0.589	0.185	Non-Liq.	0.00
20	120.4	Unsaturated	Saturated	6	15	89.7	35	2553.7	2241.7	14.2	0.92	0.599	0.184	Non-Liq.	0.00
21	120.4	Unsaturated	Saturated	5	20	81.2	32	2674.1	2299.7	12.7	0.91	0.607	0.168	Non-Liq.	0.00
22	120.4	Unsaturated	Saturated	5	20	81.2	32	2794.5	2357.7	12.6	0.91	0.615	0.167	Non-Liq.	0.00
23	114.3	Saturated	Saturated	8	25	80.2	22	2908.8	2409.6	16.8	0.90	0.623	0.209	Non-Liq.	0.00
24	114.3	Saturated	Saturated	8	25	80.2	22	3023.1	2461.5	16.6	0.90	0.629	0.207	Non-Liq.	0.00
25	114.3	Saturated	Saturated	8	25	80.2	22	3137.4	2513.4	16.5	0.89	0.636	0.205	Non-Liq.	0.00
26	114.3	Saturated	Saturated	8	25	80.2	22	3251.7	2565.3	16.4	0.88	0.641	0.203	Non-Liq.	0.00
27	114.3	Saturated	Saturated	8	25	80.2	22	3366.0	2617.2	16.3	0.88	0.646	0.201	Non-Liq.	0.00
28	123.5	Saturated	Saturated	8	30	79.8	8	3489.5	2678.3	16.7	0.87	0.650	0.206	0.3	0.32
29	123.5	Saturated	Saturated	8	30	79.8	8	3613.0	2739.4	16.6	0.87	0.654	0.204	0.3	0.32
30	123.5	Saturated	Saturated	8	30	79.8	8	3736.5	2800.5	16.5	0.86	0.657	0.202	0.3	0.32
31	123.5	Saturated	Saturated	8	30	79.8	8	3860.0	2861.6	16.4	0.85	0.659	0.200	0.3	0.32
32	123.5	Saturated	Saturated	8	30	79.8	8	3983.5	2922.7	16.3	0.85	0.661	0.198	0.3	0.33
33	127.1	Saturated	Saturated	14	35	31.1	0	4110.6	2987.4	25.8	0.84	0.663	0.360	0.5	0.22
34	127.1	Saturated	Saturated	14	35	31.1	0	4237.7	3052.1	25.6	0.84	0.664	0.353	0.5	0.22
35	127.1	Saturated	Saturated	14	35	31.1	0	4364.8	3116.8	25.4	0.83	0.664	0.346	0.5	0.22
36	127.1	Saturated	Saturated	14	35	31.1	0	4491.9	3181.5	25.2	0.82	0.665	0.339	0.5	0.23
37	127.1	Saturated	Saturated	14	35	31.1	0	4619.0	3246.2	25.0	0.82	0.665	0.333	0.5	0.23
38	131.6	Saturated	Saturated	35	40	14.2	0	4750.6	3315.4	61.0	0.81	0.665	2.000	3.0	0.00
39	131.6	Saturated	Saturated	35	40	14.2	0	4882.2	3384.6	60.7	0.80	0.664	2.000	3.0	0.00
40	131.6	Saturated	Saturated	35	40	14.2	0	5013.8	3453.8	60.4	0.80	0.663	2.000	3.0	0.00
41	131.6	Saturated	Saturated	35	40	14.2	0	5145.4	3523.0	60.1	0.79	0.662	2.000	3.0	0.00
42	131.6	Saturated	Saturated	35	40	14.2	0	5277.0	3592.2	59.8	0.79	0.661	2.000	3.0	0.00
43	126.6	Saturated	Saturated	35	40	14.2	0	5403.6	3656.4	59.6	0.78	0.659	2.000	3.0	0.00
44	126.6	Saturated	Saturated	35	40	14.2	0	5530.2	3720.6	59.3	0.77	0.658	2.000	3.0	0.00
45	126.6	Saturated	Saturated	35	40	14.2	0	5656.8	3784.8	59.1	0.77	0.656	2.000	3.0	0.00
46	126.6	Saturated	Saturated	24	45	0.0	0	5783.4	3849.0	37.1	0.76	0.655	1.831	2.8	0.00
47	126.6	Saturated	Saturated	24	45	0.0	0	5910.0	3913.2	36.9	0.76	0.653	1.721	2.6	0.00
48	120.5	Saturated	Saturated	19	50	41.5	0	6030.5	3971.3	32.1	0.75	0.651	0.692	1.1	0.00
49	120.5	Saturated	Saturated	19	50	41.5	0	6151.0	4029.4	31.9	0.74	0.649	0.672	1.0	0.00
50	120.5	Saturated	Saturated	19	50	41.5	0	6271.5	4087.5	31.8	0.74	0.647	0.654	1.0	0.00
51	120.5	Saturated	Saturated	19	50	41.5	0	6392.0	4145.6	31.6	0.73	0.645	0.637	1.0	0.08
52	120.5	Saturated	Saturated	19	50	41.5	0	6512.5	4203.7	31.4	0.73	0.643	0.621	1.0	0.08
53	122.2	Saturated	Saturated	19	50	41.5	0	6634.7	4263.5	31.3	0.72	0.641	0.606	0.9	0.09
54	122.2	Saturated	Saturated	19	50	41.5	0	6756.9	4323.3	31.1	0.71	0.639	0.591	0.9	0.09
55	122.2	Saturated	Saturated	19	50	41.5	0	6879.1	4383.1	31.0	0.71	0.636	0.577	0.9	0.09
56	122.2	Saturated	Saturated	11	55	46.7	0	7001.3	4442.9	18.0	0.70	0.634	0.206	0.3	0.30
57	122.2	Saturated	Saturated	11	55	46.7	0	7123.5	4502.7	17.9	0.70	0.631	0.205	0.3	0.30
58	124.3	Saturated	Saturated	73	60	0.0	0	7247.8	4564.6	111.3	0.69	0.628	1.907	3.0	0.00
59	124.3	Saturated	Saturated	73	60	0.0	0	7372.1	4626.5	111.0	0.69	0.626	1.897	3.0	0.00
60	124.3	Saturated	Saturated	73	60	0.0	0	7496.4	4688.4	110.6	0.68	0.623	1.887	3.0	0.00
61	124.3	Saturated	Saturated	73	60	0.0	0	7620.7	4750.3	110.2	0.68	0.620	1.877	3.0	0.00
62	124.3	Saturated	Saturated	73	60	0.0	0	7745.0	4812.2	109.8	0.67	0.617	1.868	3.0	0.00
63	138.3	Saturated	Saturated	73	60	0.0	0	7883.3	4888.1	109.4	0.67	0.614	1.857	3.0	0.00
64	138.3	Saturated	Saturated	73	60	0.0	0	8021.6	4964.0	108.9	0.66	0.610	1.845	3.0	0.00
65	138.3	Saturated	Saturated	73	60	0.0	0	8159.9	5039.9	108.5	0.65	0.606	1.834	3.0	0.00
66	138.3	Saturated	Saturated	91	65	0.0	0	8298.2	5115.8	134.7	0.65	0.603	1.823	3.0	0.00
67	138.3	Saturated	Saturated	91	65	0.0	0	8436.5	5191.7	134.2	0.64	0.600	1.813	3.0	0.00
68	133.4	Saturated	Saturated	91	65	0.0	0	8569.9	5262.7	133.7	0.64	0.596	1.803	3.0	0.00
69	133.4	Saturated	Saturated	91	65	0.0	0	8703.3	5333.7	133.2	0.64	0.593	1.793	3.0	0.00
70	133.4	Saturated	Saturated	91	65	0.0	0	8836.7	5404.7	132.8	0.63	0.590	1.783	3.0	0.00
71	133.4	Saturated	Saturated	80	70	0.0	0	8970.1	5475.7	116.3	0.63	0.587	1.774	3.0	0.00
72	133.4	Saturated	Saturated	80	70	0.0	0	9103.5	5546.7	115.9	0.62	0.584	1.765	3.0	0.00
73	127.8	Saturated	Saturated	80	70	0.0	0	9231.3	5612.1	115.6	0.62	0.581	1.756	3.0	0.00
74	127.8	Saturated	Saturated	80	70	0.0	0	9359.1	5677.5	115.2	0.61	0.578	1.748	3.0	0.00
75	127.8	Saturated	Saturated	80	70	0.0	0	9486.9	5742.9	114.9	0.61	0.575	1.739	3.0	0.00
76	127.8	Saturated	Saturated	83	75	0.0	0	9614.7	5808.3	118.8	0.60	0.572	1.731	3.0	0.00
77	127.8	Saturated	Saturated	83	75	0.0	0	9742.5	5873.7	118.5	0.60	0.570	1.723	3.0	0.00
78	130.7	Saturated	Saturated	83	75	0.0	0	9873.2	5942.0	118.1	0.60	0.567	1.714	3.0	0.00
79	130.7	Saturated	Saturated	83	75	0.0	0	10003.9	6010.3	117.8	0.59	0.564	1.706	3.0	0.00
80	130.7	Saturated	Saturated	83	75	0.0	0	10134.6	6078.6	117.4	0.59	0.562	1.698	3.0	0.00
81	130.7	Saturated	Saturated	84	80	0.0	0	10265.3	6146.9	118.5	0.59	0.559	1.690	3.0	0.00
82	130.7	Saturated	Saturated	84	80	0.0	0	10396.0	6215.2	118.1	0.58	0.556	1.682	3.0	0.00
83	132.6	Saturated	Saturated	84	80	0.0	0	10528.6	6285.4	117.8	0.58	0.554	1.673	3.0	0.00
84	132.6	Saturated	Saturated	84	80	0.0	0	10661.2	6355.6	117.4	0.57	0.551	1.665	3.0	0.00
85	132.6	Saturated	Saturated	84	80	0.0	0	10793.8	6425.8	117.1	0.57	0.549	1.657	3.0	0.00
86	132.6	Saturated	Saturated	65	85	0.0	0	10926.4	6496.0	90.4	0.57	0.547	1.649	3.0	0.00
87	132.6	Saturated	Saturated	65	85	0.0	0	11059.0	6566.2	90.1	0.56	0.544	1.642	3.0	0.00
88	132.0	Saturated	Saturated	65	85	0.0	0	11191.0	6635.8	89.8	0.56	0.542	1.634	3.0	0.00
89	132.0	Saturated	Saturated	65	85	0.0	0	11323.0	6705.4	89.6	0.56	0.540	1.626	3.0	0.00
90	132.0	Saturated	Saturated	65	85	0.0	0	11455.0	6775.0	89.4	0.56	0.538	1.619	3.0	0.00
91	132.0	Saturated	Saturated	81	90	0.0	0	11587.0	6844.6	111.1	0.55	0.536	1.611	3.0	0.00
92	132.0	Saturated	Saturated	81	90	0.0	0	11719.0	6914.2	110.8	0.55	0.534	1.604	3.0	0.00
93	132.1	Saturated	Saturated	81	90	0.0	0	11851.1	6983.9	110.5	0.55	0.532	1.597	3.0	0.00
94	132.1	Saturated	Saturated	81	90	0.0	0	11983.2	7053.6	110.2	0.55	0.530	1.589	3.0	0.00
95	132.1	Saturated	Saturated	81	90	0.0	0	12115.3	7123.3	109.9	0.54	0.529	1.582	3.0	0.00
96	132.1	Saturated	Saturated	71	95	0.0	0	12247.4	7193.0	96.1	0.54	0.527	1.575	3.0	0.00
97	132.1	Saturated	Saturated	71	95	0.0	0	12379.5	7262.7	95.8	0.54	0.526	1.568	3.0	0.00
98	123.6	Saturated	Saturated	71	95	0.0	0	12503.1	7323.9	95.6	0.54	0.524	1.562	3.0	0.00
99	123.6	Saturated	Saturated	71	95	0.0	0	12626.7	7385.1	95.4	0.54	0.523	1.556	3.0	0.00
100	123.6	Saturated	Saturated	71	95	0.0	0	12750.3	7446.3	95.2	0.53	0.522	1.550	3.0	0.00
											Total Liquefaction Settlement, S =			3.77 inches	

Geotechnologies, Inc.

Project: Chait Company
File No.: 21194
Description: Liquefaction Analysis
Boring Numbe 2

LIQUEFACTION EVALUATION (Idriss & Boulanger, EERI NO 12)

EARTHQUAKE INFORMATION:

Earthquake Magnitude (M):	6.7
Peak Ground Horizontal Acceleration, PGA (g):	0.88
Calculated Mag.Wtg.Factor:	1.234

GROUNDWATER INFORMATION:

Current Groundwater Level (ft):	24.0
Historically Highest Groundwater Level* (ft):	15.0
Unit Weight of Water (pcf):	62.4

* Based on California Geological Survey Seismic Hazard Evaluation Report

BOREHOLE AND SAMPLER INFORMATION:

Borehole Diameter (inches):	5
SPT Sampler with room for Liner (Y/N):	Y

LIQUEFACTION BOUNDARY:

Plastic Index Cut Off (PI):	18
Minimum Liquefaction FS:	1

Depth to Base Layer (feet)	Total Unit Weight (pcf)	Current Water Level (feet)	Historical Water Level (feet)	Field SPT Blowcount N	Depth of SPT Blowcount (feet)	Fines Content #200 Sieve (%)	Plastic Index (PI)	Vetical Stress σ_{vc}, (psf)	Effective Vert. Stress σ_{vc}', (psf)	Fines Corrected $(N_1)_{60\text{-}cs}$	Stress Reduction Coeff, r_d	Cyclic Shear Ratio CSR	Cyclic Resistance Ratio (CRR)	Factor of Safety CRR/CSR (F.S.)	Liquefaction Settlment ΔS_i (inches)
1	137.4	Unsaturated	Unsaturated	17	5	59.2	22	137.4	137.4	46.1	1.00	0.574	2.000	Non-Liq.	0.00
2	137.4	Unsaturated	Unsaturated	17	5	59.2	22	274.8	274.8	46.1	1.00	0.572	2.000	Non-Liq.	0.00
3	137.4	Unsaturated	Unsaturated	17	5	59.2	22	412.2	412.2	46.1	1.00	0.571	2.000	Non-Liq.	0.00
4	137.4	Unsaturated	Unsaturated	17	5	59.2	22	549.6	549.6	46.1	0.99	0.568	2.000	Non-Liq.	0.00
5	137.4	Unsaturated	Unsaturated	17	5	59.2	22	687.0	687.0	45.3	0.99	0.566	2.000	Non-Liq.	0.00
6	137.4	Unsaturated	Unsaturated	17	5	59.2	22	824.4	824.4	42.5	0.99	0.564	2.000	Non-Liq.	0.00
7	137.4	Unsaturated	Unsaturated	17	5	59.2	22	961.8	961.8	39.9	0.98	0.562	2.000	Non-Liq.	0.00
8	131.5	Unsaturated	Unsaturated	17	5	59.2	22	1093.3	1093.3	37.8	0.98	0.559	2.000	Non-Liq.	0.00
9	131.5	Unsaturated	Unsaturated	17	5	59.2	22	1224.8	1224.8	38.2	0.97	0.557	2.000	Non-Liq.	0.00
10	131.5	Unsaturated	Unsaturated	17	5	59.2	22	1356.3	1356.3	36.6	0.97	0.554	2.000	Non-Liq.	0.00
11	131.5	Unsaturated	Unsaturated	11	10	80.3	30	1487.8	1487.8	24.0	0.96	0.552	0.349	Non-Liq.	0.00
12	131.5	Unsaturated	Unsaturated	11	10	80.3	30	1619.3	1619.3	23.2	0.96	0.549	0.324	Non-Liq.	0.00
13	124.1	Unsaturated	Unsaturated	11	10	80.3	30	1743.4	1743.4	22.5	0.96	0.546	0.305	Non-Liq.	0.00
14	124.1	Unsaturated	Unsaturated	11	10	80.3	30	1867.5	1867.5	21.8	0.95	0.543	0.290	Non-Liq.	0.00
15	124.1	Unsaturated	Unsaturated	11	10	80.3	30	1991.6	1991.6	23.4	0.95	0.541	0.319	Non-Liq.	0.00
16	124.1	Unsaturated	Saturated	6	15	93.5	40	2115.7	2053.3	14.7	0.94	0.554	0.190	Non-Liq.	0.00
17	124.1	Unsaturated	Saturated	6	15	93.5	40	2239.8	2115.0	14.5	0.93	0.566	0.188	Non-Liq.	0.00
18	113.8	Unsaturated	Saturated	6	15	93.5	40	2353.6	2166.4	14.4	0.93	0.578	0.186	Non-Liq.	0.00
19	113.8	Unsaturated	Saturated	6	15	93.5	40	2467.4	2217.8	14.3	0.92	0.588	0.184	Non-Liq.	0.00
20	113.8	Unsaturated	Saturated	6	15	93.5	40	2581.2	2269.2	14.2	0.92	0.598	0.183	Non-Liq.	0.00
21	113.8	Unsaturated	Saturated	6	20	78.6	33	2695.0	2320.6	14.1	0.91	0.607	0.182	Non-Liq.	0.00
22	113.8	Unsaturated	Saturated	6	20	78.6	33	2808.8	2372.0	14.0	0.91	0.615	0.180	Non-Liq.	0.00
23	123.8	Unsaturated	Saturated	5	25	91.3	20	2932.6	2433.4	12.4	0.90	0.622	0.165	Non-Liq.	0.00
24	123.8	Unsaturated	Saturated	5	25	91.3	20	3056.4	2494.8	12.3	0.90	0.628	0.164	Non-Liq.	0.00
25	123.8	Saturated	Saturated	5	25	91.3	20	3180.2	2556.2	12.2	0.89	0.633	0.163	Non-Liq.	0.00
26	123.8	Saturated	Saturated	5	25	91.3	20	3304.0	2617.6	12.1	0.88	0.638	0.161	Non-Liq.	0.00
27	123.8	Saturated	Saturated	5	25	91.3	20	3427.8	2679.0	12.1	0.88	0.643	0.160	Non-Liq.	0.00
28	125.1	Saturated	Saturated	5	25	91.3	20	3552.9	2741.7	12.3	0.87	0.647	0.162	Non-Liq.	0.00
29	125.1	Saturated	Saturated	5	25	91.3	20	3678.0	2804.4	12.2	0.87	0.650	0.161	Non-Liq.	0.00
30	125.1	Saturated	Saturated	5	25	91.3	20	3803.1	2867.1	12.2	0.86	0.653	0.160	Non-Liq.	0.00
31	125.1	Saturated	Saturated	5	30	82.8	13	3928.2	2929.8	12.1	0.85	0.655	0.159	0.2	0.40
32	125.1	Saturated	Saturated	5	30	82.8	13	4053.3	2992.5	12.0	0.85	0.657	0.158	0.2	0.40
33	124.7	Saturated	Saturated	27	35	0.0	13	4178.0	3054.8	45.8	0.84	0.659	2.000	3.0	0.00
34	124.7	Saturated	Saturated	27	35	0.0	13	4302.7	3117.1	45.5	0.84	0.660	2.000	3.0	0.00
35	124.7	Saturated	Saturated	27	35	0.0	13	4427.4	3179.4	45.3	0.83	0.661	2.000	3.0	0.00
36	124.7	Saturated	Saturated	27	35	0.0	0	4552.1	3241.7	45.1	0.82	0.661	2.000	3.0	0.00
37	124.7	Saturated	Saturated	27	35	0.0	0	4676.8	3304.0	44.8	0.82	0.662	2.000	3.0	0.00
38	139.1	Saturated	Saturated	27	35	0.0	0	4815.9	3380.7	44.6	0.81	0.661	2.000	3.0	0.00
39	139.1	Saturated	Saturated	27	35	0.0	0	4955.0	3457.4	44.3	0.80	0.660	2.000	3.0	0.00
40	139.1	Saturated	Saturated	27	35	0.0	0	5094.1	3534.1	44.1	0.80	0.658	2.000	3.0	0.00
41	139.1	Saturated	Saturated	14	40	23.0	0	5233.2	3610.8	23.5	0.79	0.657	0.292	0.4	0.24
42	139.1	Saturated	Saturated	14	40	23.0	0	5372.3	3687.5	23.3	0.79	0.655	0.288	0.4	0.24
43	136.6	Saturated	Saturated	14	40	23.0	0	5508.9	3761.7	23.1	0.78	0.653	0.283	0.4	0.24
44	136.6	Saturated	Saturated	14	40	23.0	0	5645.5	3835.9	22.9	0.77	0.651	0.279	0.4	0.25
45	136.6	Saturated	Saturated	14	40	23.0	0	5782.1	3910.1	22.8	0.77	0.649	0.275	0.4	0.25
46	136.6	Saturated	Saturated	43	45	0.0	0	5918.7	3984.3	68.0	0.76	0.647	2.000	3.1	0.00
47	136.6	Saturated	Saturated	43	45	0.0	0	6055.3	4058.5	67.6	0.76	0.645	1.992	3.1	0.00
48	144.0	Saturated	Saturated	43	45	0.0	0	6199.3	4140.1	67.3	0.75	0.642	1.978	3.1	0.00
49	144.0	Saturated	Saturated	43	45	0.0	0	6343.3	4221.7	66.9	0.74	0.639	1.963	3.1	0.00
50	144.0	Saturated	Saturated	43	45	0.0	0	6487.3	4303.3	66.6	0.74	0.636	1.949	3.1	0.00
51	144.0	Saturated	Saturated	21	50	32.1	0	6631.3	4384.9	34.6	0.73	0.633	1.029	1.6	0.00
52	144.0	Saturated	Saturated	21	50	32.1	0	6775.3	4466.5	34.4	0.73	0.630	0.982	1.6	0.00
53	112.5	Saturated	Saturated	21	50	32.1	0	6887.8	4516.6	34.3	0.72	0.628	0.955	1.5	0.00
54	112.5	Saturated	Saturated	21	50	32.1	0	7000.3	4566.7	34.1	0.71	0.626	0.930	1.5	0.00
55	112.5	Saturated	Saturated	21	50	32.1	0	7112.8	4616.8	34.0	0.71	0.624	0.906	1.5	0.00
56	112.5	Saturated	Saturated	36	55	0.0	0	7225.3	4666.9	54.6	0.70	0.622	1.890	3.0	0.00
57	112.5	Saturated	Saturated	36	55	0.0	0	7337.8	4717.0	54.4	0.70	0.620	1.883	3.0	0.00
58	134.7	Saturated	Saturated	36	55	0.0	0	7472.5	4789.3	54.2	0.69	0.617	1.872	3.0	0.00
59	134.7	Saturated	Saturated	36	55	0.0	0	7607.2	4861.6	54.0	0.69	0.614	1.861	3.0	0.00
60	134.7	Saturated	Saturated	36	55	0.0	0	7741.9	4933.9	53.8	0.68	0.611	1.850	3.0	0.00
61	134.7	Saturated	Saturated	38	60	0.0	0	7876.6	5006.2	56.6	0.68	0.608	1.839	3.0	0.00
62	134.7	Saturated	Saturated	38	60	0.0	0	8011.3	5078.5	56.4	0.67	0.605	1.829	3.0	0.00
63	140.8	Saturated	Saturated	38	60	0.0	0	8152.1	5156.9	56.1	0.67	0.601	1.818	3.0	0.00
64	140.8	Saturated	Saturated	38	60	0.0	0	8292.9	5235.3	55.9	0.66	0.598	1.807	3.0	0.00
65	140.8	Saturated	Saturated	38	60	0.0	0	8433.7	5313.7	55.7	0.65	0.595	1.796	3.0	0.00
66	140.8	Saturated	Saturated	71	65	0.0	0	8574.5	5392.1	103.6	0.65	0.591	1.785	3.0	0.00
67	140.8	Saturated	Saturated	71	65	0.0	0	8715.3	5470.5	103.3	0.64	0.588	1.775	3.0	0.00
68	128.4	Saturated	Saturated	71	65	0.0	0	8843.7	5536.5	102.9	0.64	0.585	1.766	3.0	0.00
69	128.4	Saturated	Saturated	71	65	0.0	0	8972.1	5602.5	102.6	0.64	0.582	1.757	3.0	0.00
70	128.4	Saturated	Saturated	71	65	0.0	0	9100.5	5668.5	102.3	0.63	0.579	1.749	3.0	0.00
71	128.4	Saturated	Saturated	90	70	0.0	0	9228.9	5734.5	129.3	0.63	0.576	1.740	3.0	0.00
72	128.4	Saturated	Saturated	90	70	0.0	0	9357.3	5800.5	128.9	0.62	0.574	1.732	3.0	0.00
73	127.0	Saturated	Saturated	90	70	0.0	0	9484.3	5865.1	128.5	0.62	0.571	1.724	3.0	0.00
74	127.0	Saturated	Saturated	90	70	0.0	0	9611.3	5929.7	128.1	0.61	0.568	1.716	3.0	0.00
75	127.0	Saturated	Saturated	90	70	0.0	0	9738.3	5994.3	127.8	0.61	0.566	1.708	3.0	0.00
76	127.0	Saturated	Saturated	83	75	0.0	0	9865.3	6058.9	117.5	0.60	0.563	1.700	3.0	0.00
77	127.0	Saturated	Saturated	83	75	0.0	0	9992.3	6123.5	117.2	0.60	0.560	1.692	3.0	0.00
78	142.0	Saturated	Saturated	83	75	0.0	0	10134.3	6203.1	116.8	0.60	0.557	1.683	3.0	0.00
79	142.0	Saturated	Saturated	83	75	0.0	0	10276.3	6282.7	116.4	0.59	0.554	1.674	3.0	0.00
80	142.0	Saturated	Saturated	83	75	0.0	0	10418.3	6362.3	116.0	0.59	0.552	1.665	3.0	0.00

Total Liquefaction Settlement, S = 2.02 inches

Geotechnologies, Inc.

Project: Chait Company
File No.: 21194
Description: Liquefaction Analysis
Boring Numbe 3

LIQUEFACTION EVALUATION (Idriss & Boulanger, EERI NO 12)

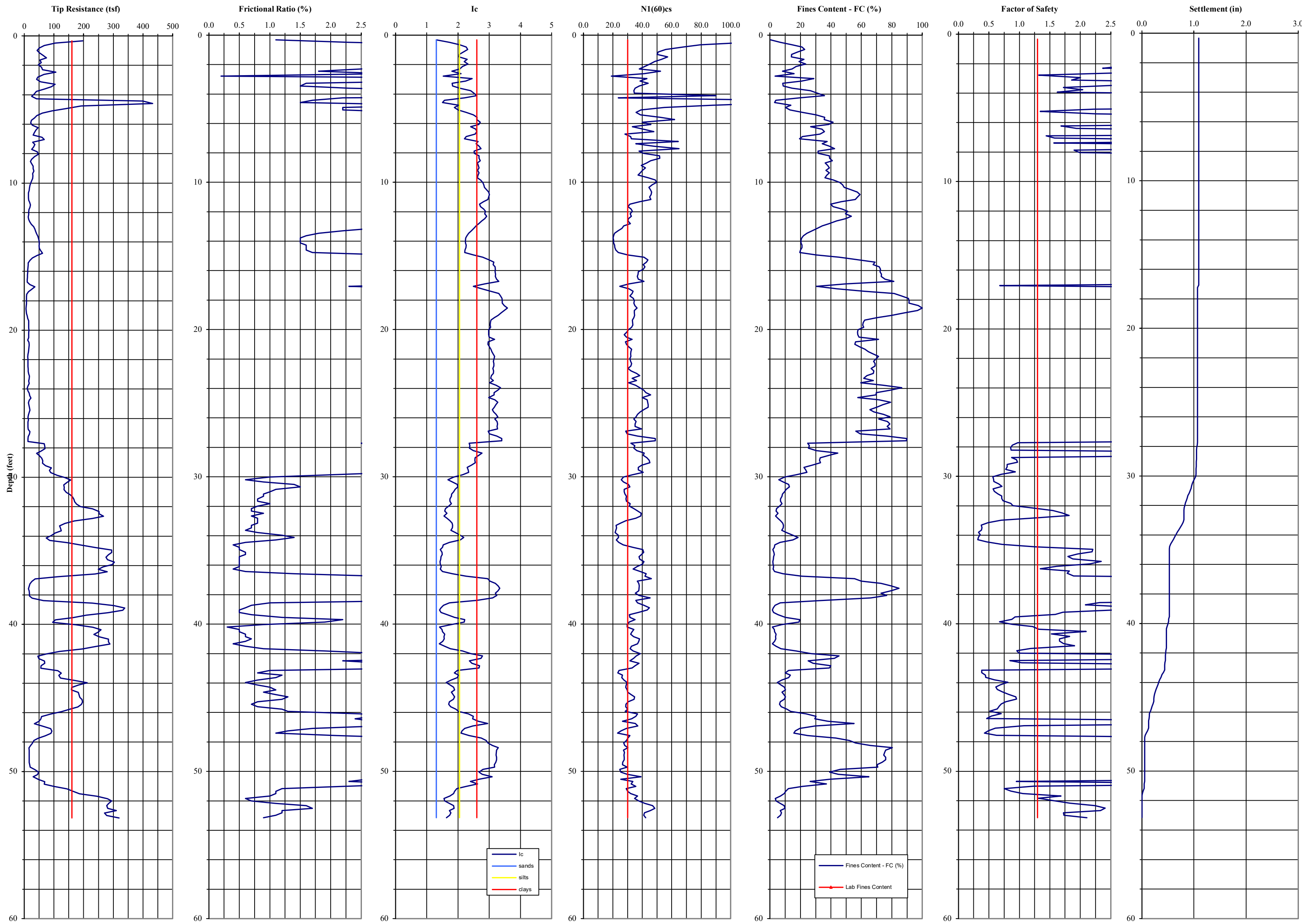
EARTHQUAKE INFORMATION:	
Earthquake Magnitude (M):	6.7
Peak Ground Horizontal Acceleration, PGA (g):	0.88
Calculated Mag.Wtg.Factor:	1.234
GROUNDWATER INFORMATION:	
Current Groundwater Level (ft):	30.0
Historically Highest Groundwater Level* (ft):	15.0
Unit Weight of Water (pcf):	62.4

* Based on California Geological Survey Seismic Hazard Evaluation Report

BOREHOLE AND SAMPLER INFORMATION:	
Borehole Diameter (inches):	5
SPT Sampler with room for Liner (Y/N):	Y
LIQUEFACTION BOUNDARY:	
Plastic Index Cut Off (PI):	18
Minimum Liquefaction FS:	1

Depth to Base Layer (feet)	Total Unit Weight (pcf)	Current Water Level (feet)	Historical Water Level (feet)	Field SPT Blowcount N	Depth of SPT Blowcount (feet)	Fines Content #200 Sieve (%)	Plastic Index (PI)	Vetical Stress σ_{vc}, (psf)	Effective Vert. Stress σ_{vc}', (psf)	Fines Corrected $(N_1)_{60-cs}$	Stress Reduction Coeff, r_d	Cyclic Shear Ratio CSR	Cyclic Resistance Ratio (CRR)	Factor of Safety CRR/CSR (F.S.)	Liquefaction Settlment ΔS_i (inches)
1	131.3	Unsaturated	Unsaturated	23	5	0.0	0	131.3	131.3	54.8	1.00	0.574	2.000	Non-Liq.	0.00
2	131.3	Unsaturated	Unsaturated	23	5	0.0	0	262.6	262.6	54.8	1.00	0.572	2.000	Non-Liq.	0.00
3	131.3	Unsaturated	Unsaturated	23	5	0.0	0	393.9	393.9	54.8	1.00	0.571	2.000	Non-Liq.	0.00
4	131.3	Unsaturated	Unsaturated	23	5	0.0	0	525.2	525.2	52.3	0.99	0.568	2.000	Non-Liq.	0.00
5	131.3	Unsaturated	Unsaturated	23	5	0.0	0	656.5	656.5	50.8	0.99	0.566	2.000	Non-Liq.	0.00
6	131.3	Unsaturated	Unsaturated	23	5	0.0	0	787.8	787.8	47.8	0.99	0.564	2.000	Non-Liq.	0.00
7	131.3	Unsaturated	Unsaturated	23	5	0.0	0	919.1	919.1	45.4	0.98	0.562	2.000	Non-Liq.	0.00
8	133.2	Unsaturated	Unsaturated	23	5	0.0	0	1052.3	1052.3	43.4	0.98	0.559	2.000	Non-Liq.	0.00
9	133.2	Unsaturated	Unsaturated	23	5	0.0	0	1185.5	1185.5	43.9	0.97	0.557	2.000	Non-Liq.	0.00
10	133.2	Unsaturated	Unsaturated	23	5	0.0	0	1318.7	1318.7	42.5	0.97	0.554	2.000	Non-Liq.	0.00
11	133.2	Unsaturated	Unsaturated	13	10	51.6	28	1451.9	1451.9	28.0	0.96	0.552	0.507	Non-Liq.	0.00
12	133.2	Unsaturated	Unsaturated	13	10	51.6	28	1585.1	1585.1	27.0	0.96	0.549	0.449	Non-Liq.	0.00
13	112.4	Unsaturated	Unsaturated	6	15	78.8	37	1697.5	1697.5	14.7	0.96	0.546	0.194	Non-Liq.	0.00
14	112.4	Unsaturated	Unsaturated	6	15	78.8	37	1809.9	1809.9	14.3	0.95	0.543	0.189	Non-Liq.	0.00
15	112.4	Unsaturated	Unsaturated	6	15	78.8	37	1922.3	1922.3	15.0	0.95	0.541	0.195	Non-Liq.	0.00
16	112.4	Unsaturated	Saturated	6	15	78.8	37	2034.7	1972.3	14.9	0.94	0.555	0.193	Non-Liq.	0.00
17	112.4	Unsaturated	Saturated	6	15	78.8	37	2147.1	2022.3	14.8	0.93	0.568	0.191	Non-Liq.	0.00
18	111.9	Unsaturated	Saturated	6	15	78.8	37	2259.0	2071.8	14.7	0.93	0.580	0.189	Non-Liq.	0.00
19	111.9	Unsaturated	Saturated	6	15	78.8	37	2370.9	2121.3	14.5	0.92	0.591	0.188	Non-Liq.	0.00
20	111.9	Unsaturated	Saturated	6	15	78.8	37	2482.8	2170.8	14.4	0.92	0.601	0.186	Non-Liq.	0.00
21	111.9	Unsaturated	Saturated	3	20	85.7	38	2594.7	2220.3	9.9	0.91	0.610	0.144	Non-Liq.	0.00
22	111.9	Unsaturated	Saturated	3	20	85.7	38	2706.6	2269.8	9.8	0.91	0.619	0.143	Non-Liq.	0.00
23	117.7	Unsaturated	Saturated	3	20	85.7	38	2824.3	2325.1	9.8	0.90	0.627	0.142	Non-Liq.	0.00
24	117.7	Unsaturated	Saturated	3	20	85.7	38	2942.0	2380.4	9.7	0.90	0.633	0.142	Non-Liq.	0.00
25	117.7	Unsaturated	Saturated	3	20	85.7	38	3059.7	2435.7	9.6	0.89	0.640	0.141	Non-Liq.	0.00
26	117.7	Unsaturated	Saturated	5	25	88.7	19	3177.4	2491.0	12.3	0.88	0.645	0.164	Non-Liq.	0.00
27	117.7	Unsaturated	Saturated	5	25	88.7	19	3295.1	2546.3	12.3	0.88	0.650	0.163	Non-Liq.	0.00
28	124.4	Unsaturated	Saturated	5	25	88.7	19	3419.5	2608.3	12.5	0.87	0.654	0.165	Non-Liq.	0.00
29	124.4	Unsaturated	Saturated	5	25	88.7	19	3543.9	2670.3	12.4	0.87	0.658	0.164	Non-Liq.	0.00
30	124.4	Unsaturated	Saturated	5	25	88.7	19	3668.3	2732.3	12.3	0.86	0.661	0.162	Non-Liq.	0.00
31	124.4	Saturated	Saturated	16	30	30.7	0	3792.7	2794.3	30.2	0.85	0.663	0.580	0.9	0.11
32	124.4	Saturated	Saturated	16	30	30.7	0	3917.1	2856.3	30.0	0.85	0.665	0.559	0.8	0.11
33	132.4	Saturated	Saturated	30	35	0.0	0	4049.5	2926.3	51.4	0.84	0.666	2.000	3.0	0.00
34	132.4	Saturated	Saturated	30	35	0.0	0	4181.9	2996.3	51.1	0.84	0.667	2.000	3.0	0.00
35	132.4	Saturated	Saturated	30	35	0.0	0	4314.3	3066.3	50.8	0.83	0.668	2.000	3.0	0.00
36	132.4	Saturated	Saturated	30	35	0.0	0	4446.7	3136.3	50.5	0.82	0.668	2.000	3.0	0.00
37	132.4	Saturated	Saturated	30	35	0.0	0	4579.1	3206.3	50.2	0.82	0.668	2.000	3.0	0.00
38	140.8	Saturated	Saturated	30	35	0.0	0	4719.9	3284.7	49.9	0.81	0.667	2.000	3.0	0.00
39	140.8	Saturated	Saturated	30	35	0.0	0	4860.7	3363.1	49.6	0.80	0.665	2.000	3.0	0.00
40	140.8	Saturated	Saturated	30	35	0.0	0	5001.5	3441.5	49.3	0.80	0.664	2.000	3.0	0.00
41	140.8	Saturated	Saturated	33	40	0.0	0	5142.3	3519.9	53.9	0.79	0.662	2.000	3.0	0.00
42	140.8	Saturated	Saturated	33	40	0.0	0	5283.1	3598.3	53.6	0.79	0.660	2.000	3.0	0.00
43	131.1	Saturated	Saturated	14	45	17.4	0	5414.2	3667.0	22.4	0.78	0.659	0.272	0.4	0.25
44	131.1	Saturated	Saturated	14	45	17.4	0	5545.3	3735.7	22.2	0.77	0.657	0.268	0.4	0.25
45	131.1	Saturated	Saturated	14	45	17.4	0	5676.4	3804.4	22.1	0.77	0.655	0.265	0.4	0.25
46	131.1	Saturated	Saturated	14	45	17.4	0	5807.5	3873.1	21.9	0.76	0.653	0.261	0.4	0.26
47	131.1	Saturated	Saturated	14	45	17.4	0	5938.6	3941.8	21.8	0.76	0.651	0.258	0.4	0.26
48	137.2	Saturated	Saturated	25	55	0.0	0	6075.8	4016.6	38.8	0.75	0.649	2.000	3.1	0.00
49	137.2	Saturated	Saturated	25	55	0.0	0	6213.0	4091.4	38.5	0.74	0.646	1.986	3.1	0.00
50	137.2	Saturated	Saturated	25	55	0.0	0	6350.2	4166.2	38.2	0.74	0.643	1.973	3.1	0.00
51	137.2	Saturated	Saturated	14	50	53.0	14	6487.4	4241.0	22.8	0.73	0.640	0.272	0.4	0.25
52	137.2	Saturated	Saturated	14	50	53.0	14	6624.6	4315.8	22.7	0.73	0.637	0.269	0.4	0.25
53	120.0	Saturated	Saturated	14	50	53.0	14	6744.6	4373.4	22.6	0.72	0.635	0.266	0.4	0.25
54	120.0	Saturated	Saturated	14	50	53.0	14	6864.6	4431.0	22.4	0.71	0.633	0.264	0.4	0.25
55	120.0	Saturated	Saturated	14	50	53.0	14	6984.6	4488.6	22.3	0.71	0.631	0.262	0.4	0.25
56	120.0	Saturated	Saturated	25	55	9.6	14	7104.6	4546.2	38.0	0.70	0.628	1.909	3.0	0.00
57	120.0	Saturated	Saturated	25	55	9.6	14	7224.6	4603.8	37.8	0.70	0.626	1.900	3.0	0.00
58	109.2	Saturated	Saturated	25	55	9.6	14	7333.8	4650.6	37.7	0.69	0.624	1.893	3.0	0.00
59	109.2	Saturated	Saturated	25	55	9.6	14	7443.0	4697.4	37.6	0.69	0.622	1.886	3.0	0.00
60	109.2	Saturated	Saturated	25	55	9.6	14	7552.2	4744.2	37.4	0.68	0.620	1.834	3.0	0.00
61	109.2	Saturated	Saturated	24	60	5.5	14	7661.4	4791.0	34.2	0.68	0.618	0.924	1.5	0.00
62	109.2	Saturated	Saturated	24	60	5.5	14	7770.6	4837.8	34.1	0.67	0.616	0.901	1.5	0.00
63	141.8	Saturated	Saturated	24	60	5.5	14	7912.4	4917.2	33.9	0.67	0.612	0.865	1.4	0.00
64	141.8	Saturated	Saturated	24	60	5.5	14	8054.2	4996.6	33.7	0.66	0.608	0.831	1.4	0.00
65	141.8	Saturated	Saturated	24	60	5.5	14	8196.0	5076.0	33.5	0.65	0.605	0.800	1.3	0.00
66	141.8	Saturated	Saturated	100	65	0.0	14	8337.8	5155.4	147.7	0.65	0.601	1.818	3.0	0.00
67	141.8	Saturated	Saturated	100	65	0.0	14	8479.6	5234.8	147.1	0.64	0.598	1.807	3.0	0.00
68	136.0	Saturated	Saturated	100	65	0.0	14	8615.6	5308.4	146.6	0.64	0.594	1.797	3.0	0.00
69	136.0	Saturated	Saturated	100	65	0.0	14	8751.6	5382.0	146.1	0.64	0.591	1.787	3.0	0.00
70	136.0	Saturated	Saturated	100	65	0.0	14	8887.6	5455.6	145.5	0.63	0.588	1.777	3.0	0.00
71	136.0	Saturated	Saturated	81	70	0.0	14	9023.6	5529.2	117.5	0.63	0.585	1.767	3.0	0.00
72	136.0	Saturated	Saturated	81	70	0.0	14	9159.6	5602.8	117.1	0.62	0.581	1.757	3.0	0.00
73	130.4	Saturated	Saturated	81	70	0.0	14	9290.0	5670.8	116.7	0.62	0.578	1.748	3.0	0.00
74	130.4	Saturated	Saturated	81	70	0.0	14	9420.4	5738.8	116.3	0.61	0.576	1.740	3.0	0.00
75	130.4	Saturated	Saturated	81	70	0.0	14	9550.8	5806.8	116.0	0.61	0.573	1.731	3.0	0.00
76	130.4	Saturated	Saturated	79	75	0.0	14	9681.2	5874.8	112.8	0.60	0.570	1.723	3.0	0.00
77	130.4	Saturated	Saturated	79	75	0.0	14	9811.6	5942.8	112.4	0.60	0.567	1.714	3.0	0.00
78	128.4	Saturated	Saturated	79	75	0.0	14	9940.0	6008.8	112.1	0.60	0.564	1.706	3.0	0.00
79	128.4	Saturated	Saturated	79	75	0.0	14	10068.4	6074.8	111.8	0.59	0.562	1.698	3.0	0.00
80	128.4	Saturated	Saturated	79	75	0.0	14	10196.8	6140.8	111.4	0.59	0.559	1.690	3.0	0.00

Total Liquefaction Settlement, S = 2.74 inches



Geotechnologies, Inc.

Client: Chait Company

File No.: 21194

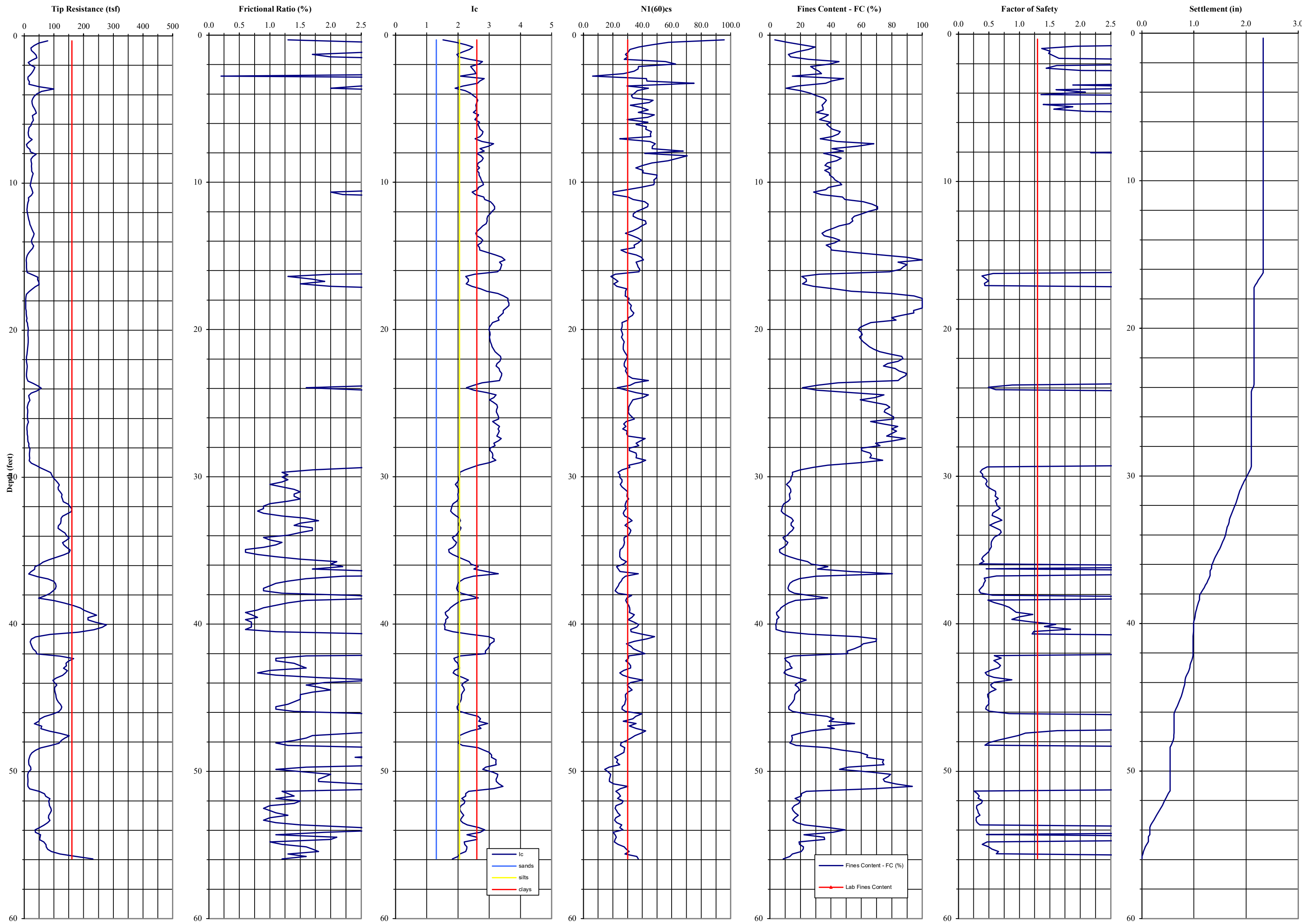
<u>CPT Sounding No.:</u> CPT-01

Magnitude (M_w) = 6.7

Peak Ground Acceleration (g) = 0.88 g

Cumulative Liquefaction Settlement = 1.09 inches

Depth to Historic High Water (feet) = 15.0 feet



Geotechnologies, Inc.

Client: Chait Company

File No.: 21194

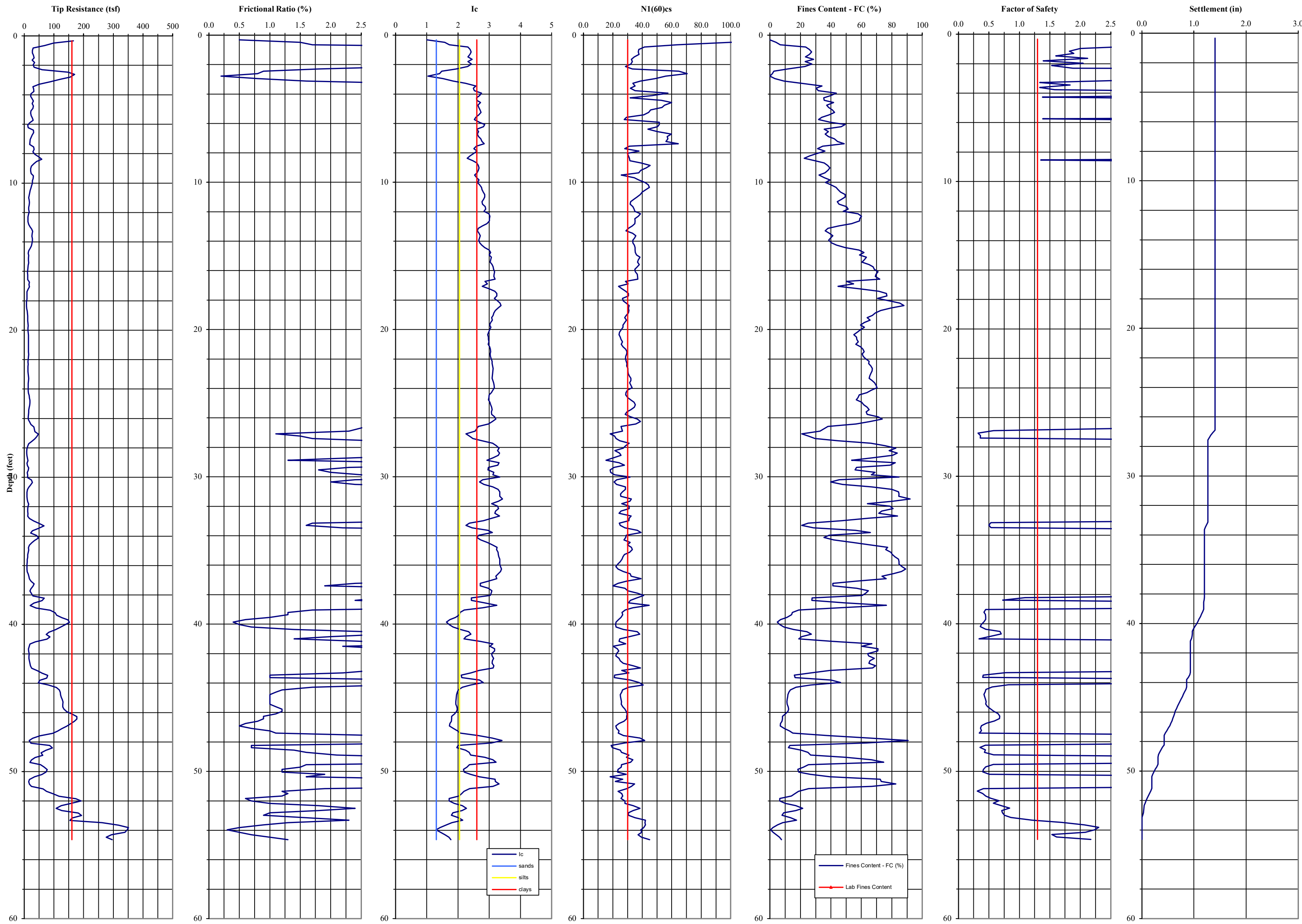
CPT Sounding No.: CPT-02

Magnitude (M_w) = 6.7

Peak Ground Acceleration (g) = 0.88 g

Cumulative Liquefaction Settlement = 2.33 inches

Depth to Historic High Water (feet) = 15.0 feet



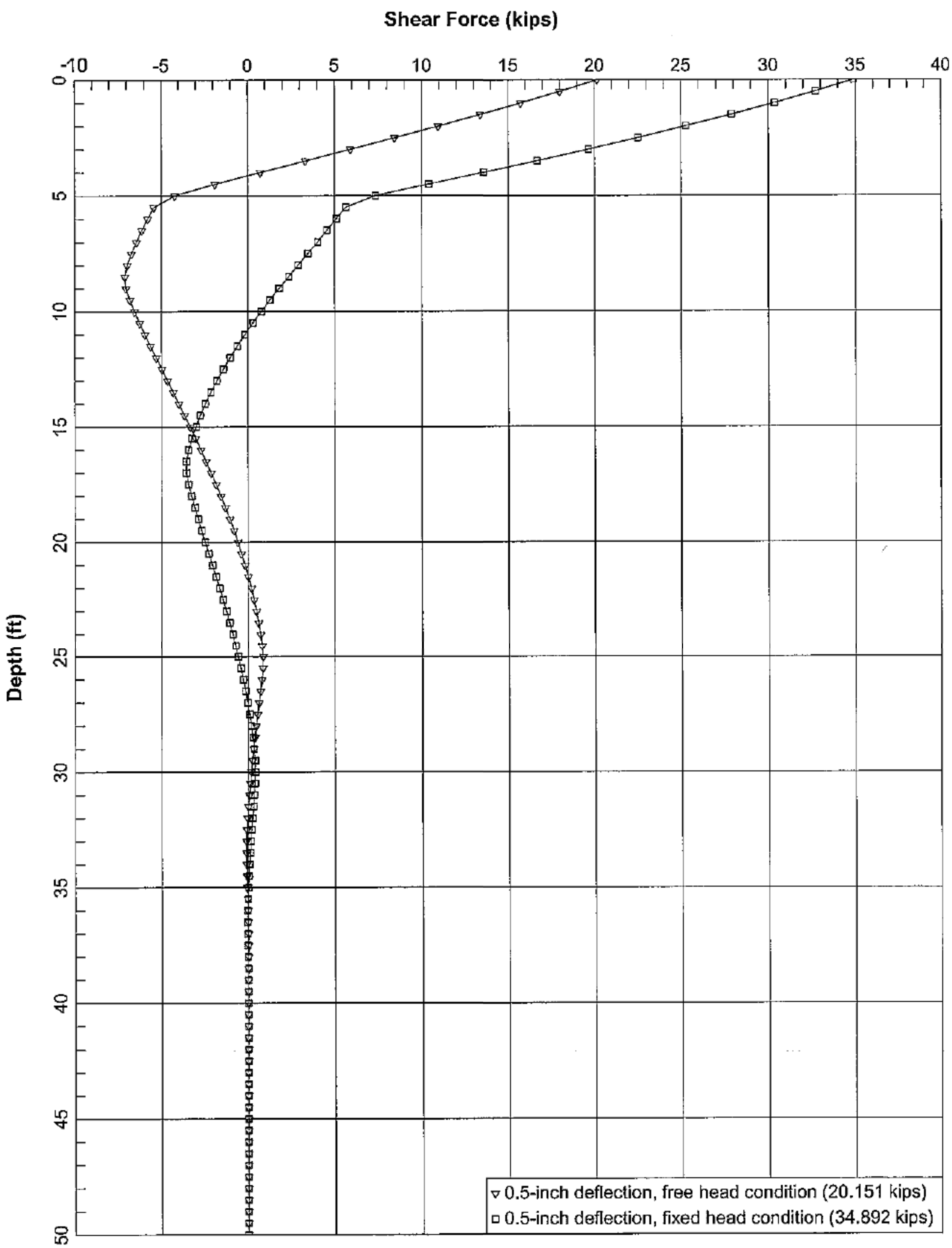
Geotechnologies, Inc.

Client: Chait Company

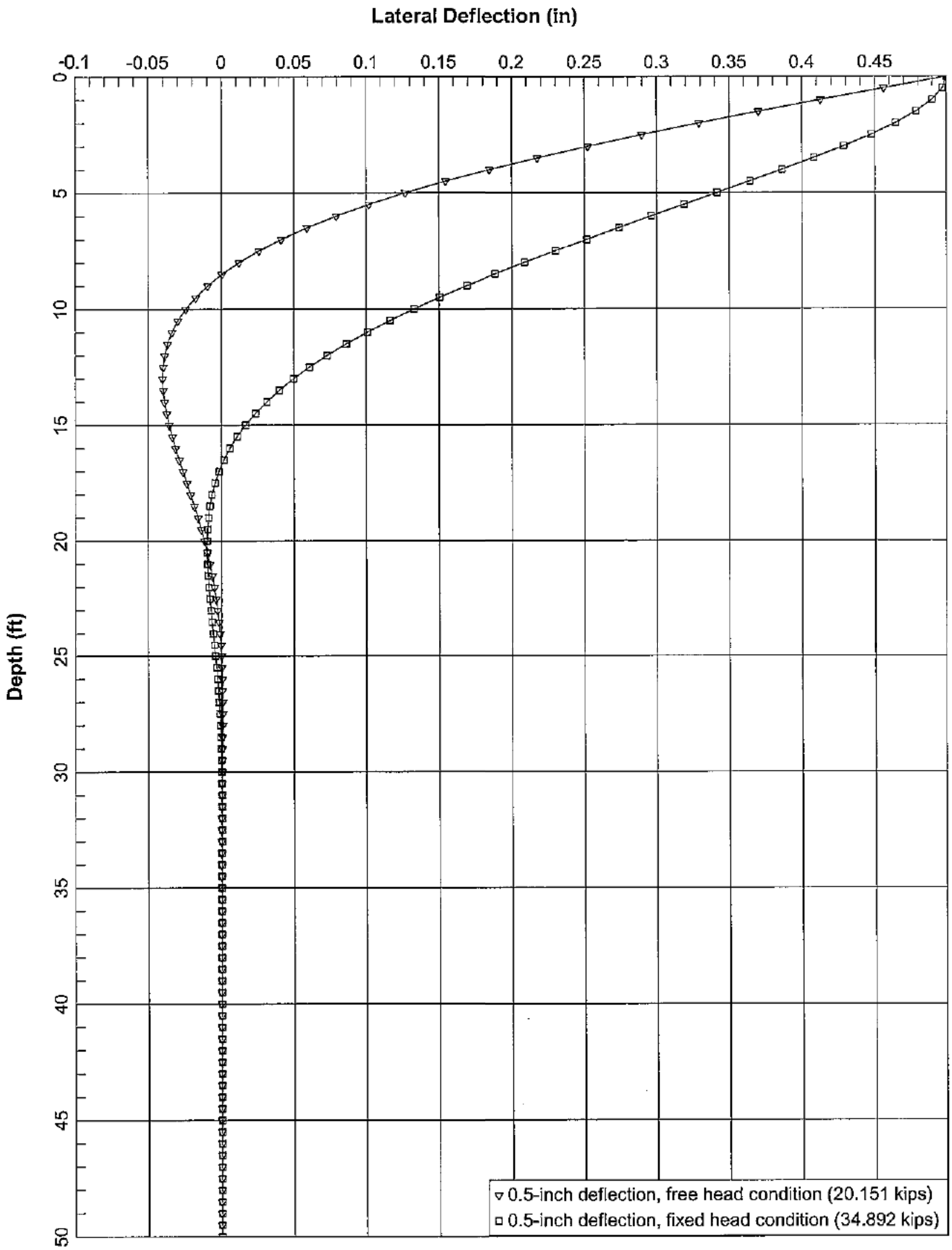
File No.: 21194

CPT Sounding No.: CPT-03

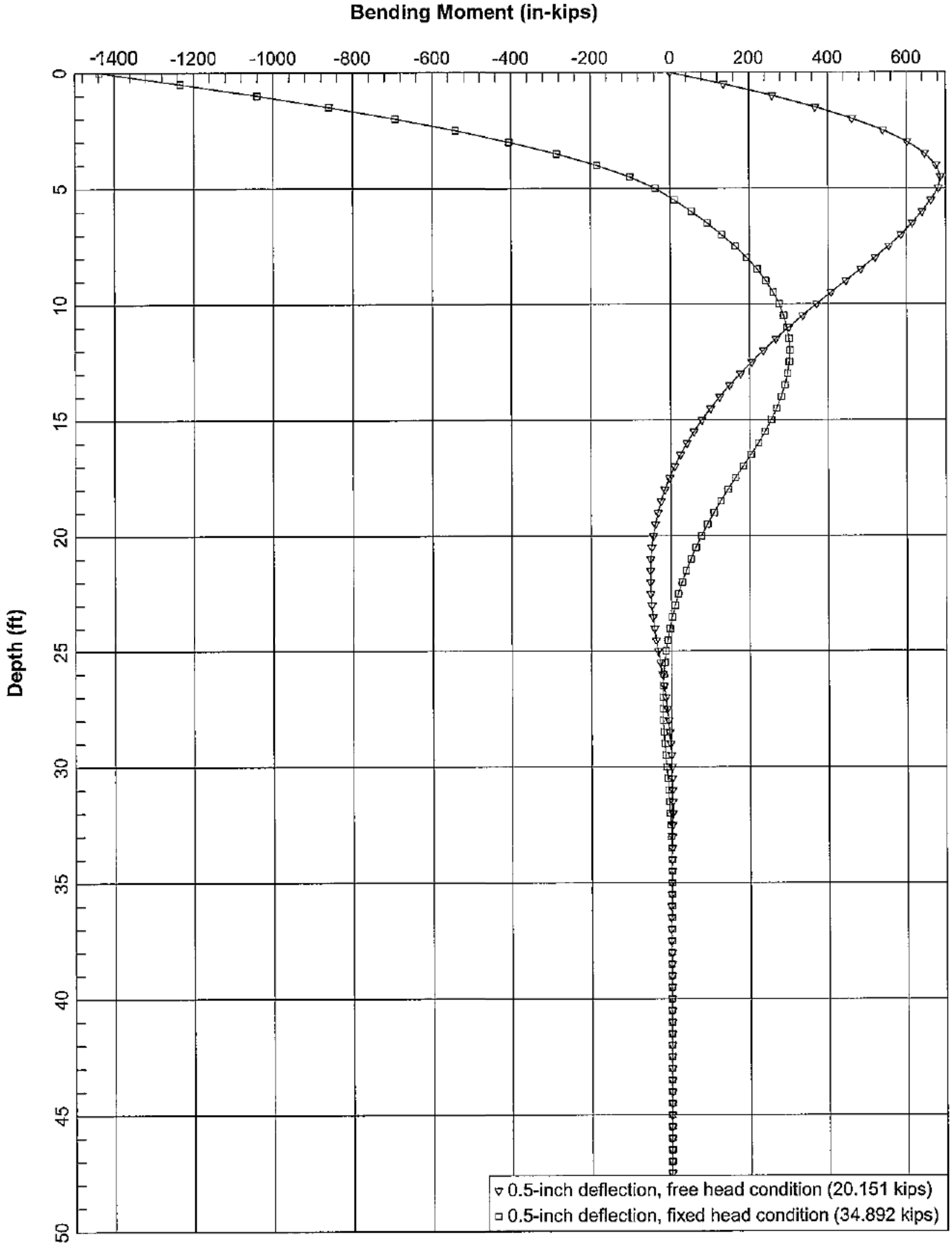
Magnitude (M_w) =	6.7	Cumulative Liquefaction Settlement =	1.40 inches
Peak Ground Acceleration (g) =	0.88 g	Depth to Historic High Water (feet) =	15.0 feet



File No. 21194, 16-inch diameter pile



File No. 21194, 16-inch diameter pile



File No. 21194, 16-inch diameter pile

12575 BEATRICE STREET
GROUND-MOTION DEVELOPMENT
LOS ANGELES, CALIFORNIA

Prepared for
Mr. Stan Tang
Geotechnologies, Inc.
439 Western Avenue
Glendale, California 91201

March 18, 2020

Prepared by
GeoPentech
5251 California Avenue, Suite 210
Irvine, CA 92617
(714) 796-9100
Fax (714) 796-9191
Web Site: www.geopentech.com

GeoPentech

March 18, 2020
Project No.: 17025A

Mr. Stan Tang
Geotechnologies, Inc.
439 Western Avenue
Glendale, California 91201

Subject: Ground-Motion Development Report
Proposed Playa Vista Campus Development at
12575 Beatrice Street
Los Angeles, California

Dear Mr. Tang:

In general accordance with the provisions of our agreement for professional services, we have completed a ground-motion evaluation for the subject project and have documented our findings in the accompanying draft report. This report supersedes the one submitted on June 15, 2018, and contains the recommended response spectra to be used in the design and analysis of the subject project.

We trust that this report meets the present needs of the project. If you should have any questions, please contact us.

Very truly yours,

Andrew Dinsick, PE
Associate

Carola Di Alessandro, Ph.D.
Project Professional

Steve Duke, CEG, PGp, CHg
Associate

5251 California Avenue, Suite 210, Irvine, CA 92617
Phone (714) 796-9100 Fax (714) 796-9191 Web Site: www.geopentech.com

TABLE OF CONTENTS

Appendix A: Downhole Seismic Tests

1. INTRODUCTION

This report presents the site-specific ground-motion evaluation for the proposed development located at 12575 Beatrice Street, at the corner of Beatrice Street and Jandy Place (Figure 1) in Playa Vista, California. We understand that the proposed structure will consist of a 8-story, 135-foot tall office structure comprised of two wings, rising above a commercial and parking podium, with 1.5 level of subterranean parking.

The site is located within a State Liquefaction Hazard Zone, and we understand that Geotechnologies, Inc. considers the site to be potentially liquefiable. Accordingly, it is also our understanding that pile foundations are being utilized to mitigate the liquefaction hazard. The foundation design is being completed by Geotechnologies and the preparation of a detailed foundation design is currently in-progress.

We understand that the design for this structure is being carried out in conformance with the 2016 California Building Code (CBC 2016) and ASCE 7-16 requirements (including Supplement 1 effective December 12, 2018). Furthermore, because of the deep foundation mitigation measures, the Site Class designation will be based on the shear-wave velocity measurements, and site response analyses are not needed. To fulfill the seismic design requirements, the following ground surface site-specific response spectra are developed herein:

- A “Maximum Considered Event” uniform hazard spectrum with risk-targeted, maximum-rotated ordinates at 5% damping; also known as a site-specific MCE_R response spectrum (corresponding to a 1% probability of collapse in a 50-year period; i.e., a modified 2,475-year return period spectrum)
- A “Design Level” uniform hazard spectrum with risk-targeted, maximum-rotated ordinates at 5% damping (corresponding to 2/3 of the MCE_R response spectrum)

In preparing this report, site-specific shear-wave velocity measurements were collected at the site by GeoPentech in Boring B-1 (which was drilled and logged by Geotechnologies) and used in this analysis. The results of the shear-wave velocity measurements are discussed in more detail below in Section 3.2 and are also included herein as Appendix A. We also reviewed the boring log from Boring B-1 by Geotechnologies (reproduced herein at the end of Appendix A). Note that if the site location or site conditions change appreciably, the ground motions presented herein would need to be re-evaluated.

2. CODE-BASED VALUES

Given the site latitude and longitude (located near 33°58'51.78"N, 118°24'57.11"W) and site shear-wave velocity (discussed below), mapped seismic hazard values were queried from the USGS online seismic design map application at https://earthquake.usgs.gov/ws/designmaps/. As discussed in more detail in Section 3.2 of this report, the shear wave velocity data recently collected by GeoPentech at the project site indicates a V_{S30} value of about 950 ft/s (290 m/s) for outcropping conditions at the foundation level approximately 20-feet below existing grade. This V_{S30} value corresponds to site classification for seismic design of ***Site Class D*** (600 < V_{S30} < 1,200 ft/s). Using the ASCE 7-16 standard, the mapped design parameters for a Site Class D, ***Risk Category I, II, or III*** structure at this location yield a ***Seismic Design Category D***.

Based on this information, the general procedure ground motion analysis carried out in accordance with Chapter 16A of the 2019 CBC and ASCE 7-16 results in general design spectral acceleration parameters S_{DS} and S_{D1} of 1.247 g and 0.748 g, respectively. These values are superseded by the site-specific values presented in this report but are provided here for completeness.

3. SOURCE, SITE AND GROUND-MOTION CHARACTERIZATION

Probabilistic and Deterministic Seismic Hazard Analyses (PSHA and DSHA, respectively) involve the characterization of seismic sources, transmission paths for seismic energy, and the local site conditions. Seismic sources pertinent to ground-motion hazards at the site are characterized based on geologic information. The effects of transmission paths and local site conditions are incorporated through the use of attenuation relationships (also known as ground-motion prediction equations – GMPEs), which provide the variation in peak horizontal acceleration or spectral acceleration with distance for a given local site condition. Key information on seismic sources, site conditions, and attenuation relationships used in this study is summarized below.

3.1 Seismic Sources

The site is located within a seismically active region of southern California, as evidenced by Quaternary faulting and historic earthquakes. The locations of Quaternary-active surface-rupturing faults mapped by the US Geological Survey (USGS, 2010) and instrumentally-recorded earthquakes (Hauksson et al., 2012) relative to the project site are shown on Figure 3a. Figure 3a also shows estimated epicenters of historic earthquakes prior to instrumentation.

As shown on Figure 3a, the 1971 San Fernando earthquake epicenter was roughly 48 km north of the subject site, and the 1994 Northridge epicenter was approximately 30 km northwest. Other noticeable earthquakes such as the 2009 Inglewood and 1987 Whittier events occurred about 8 km south and 31 km east of the site.

Based on recordings in the PEER (2014) database from few stations about 2.5 km around the subject site, the Northridge earthquake generated ground motions on the order of 0.2 g (peak ground acceleration, PGA) and 19 cm/s (peak ground velocity, PGV). Data from the 1987 Whittier earthquake shows motions of about 0.045 g PGA and 2.5 cm/s PGV.

The closest recent surface ruptures are located approximately 5½ km east and 8 km north of site and occurred on the Newport Inglewood and Hollywood faults, respectively. The 1987 Whittier earthquake also generated surface rupture about 31 km east of the site. The 1994 Northridge earthquake occurred on a deep blind thrust fault and did not rupture the ground surface. Two late quaternary (<130 ka) inferred faults are very close to the project site: in fact, the site is located approximately 1 and 3 km away from the inferred traces of the Charnock and Overland faults, as mapped by Jennings (1994). These faults were not included in the PSHA analyses (discussed more in detail below) because several recent focused studies (Davis, 2000a and 2000b, among others) indicated absence of evident activity.

The Seismic Source Characterization (SSC) model used for this project is based on the characterization used by the USGS to develop the 2008 and 2014 versions of National Seismic Hazard Maps (NSHM; Petersen et al., 2008, 2014; and USGS, 2009). The recently completed Uniform California Earthquake Rupture Forecast version 3 (UCERF3) efforts (WGCEP, 2013a,b) updated previous characterizations of several faults in the state and added many new sources. The source geometries, alternative models, aseismicity factors, and slip rates in the UCERF3 model (WGCEP, 2013a,b) have been implemented in this site-specific SSC model. The locations of the seismic sources relative to the project site are shown on the fault map on Figure 3b. The best-estimate parameters (including maximum magnitude, closest distance, slip rate, and style of faulting) for these seismic sources are summarized in Table 1. All faults shown on Figure 3b and listed in Table 1 were included in the PSHA. In addition to the discrete seismic sources presented in Table 1, background seismicity that is consistent with the gridded seismicity used in the NSHM calculation was also used in the PSHA. Specific scenarios evaluated for the DSHA are presented in Table 2.

3.2 Site Seismic Data

The site characterization for this study consisted of defining the site parameters needed to account for soil non-linearity in ground motion attenuation models. The shear-wave velocity in the upper 30 meters of the site (V_{S30}) is the primary parameter used to approximate soil non-linearity in the ground motion models. Shear-wave velocity measurements, plotted on Figure 4, were collected by GeoPentech and are discussed in more detail in Appendix A.

It is our understanding that Geotechnologies has identified the potential for liquefiable soils at the site. At this time, the proposed structure is planned to be founded on piles; therefore, it is our understanding that any potential liquefaction hazard at the site will be mitigated by founding the proposed structures on piles. Accordingly, the seismic hazard analysis will be performed for outcropping V_{S30} conditions corresponding to Site Class D at the proposed basement slab level. As shown on Figure 4, an outcropping site-specific V_{S30} of 950 ft/s (290 m/s) was used for the hazard analysis. The site-specific measurements that support this V_{S30} calculation followed the procedures outlined in Chapter 20 of ASCE 7-16. More details on the measurements and calculations are in Appendix A.

The remaining site parameters in the ground motion attenuation models are the basin terms $Z_{1.0}$ and $Z_{2.5}$, which represent the depth to the 1.0 km/s and 2.5 km/s shear wave velocities, respectively. The approximate depths to these interfaces were estimated to be 520 meters and 3.0 km, respectively. These estimates were based on the SCEC Community Velocity Model (CVM-S4) by Magistrale et al. (2000 and 2012) and are in general agreement with our understanding of the LA basin geometry in the vicinity of the project site.

3.3 Attenuation Relationships

Seismic shaking is estimated using empirical ground motion attenuation relationships and calculated as the spectral acceleration (SA) for a given period. Calculated values represent the average horizontal component considering 5% damping. Four of the five of the Next Generation Attenuation West 2 (NGA W2) ground-motion attenuation models were used in the PSHA: Abrahamson et al. (2014); Boore et al. (2014); Campbell and Bozorgnia (2014); and Chiou and Youngs (2014). The Idriss (2014) model was not used as the site-specific V_{S30} measurement is outside the recommended range for the model. Each of the attenuation relationships was assigned an equal weight of 1/4 to approximately address the "modeling" part of the epistemic uncertainty.

Because the site is located on the hanging-wall side of the Compton and San Pedro Escarpment reverse faults, appropriate hanging-wall flags have been implemented when applying the attenuation relationships.

4. PROBABILISTIC SEISMIC HAZARD ANALYSIS

A site-specific Probabilistic Seismic Hazard Analysis (PSHA) was completed for the site to generate hazard curves and equal-hazard response spectra at the site for the Maximum Considered Event (i.e., the MCE_R) based on 5% spectral damping. The PSHA evaluation was performed using the current version number 45.2 of the computer program Hazard (Abrahamson, 2017). This program version has gone through validation effort being conducted by PEER.

The basic results of the PSHA are presented in terms of seismic hazard curves, which show the annual probability of exceedance of a given spectral acceleration (SA), including horizontal peak ground acceleration (PGA). The annual probability of exceedance is based on the calculated mean number of events per year that result in the spectral acceleration being exceeded at the site. Deaggregation plots are also useful for presenting PSHA results for a specified average return period (ARP) and SA; they show the percentage contribution to the total site seismic hazard based on distance and magnitude. Finally, equal-hazard spectra are used to identify a uniform hazard level (i.e., a specified ARP) over a range of periods.

Figure 5a presents seismic hazard curves for PGA. The total hazard (solid black line) and the contributions of various seismic sources to the total seismic hazard are shown. At the 2,475-yr ARP (which represents a 2% probability of exceedance in 50 years), the combined Santa Monica, Hollywood and Anacapa-Dume fault system and the combined Compton sources (i.e., both SSC alternatives) are the main contributors to the PGA hazard, each contributing approximately 24% to the total PGA hazard. The Newport Inglewood and the background sources are also important contributors, producing about 14% and 13% of the 2,475-yr PGA hazard, respectively. The Palos Verdes fault generates about 8% of the 2,475-yr PGA hazard, and other sources collectively produce the remaining 17% of the 2,475-yr PGA hazard.

Figure 5b presents similar seismic hazard curves for the 1.0-second spectral period, which is estimated to be close to the softened fundamental period of the structure. The San Andreas fault controls the hazard at short return periods, i.e., shorter than about 300 years. At the 2,475-yr ARP, the combined Santa Monica, Hollywood and Anacapa-Dume fault system is the primary contributor, producing about 26% of the 2,475-yr PGA hazard. The Compton sources and the Newport Inglewood faults are also important contributors, producing about 21% and 16% of the 2,475-yr PGA hazard, respectively. The Palos Verdes fault contributes about 11% of the 2,475-yr PGA hazard, and the other sources collectively produce the remaining 26% of the 2,475-yr PGA hazard, with selected faults' contributions being tabulated on Figure 5b.

Figure 6 presents the deaggregation at average return periods of 43 and 2,475 years for PGA and for a period of 1.0-seconds. The 43-yr deaggregations at short period (top panel on the left side) indicates that the hazard is distributed over a broad range of distances (5 to 75 km) and magnitudes (M_W 5.0 to 8 events) with mostly median to 5th percentile ground motions (epsilons between 0 and -2). The 1.0-second, 43-yr deaggregation (bottom panel on the left side) show that the ground-motion hazard is mostly from M_W 6 to 8.0 events with a somewhat bimodal distance distribution; that is, most of the hazard comes from sources more than 50 km away, although a fair amount comes from sources in the intermediate distance. The spikes in the 50 to 75 km bin are from characteristic earthquakes on the San Andreas Fault System, whereas the hazard from other sources close to downtown LA shows around 30 km of distance. The 2,475-yr deaggregrations are shown on the on right half side of Figure 6. At PGA, most of the hazard is coming from M_W 6 to 7.5 earthquakes within 15 km of the site that generating mostly 50th to 95th percentile ground motions (epsilons between 0 and 2). The 1.0-second, 2,475-yr deaggregation (bottom panel on the right side) is quite similar to the deaggregation for the same ARP at PGA; however, some contribution is evident from very high epsilon ground motions produced by characteristic earthquakes on the San Andreas Fault System (M_W 8.2±0.2) about 69 km away from the site.

The results of the PSHA at periods between 0.01 and 10 seconds are aggregated into a uniform hazard spectrum for several return periods ranging from 43-yr ARP to 2,475-yr ARP on Figure 7. The 2,475-yr ordinates at 5% damping are also tabulated on Table 3 in Column 3.

The probabilistic MCE_R spectrum, which represents the maximum rotated, risk-targeted ordinates per ASCE 7-16, is shown on Figure 8. The ordinates are tabulated on Table 3 in Column 6. This spectrum was developed using one set of scale factors to adjust the calculated ordinates (which are the average horizontal component of ground motion) to the maximum rotated component of ground motion, and a second set of scale factors was used to adjust the ordinates from hazard representing 2% probability of exceedance in 50 years (the 2,475-yr ARP) to risk, which represents a 1% probability of exceedance in 50 years. The adjustment between average horizontal and maximum rotated component is based on the period-specific ratios in Shahi and Baker (2014). The adjustment between the hazard and risk-targeted ordinates is based on the mapped ratios provided by ASCE 7-16 Method 1 (21.2.1.1). At the site latitude and longitude, a scale factor of 0.909 is specified for periods 0.2-second and shorter and a scale factor of 0.903 is used for periods of 1.0-second and longer; scale factors for periods between 0.2- and 1.0-second are linearly interpolated. Both of these scale factors are incorporated in the probabilistic MCE_R spectrum shown on Figure 8, and the process of developing the probabilistic MCE_R spectral ordinates is shown on Table 3 in Columns 3 through 6.

5. DETERMINISTIC SEISMIC HAZARD

A deterministic seismic hazard analysis (DSHA) was performed for the site following the guidelines provided in ASCE 7-16. Albeit the ASCE 7-16 Supplement 1 introduced an exception to the need of DSHA computation in the event the largest spectral response acceleration of the probabilistic ground motion response spectrum of 21.2.1 is less than 1.2 time the Fa factor (with the latter being determined using Table 11.4.1, with the value of S_S taken as 1.5 for Site Classes A, B, C, and D), such conditions are not encountered in the present project. In fact, the resulting Fa factor for Site Class D is 1.0, thus resulting in a threshold of 1.2 which is less that the peak spectral values attained by the probabilistic MCE_R spectrum. As such, the development of a deterministic ground-motion response spectrum is necessary

On the basis of the seismic source characterization and the results of the PSHA, the several faults were evaluated for the DSHA. Table 2 lists the key contributors to the DSHA ground motions, as well as the fault parameters used in the analysis. The DSHA scenarios were evaluated using the ground-motion models and site parameters defined above in Section 3.

Predicted spectral amplitudes for each of these DSHA scenarios are shown on Figure 9. The DSHA ordinates reflect the 84^{th} percentile maximum rotated component of ground motion. The modification from the average horizontal component of ground motion to the maximum rotated component was performed using the same methodology described above for the development for the probabilistic MCE_R.

Before the ASCE 7-16 Supplement 1 took effect, the deterministic MCE_R response spectrum was defined as the envelope (maximum at each ordinate) of the 84^{th} percentile of DSHA scenarios, but no less than the code-based deterministic minimum developed per ASCE 7-16, Section 21.2.2. In an effort to compute a code-based deterministic minimum response spectrum characterized by realistic spectral shape, the Supplement 1 modifies the approach to develop such minimum: per new provisions, the code-based deterministic minimum is the envelope of the maximum-rotated 84^{th} percentile spectral ordinates, scaled by a single factor such that the maximum response spectral acceleration equals 1.5 times Fa (developed as discussed above). The final deterministic MCE_R response spectrum is still defined as the maximum between the envelope of the maximum-rotated 84^{th} percentile spectral ordinates and the code-based deterministic minimum developed as discussed above.

As observed on Figure 9, the Compton Fault and the San Pedro Escarpment cases present very similar spectral accelerations across all period range, with the San Pedro Escarpment controlling the short periods and the Compton Fault case slightly exceeding the San Pedro Escarpment case for periods above the spectral peak. At larger periods, i.e. above 3 seconds, the Newport Inglewood case controls the deterministic MCE_R spectrum. The deterministic MCE_R spectral ordinates are tabulated in Table 3 in Column 10, and the process of developing the deterministic MCE_R spectral ordinates is shown on Table 3 in Columns 7 through 10.

6. SITE-SPECIFIC RESPONSE SPECTRA

As this structure is being carried out in conformance with the 2016 California Building Code (CBC 2016) and ASCE 7-16 requirements, a "Maximum Considered Event" uniform hazard spectrum with risk-targeted, maximum-rotated ordinates at 5% damping was developed for the foundation level condition and is referred to as the final site-specific MCE_R response spectrum.

Figure 10 shows the development of the final site-specific MCE_R response spectrum. As stipulated in ASCE 7-16 Section 21.2.3, the MCE_R is based on the lesser of the deterministic MCE_R and the probabilistic MCE_R response spectra, which are both defined as the 5% damped acceleration response spectra. The deterministic MCE_R exceeds the probabilistic MCE_R across the full range of spectral periods, therefore the probabilistic MCE_R controls the site-specific MCE_R as shown on Figure 10. The final spectrum is then adjusted such that none of the spectral ordinates fall below 80% of the code-based MCE_R (also shown on Figure 10), as applicable. The final site-specific MCE_R spectrum is shown highlighted on Figure 10, and the spectral ordinates are tabulated in Table 3, Column 12. The process of developing the outcropping site-specific MCE_R spectral ordinates is shown in Table 3 in Columns 6 and 10 through 12.

The final site-specific ground surface Design Response Spectrum (DRS) was developed as 2/3 of site-specific ground surface MCE_R. The process of developing the DRS ordinates is shown in Table 4.

Using ASCE 7-16, Section 21.4, the site-specific seismic design parameters are defined as follows:

- S_{DS} = 1.238 g, based on 90% of the spectral acceleration at a period of 0.3-seconds
- S_{D1} = 0.820 g, based on the site V_{S30} and T*Sa at a period of 1.5-second
- S_{MS} = 1.856 g, based on 1.5 times S_{DS}
- S_{M1} = 1.230 g, based on 1.5 times S_{D1}

Lastly, the code-based peak ground acceleration PGA_M (MCE-level) from Section 11.8.3 of ASCE 7-16 requirements is 0.880 g for Site Class D. For the purpose of liquefaction evaluation, the site-specific ground surface MCE_R spectral acceleration at a period of 0.01-second can be used in lieu of the code-based value (cf. Table 3, Column 12). The magnitude for Magnitude Scaling Factors (MSFs) can be based on the mean magnitude from the 1.0-second spectral period hazard deaggregation in Figure 6 at the hazard level of interest (e.g., a M_W 7 at 10 km can be used for the MCE_R hazard level). To evaluate acceleration at depth for liquefaction evaluation purposes, we recommend using r_d reduction factors by Idriss and Boulanger (2008).

7. LIMITATIONS

Conclusions and recommendations presented in this report are based upon GeoPentech's understanding of the project and the assumption that the subsurface conditions do not deviate appreciably from those disclosed by the field exploration. This addendum addresses ground motion design only (i.e., response spectra) and does not evaluate any potential for surface rupture hazard, liquefaction, or other earthquake-related phenomena.

Professional judgments presented in this report are based on an evaluation of the technical information gathered and GeoPentech's general experience in the field of geotechnical engineering. GeoPentech does not guarantee the performance of the project in any respect, only that the engineering work and judgment rendered meet the standard of care of the geotechnical profession at this time.

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TABLE 1
CHARACTERIZATION[1] OF FAULTS SIGNIFICANT TO THE
12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT PROJECT

Fault Name	Style of Faulting[2]	Maximum Magnitude (Mw)	Slip Rate (mm/yr)	Closest Rupture Distance From Site (km)
Newport-Inglewood	SS	7.2	1.2	5
Santa Monica	OBL	6.7	1.1	8
Puente Hills (LA)	RV	6.8	0.6	10
Compton	RV	7.3	0.8	10
San Pedro Escarpment	RV	7.1	0.2	10
SanVicente	RV	6.1	0.2	10
Hollywood	OBL	6.5	1.3	11
Palos Verdes	SS	7.4	2.3	11
Malibu Coast	OBL	6.9	0.5	11
North Salt Lake	RV	5.8	0.1	13
Anacapa-Dume	OBL	7.1	0.7	13
Puente Hills	RV	7.0	1.7	15
Elysian Park (Lower)	RV	6.8	0.1	15
Santa Monica Bay	RV	6.8	0.1	18
Elysian Park (Upper)	RV	6.5	1.4	19
Redondo Canyon	RV	6.6	0.4	19
Raymond	OBL	6.6	1.3	24
Verdugo	RV	6.8	0.6	27
Puente Hills (Santa Fe Springs)	RV	6.4	0.8	27
Northridge Hills	RV	6.8	1.3	28
Northridge	RV	6.9	1.5	28
San Pedro Basin	SS	7.1	1.1	29
Santa Susana East (connector)	RV	6.2	1.9	30
Mission Hills	RV	6.3	0.8	31
Sierra Madre	RV	7.2	1.5	33
Elsinore - Whittier[3]	SS	7	4.2	34
Sierra Madre (San Fernando)	RV	6.5	1.6	34
Anaheim	RV	6.3	0.1	35
Puente Hills (Coyote Hills)	RV	6.7	0.8	35
Santa Susana	RV	6.9	3.2	38
SanGabriel (Extension)	SS	7.1	0.5	39
San Gabriel	OBL	7.3	0.6	40
Holser	RV	6.7	0.5	43
Clamshell-Sawpit	RV	6.4	0.3	44

Fault Name	Style of Faulting[2]	Maximum Magnitude (Mw)	Slip Rate (mm/yr)	Closest Rupture Distance From Site (km)
Simi-Santa Rosa	OBL	6.8	1.1	44
Malibu Coast (Extension)	OBL	6.9	0.8	48
San Jose	OBL	6.5	0.3	50
Richfield	RV	6.1	0.2	50
Oak Ridge (Onshore)	RV	7.1	2.6	50
Yorba Linda	RV	6.3	0.1	51
Peralta Hills	RV	6.4	0.4	51
Del Valle	RV	6.2	1.0	52
San Joaquin Hills	RV	6.8	0.5	55
Chino	OBL	6.7	0.9	56
Santa Cruz-Catalina Ridge	OBL	7.4	1.1	59
San Cayetano	RV	7.1	2.9	60
Sisar	RV	6.8	0.8	60
San Diego Trough North	SS	7.3	1.6	63
Newport-Inglewood Offshore	SS	7	1	63
Cucamonga	RV	6.8	1.7	64
San Andreas[3]	SS	8.2	29	69
Ventura-Pitas Point	OBL	7.1	1.5	73
Fontana	SS	6.6	0.3	76
Oceanside Blind Thrust	RV	7.2	0.7	76
Santa Ynez (East)	SS	7.2	1.5	78
Santa Cruz Island	OBL	7.2	0.85	78
Channel Islands Thrust	RV	7.2	1	78
Pine Mountain	RV	7.2	0.3	79
Oak Ridge (Offshore)	RV	6.9	1.7	81
SanClemente	SS	7.5	1.76	85
San Jacinto[3]	SS	7.9	6	86
Mission Ridge-Arroyo Parida-Santa Ana	RV	7	1.1	86
Red Mountain	RV	7.4	2.18	91
Channel Islands Western Deep Ramp	RV	7.2	0.41	92
Cleghorn	SS	6.7	0.45	94
Coronado Bank	SS	7.4	1.83	98
Big Pine (Central)	OBL	6.5	1	103
Garlock[3]	SS	7.5	6	104

Notes:

(1) Source characterization based on information published by SCEC/USGS UCERF2 (WGCEP, 2008), 2008 NSHM (Petersen et al., 2008), and UCERF3 (WGCEP, 2013a,b).
(2) SS=Strike-Slip, OBL=Oblique, RV=Reverse or Thrust, NOR=Normal.
(3) Characterization used a distribution of magnitude and slip rates; best estimate for deterministic case shown.

TABLE 2
DETERMINISTIC SEISMIC HAZARD ANALYSIS FAULT CHARACTERIZATION
12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT PROJECT

Fault	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
	M_W	F_{RV}	F_N	F_{HW}	Z_{TOR}	Z_{BOT}	Dip	W	Z_{HYP}	R_{RUP}	R_{JB}	R_X
Newport-Inglewood Onshore	7.4	0	0	0	0	15	90	15.0	10.2	5.4	5.4	5.4
Compton	7.3	1	0	1	5.2	15	20	28.7	9.4	10.0	0	13
Elysian Park Upper	6.5	1	0	0	3	15	50	15.7	11.0	18.4	-18.2	-18.2
Palos Verdes	7.4	0	0	0	0	13.6	90	13.6	10.2	11	11	11
Puente Hills LA	6.8	1	0	0	2.1	15	27	28.4	7.8	9.6	-9	-9.4
Puente Hills Alt1	7	1	0	0	5	13	25	18.9	10.2	14.8	-14	-13.9
Whittier-Elsinore	7	0	0	0	0	15.5	75	16.0	10.2	33.9	33.9	33.9
Hwood-Santa Monica	7	1	0	0	0	17.3	70	18.4	10.2	7.8	7.8	-7.8
San Andreas	8.2	0	0	0	0	13.1	90	13.1	10.2	69.2	69.2	69.2
San Pedro Escarpment	7.1	1	0	1	1	12	20	32.2	5.2	9.9	0.0	25.8

Key

Column 1	= Moment magnitude.
Column 2	= Reverse-faulting factor: 0 for strike slip, normal, normal-oblique; 1 for reverse, reverse-oblique, thrust.
Column 3	= Normal-faulting factor: 0 for strike slip, reverse, reverse-oblique, thrust and normal-oblique; 1 for normal.
Column 4	= Hanging-wall factor: 1 for site on down-dip side of top of rupture; 0 otherwise.
Column 5	= Depth to top of coseismic rupture (km).
Column 6	= Depth to bottom of the seismogenic crust (km).
Column 7	= Average dip of rupture plane (degrees).
Column 8	= Fault rupture width (km).
Column 9	= Hypocentral depth from the earthquake (km), based on Campbell and Bozorgnia (2014) model.
Column 10	= Closest distance to coseismic rupture (km).
Column 11	= Closest distance to surface projection of coseismic rupture (km).
Column 12	= Horizontal distance from top of rupture measured perpendicular to fault strike (km).

TABLE 3
SITE-SPECIFIC MCE_R DEVELOPMENT CALCULATION SHEET
12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT PROJECT

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
		2475-yr UHS (PSHA)	*Risk Collapse Scaling Factors*	*Max. Orientation Scaling Factors*	*Probabilistic MCE_R*	*84th %tile DSHA*	*Max. Direction 84th %tile DSHA*	*Code-Based Deteterministic Minimum MCE_R*	*Deterministic MCE_R*	*Code Minimum MCE_R*	*Final Outcropping Site-Specific MCE_R*
Period	***Frequency***	*RotD50*		*RotD50*	*RotD100*	*RotD50*	*RotD100*	*RotD100*	*RotD100*	*RotD100*	*RotD100*
(sec)	(Hz)	(g)	-	-	(g)	(g)	(g)	(g)	(g)	(g)	(g)
0.010	100	0.745	0.909	1.190	0.806	2.946	3.506	0.468	1.367	0.674	0.806
0.020	50	0.756	0.909	1.190	0.818	1.160	1.381	0.473	1.381	0.749	0.818
0.030	33	0.779	0.909	1.190	0.842	1.199	1.426	0.488	1.426	0.824	0.842
0.050	20	0.902	0.909	1.190	0.976	1.378	1.639	0.561	1.639	0.973	0.976
0.075	13	1.132	0.909	1.190	1.225	1.657	1.971	0.675	1.971	1.161	1.225
0.100	10	1.328	0.909	1.190	1.437	1.904	2.265	0.775	2.265	1.348	1.437
0.150	6.67	1.565	0.909	1.200	1.707	2.211	2.654	0.908	2.654	1.497	1.707
0.200	5.00	1.712	0.909	1.210	1.883	2.493	3.017	1.032	3.017	1.497	1.883
0.250	4.00	1.802	0.909	1.220	1.997	2.645	3.227	1.104	3.227	1.497	1.997
0.300	3.33	1.861	0.908	1.220	2.063	2.806	3.423	1.172	3.423	1.497	2.063
0.400	2.50	1.813	0.908	1.230	2.024	2.851	3.506	1.200	3.506	1.497	2.024
0.500	2.00	1.699	0.907	1.230	1.895	2.649	3.258	1.115	3.258	1.497	1.895
0.750	1.33	1.351	0.905	1.240	1.516	2.112	2.619	0.896	2.619	1.197	1.516
1.000	1.00	1.091	0.903	1.240	1.221	1.631	2.022	0.692	2.022	0.898	1.221
1.500	0.67	0.732	0.903	1.240	0.820	1.031	1.279	0.438	1.279	0.598	0.820
2.000	0.50	0.533	0.903	1.240	0.597	0.700	0.868	0.297	0.868	0.449	0.597
3.000	0.33	0.323	0.903	1.250	0.364	0.403	0.503	0.172	0.503	0.299	0.364
4.000	0.25	0.216	0.903	1.260	0.246	0.283	0.357	0.122	0.357	0.224	0.246
5.000	0.20	0.158	0.903	1.260	0.180	0.208	0.262	0.090	0.262	0.180	0.180
7.500	0.13	0.089	0.903	1.280	0.103	0.103	0.132	0.045	0.132	0.120	0.120
10.000	0.10	0.057	0.903	1.290	0.066	0.060	0.077	0.026	0.077	0.072	0.072

Note: Significant figures are provided for computational purposes only and do not necessarily reflect accuracies to those significant figures.

Key

Column 1	= Spectral period in seconds.
Column 2	= Spectral frequency (inverse of spectral period) in Hertz.
Column 3	= Mean uniform hazard spectral ordinates for 2,475- yr average return period in units of g for 5% damping; GMRotI50 and RotD50 are produced by NGA West 1 and West2, respectively.
Column 4	= Site-specific risk coefficient (C_R) from USGS.
Column 5	= Scale factor to obtain maximum-oriented spectral acceleration; from Shahi and Baker (2014).
Column 6	= Probabilistic risk-targeted, maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping.
Column 7	= 84th percentile deterministic hazard spectral ordinates in units of g for 5% damping; ordinates are maximum of all deterministic scenarios, therefore spectrum may not represent a single event.
Column 8	= Deterministic, maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping.
Column 9	= Code-based (ASCE 7-16 Supplement 1, Ch. 21.2.2) deterministic lower limit for risk-targeted, maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping.
Column 10	= Deterministic maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping; maximum value from Columns 8 and 9.
Column 11	= 80% of code-based (ASCE 7-16, Ch. 11) risk-targeted, maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping.
Column 12	= Final risk-targeted, maximum considered earthquake ground-motion spectral ordinates in units of g for 5% damping; minimum value from Columns 6 and 10, but no less than Column 11.

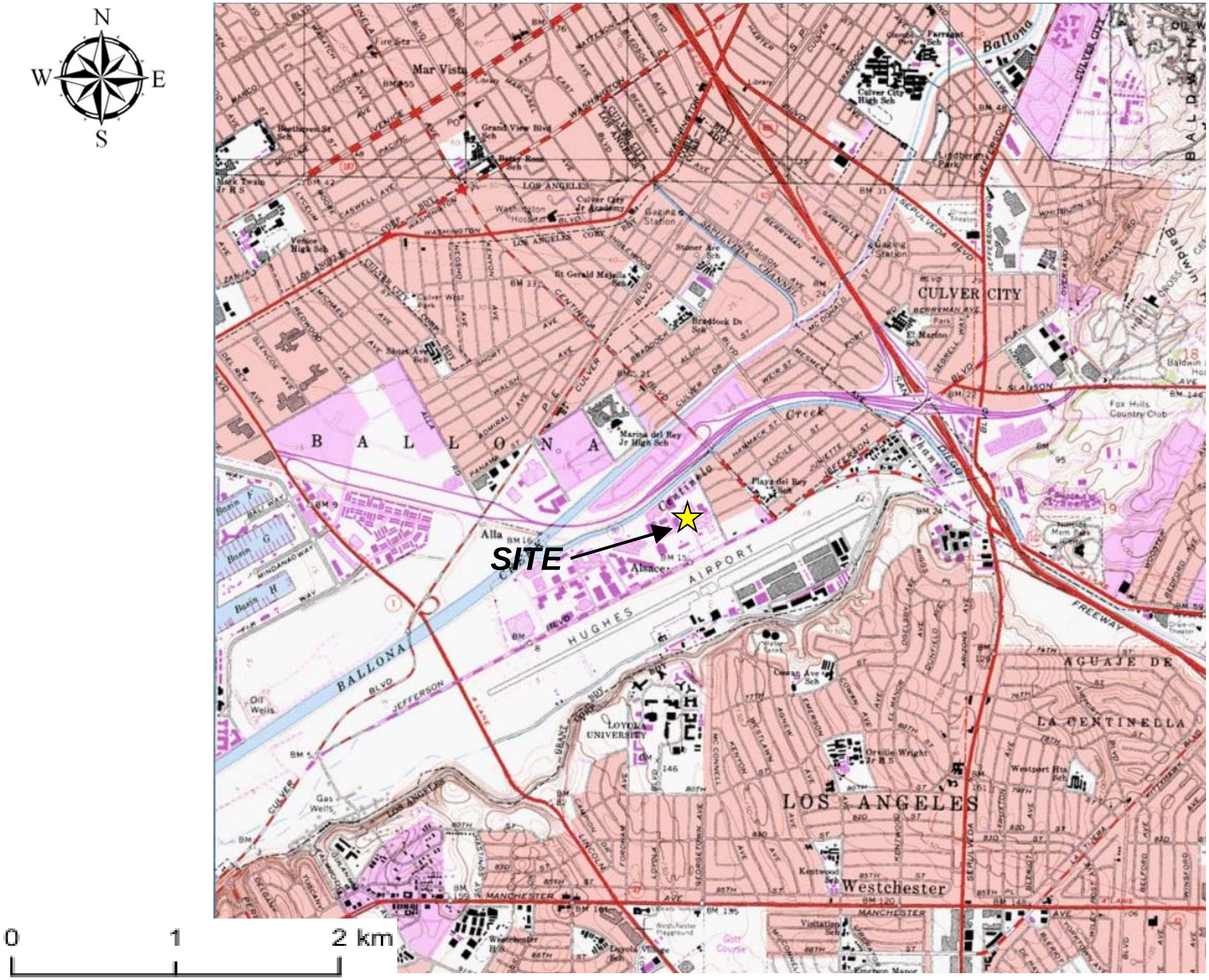
TABLE 4
SITE-SPECIFIC DRS DEVELOPMENT CALCULATION SHEET
12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT PROJECT

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
		Code-Based DRS	*80% of Code-Based DRS*	*2/3 of MCE $_R$*	*Final Outcropping Site-Specific DRS*
Period	***Frequency***	*RotD100*	*RotD100*	*RotD100*	*RotD100*
(sec)	(Hz)	(g)	(g)	(g)	(g)
0.010	100	0.561	0.449	0.538	0.538
0.020	50	0.624	0.499	0.546	0.546
0.030	33	0.686	0.549	0.562	0.562
0.050	20	0.811	0.649	0.650	0.650
0.075	13	0.967	0.774	0.816	0.816
0.100	10	1.123	0.899	0.958	0.958
0.150	6.67	1.247	0.998	1.138	1.138
0.200	5.00	1.247	0.998	1.256	1.256
0.250	4.00	1.247	0.998	1.331	1.331
0.300	3.33	1.247	0.998	1.375	1.375
0.400	2.50	1.247	0.998	1.349	1.349
0.500	2.00	1.247	0.998	1.263	1.263
0.750	1.33	0.997	0.798	1.010	1.010
1.000	1.00	0.748	0.598	0.814	0.814
1.500	0.67	0.499	0.399	0.547	0.547
2.000	0.50	0.374	0.299	0.398	0.398
3.000	0.33	0.249	0.199	0.243	0.243
4.000	0.25	0.187	0.150	0.164	0.164
5.000	0.20	0.150	0.120	0.120	0.120
7.500	0.13	0.100	0.080	0.080	0.080
10.000	0.10	0.060	0.048	0.048	0.048

Note: Significant figures are provided for computational purposes only and do not necessarily reflect accuracies to those significant figures.

Key

Column 1	= Spectral period in seconds.
Column 2	= Spectral frequency (inverse of spectral period) in Hertz.
Column 3	= Code-based (ASCE 7-16, Ch. 11) design ground-motion spectral ordinates in units of g for 5% damping.
Column 4	= Code-based (ASCE 7-16, Ch. 21) minimum design ground-motion spectral ordinates in units of g for 5% damping; 80% of the value in Column 3.
Column 5	= Minimum Design Earthquake (DE) ground motion spectral ordinates in units of g for 5% damping; 2/3 of the MCE $_R$.
Column 6	= Final design ground-motion spectral ordinates in units of g for 5% damping; maximum value from Columns 4 and 5.

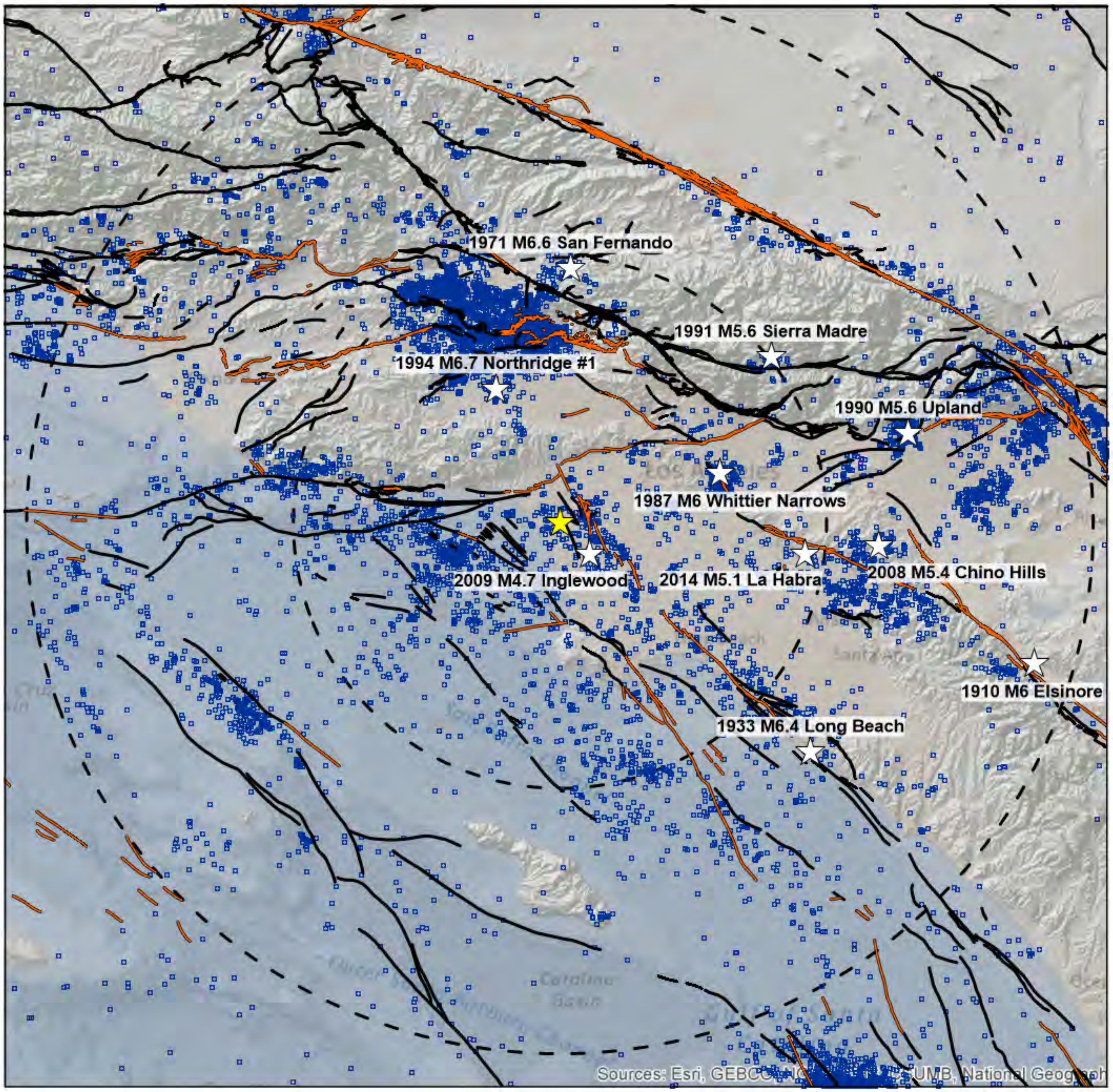


USGS Topographic Map: [Venice, CA]()

DETAILED SITE LOCATION MAP

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 1

GeoPentech



Legend

USGS Quaternary Fault & Fold Database [1]

Age of Most Recent Displacement

< 15,000 years

< 1,600,000 years

Seismicity [2]

M ≥ 2.0

Historic Earthquake

Notes:

1. Fault traces are from USGS Quaternary Fault and Fold Database (USGS, 2010).
2. Seismicity (hollow blue dots) is from Hauksson et al. (2012) catalog ("HYS" catalog). Catalog includes all instrumentally-recorded events in southern Calfornia from 01/01/1981 through 06/30/2011. Only M ≥ 2.0 events are shown here. Significant post-1900 earthquakes identified by name (white stars) are from the Southern California Earthquake Center (SCEC) online database.

Approximate Scale

0 km *20 km* *40 km* *60 km*

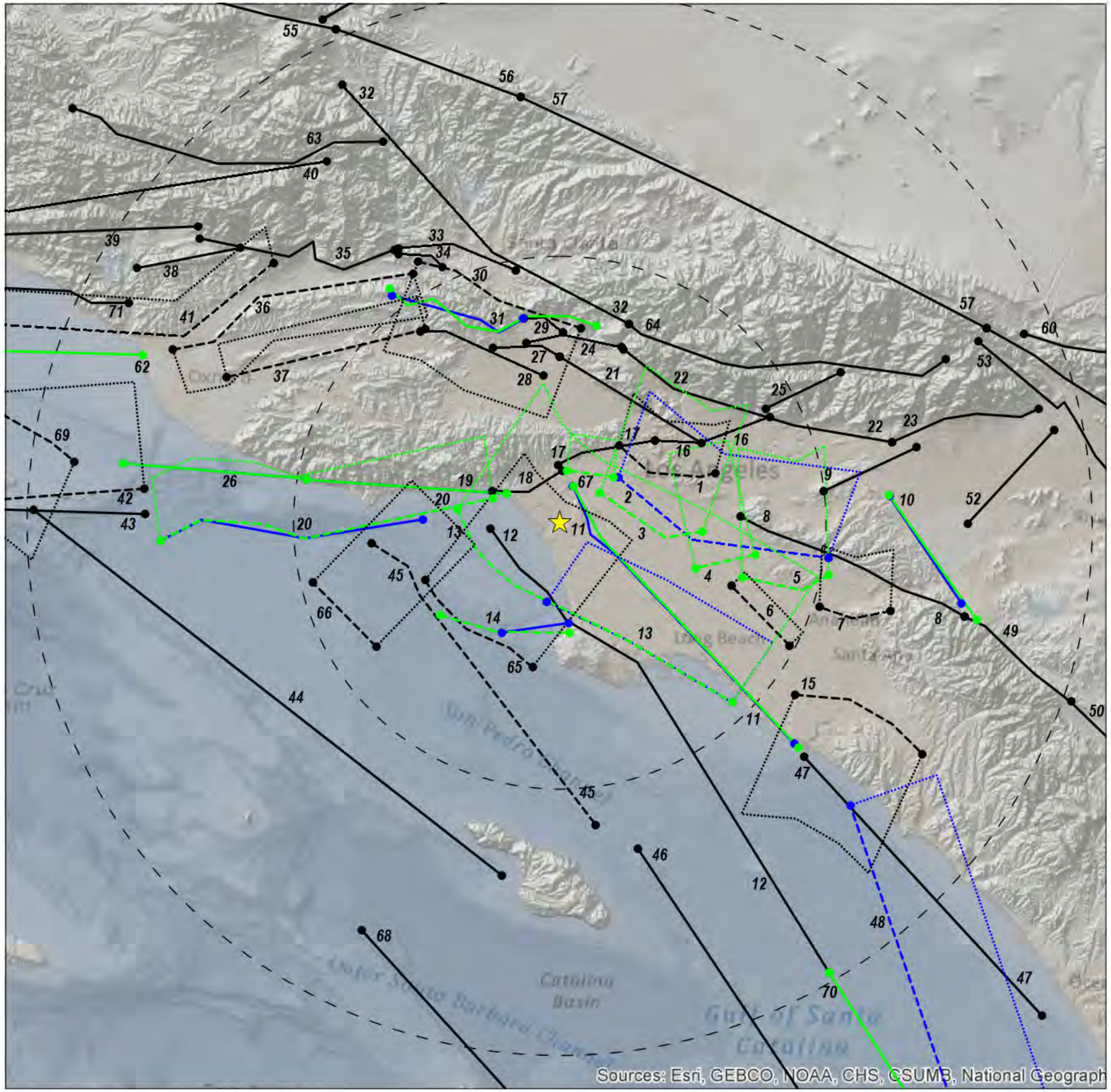
N

Datum & Projection: NAD83 UTM Zone 11

REGIONAL FAULT & SEISMICITY MAP

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 2

GeoPentech



Approximate Scale (km)

0 5 10 15 20 25 30 35 40 45 50

Datum & Projection: NAD83 UTM Zone 11

No.	Fault Name
1	Elysian Park (Upper)
2	Puente Hills
3	Puente Hills (LA)
4	Puente Hills (Santa Fe Springs)
5	Puente Hills (Coyote Hills)
6	Anaheim
7	Peralta Hills
8	Elsinore - Whittier
9	San Jose
10	Chino
11	Newport-Inglewood
12	Palos Verdes
13	Compton
14	Redondo Canyon
15	San Joaquin Hills
16	Raymond
17	Hollywood
18	Santa Monica
19	Malibu Coast
20	Anacapa-Dume
21	Verdugo
22	Sierra Madre
23	Cucamonga
24	Sierra Madre (San Fernando)
25	Clamshell-Sawpit
26	Malibu Coast (Extension)
27	Mission Hills
28	Northridge Hills
29	Santa Susana East (connector)
30	Northridge
31	Santa Susana
32	San Gabriel
33	Holser
34	Del Valle
35	San Cayetano
36	Oak Ridge (Onshore)
37	Simi-Santa Rosa
38	Sisar
39	Mission Ridge-Arroyo Parida-Santa Ana
40	Santa Ynez (East)
41	Ventura-Pitas Point
42	Channel Islands Thrust
43	Santa Cruz Island
44	Santa Cruz-Catalina Ridge
45	San Pedro Basin
46	San Diego Trough North
47	Newport-Inglewood Offshore
48	Oceanside Blind Thrust
49	Elsinore - Glen Ivy
50	Elsinore - Temecula/Glen Ivy Stepover
51	Elsinore - Temecula
52	Fontana
53	San Jacinto - San Bernardino Valley
54	San Jacinto - San Jacinto Valley
55	San Andreas - Big Bend
56	San Andreas - North Mojave
57	San Andreas - South Mojave
58	San Andreas - North San Bernardino
59	San Andreas - South San Bernardino
60	Cleghorn
61	Garlock - West
62	Oak Ridge (Offshore)
63	Pine Mtn
64	San Gabriel Extension
65	San Pedro Escarpment
66	Santa Monica Bay
67	San Vicente
68	San Clemente
69	Channel Islands - Western Deep
70	Coronado Bank
71	Red Mountain

Legend

Surface Trace, Top of Fault (Both Fault Models)
Blind Trace, Top of Fault (Both Fault Models)
Blind Thrust Footprint (Both Fault Models)
Surface Trace, Top of Fault (Fault Model 1)
Blind Trace, Top of Fault (Fault Model 1)
Blind Thrust Footprint (Fault Model 1)
Surface Trace, Top of Fault (Fault Model 2)
Blind Trace, Top of Fault (Fault Model 2)
Blind Thrust Footprint (Fault Model 2)
Site

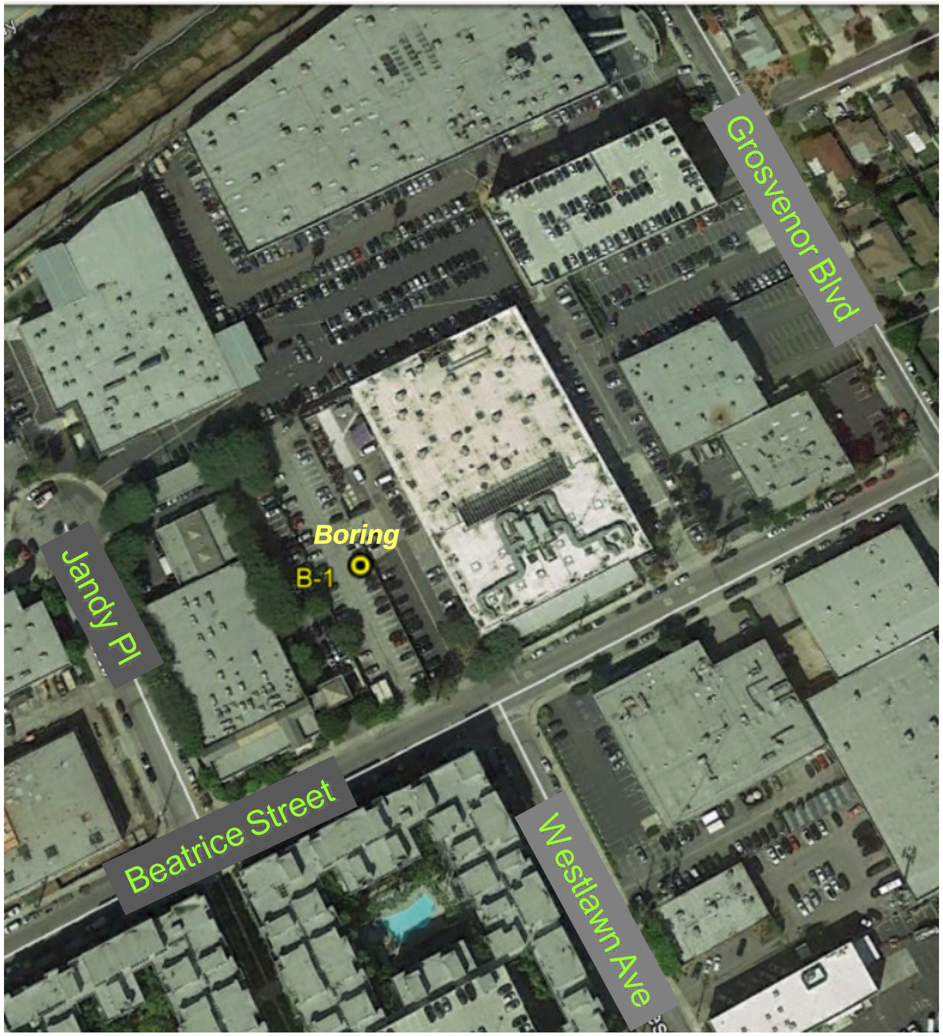
Notes:

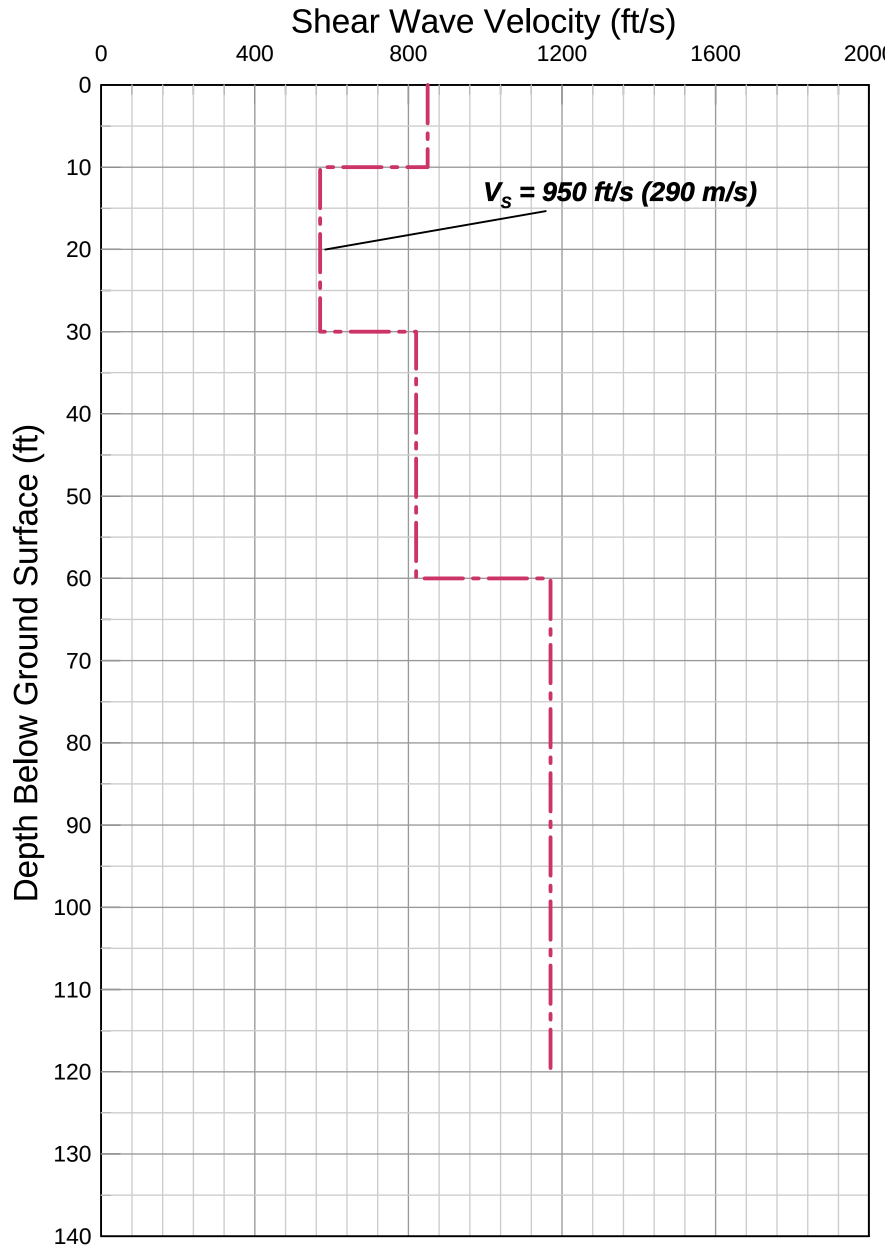
1. All fault traces based on UCERF3 (WGCEP, 2013a) except for "Type A" faults (San Andreas, San Jacinto, Elsinore); Type A faults based on UCERF2 (WGCEP, 2008; USGS, 2009). Fault traces shown here are simplified and as-implemented in the PSHA calculations.
2. All faults within 100 km of site with slip rates greater 0.05 mm/yr are shown, except for the following: Elysian Park (Lower), North Salt Lake, Richfield, and Yorba Linda (however, these faults are included in the PSHA). Slip rates are solution mean rates from UCERF3 (WGCEP, 2013a). Only Type A faults outside 100 km are shown.
3. Fault Models 1 & 2 based on UCERF3 (WGCEP, 2013a,b). Seismic source characterization geometries for non-Type A faults are generally as shown in WGCEP (2013a,b) and slip rates are in WGCEP (2013a). Magnitude-frequency distributions approximate the SWUS WAACY model (GeoPentech, 2015) with characteristic magnitude calculated from Shaw (2009) regression. Type A faults characterized as documented in WGCEP (2008) and 2008 NSHM (Petersen et al., 2008).

SIMPLIFIED FAULT MAP FOR PSHA

Project: 12575 BEATRICE GROUND MOTIONS		Figure 3
Project No.: 17025A	Date: FEB. 2018	

GeoPentech

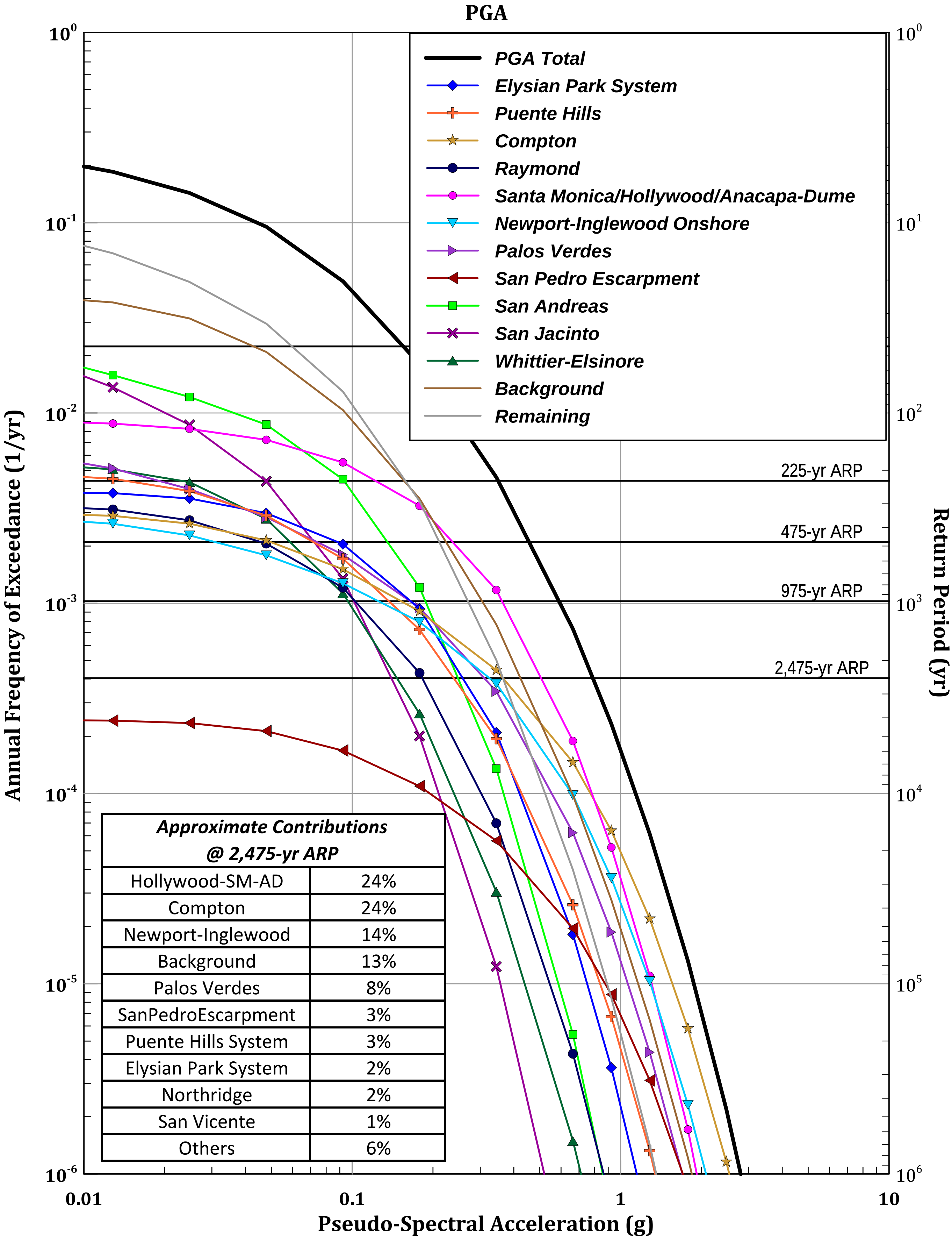




SITE SHEAR-WAVE VELOCITY

Date: FEB. 2016	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 4

GeoPentech

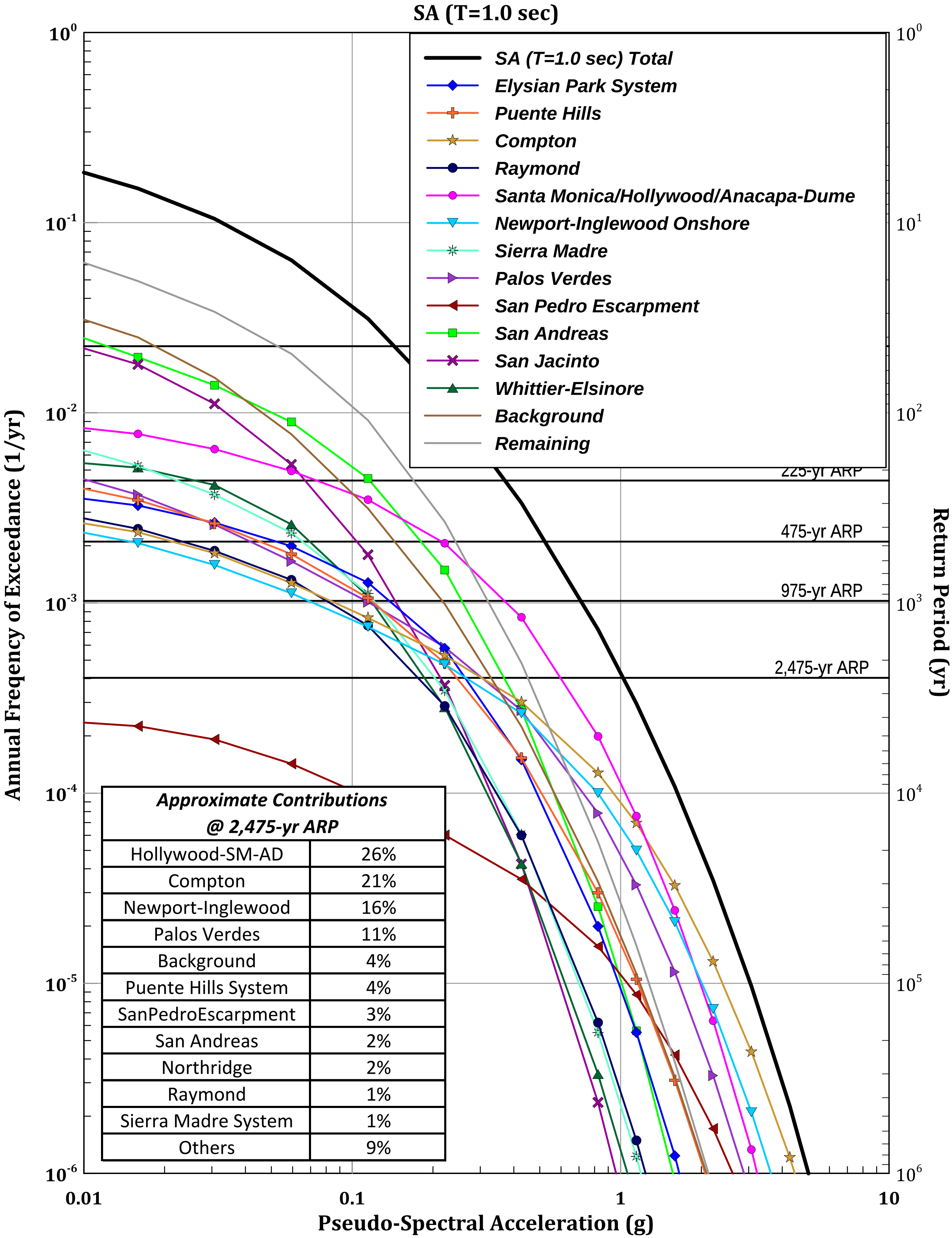


Approximate Contributions @ 2,475-yr ARP	
Hollywood-SM-AD	24%
Compton	24%
Newport-Inglewood	14%
Background	13%
Palos Verdes	8%
SanPedroEscarpment	3%
Puente Hills System	3%
Elysian Park System	2%
Northridge	2%
San Vicente	1%
Others	6%

SOURCE CONTRIBUTIONS TO THE TOTAL HAZARD AT PGA

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 5a

GeoPentech

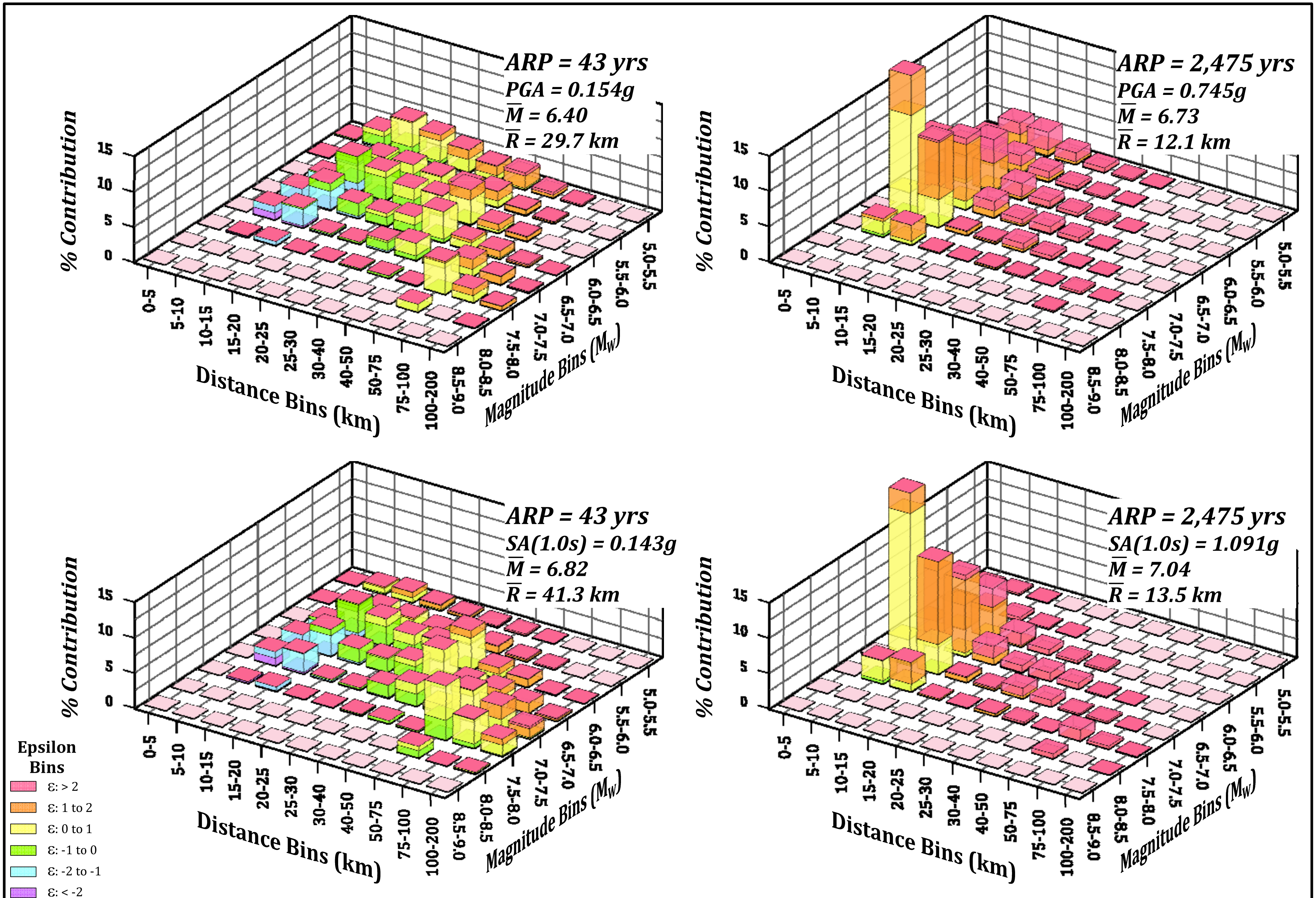


Approximate Contributions @ 2,475-yr ARP	
Hollywood-SM-AD	26%
Compton	21%
Newport-Inglewood	16%
Palos Verdes	11%
Background	4%
Puente Hills System	4%
SanPedroEscarpment	3%
San Andreas	2%
Northridge	2%
Raymond	1%
Sierra Madre System	1%
Others	9%

SOURCE CONTRIBUTIONS TO THE TOTAL HAZARD AT T=1.0 SEC

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 5b

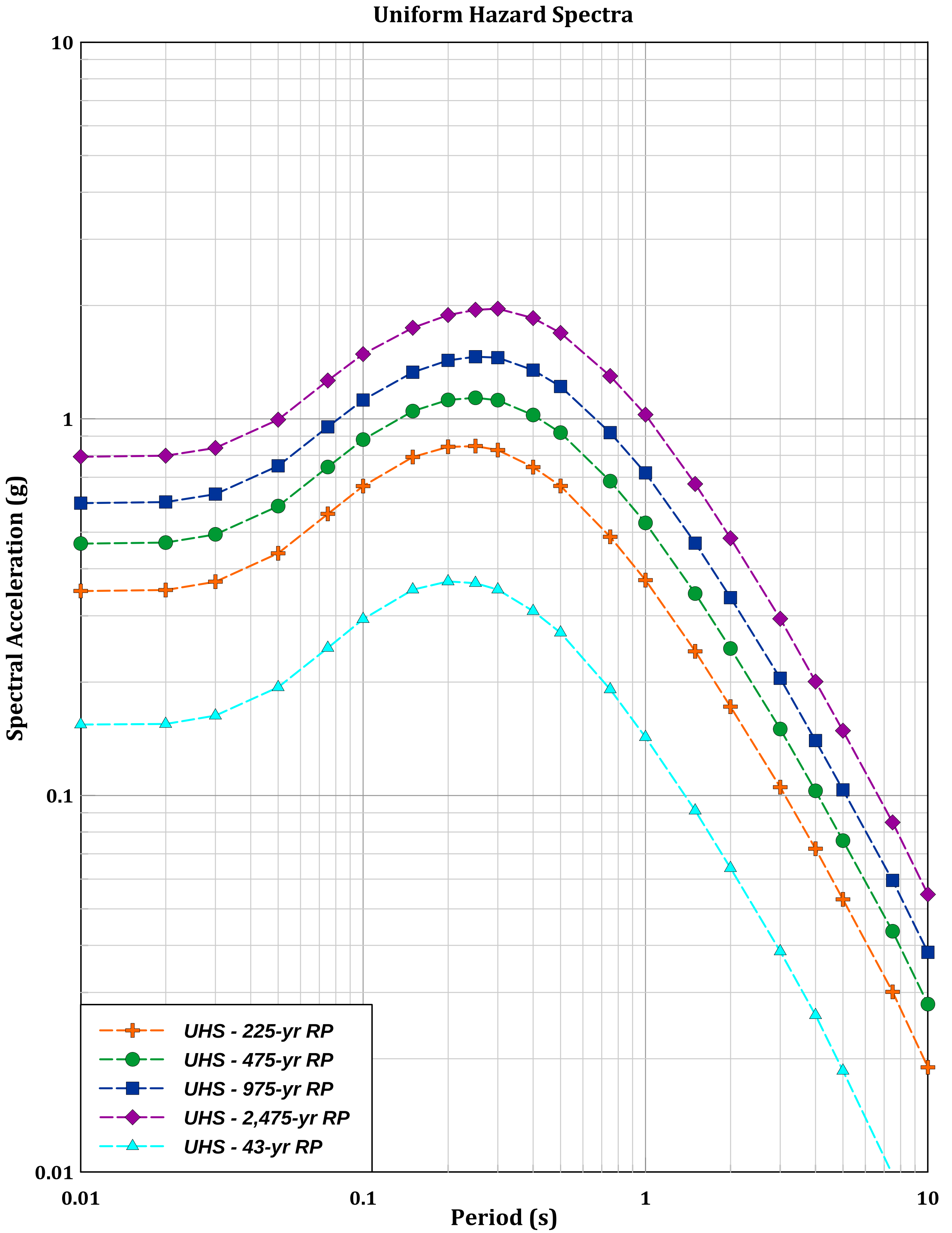
GeoPentech



HAZARD DEAGGREGATION FOR PGA & 1.0-SECOND SPECTRAL PERIOD

Project No.: 17025A	Date: MAR. 2020	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 6

GeoPentech

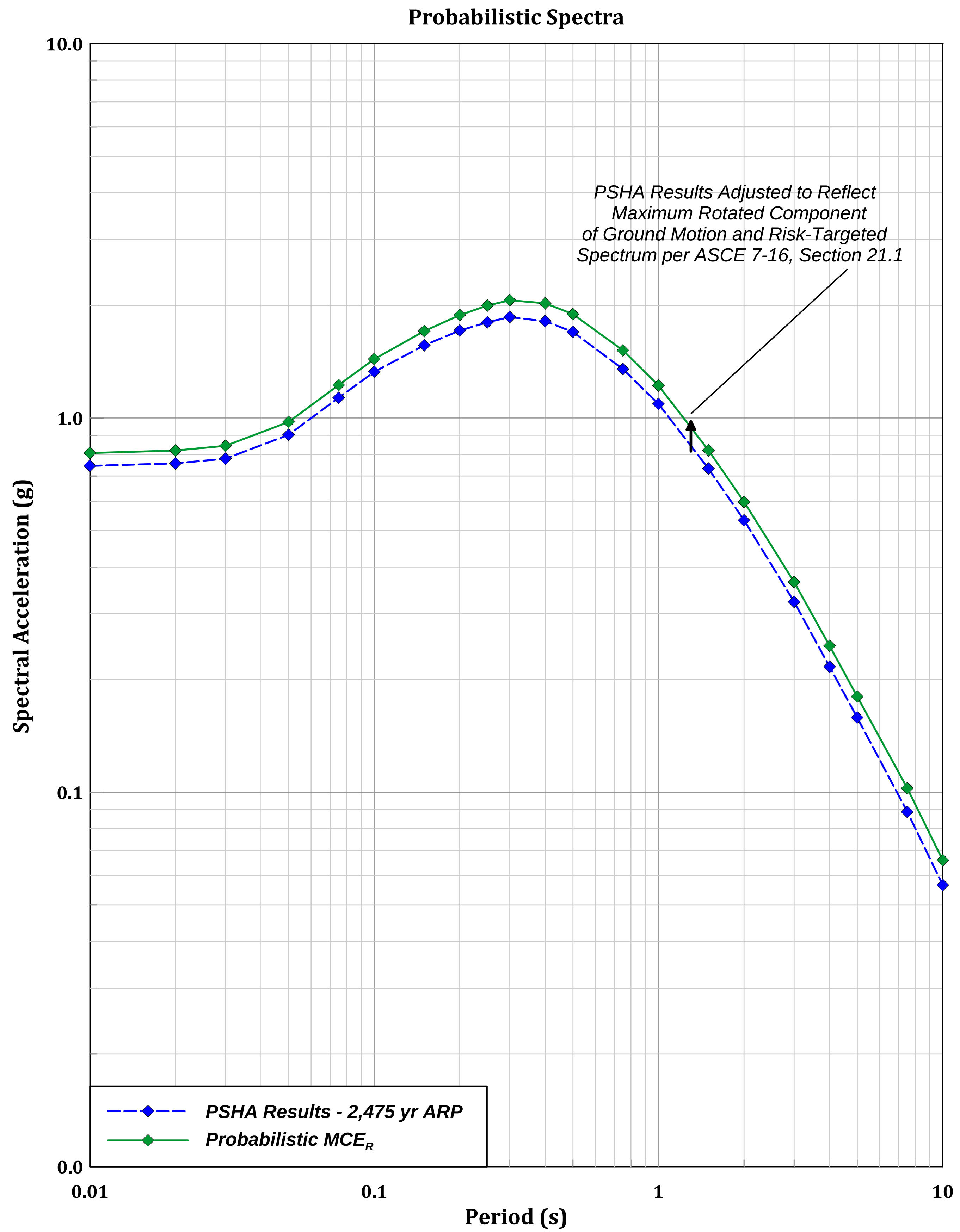


Note: Spectra represent average horizontal components at 5% damping.

UNIFORM HAZARD SPECTRA

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 7

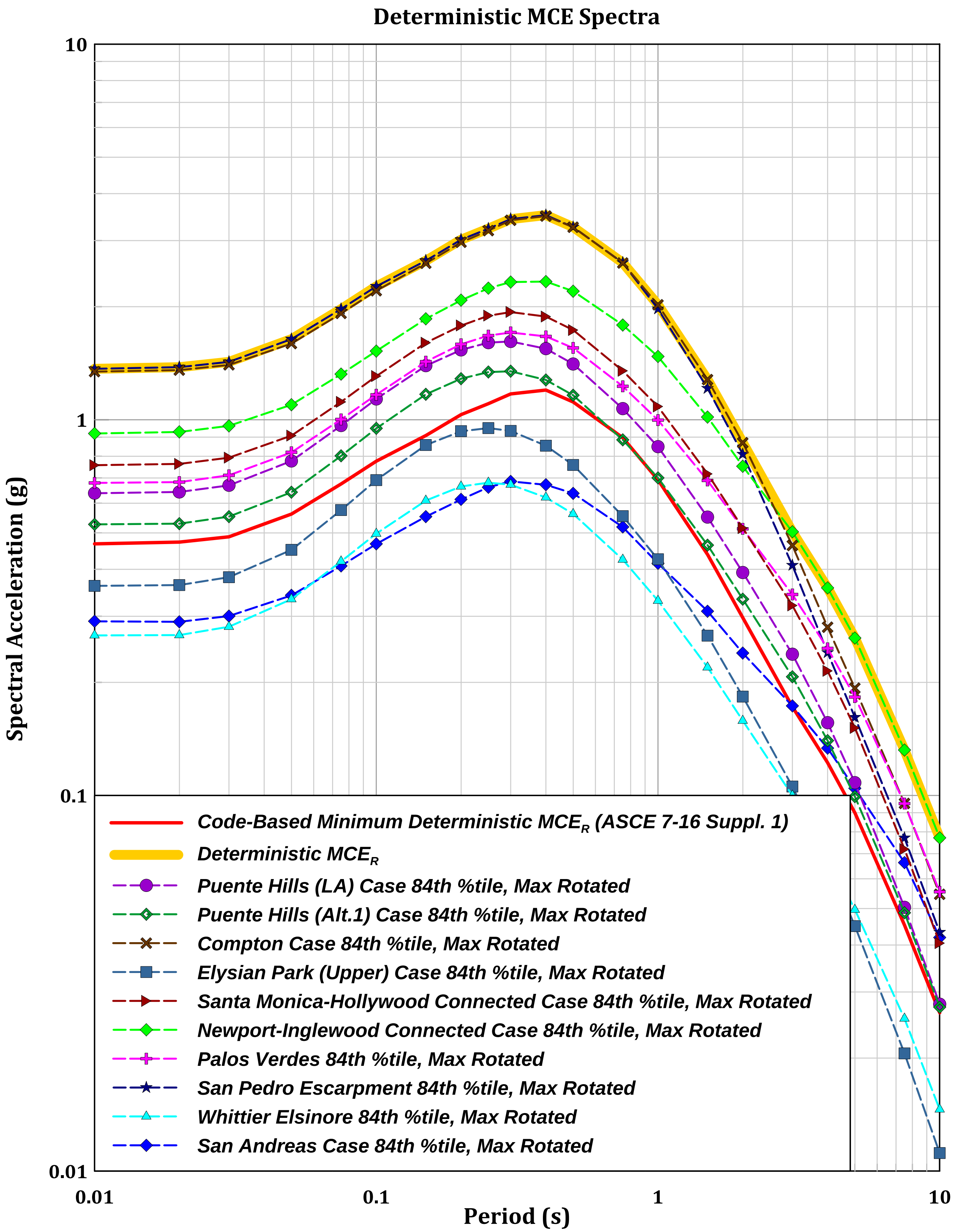
GeoPentech



Note: All spectra are for Damping (β) = 5.0% unless otherwise indicated.

PROBABILISTIC SPECTRA			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR. 2020	Figure 8

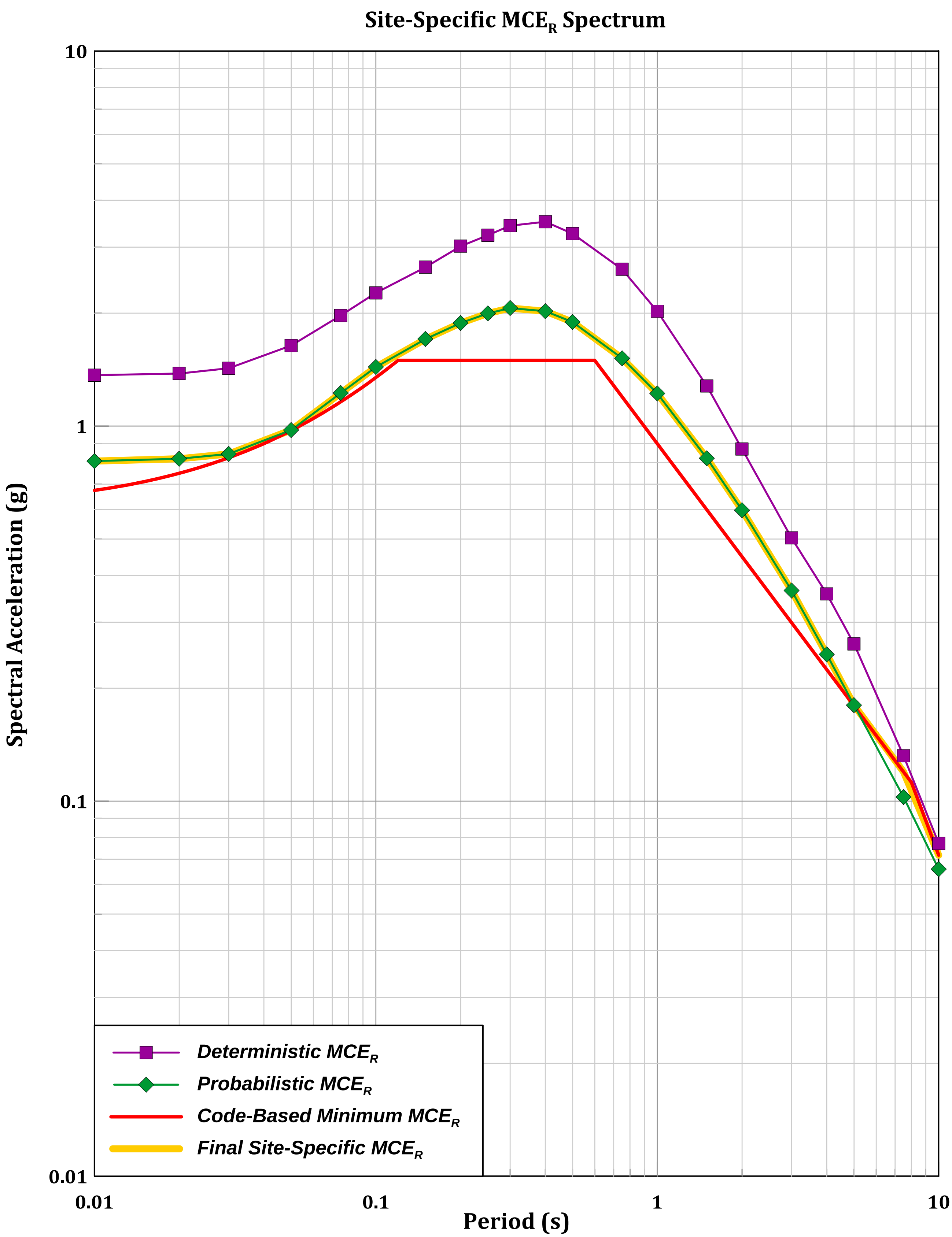
GeoPentech



Note: All spectra are for Damping (β) = 5.0%

DETERMINISTIC SPECTRA			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR. 2020	Figure 9

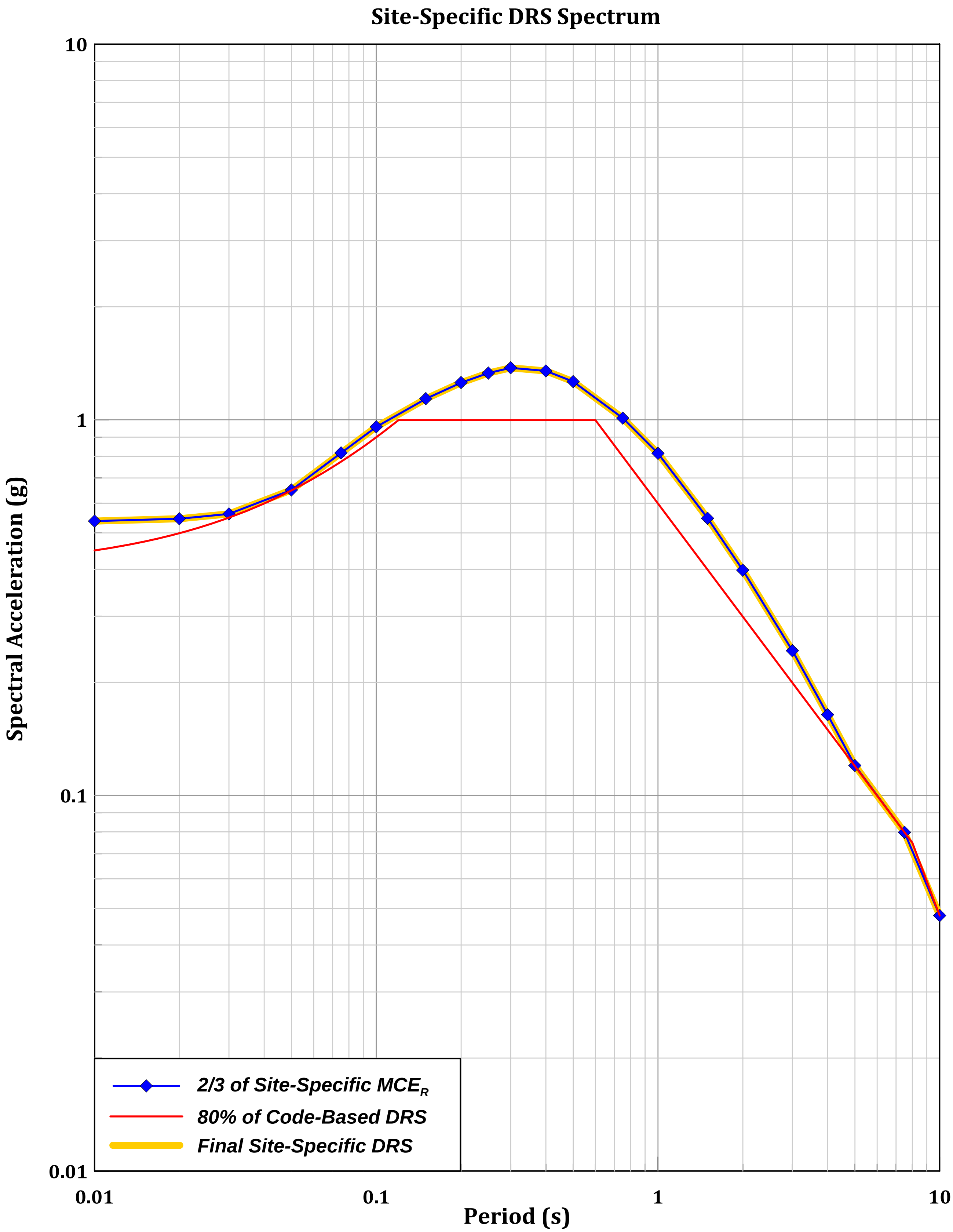
GeoPentech



Note: All spectra are for Damping (β) = 5.0%

SITE-SPECIFIC MCE$_R$ SPECTRUM			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR. 2020	Figure 10

GeoPentech



Note: All spectra are for Damping (β) = 5.0%

SITE-SPECIFIC DRS SPECTRUM

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR 2020	Figure 11

GeoPentech

APPENDIX A

Downhole Seismic Tests

APPENDIX A – Downhole Seismic Tests

This appendix presents the methods and results of the downhole seismic tests performed at the subject property. Downhole seismic tests were completed within Boring No. 1 on January 17, 2018 by GeoPentech. The downhole seismic test method makes direct measurements of in-situ vertically propagating compression (P) and horizontally polarized shear (SH) wave velocities as a function of depth within the geologic material adjacent to a borehole. Measurement procedures followed ASTM D7400-08, "Standard Test Methods for Downhole Seismic Testing." The geophysical data were collected, processed, and interpreted by a California-licensed Professional Geophysicist (PGp).

Boring No. 1 was drilled and logged by Geotechnologies, Inc. on December 18, 2017, and a copy of the borehole log is included at the end of this appendix. Boring No. 1 was drilled with a 5-inch diameter bit using rotary wash drilling methods and a 2-inch diameter PVC casing was installed under the direction of Geotechnologies, Inc. as part of their geotechnical investigation. The annular space between the 5-inch diameter hole and 2-inch diameter casing was backfilled with bentonite-cement grout, which was assumed to be formulated to approximate the density of the surrounding geologic material and pumped in from the base of the borehole to completely fill the annular space.

Downhole Seismic Methods and Procedures

A seismic source was used to generate a seismic wave (P or SH) at the ground surface. The seismic source was offset horizontally from the borehole a distance of 5 feet. The P-wave seismic source consisted of a ground plate that was struck vertically with a sledgehammer. The SH-wave seismic source consisted of an 8-foot long by 6-inch wide by 4-inch high wood beam capped on both ends with a steel plate and loaded in place by the front end of a vehicle that was parked on top of the beam. The ends of this beam were positioned equidistant from the borehole. Initially, one end of the beam was struck horizontal with a sledgehammer to produce an SH-wave (forward hit). Next, the opposite end of the beam was struck horizontally with a sledgehammer to produce an opposite polarity SH-wave (reverse hit). The combination of the two opposite polarity SH-waves were used to determine SH travel times.

A downhole receiver positioned at a selected depth within the cased borehole was used to record the arrival of the seismic wave (P or SH). A three component triaxial borehole geophone (one vertical-channel and two orthogonal horizontal channels), which could be firmly pneumatically fixed against the PVC casing sidewall, was used to collect the downhole seismic measurements. Multiple downhole seismic measurements were performed at successive receiver depths within the borehole. The receiver depth was referenced to ground surface, and measurements were made at receiver intervals of 5 feet from the ground surface to the bottom of the hole (120 feet).

A Geometrics S12 signal enhancing seismograph was used to record the response of the downhole receiver. The seismic source (sledgehammer) contained a trigger that was connected to and initiated the seismograph recording, thus measuring the travel time between seismic source and downhole receiver. Downhole seismic test records were digitally recorded and stored with a 0.062 ms sample interval.

The recorded digital downhole seismic records were analyzed using the OYO Corporation program PickWin Version 5.1.1.2. The digital waveforms were analyzed to identify arrival times. The first prominent departure of the vertical receiver trace was identified as the P-wave first arrival. The SH-wave forward and reverse hits recorded on the two horizontal receiver channels were superimposed. The SH-wave first arrival was identified at the location of the first prominent relatively low-frequency departure of the forward hit and an 180^{o} polarity change is noted to have occurred on the reverse hit. For analysis, a 15 Hz low-cut filter and 500 Hz high-cut filter was applied to the P waveforms, and a 15 Hz low-cut filter and 168 Hz high-cut filter were applied to the SH waveforms.

After correcting the P and SH-wave travel time for the source offset, the P and SH-wave travel-times were plotted versus depth. P and SH layer and interval velocities were calculated as the slope of lines drawn through the plotted data.

Downhole Seismic Results

The results of the seismic downhole measurements collected within Boring No. 1 are presented on Figure A-1. Figure A-1 shows (1) a table of the measured P and SH-wave travel-times and depths; (2) a plot of the P and SH-wave travel-times as a function of depth showing the interpreted layer velocities; (3) a table of the calculated P and SH-wave interval velocities; (4) a table of the interpreted P and SH-wave layer velocities and depth ranges; and (5) a plot of the layer and interval velocity models as a function of depth.

Table A-1 below summarizes the interpreted P and SH layer velocities and depths shown on Figure A-1 for the various geologic units logged by Geotechnologies, Inc. in Boring No. 1. It is noted that groundwater was observed at a depth of approximately 22½ feet during drilling.

TABLE A-1
SUMMARY OF SH-WAVE AND P-WAVE VELOCITY LAYERS WITHIN BORING NO. 1

<table>
<tr><th>PREDOMINANT LITHOLOGY</th><th>Depth Range (ft)</th><th>SH-WAVE Velocity (ft/sec)</th><th>P-WAVE Velocity (ft/sec)</th></tr>
<tr><td>Medium firm to stiff, sandy Clay (CL) and sandy Silt (ML)
[Fill]</td><td>0 to 10</td><td>850</td><td>1,980</td></tr>
<tr><td>Soft to stiff, silty Clay (CH and CL)
[Alluvium]</td><td>10 to 25</td><td rowspan="2">570</td><td>1,450</td></tr>
<tr><td>Medium firm to stiff, silty Clay (CL) and sandy Silt (ML)
[Alluvium]</td><td>25 to 30</td><td rowspan="2">4,850</td></tr>
<tr><td>Medium dense to dense, Sand with some gravel (SC, SP and SW)
[Alluvium]</td><td>30 to 45</td><td rowspan="2">820</td></tr>
<tr><td>Medium firm sandy Silt (ML) and
Medium dense to dense, Sand (SC and SP)
[Alluvium]</td><td>45 to 60</td><td rowspan="2">5,600</td></tr>
<tr><td>Very dense, Sand (SP and SW)
[Alluvium]</td><td>60 to 120</td><td>1,170</td></tr>
</table>

The V_{S30} was calculated based on the procedures outlined in the 2010 California Building Code, "2010 California Existing Building Code, Title 24, Part 10, Section 1613A.5.5 – Site Classification for Seismic Design." The V_{S30} was calculated from Equation 16A-40 of this reference which states:

$$v_s = \frac{\sum_{i=1}^{n} di}{\sum_{i=1}^{n} \frac{d_i}{v_{si}}}$$

where:

i = distinct different soil and/or rock layer between 1 and n

v_{si} = shear wave velocity in feet per second of layer i

d_i = thickness of any layer within the 100-foot interval

$\sum_{i=1}^{n} d_i$ = 100 feet

Based on this procedure, the V_{S30} for Boring Boring No. 1 was calculated between a depth of 0 to 100 feet and 20 to 120 feet. The results are summarized on Table A-2.

TABLE A-2
CALCULATED V_{S30} WITHIN BORING NO. 1

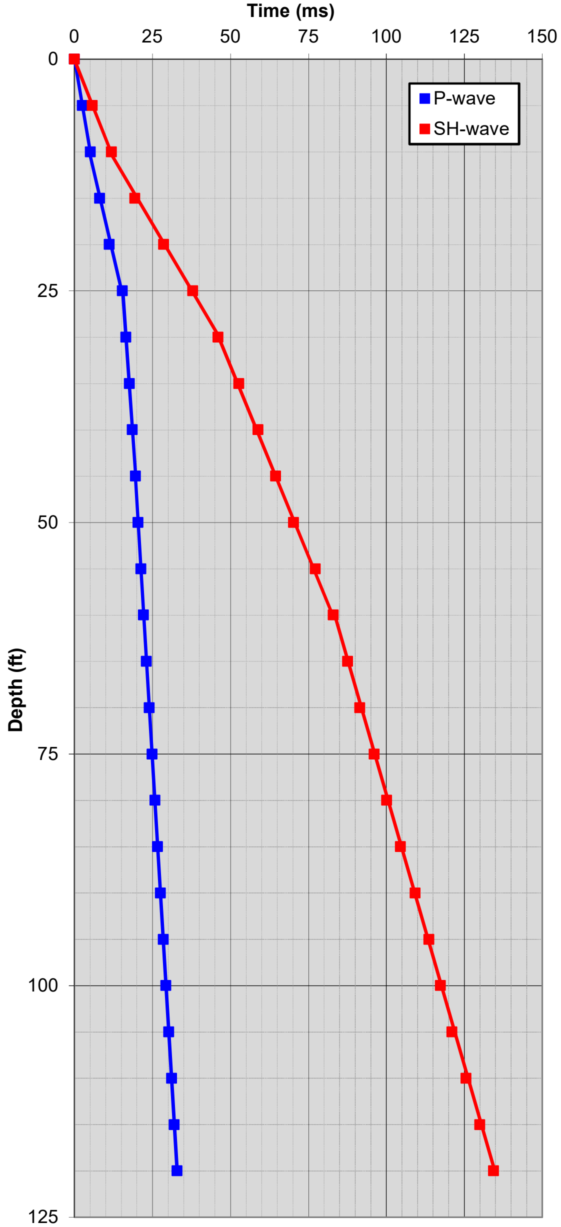
DEPTH RANGE (ft, below ground surface)	V_{S30} (ft/sec)
0 to 100	850
20 to 120	950

SEISMIC WAVE TRAVEL TIMES

Depth (ft)	P-time (ms)	P-layer	SH-wave (ms)	SH-layer
0	0	1	0	1
5	3.60	1	8.07	1
10	5.65	12	13.22	12
15	8.48	2	20.41	2
20	11.48	2	29.44	2
25	15.70	23	38.73	2
30	16.76	3	46.72	23
35	17.79	3	53.24	3
40	18.71	3	59.32	3
45	19.64	34	64.93	3
50	20.50	4	70.58	3
55	21.37	4	77.56	3
60	22.25	4	83.26	34
65	23.14	4	87.80	4
70	24.02	4	91.77	4
75	24.95	4	96.31	4
80	25.85	4	100.29	4
85	26.74	4	104.68	4
90	27.62	4	109.44	4
95	28.51	4	113.77	4
100	29.38	4	117.54	4
105	30.26	4	121.18	4
110	31.14	4	125.68	4
115	32.02	4	130.12	4
120	32.91	4	134.46	4

Source Offset (ft)
5

TRAVEL TIME PLOT



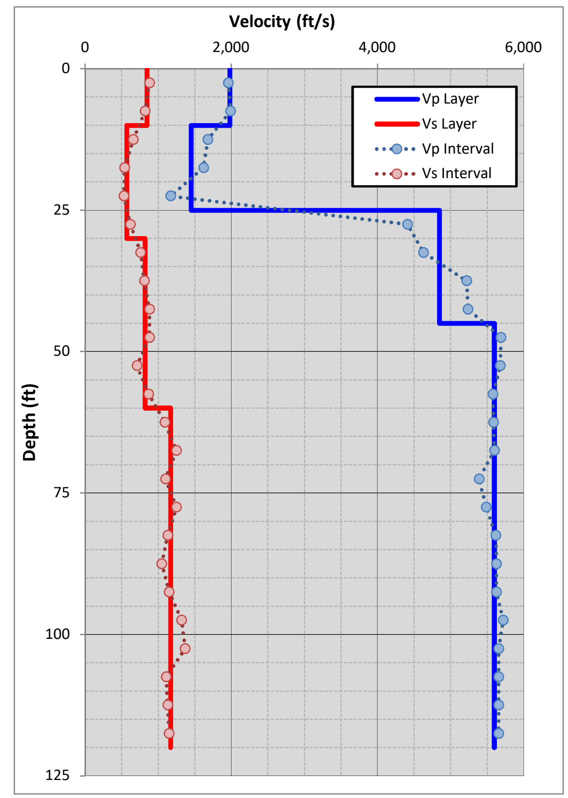
INTERVAL VELOCITES

Depth Range	P-Velocity (ft/s)	SH-Velocity (ft/s)
0 to 5	1,960	880
5 to 10	1,990	820
10 to 15	1,680	660
15 to 20	1,620	540
20 to 25	1,170	530
25 to 30	4,410	620
30 to 35	4,630	760
35 to 40	5,220	810
40 to 45	5,240	880
45 to 50	5,690	880
50 to 55	5,680	710
55 to 60	5,580	870
60 to 65	5,590	1,090
65 to 70	5,600	1,250
70 to 75	5,390	1,100
75 to 80	5,490	1,250
80 to 85	5,620	1,130
85 to 90	5,630	1,050
90 to 95	5,630	1,150
95 to 100	5,720	1,320
100 to 105	5,660	1,370
105 to 110	5,660	1,110
110 to 115	5,660	1,130
115 to 120	5,660	1,150

LAYER VELOCITES

Layer	P-Depth (ft)	P-Velocity (ft/s)	SH-Depth (ft)	SH-Velocity (ft/s)
1	0 to 10	1,980	0 to 10	850
2	10 to 25	1,450	10 to 30	570
3	25 to 45	4,850	30 to 60	820
4	45 to 120	5,600	60 to 120	1,170
5				
6				
7				
8				
9				
10				

VELOCITY MODEL



V_{S30} CALCULATION

Vs30 (ft/s)	Depth (ft)
850	0 to 100
950	20 to 120

GeoPentech

SEISMIC DOWNHOLE TEST RESULTS
BORING NUMBER 1

PROJECT: **12575 BEATRICE STREET**

PROJECT #: **17025A** | DATE: **JAN 2018** | FIGURE: **1**

BORING LOG NUMBER 1

Chait Company Architects **Date: 12/18/17**

File No. 21194 **Method: Used 5-inch diameter Rotary Wash Drill Rig**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt for Parking
				0 --		4-inch Asphalt over 4-inch Base
				-		
				1 --		FILL: Sandy Clay, dark brown, moist, stiff
				-		
				2 --		
				-		
				3 --		Sandy Clay, dark and gray, moist, medium firm to stiff
				-		
				4 --		
				-		
5	12	26.2	SPT	5 --		
				-		
				6 --		
				-		
				7 --		
7.5	18	14.4	115.3	-		
				8 --		Sandy Silt, dark gray, moist, stiff
				-		
				9 --		
				-		
10	6	27.1	SPT	10 --		
				-		Silty Clay, dark gray, moist, medium firm to stiff
				11 --		
				-		
				12 --		
12.5	13	30.7	93.1	-		
				13 --	CH	Silty Clay, dark gray, very moist, stiff
				-		
				14 --		
				-		
15	6	40.2	SPT	15 --		
				-		Silty Clay, dark gray, very moist, soft to medium firm
				16 --		
				-		
				17 --		
17.5	9	29.1	93.3	-		
				18 --		
				-		
				19 --		
				-		
20	5	32.3	SPT	20 --		
				-		
				21 --		
				-		
				22 --		
22.5	12	30.7	87.4	-		
				23 --	CL	Silty Clay, dark gray, moist, medium firm
				-		
				24 --		
				-		
25	8	29.8	SPT	25 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
27.5	12	28.9	95.8	-		
				28 --	ML	Sandy Silt, dark gray, very moist, stiff
				-		
				29 --		
				-		
30	8	31.3	SPT	30 --		
				-		
				31 --		
				-		
				32 --		
32.5	26	23.4	103.0	-		
				33 --	SC	Clayey Sand, dark gray, wet, medium dense, fine grained
				-		
				34 --		
				-		
35	14	23.7	SPT	35 --		
				-		
				36 --		
				-		
				37 --		
37.5	53	16.9	112.6	-		
				38 --	SP/SW	Sand to Gravelly Sand, gray, wet, dense, fine to coarse grained
				-		
				39 --		
				-		
40	35	16.9	SPT	40 --		
				-		
				41 --		
				-		
				42 --		
42.5	43	12.9	112.1	-		
				43 --		
				-		
				44 --		
				-		
45	24	15.1	SPT	45 --		
				-	SP	Sand, dark gray, wet, medium dense, fine to medium grained, occasional gravel
				46 --		
				-		
				47 --		
47.5	22	25.2	96.2	-		
				48 --	SC/ML	Clayey Sand to Sandy Silt, dark gray, wet, medium dense to medium firm, fine grained
				-		
				49 --		
				-		
50	19	27.1	SPT	50 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				51 --		
				-		
				52 --		
52.5	19	22.6	99.6	-		
				53 --	ML	Sandy Silt, dark gray, wet, medium firm, fine grained
				-		
				54 --		
				-		
55	11	34.2	SPT	55 --		
				-	SC	Clayey Sand, dark gray, wet, medium dense, fine grained
				56 --		
				-		
				57 --		
57.5	44	22.2	101.7	-		
				58 --	SP	Sand, dark gray, wet, dense, fine grained
				-		
				59 --		
				-		
60	73	15.5	SPT	60 --		
				-		
				61 --		
				-		
				62 --		
62.5	84	7.2	129.1	-		
				63 --	SW	Gravelly Sand, gray, wet, very dense, fine to coarse grained
				-		
				64 --		
				-		
65	91	9.0	SPT	65 --		
				-	SP	Sand, dark gray, wet, very dense, fine to medium grained,
				66 --		occasional gravel
				-		
				67 --		
67.5	39	11.1	120.1	-		
	50/4"			68 --		
				-		
				69 --		
				-		
70	80	19.6	SPT	70 --		
				-		Sand, dark gray, wet, very dense, fine grained
				71 --		
				-		
				72 --		
72.5	41	17.9	108.4	-		
	50/3"			73 --		
				-		
				74 --		
				-		
75	83	17.3	SPT	75 --		
				-		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				76		
				77		
77.5	42 50/3"	20.7	108.4	78		Sand, gray, wet, very dense, fine grained
				79		
80	84	15.6	SPT	80		
				81		
				82		
82.5	40 50/3"	17.7	112.7	83		Sand, dark gray, wet, very dense, fine to medium grained
				84		
85	65	10.6	SPT	85		Sand, gray, wet, dense, fine grained
				86		
				87		
87.5	35 50/4"	16.9	112.9	88		Sand, gray to dark gray, wet, very dense, fine to medium grained
				89		
90	81	17.0	SPT	90		
				91		
				92		
92.5	39 50/3"	16.0	113.9	93		Sand, gray, wet, very dense, fine grained
				94		
95	71	18.9	SPT	95		
				96		
				97		
97.5	30 50/5"	16.5	106.1	98		
				99		
100	62	16.0	SPT	100		

BORING LOG NUMBER 1

Chait Company Architects

File No. 21194

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				101 --		
				-		
				102 --		
102.5	29	16.1	114.8	-		
	50/5"			103 --		Sand, gray, wet, very dense, fine grained
				-		
				104 --		
				-		
105	79	19.8	SPT	105 --		
				-		
				106 --		
				-		
				107 --		
107.5	40	20.5	106.3	-		
	50/3"			108 --		
				-		
				109 --		
				-		
110	34	14.6	SPT	110 --		
	50/5"			-		Sand, gray, wet, very dense, fine grained
				111 --		
				-		
				112 --		
112.5	100/9"	13.0	121.0	-		
				113 --		Sand, gray, wet, very dense, fine to medium grained
				-		
				114 --		
				-		
115	43	15.0	SPT	115 --		
	50/5.5"			-		
				116 --		
				-		
				117 --		
117.5	100/10"	14.0	121.2	-		
				118 --		
				-		
				119 --		
				-		
120	90	23.8	SPT	120 --		
				-		Total Depth 120 feet
				121 --		Water at 22½ feet
				-		Fill to 12½ feet
				122 --		
				-		
				123 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				124 --		
				-		Used 5-inch diameter Rotary Wash Drill Rig
				125 --		
				-		

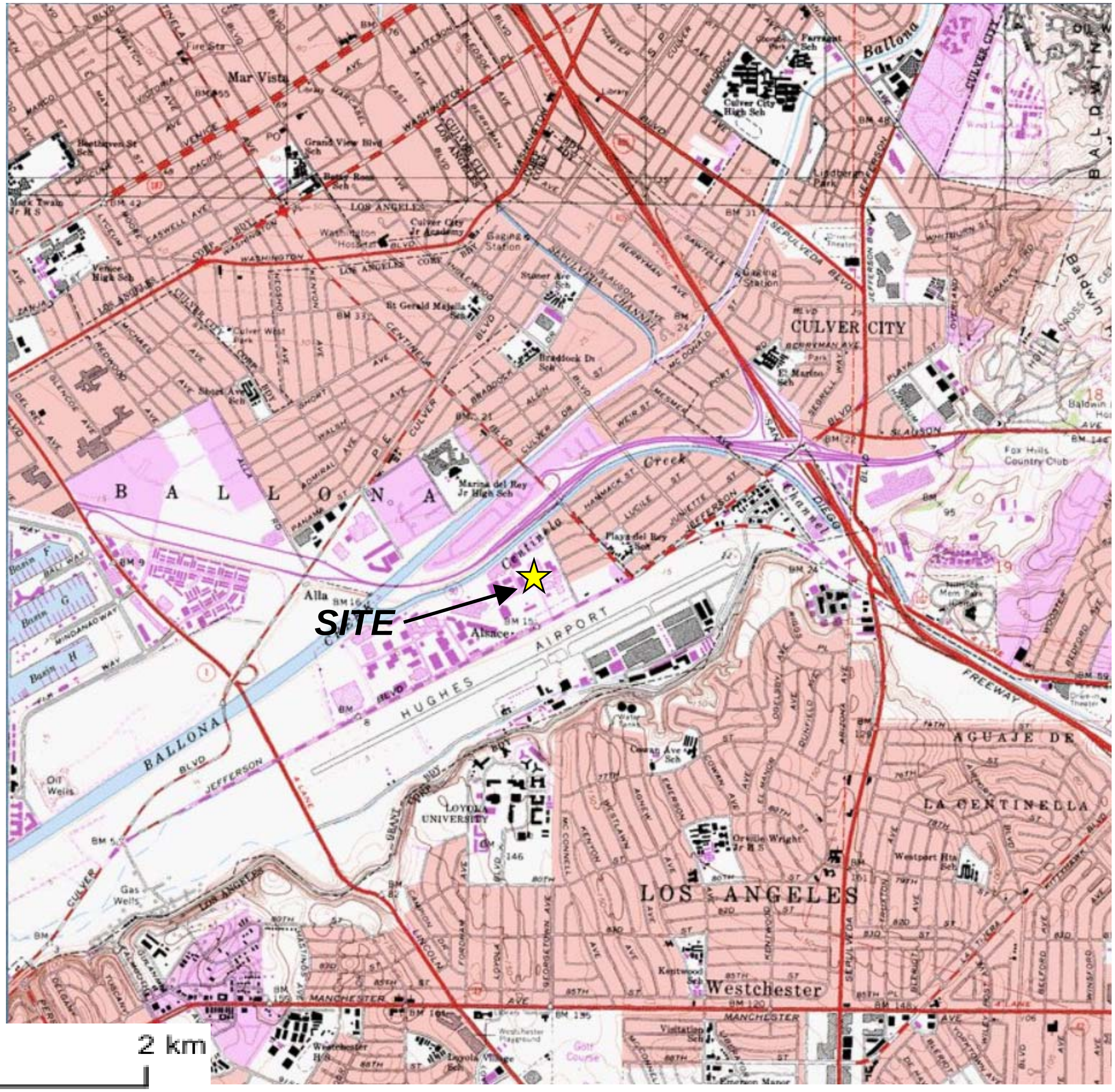
TABLE 5
FINAL SURFACE SITE-SPECIFIC SPECTRA DEVELOPMENT CALCULATION SHEET
12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT PROJECT

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	**Column 7**	Column 8	Column 9	Column 10	**Column 11**
		Final Outcropping Site-Specific MCE $_R$	*Site Response Amplification Factors*	*Surface MCE $_R$*	*Code Minimum MCE $_R$ for Site Class E*	***Final Site-Specific Surface MCE $_R$***	*Code-Based DRS for Site Class E*	*80% of Code-Based DRS*	*2/3 of Final Site-Specific Surface MCE $_R$*	***Final Site-Specific Surface DRS***
Period	***Frequency***	*RotD100*		*RotD100*	*RotD100*	***RotD100***	*RotD100*	*RotD100*	*RotD100*	***RotD100***
(sec)	(Hz)	(g)	-	-	(g)	**(g)**	(g)	(g)	(g)	**(g)**
0.010	100	0.941	1.126	1.060	0.647	**1.060**	0.539	0.431	0.706	**0.706**
0.020	50	0.947	1.114	1.055	0.724	**1.055**	0.604	0.483	0.703	**0.703**
0.030	33	0.993	1.070	1.063	0.802	**1.063**	0.669	0.535	0.708	**0.708**
0.050	20	1.180	1.035	1.221	0.958	**1.221**	0.798	0.639	0.814	**0.814**
0.075	13	1.499	0.872	1.308	1.152	**1.308**	0.960	0.768	0.872	**0.872**
0.100	10	1.761	0.808	1.423	1.346	**1.423**	1.122	0.898	0.949	**0.949**
0.150	6.67	2.088	0.725	1.514	1.422	**1.514**	1.185	0.948	1.009	**1.009**
0.200	5.00	2.275	0.829	1.886	1.422	**1.886**	1.185	0.948	1.258	**1.258**
0.250	4.00	2.370	0.963	2.283	1.422	**2.283**	1.185	0.948	1.522	**1.522**
0.300	3.33	2.387	1.089	2.599	1.422	**2.599**	1.185	0.948	1.733	**1.733**
0.400	2.50	2.271	1.320	2.999	1.422	**2.999**	1.185	0.948	2.000	**2.000**
0.500	2.00	2.076	1.616	3.356	1.422	**3.356**	1.185	0.948	2.237	**2.237**
0.750	1.33	1.611	1.552	2.500	1.042	**2.500**	0.868	0.694	1.667	**1.667**
1.000	1.00	1.275	1.416	1.805	0.781	**1.805**	0.651	0.521	1.203	**1.203**
1.500	0.67	0.834	1.183	0.987	0.521	**0.987**	0.434	0.347	0.658	**0.658**
2.000	0.50	0.599	1.125	0.674	0.391	**0.674**	0.326	0.260	0.449	**0.449**
3.000	0.33	0.369	1.053	0.389	0.260	**0.389**	0.217	0.174	0.259	**0.259**
4.000	0.25	0.253	1.028	0.260	0.195	**0.260**	0.163	0.130	0.173	**0.173**
5.000	0.20	0.188	1.026	0.192	0.156	**0.192**	0.130	0.104	0.128	**0.128**
7.500	0.13	0.109	1.022	0.111	0.104	**0.111**	0.087	0.069	0.074	**0.074**
10.000	0.10	0.071	1.027	0.072	0.062	**0.072**	0.052	0.042	0.048	**0.048**

Note: Significant figures are provided for computational purposes only and do not necessarily reflect accuracies to those significant figures.

Key

Column 1	= Spectral period in seconds.
Column 2	= Spectral frequency (inverse of spectral period) in Hertz.
Column 3	= Final risk-targeted, maximum considered earthquake (MCER) outcropping ground motion spectral ordinates in units of g for 5% damping; repeated from Table 3, Column 12.
Column 4	= Amplification factors between outcropping and ground surface using site-specific velocity profile and material properties.
Column 5	= Ground surface ground motion spectral ordinates in units of g for 5% damping; product of Columns 3 and 4.
Column 6	= 80% of code-based (ASCE 7-10, Ch. 11) risk-targeted, maximum considered earthquake ground motion spectral ordinates in units of g for 5% damping.
Column 7	= Final risk-targeted, maximum considered earthquake ground surface ground motion spectral ordinates in units of g for 5% damping; maximum value from Columns 5 and 6.
Column 8	= Code-based (ASCE 7-10, Ch. 11) design ground motion spectral ordinates in units of g for 5% damping.
Column 9	= Code-based (ASCE 7-10, Ch. 21) minimum design ground motion spectral ordinates in units of g for 5% damping; 80% of the value in Column 8.
Column 10	= Minimum Design Earthquake (DE) ground motion spectral ordinates in units of g for 5% damping; 2/3 of the final site-specific ground surface MCE_R in Column 7.
Column 11	= Final design ground surface ground motion spectral ordinates in units of g for 5% damping; maximum value from Columns 9 and 10.



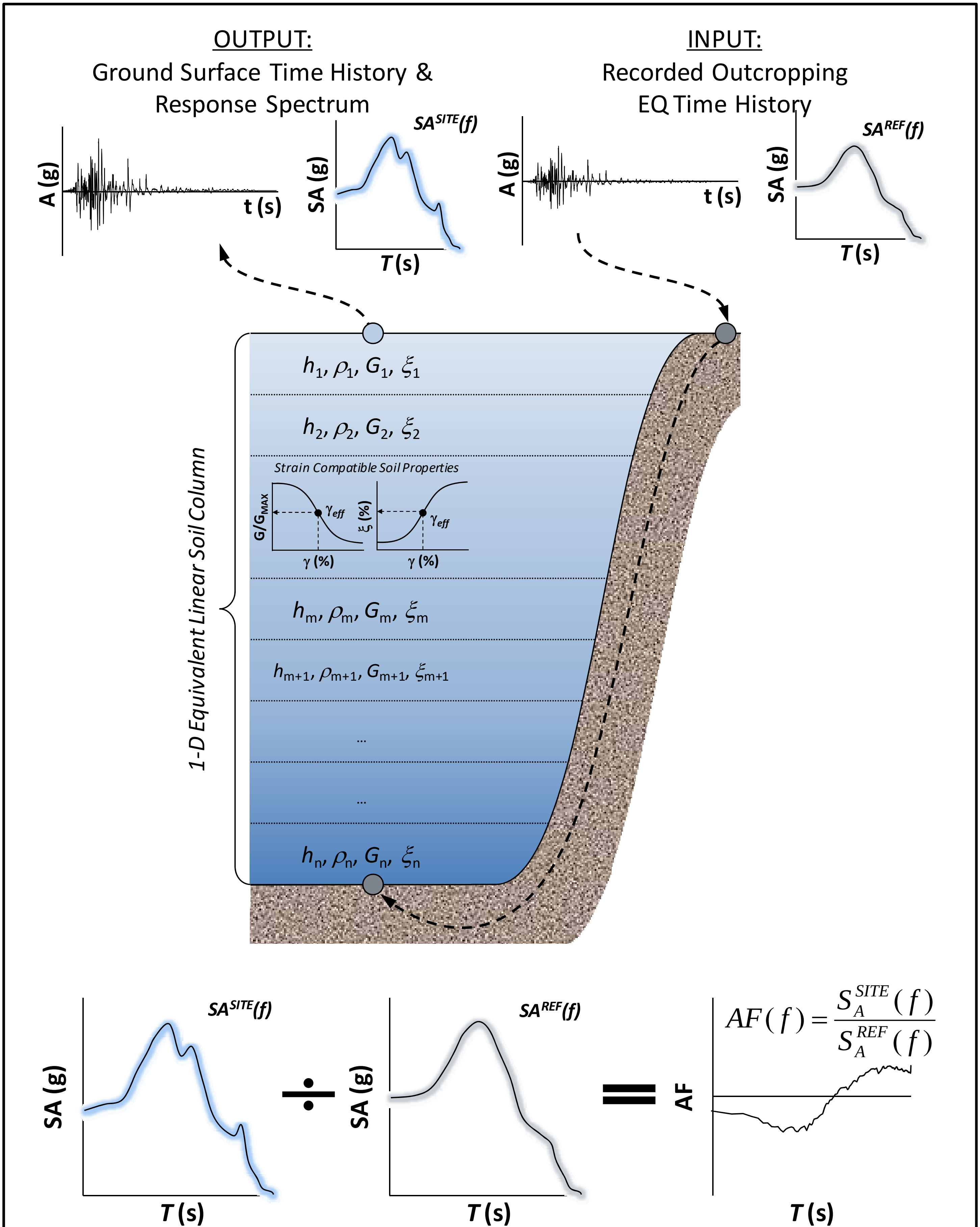
0 1 2 km

USGS Topographic Map: [Venice, CA]

DETAILED SITE LOCATION MAP

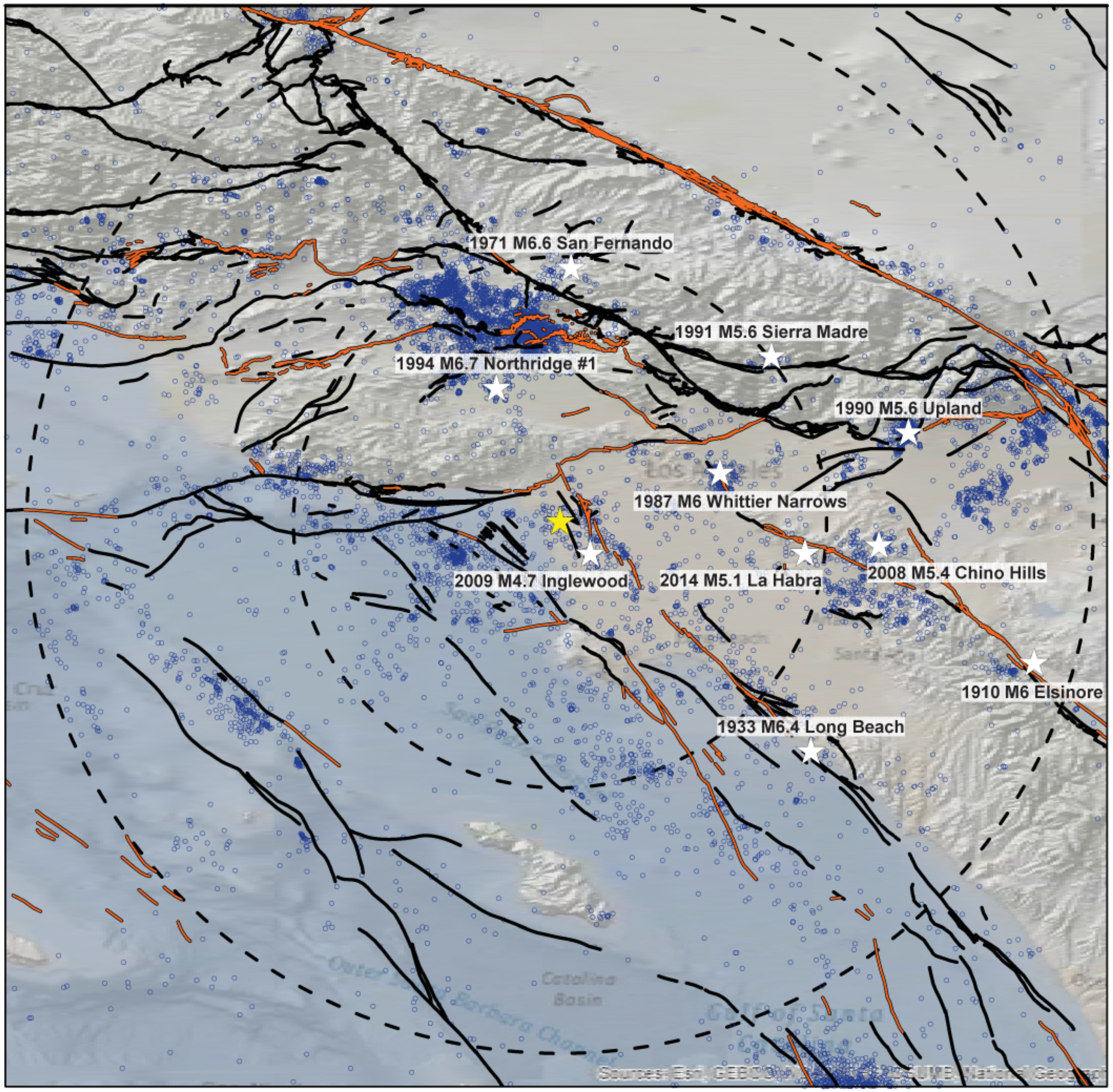
Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 1

GeoPentech



SITE RESPONSE ANALYSIS APPROACH			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 2

GeoPentech



Legend

USGS Quaternary Fault & Fold Database [1]
Age of Most Recent Displacement

< 15,000 years
< 1,600,000 years

Seismicity [2]

M ≥ 2.0

Historic Earthquake

Notes:

1. Fault traces are from USGS Quaternary Fault and Fold Database (USGS, 2010).
2. Seismicity (hollow blue dots) is from Hauksson et al. (2012) catalog ("HYS" catalog). Catalog includes all instrumentally-recorded events in southern Calfornia from 01/01/1981 through 06/30/2011. Only M ≥ 2.0 events are shown here. Significant post-1900 earthquakes identified by name (white stars) are from the Southern California Earthquake Center (SCEC) online database.

Approximate Scale

0 km *20 km* *40 km* *60 km*

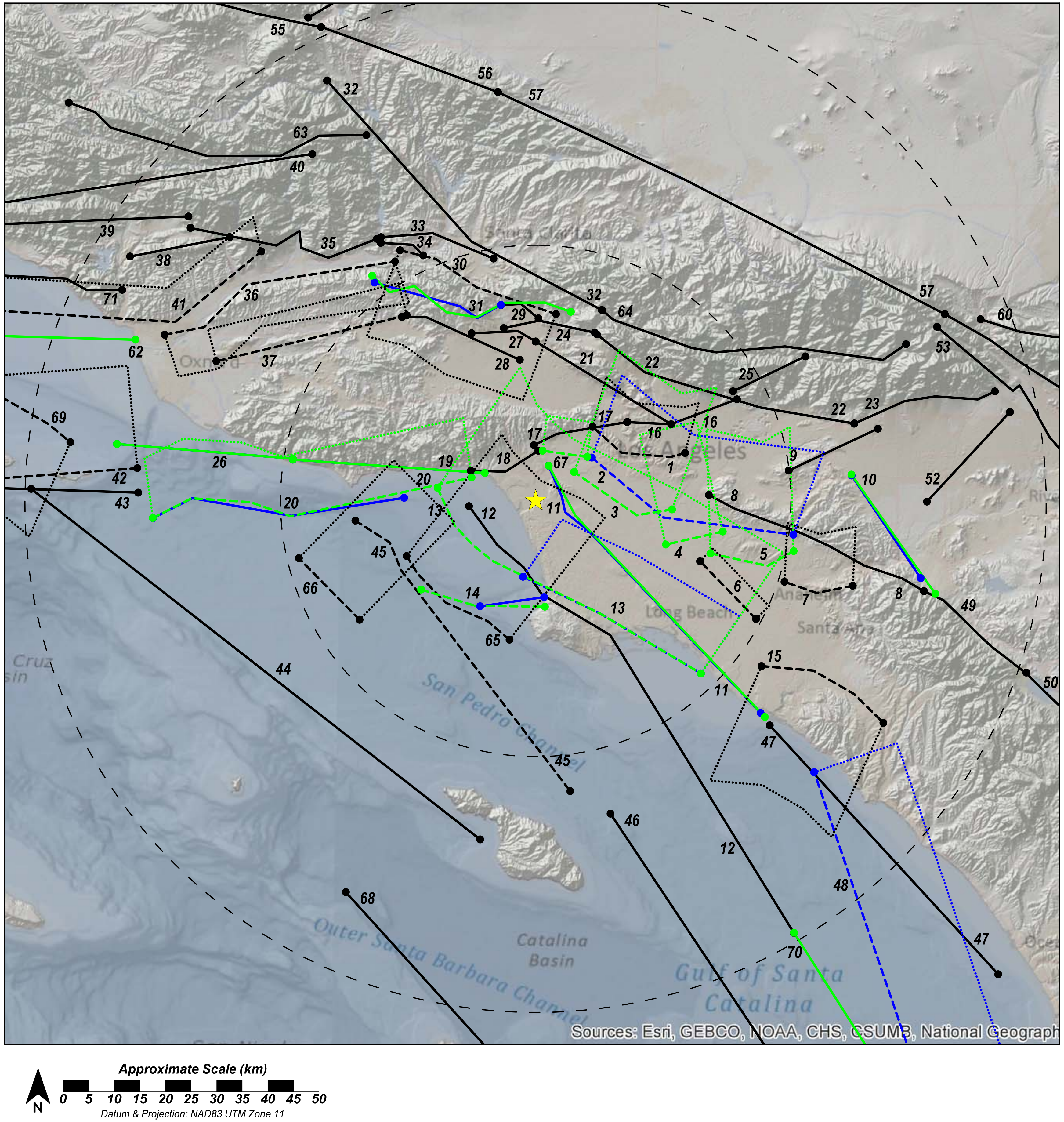
N

Datum & Projection: NAD83 UTM Zone 11

REGIONAL FAULT & SEISMICITY MAP

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 3a

GeoPentech



No.	Fault Name
1	Elysian Park (Upper)
2	Puente Hills
3	Puente Hills (LA)
4	Puente Hills (Santa Fe Springs)
5	Puente Hills (Coyote Hills)
6	Anaheim
7	Peralta Hills
8	Elsinore - Whittier
9	San Jose
10	Chino
11	Newport-Inglewood
12	Palos Verdes
13	Compton
14	Redondo Canyon
15	San Joaquin Hills
16	Raymond
17	Hollywood
18	Santa Monica
19	Malibu Coast
20	Anacapa-Dume
21	Verdugo
22	Sierra Madre
23	Cucamonga
24	Sierra Madre (San Fernando)
25	Clamshell-Sawpit
26	Malibu Coast (Extension)
27	Mission Hills
28	Northridge Hills
29	Santa Susana East (connector)
30	Northridge
31	Santa Susana
32	San Gabriel
33	Holser
34	Del Valle
35	San Cayetano
36	Oak Ridge (Onshore)

No.	Fault Name
37	Simi-Santa Rosa
38	Sisar
39	Mission Ridge-Arroyo Parida-Santa Ana
40	Santa Ynez (East)
41	Ventura-Pitas Point
42	Channel Islands Thrust
43	Santa Cruz Island
44	Santa Cruz-Catalina Ridge
45	San Pedro Basin
46	San Diego Trough North
47	Newport-Inglewood Offshore
48	Oceanside Blind Thrust
49	Elsinore - Glen Ivy
50	Elsinore - Temecula/Glen Ivy Stepover
51	Elsinore - Temecula
52	Fontana
53	San Jacinto - San Bernardino Valley
54	San Jacinto - San Jacinto Valley
55	San Andreas - Big Bend
56	San Andreas - North Mojave
57	San Andreas - South Mojave
58	San Andreas - North San Bernardino
59	San Andreas - South San Bernardino
60	Cleghorn
61	Garlock - West
62	Oak Ridge (Offshore)
63	Pine Mtn
64	San Gabriel Extension
65	San Pedro Escarpment
66	Santa Monica Bay
67	San Vicente
68	San Clemente
69	Channel Islands - Western Deep
70	Coronado Bank
71	Red Mountain

Legend

Surface Trace, Top of Fault (Both Fault Models)

Blind Trace, Top of Fault (Both Fault Models)

Blind Thrust Footprint (Both Fault Models)

Surface Trace, Top of Fault (Fault Model 1)

Blind Trace, Top of Fault (Fault Model 1)

Blind Thrust Footprint (Fault Model 1)

Surface Trace, Top of Fault (Fault Model 2)

Blind Trace, Top of Fault (Fault Model 2)

Blind Thrust Footprint (Fault Model 2)

Site

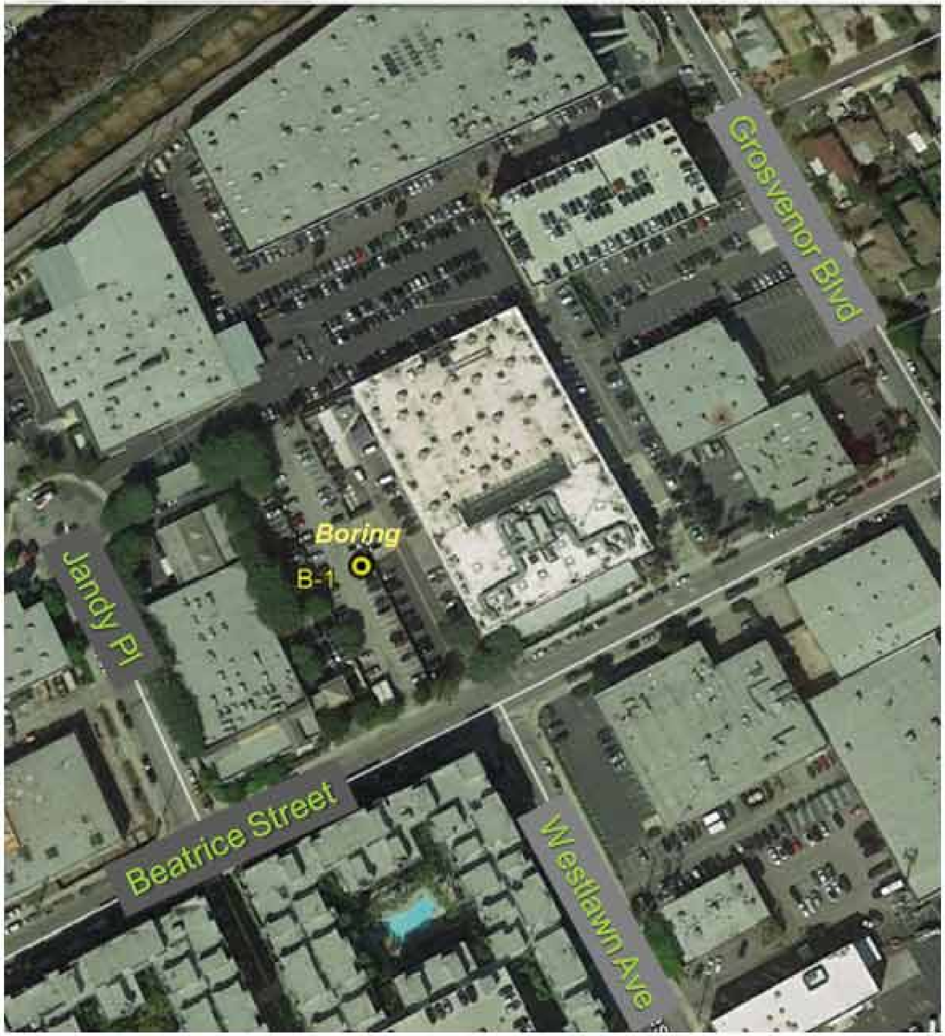
Notes:

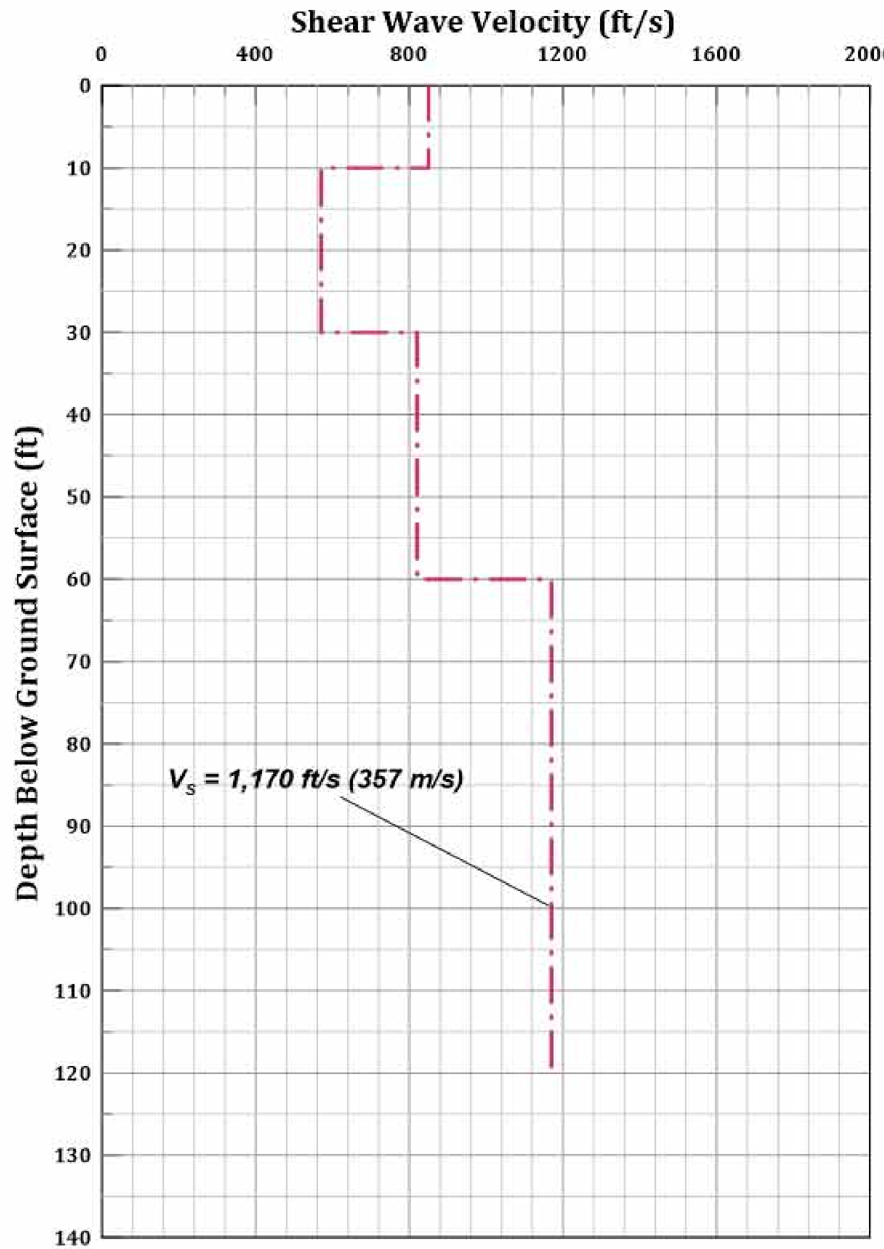
1. All fault traces based on UCERF3 (WGCEP, 2013a) except for "Type A" faults (San Andreas, San Jacinto, Elsinore); Type A faults based on UCERF2 (WGCEP, 2008; USGS, 2009). Fault traces shown here are simplified and as-implemented in the PSHA calculations.
2. All faults within 100 km of site with slip rates greater 0.05 mm/yr are shown, except for the following: Elysian Park (Lower), North Salt Lake, Richfield, and Yorba Linda (however, these faults are included in the PSHA). Slip rates are solution mean rates from UCERF3 (WGCEP, 2013a). Only Type A faults outside 100 km are shown.
3. Fault Models 1 & 2 based on UCERF3 (WGCEP, 2013a,b). Seismic source characterization geometries for non-Type A faults are generally as shown in WGCEP (2013a,b) and slip rates are in WGCEP (2013a). Magnitude-frequency distributions approximate the SWUS WAACY model (GeoPentech, 2015) with characteristic magnitude calculated from Shaw (2009) regression. Type A faults characterized as documented in WGCEP (2008) and 2008 NSHM (Petersen et al., 2008).

SIMPLIFIED FAULT MAP FOR PSHA

Project: 12575 BEATRICE GROUND MOTIONS		Figure 3b
Project No.: 17025A	Date: FEB. 2018	

GeoPentech

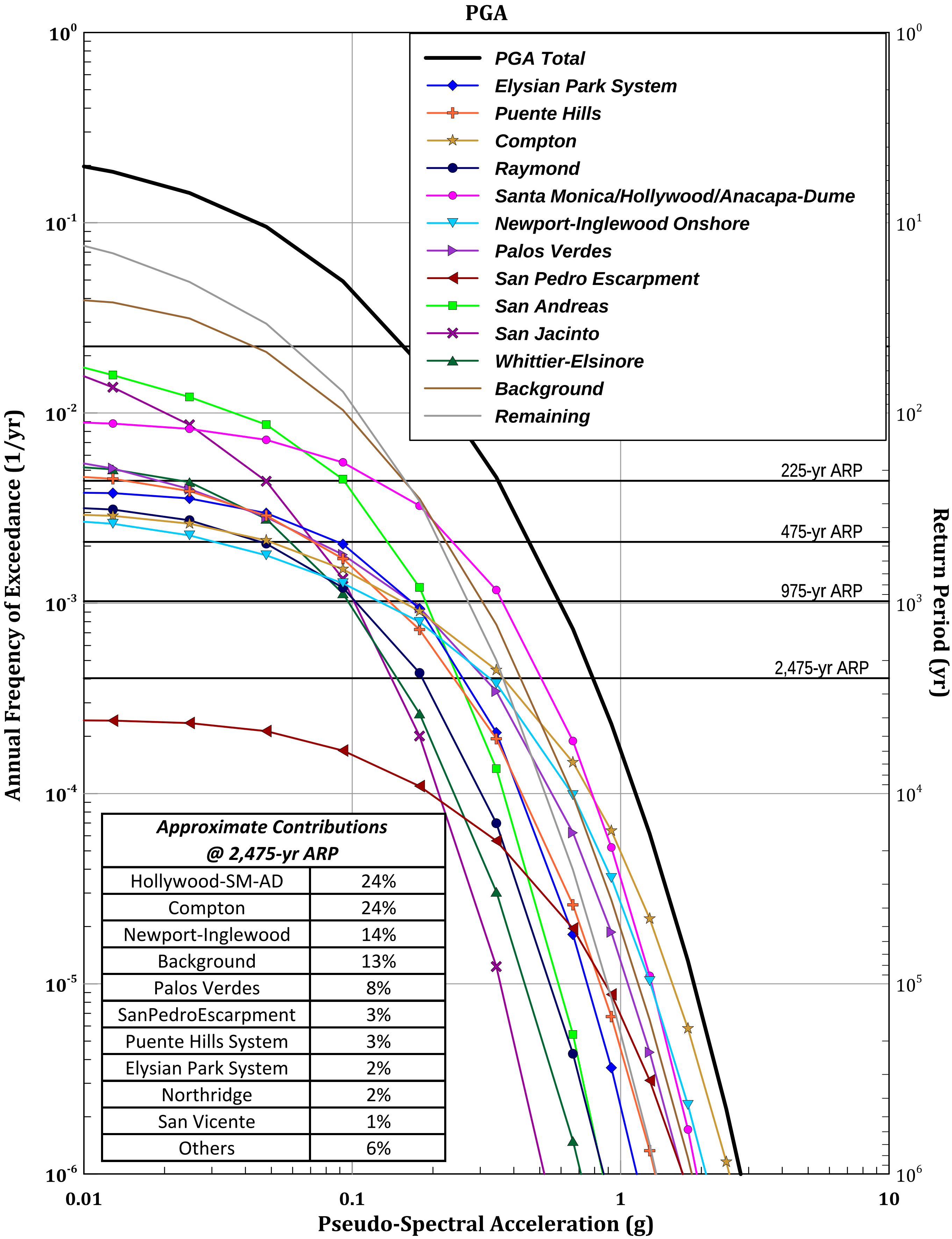




SITE SHEAR-WAVE VELOCITY

Date: FEB. 2016	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 4

GeoPentech

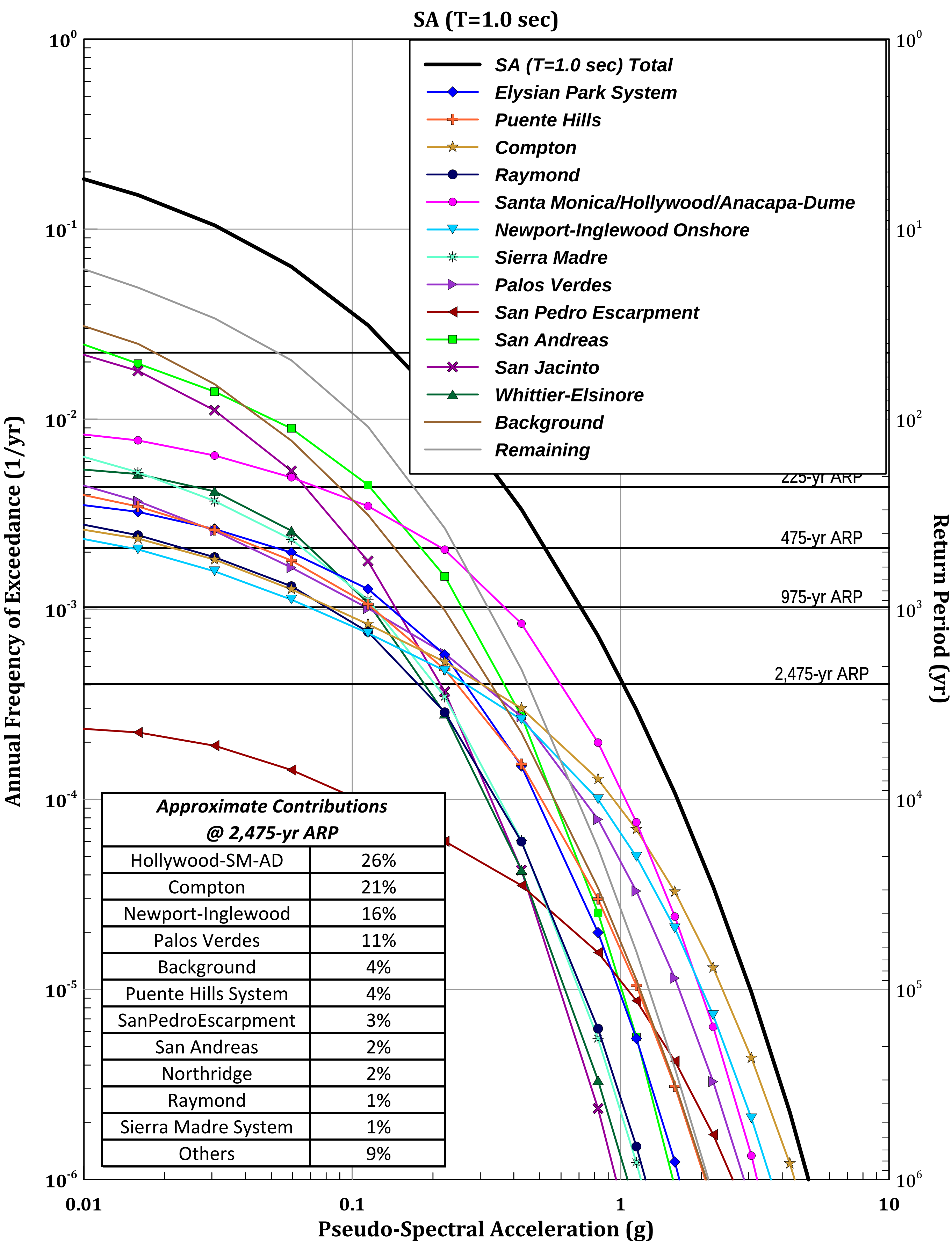


Approximate Contributions @ 2,475-yr ARP	
Hollywood-SM-AD	24%
Compton	24%
Newport-Inglewood	14%
Background	13%
Palos Verdes	8%
SanPedroEscarpment	3%
Puente Hills System	3%
Elysian Park System	2%
Northridge	2%
San Vicente	1%
Others	6%

SOURCE CONTRIBUTIONS TO THE TOTAL HAZARD AT PGA

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 5a

GeoPentech

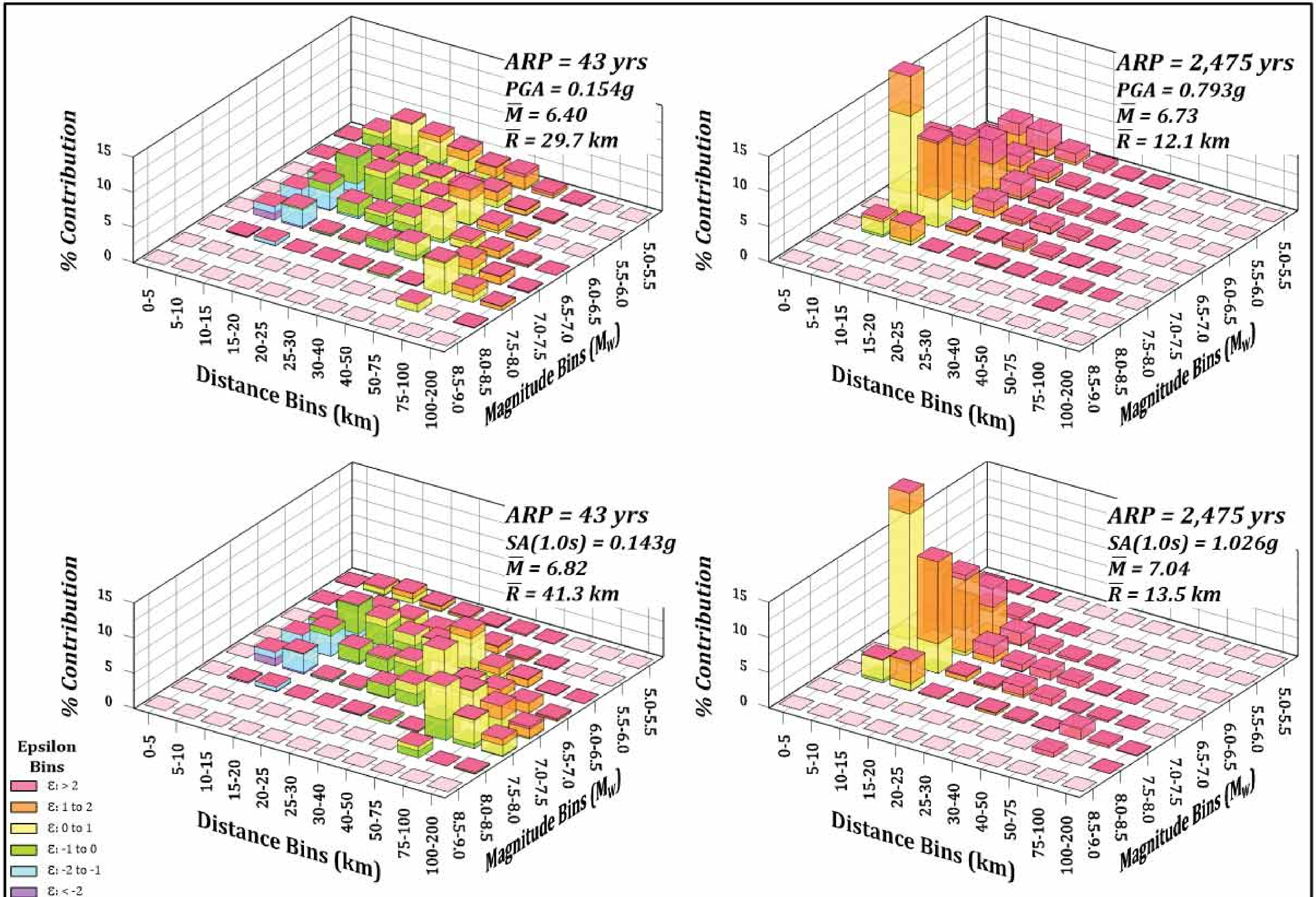


Approximate Contributions @ 2,475-yr ARP	
Hollywood-SM-AD	26%
Compton	21%
Newport-Inglewood	16%
Palos Verdes	11%
Background	4%
Puente Hills System	4%
SanPedroEscarpment	3%
San Andreas	2%
Northridge	2%
Raymond	1%
Sierra Madre System	1%
Others	9%

SOURCE CONTRIBUTIONS TO THE TOTAL HAZARD AT T=1.0 SEC

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 5b

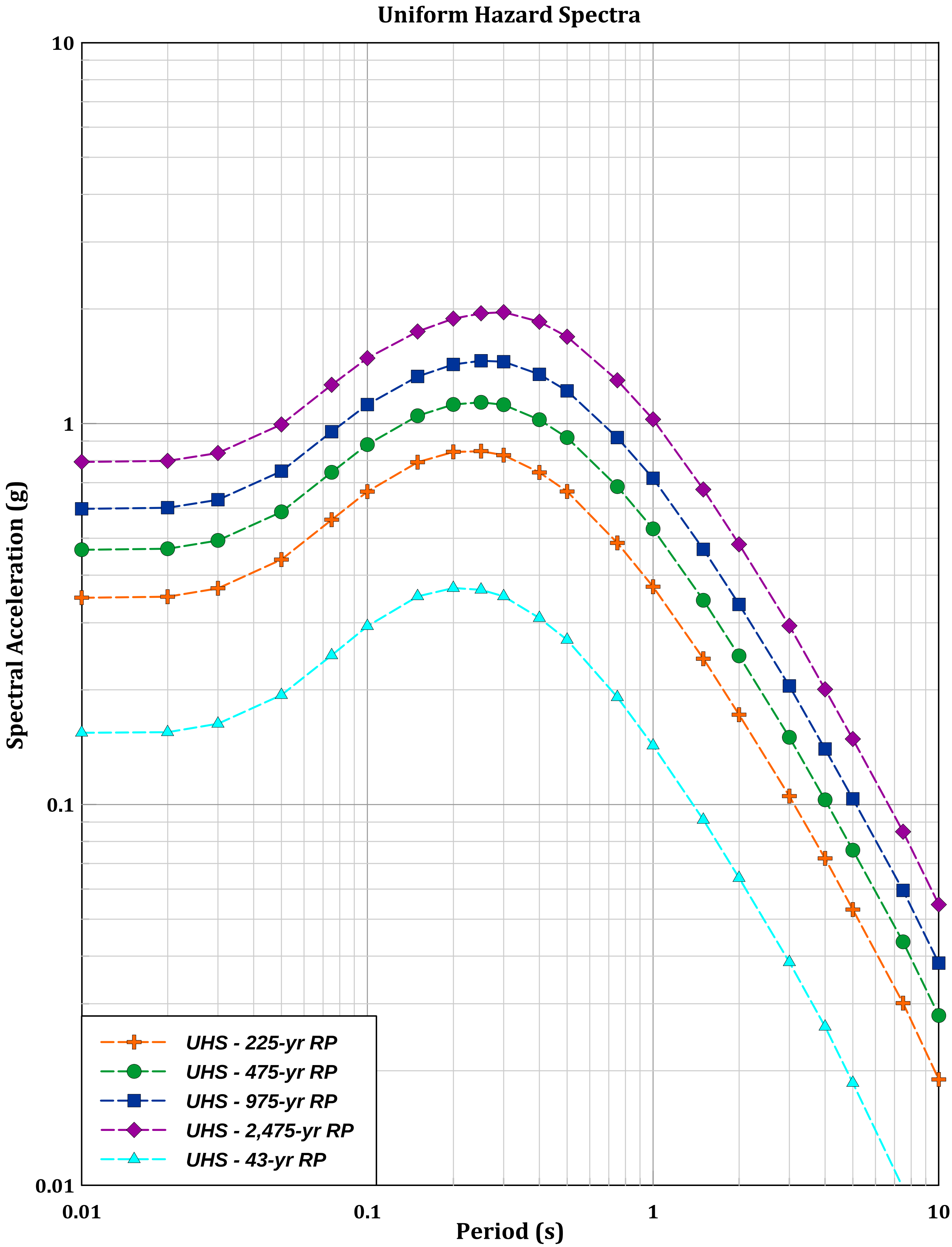
GeoPentech



HAZARD DEAGGREGATION FOR PGA & 1.0-SECOND SPECTRAL PERIOD

Project No.: 17025A	Date: FEB. 2018	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 6

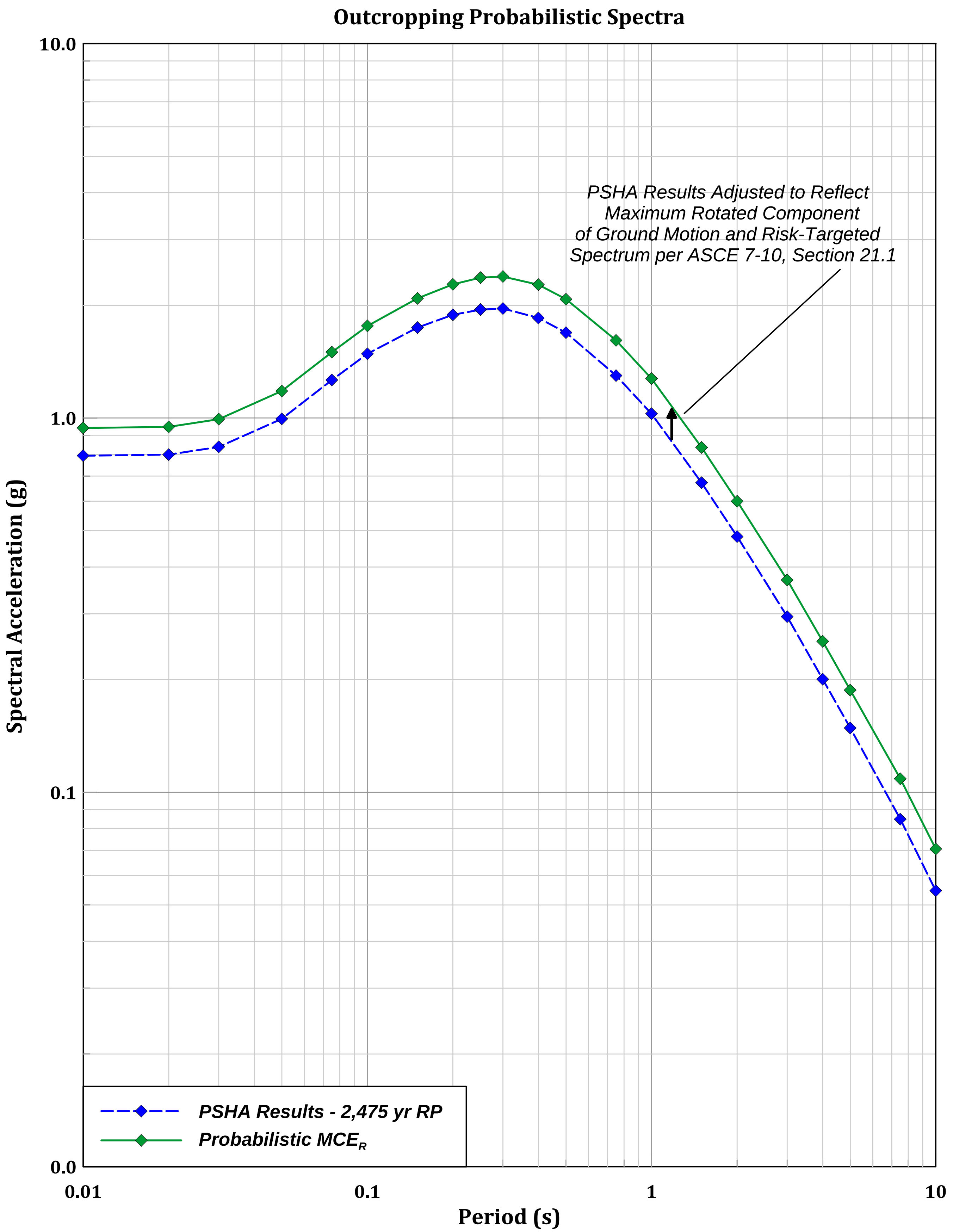
GeoPentech



Note: Spectra represent average horizontal components at 5% damping.

UNIFORM HAZARD SPECTRA			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 7

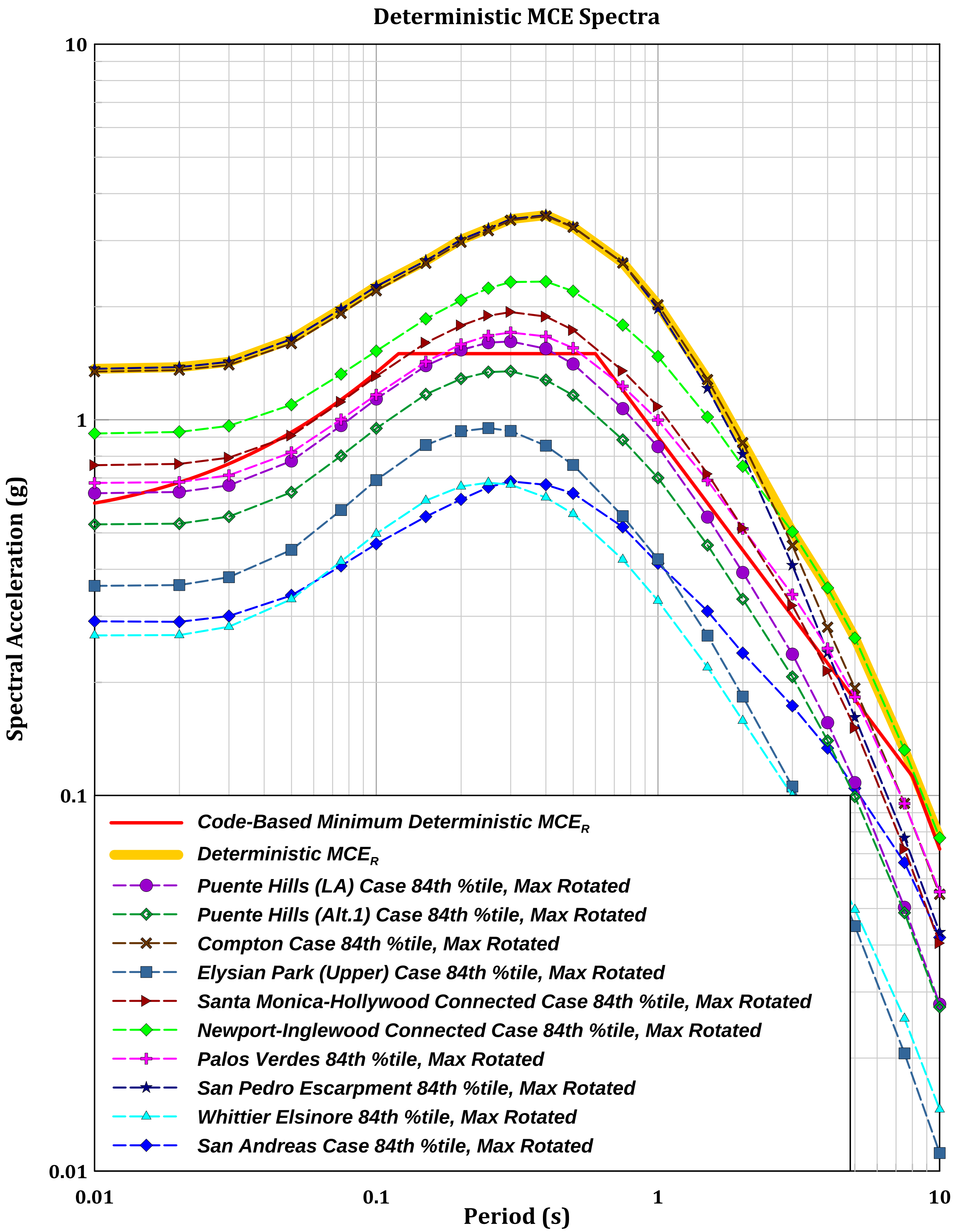
GeoPentech



Note: All spectra are for Damping (β) = 5.0% unless otherwise indicated.

PROBABILISTIC SPECTRA FOR OUTCROPPING CONDITION (V_{S30} = 357 m/s)			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 8

GeoPentech

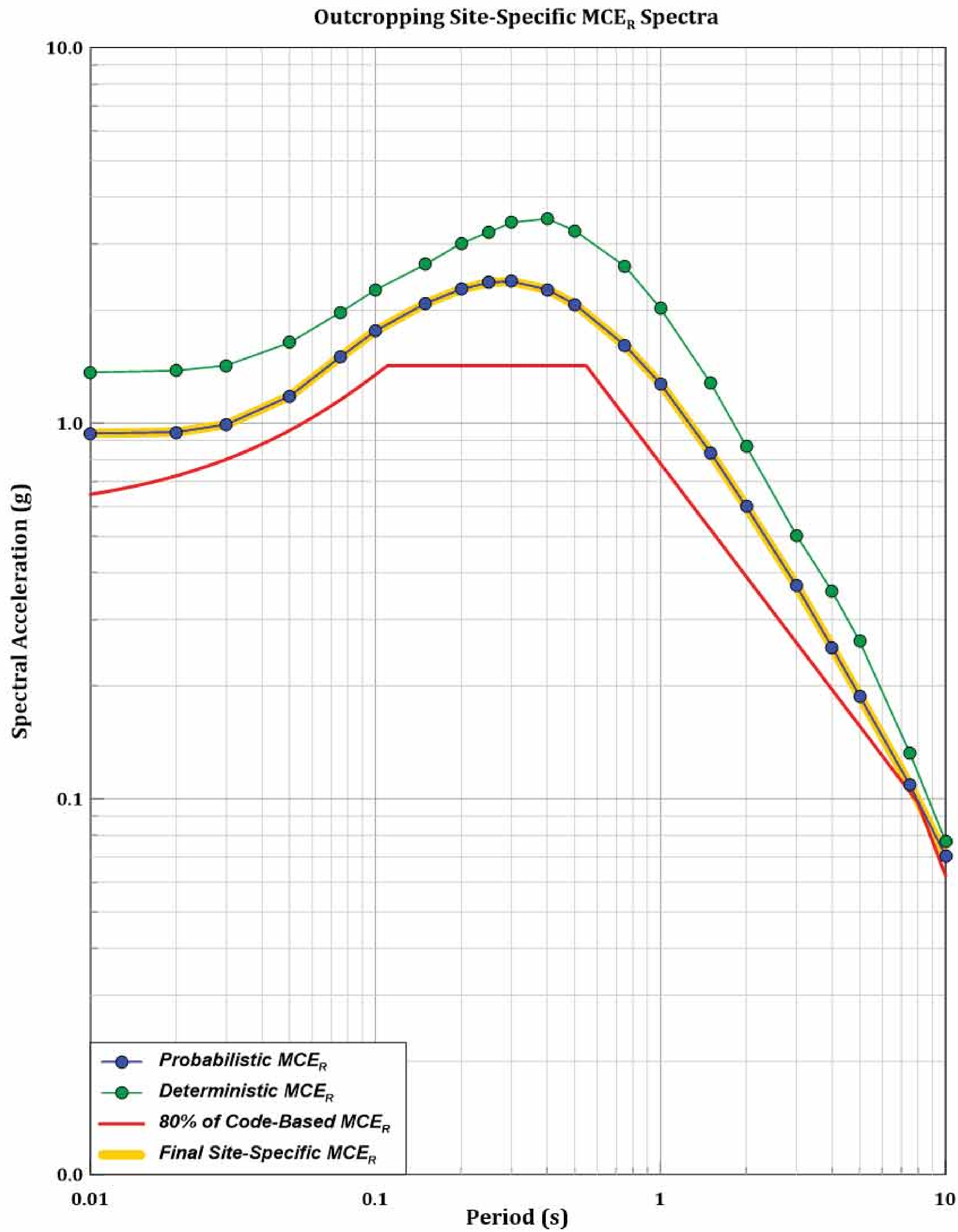


Note: All spectra are for Damping (β) = 5.0%

DETERMINISTIC SPECTRA FOR OUTCROPPING CONDITION (V_{S30} = 357 m/s)

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 9

GeoPentech

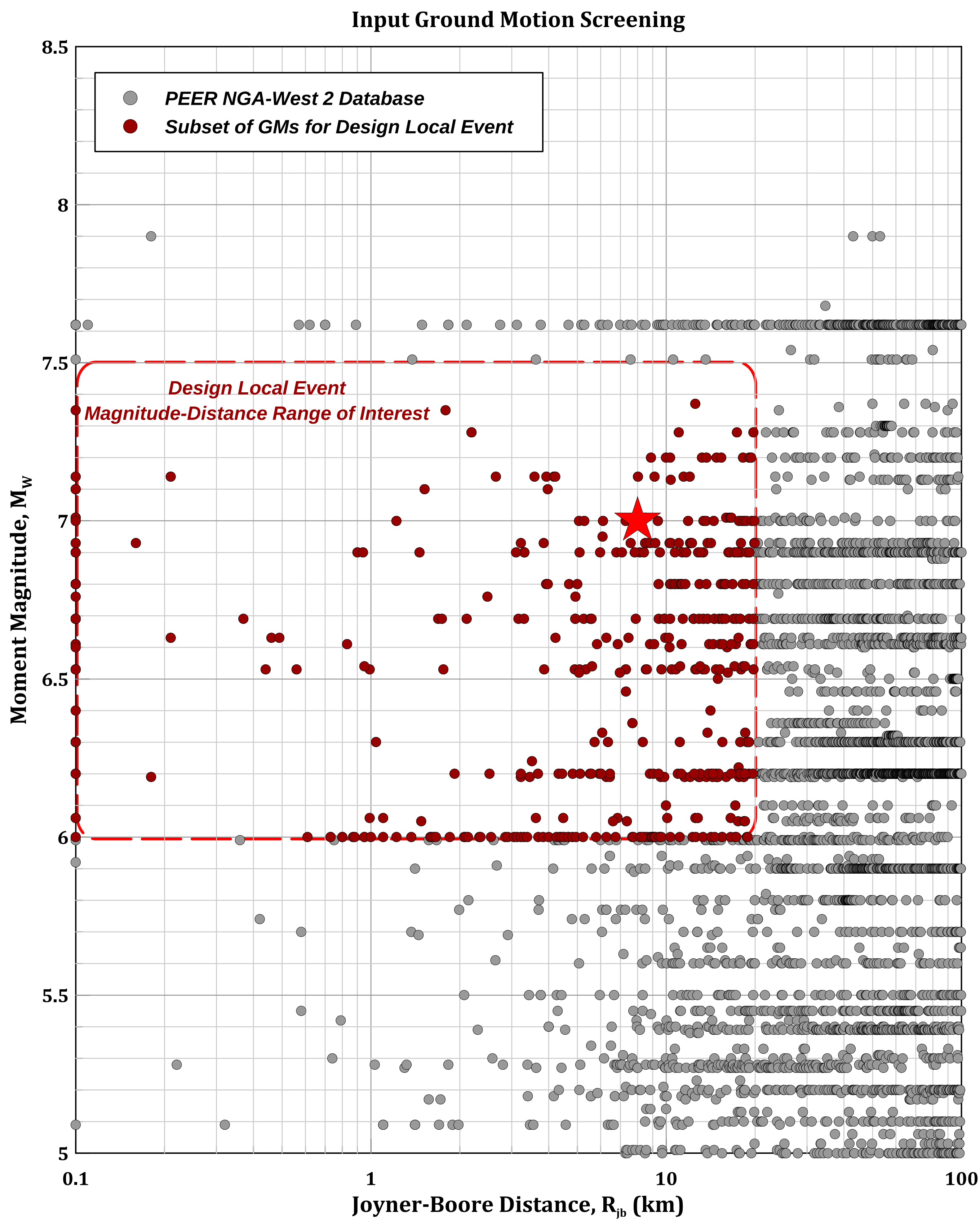


Note: All spectra are for Damping (β) = 5.0%.

DEVELOPMENT OF SITE-SPECIFIC MCE$_R$ FOR OUTCROPPING CONDITION (V_{S30} = 357 m/s)

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 10

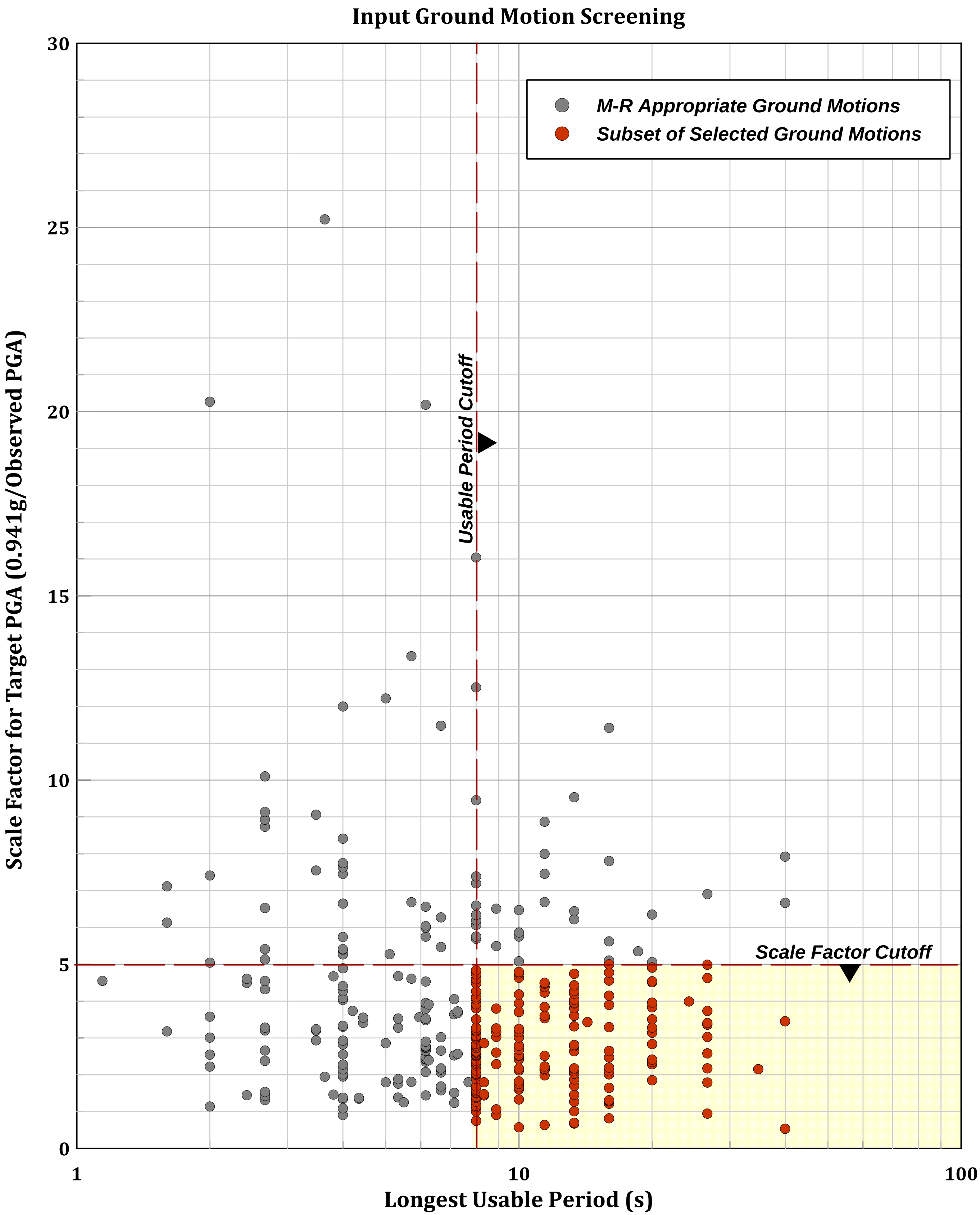
GeoPentech



MAGNITUDE AND DISTANCE SCREENING

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 11

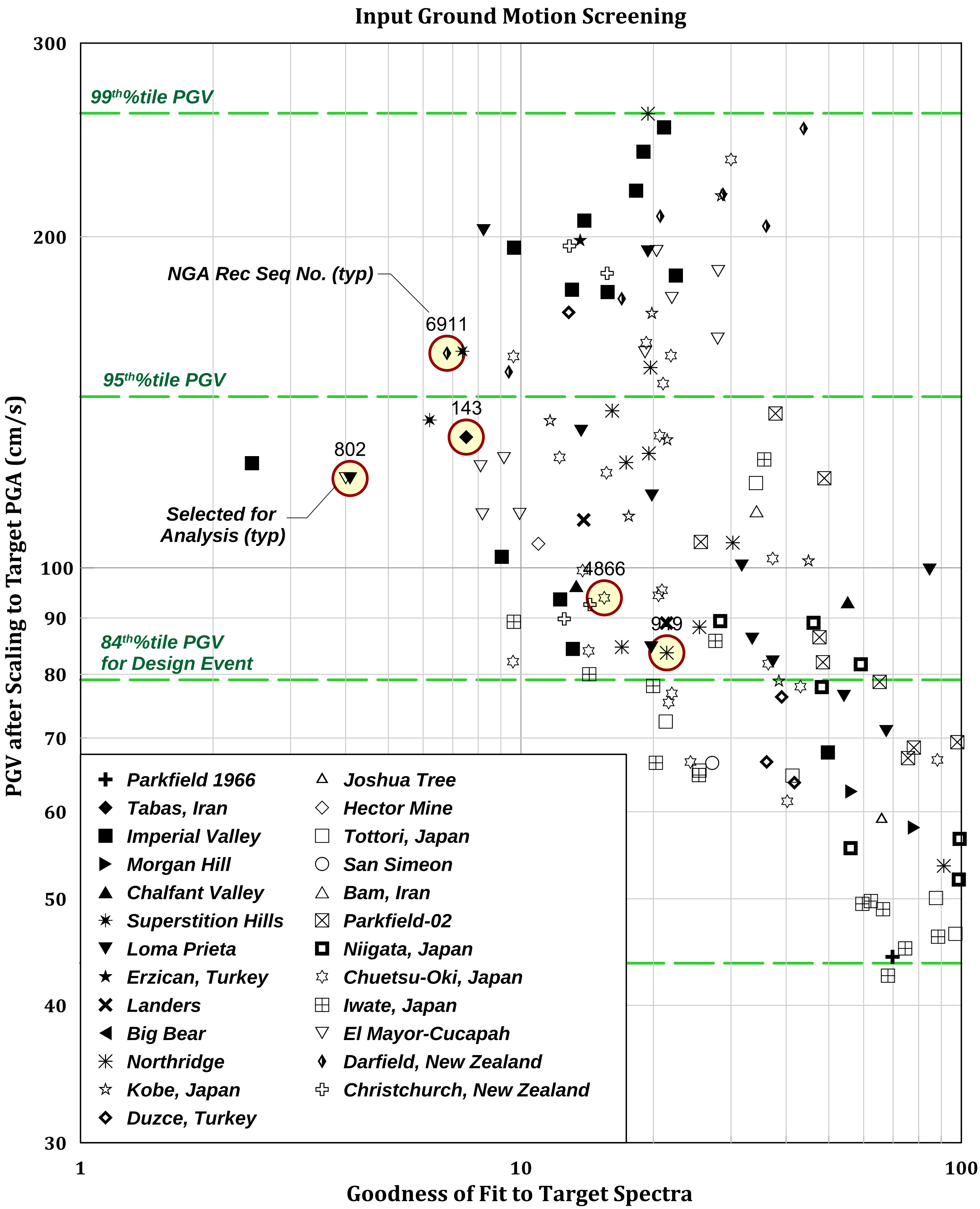
GeoPentech



LONGEST USABLE PERIOD AND SCALE FACTOR SCREENING FOR DESIGN LOCAL EVENT

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 12

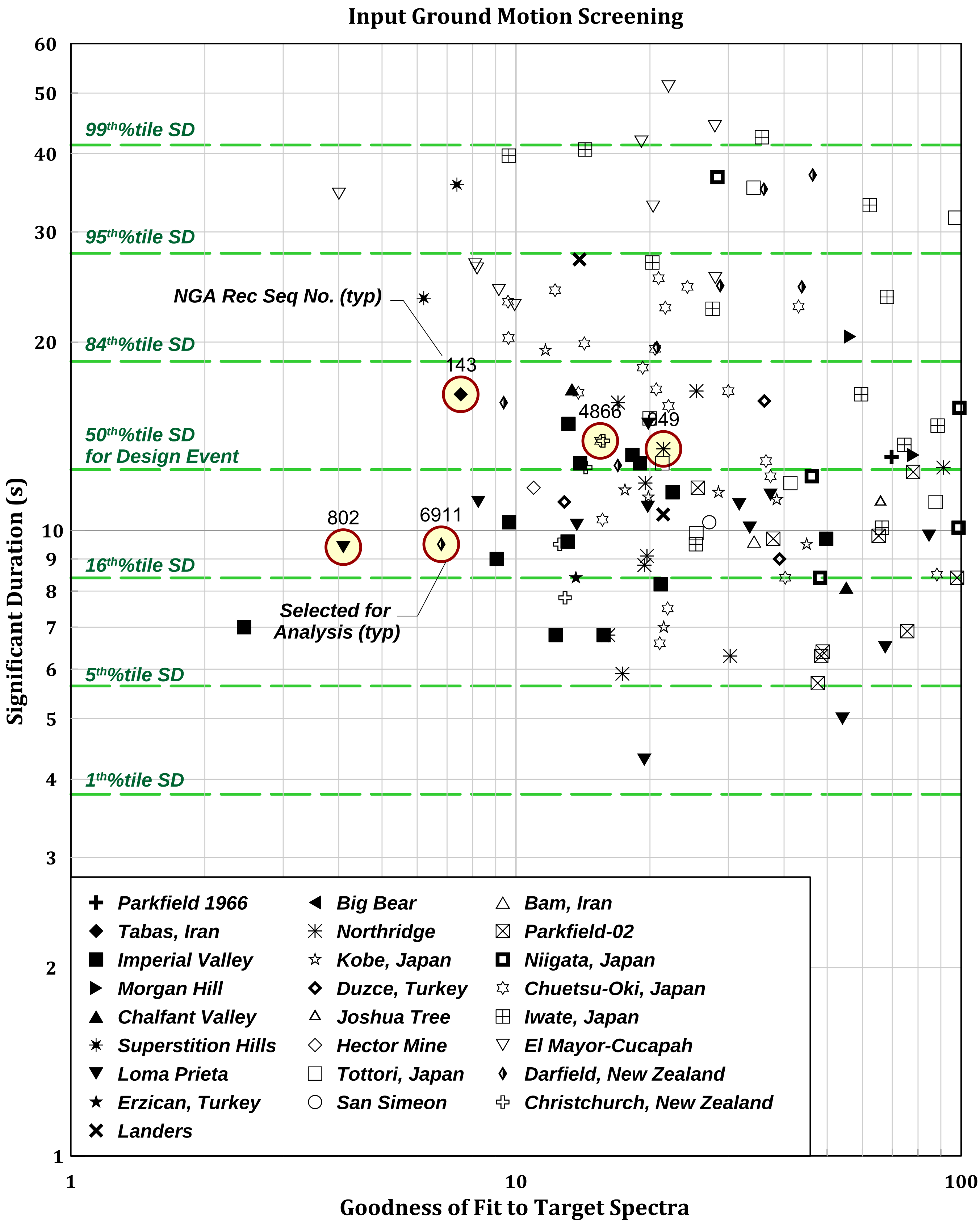
GeoPentech



PGV AND GOODNESS OF FIT SCREENING FOR DESIGN LOCAL EVENT

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 13a

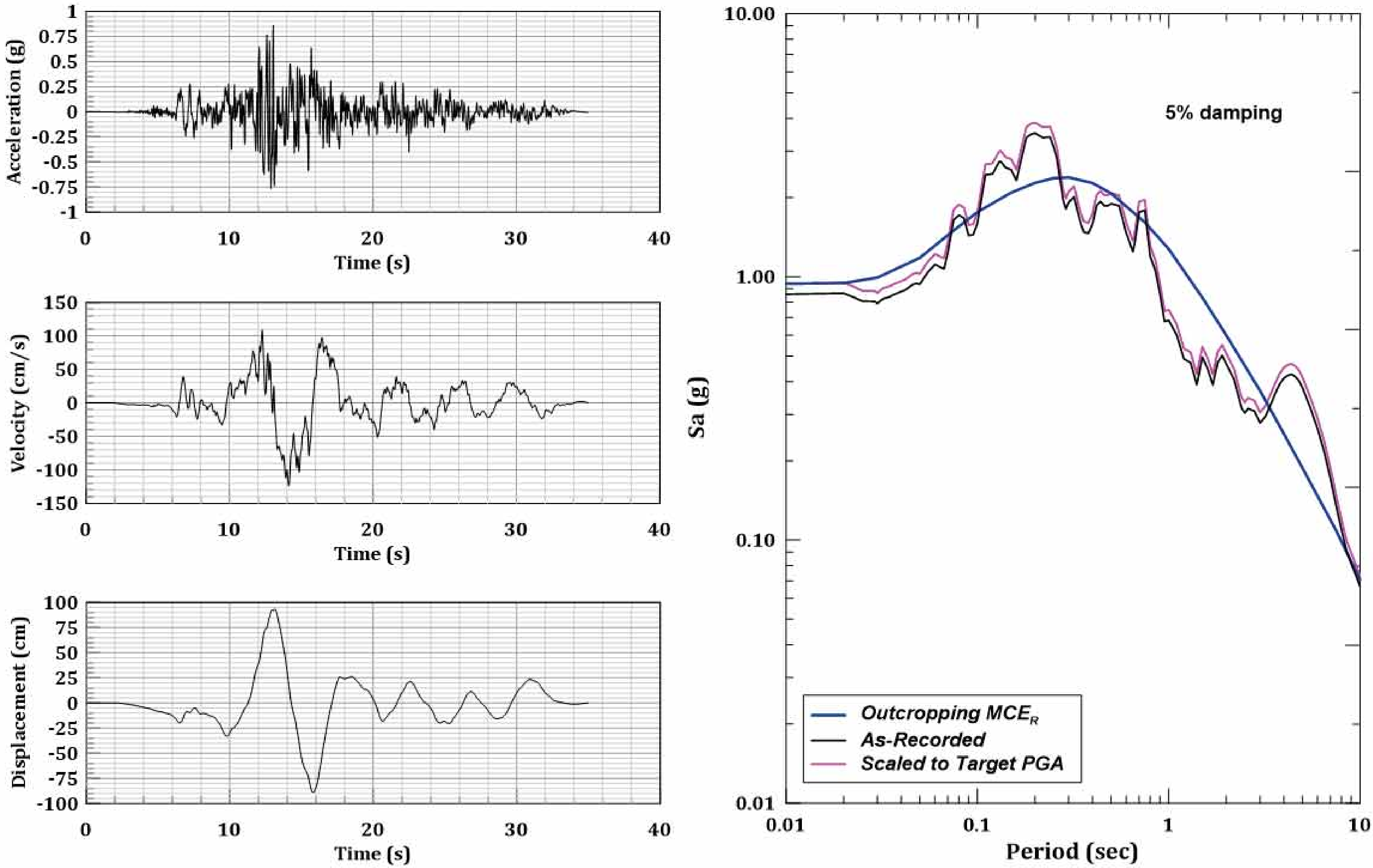
GeoPentech



SIGNIFICANT DURATION AND GOODNESS OF FIT SCREENING FOR DESIGN LOCAL EVENT			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 13b

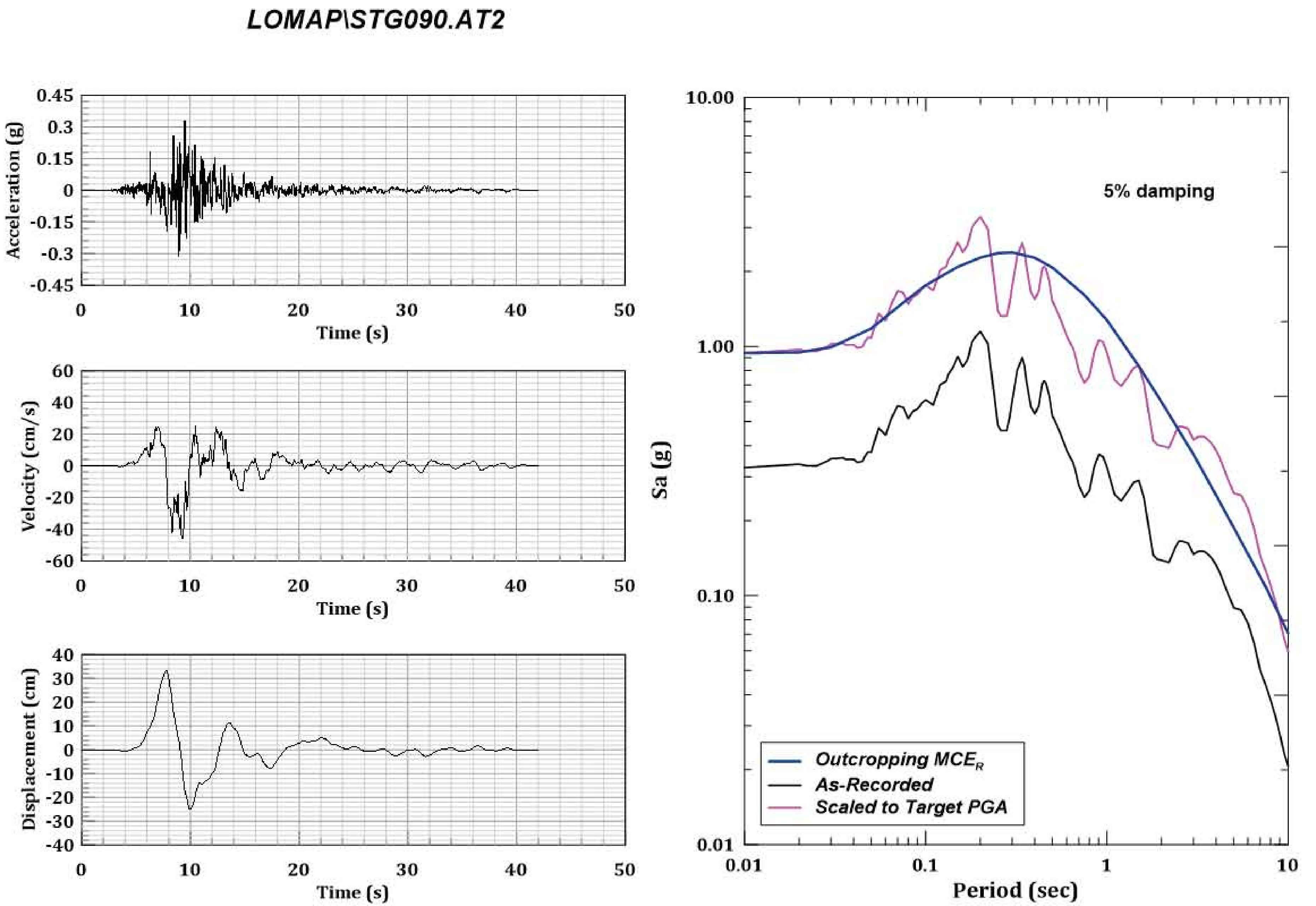
GeoPentech

TABAS\TAB-T1.AT2



GM1 SEED			
Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 14

GeoPentech

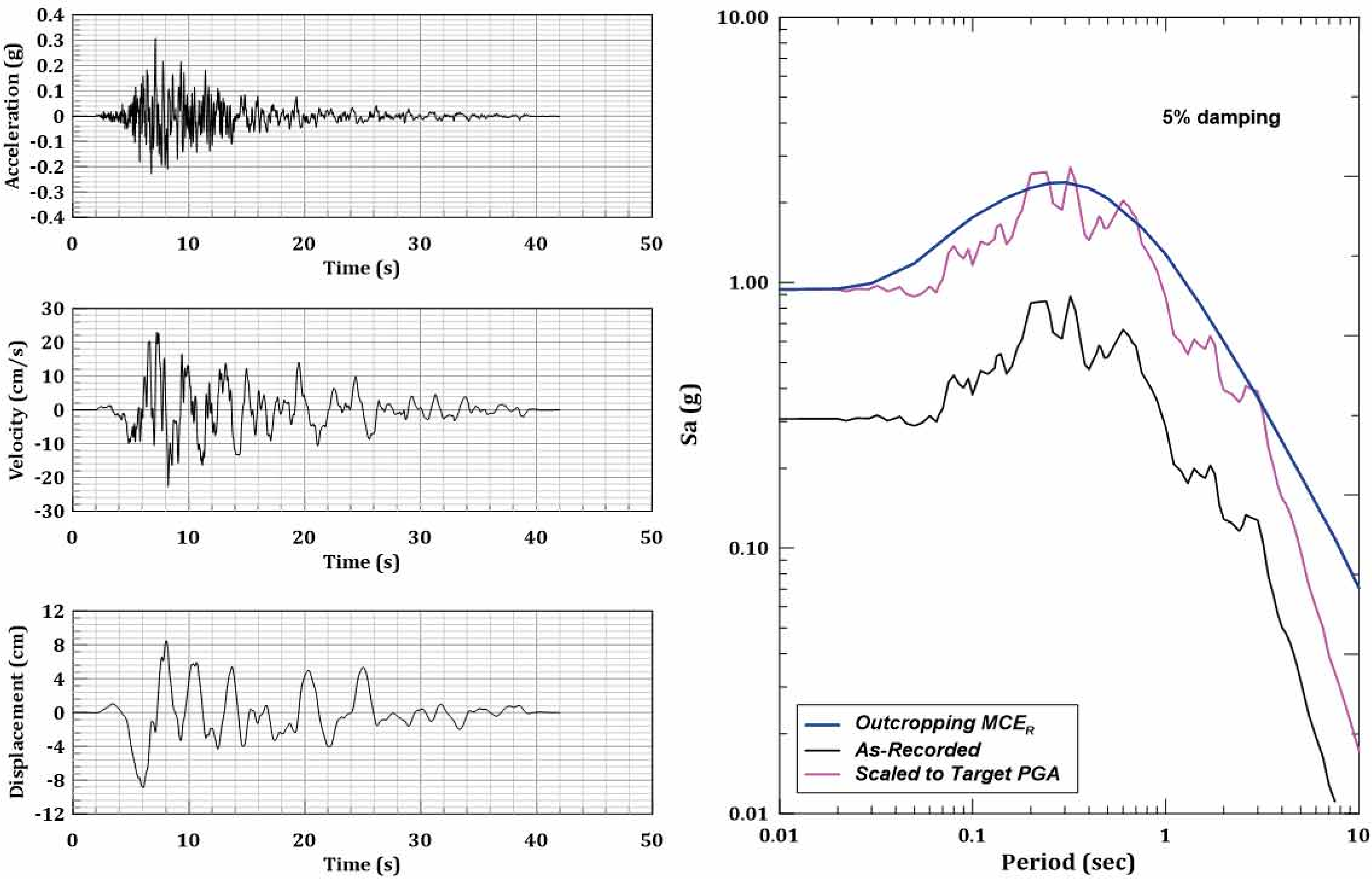


GM2 SEED

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 15

GeoPentech

NORTHR\ARL360.AT2

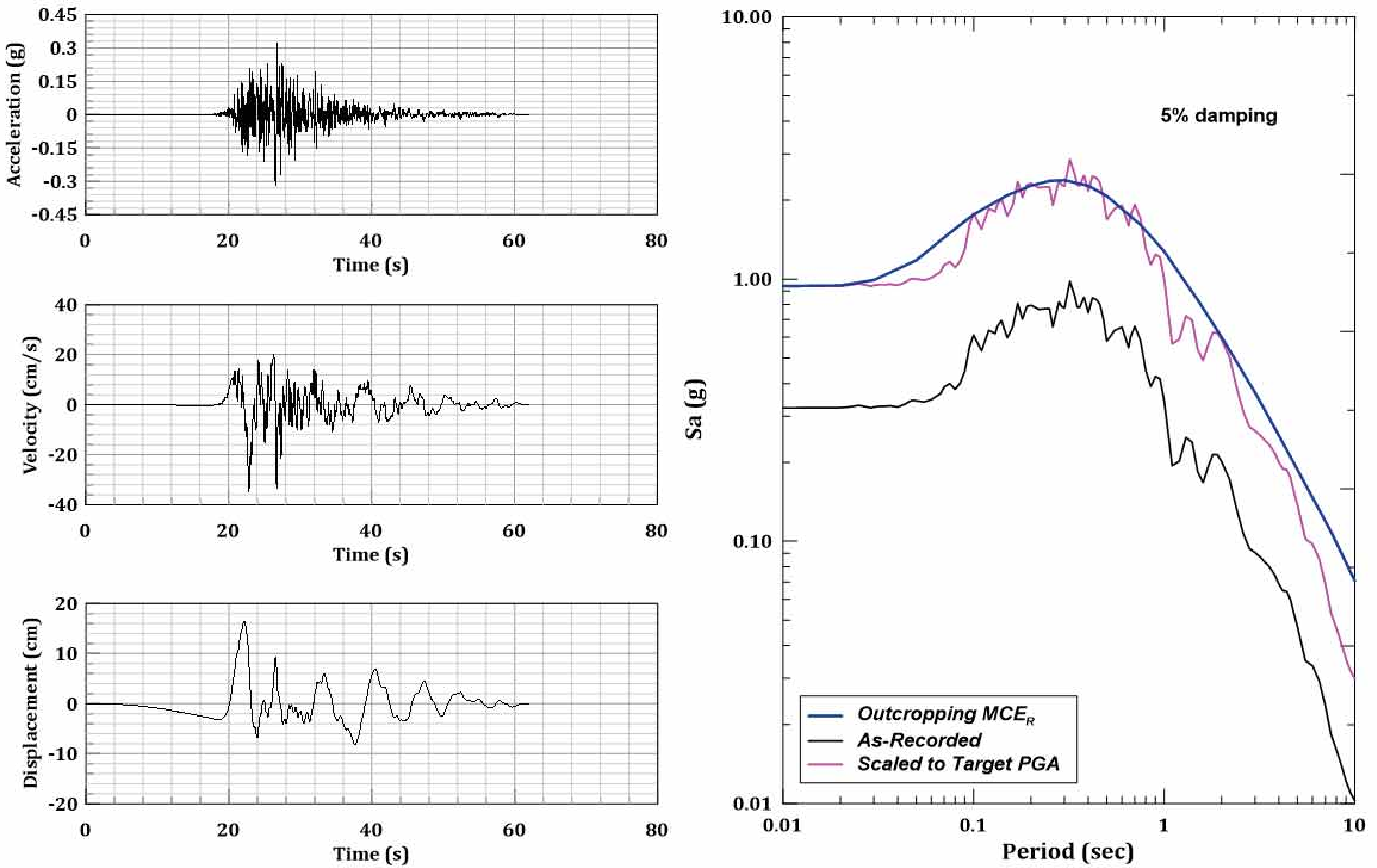


GM3 SEED

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 16

GeoPentech

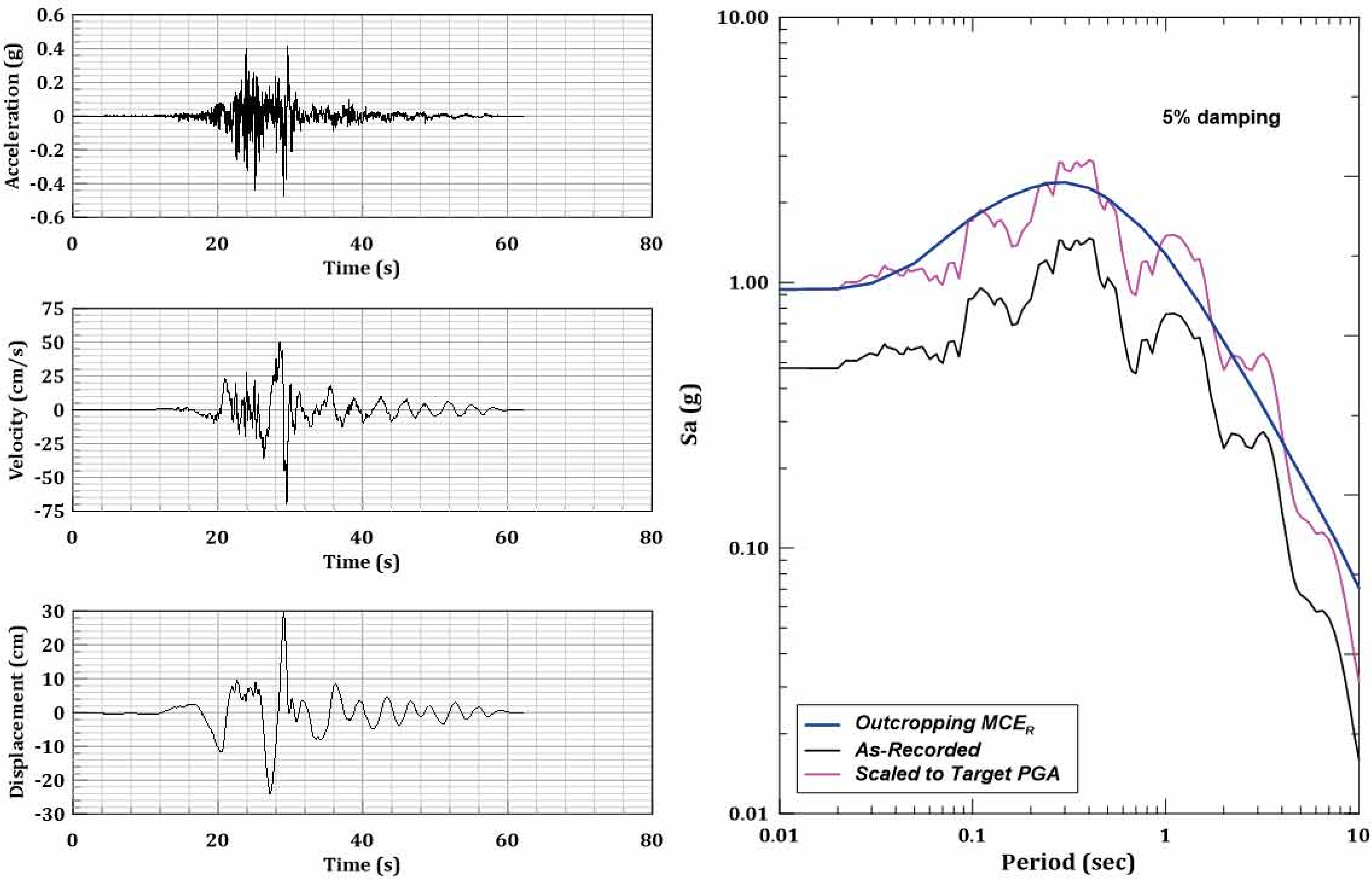
CHUETSU\65039EW.AT2



GM4 SEED			
Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 17

GeoPentech

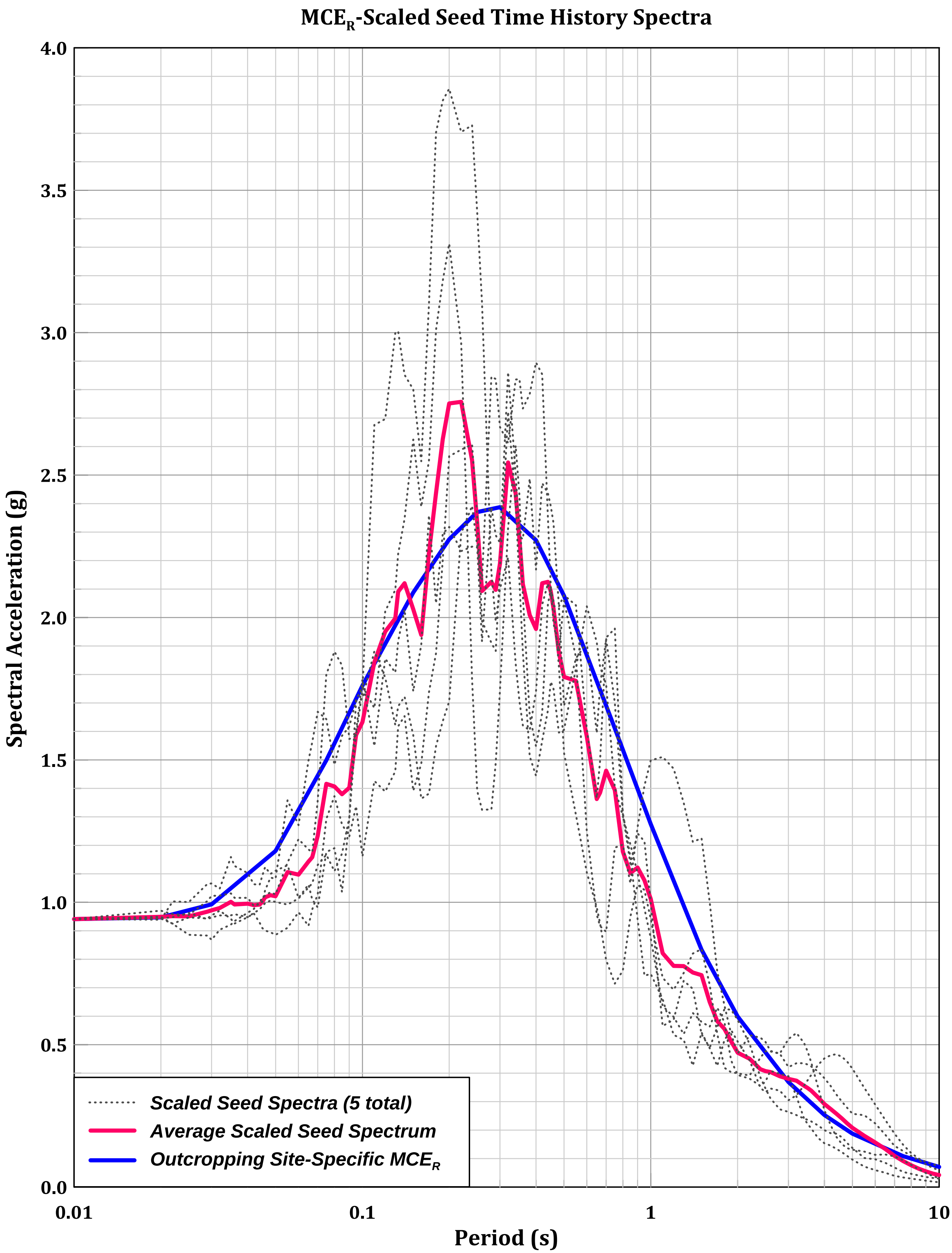
DARFIELD\HORCS72E.AT2



GM5 SEED

Date: FEB. 2018	Project No.: 17025A	Project: 12575 BEATRICE PLAYA VISTA GROUND-MOTION DEVELOPMENT	Figure 18

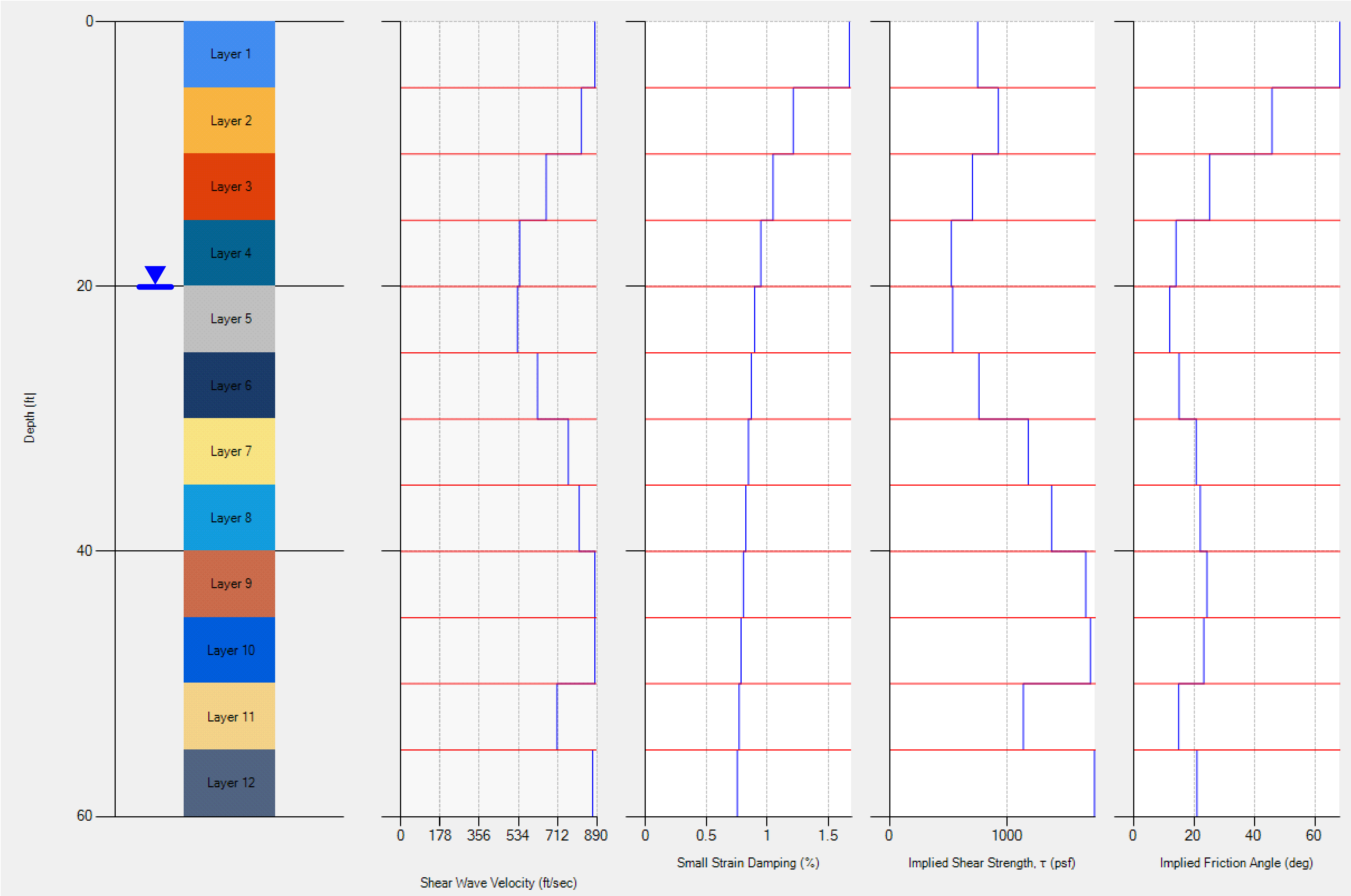
GeoPentech



Note: All spectra are for Damping (β) = 5.0% unless otherwise indicated.

MCE$_R$-SCALED SEED TIME HISTORY SPECTRA			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: FEB. 2018	Figure 19

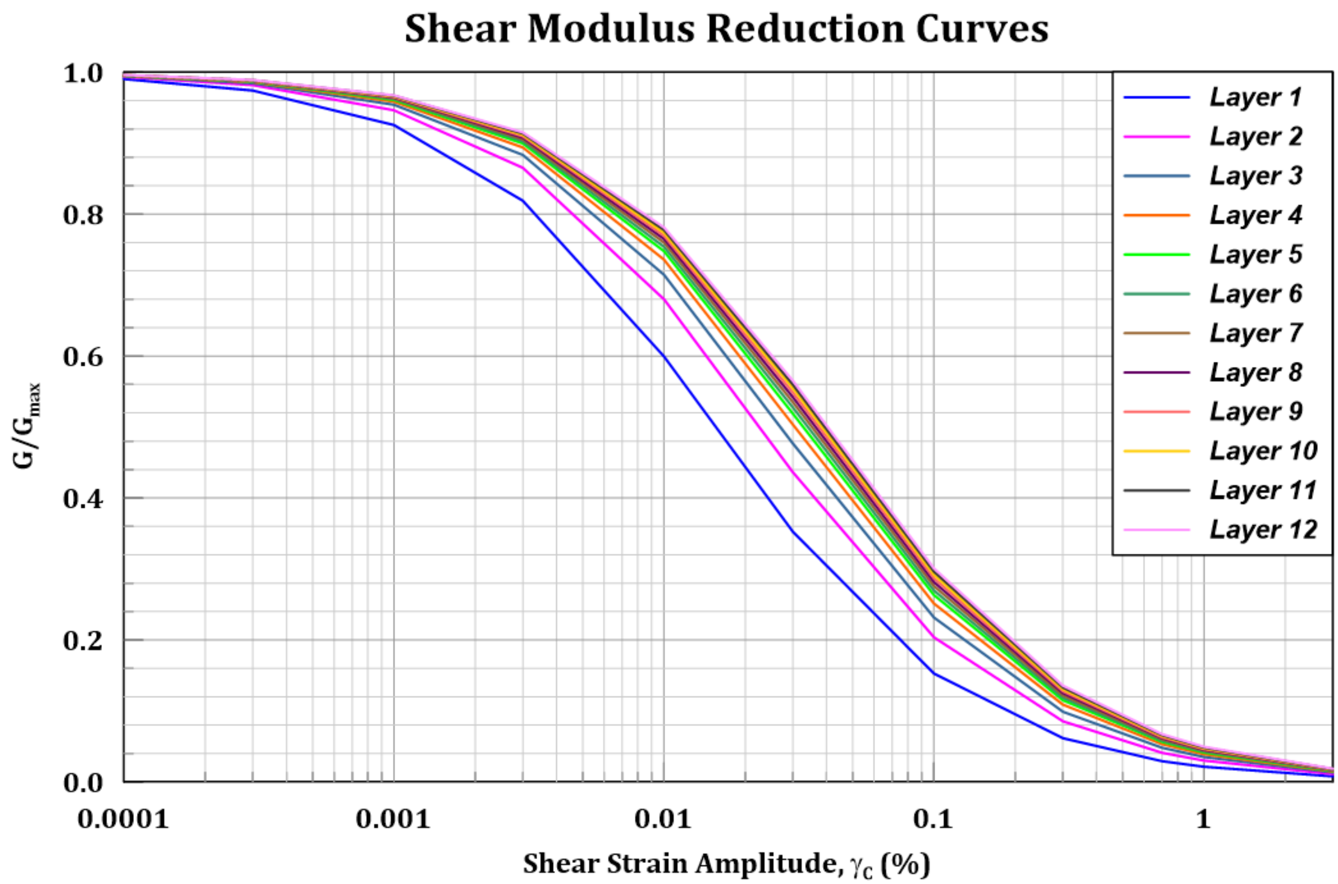
GeoPentech

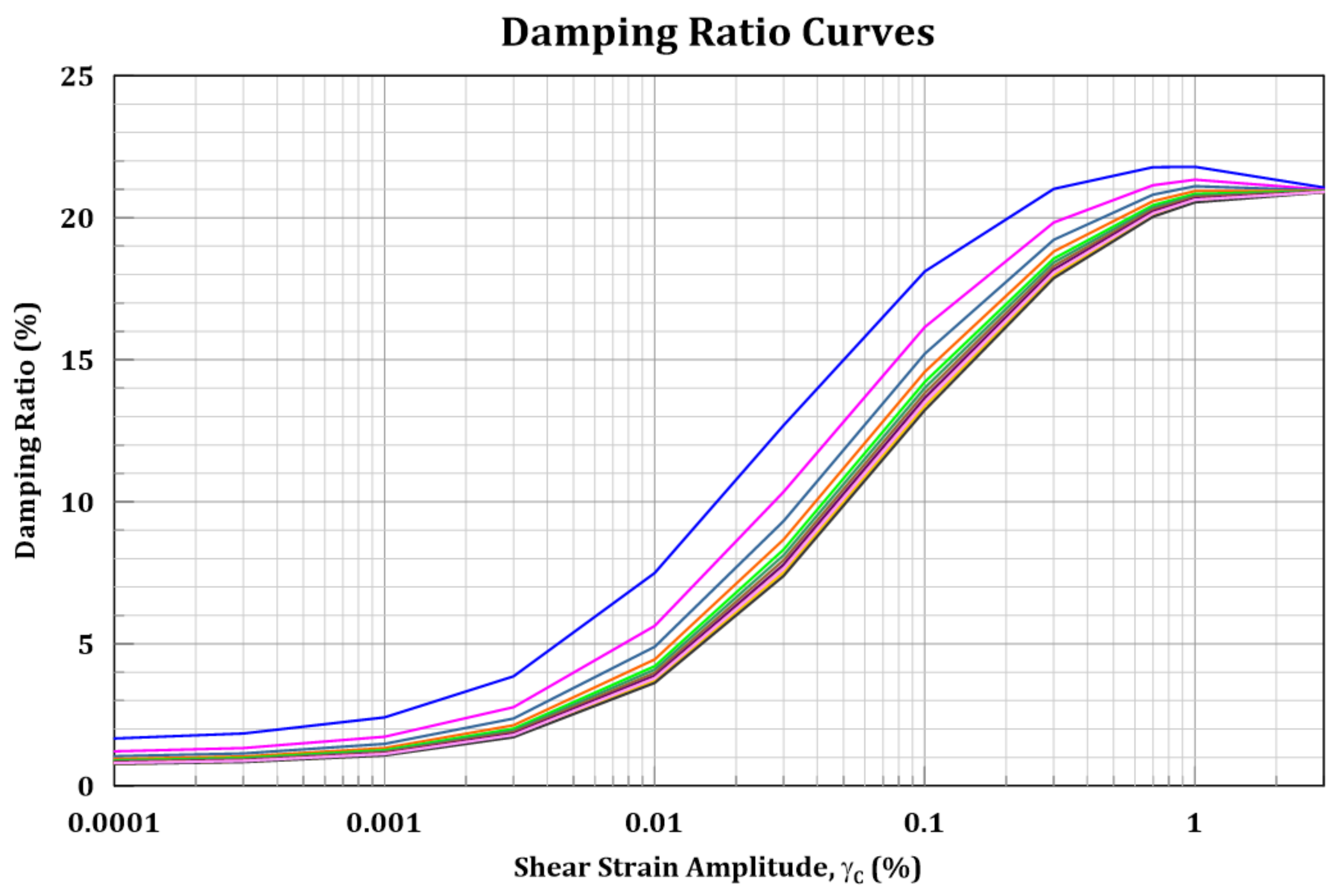


IDEALIZED SOIL COLUMN MODEL

Date: MAR 2018	Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Figure 20

GeoPentech

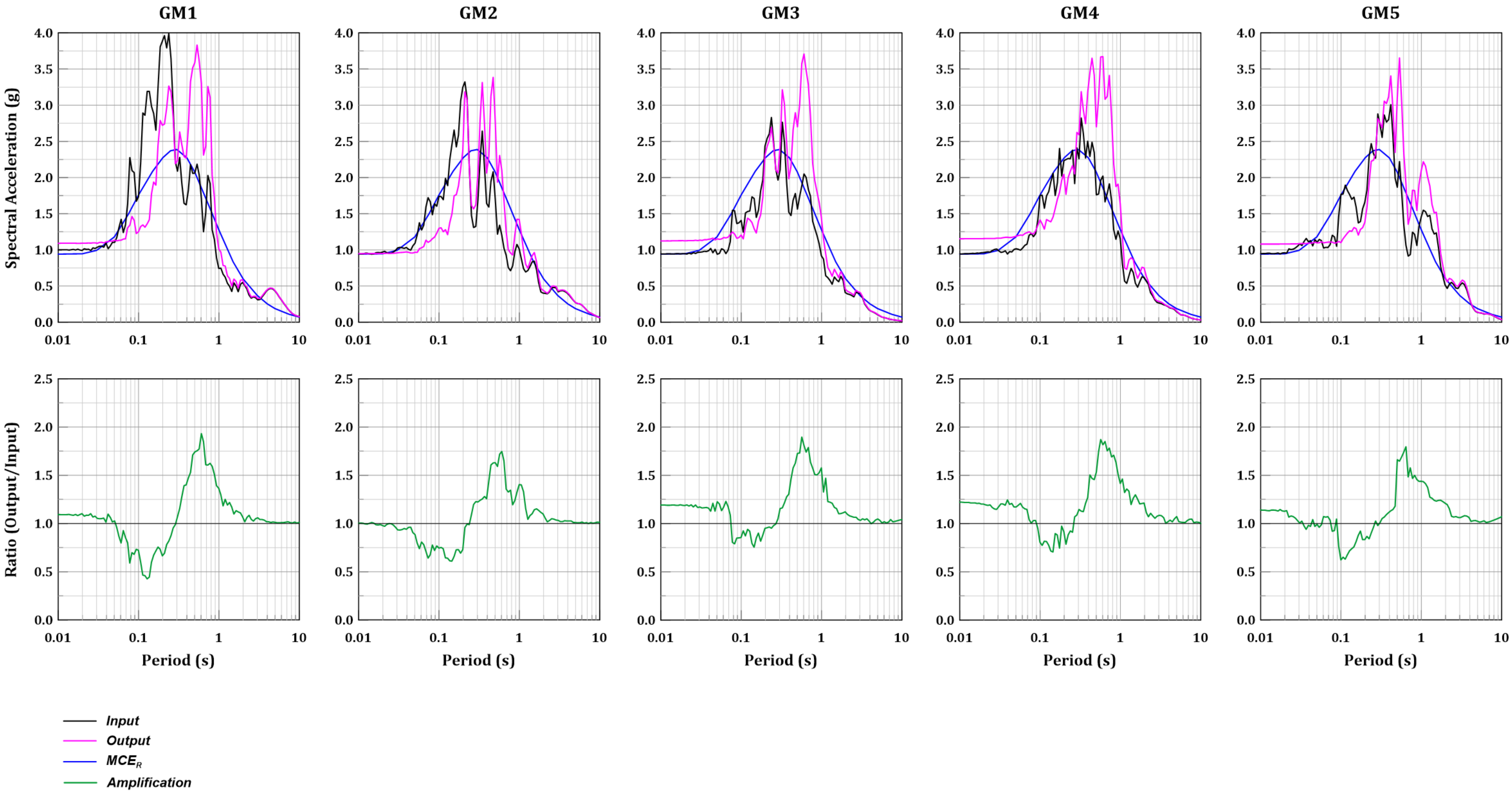




MODULUS REDUCTION AND DAMPING CURVES

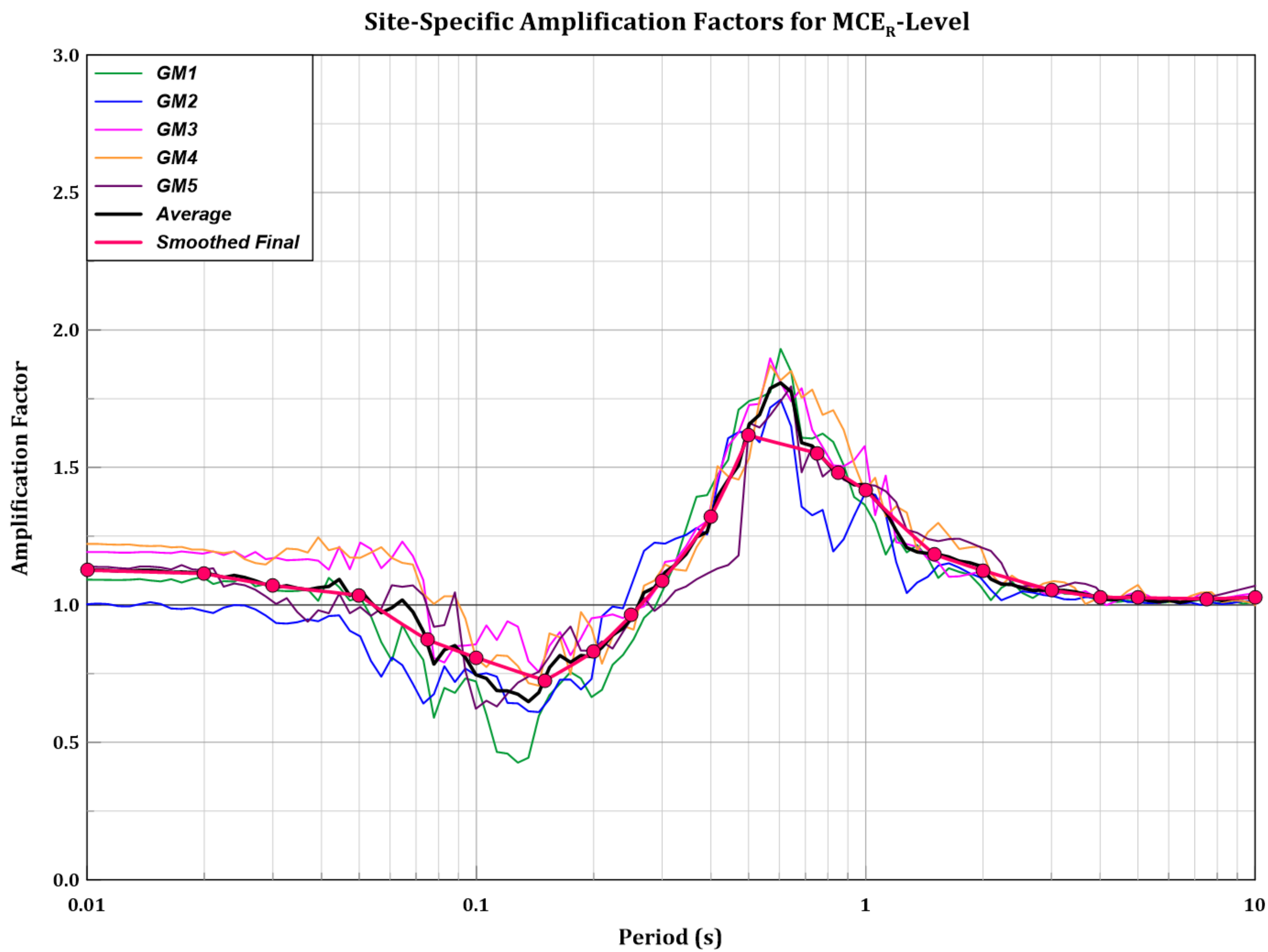
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR 2018	Figure 21

GeoPentech



SITE RESPONSE ANALYSIS RESULTS - MCE_R LEVEL		
Project: 12575 BEATRICE GROUND MOTIONS		Figure 22
Project No.: 17025A	Date: MAR 2018	

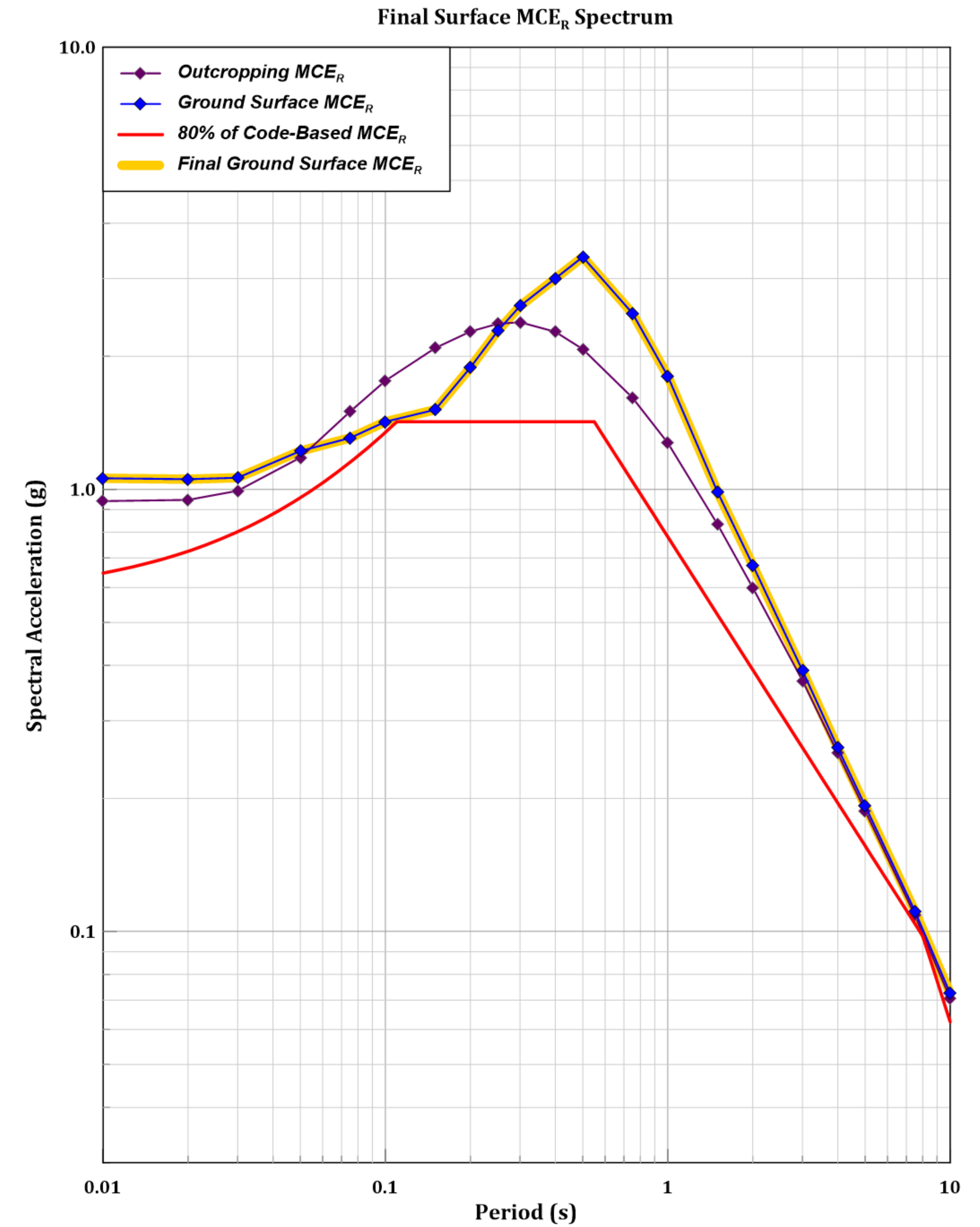
GeoPentech



SITE-SPECIFIC AMPLIFICATION FACTORS FOR MCE_R-LEVEL

Date: MAR 2018	Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Figure 23

GeoPentech

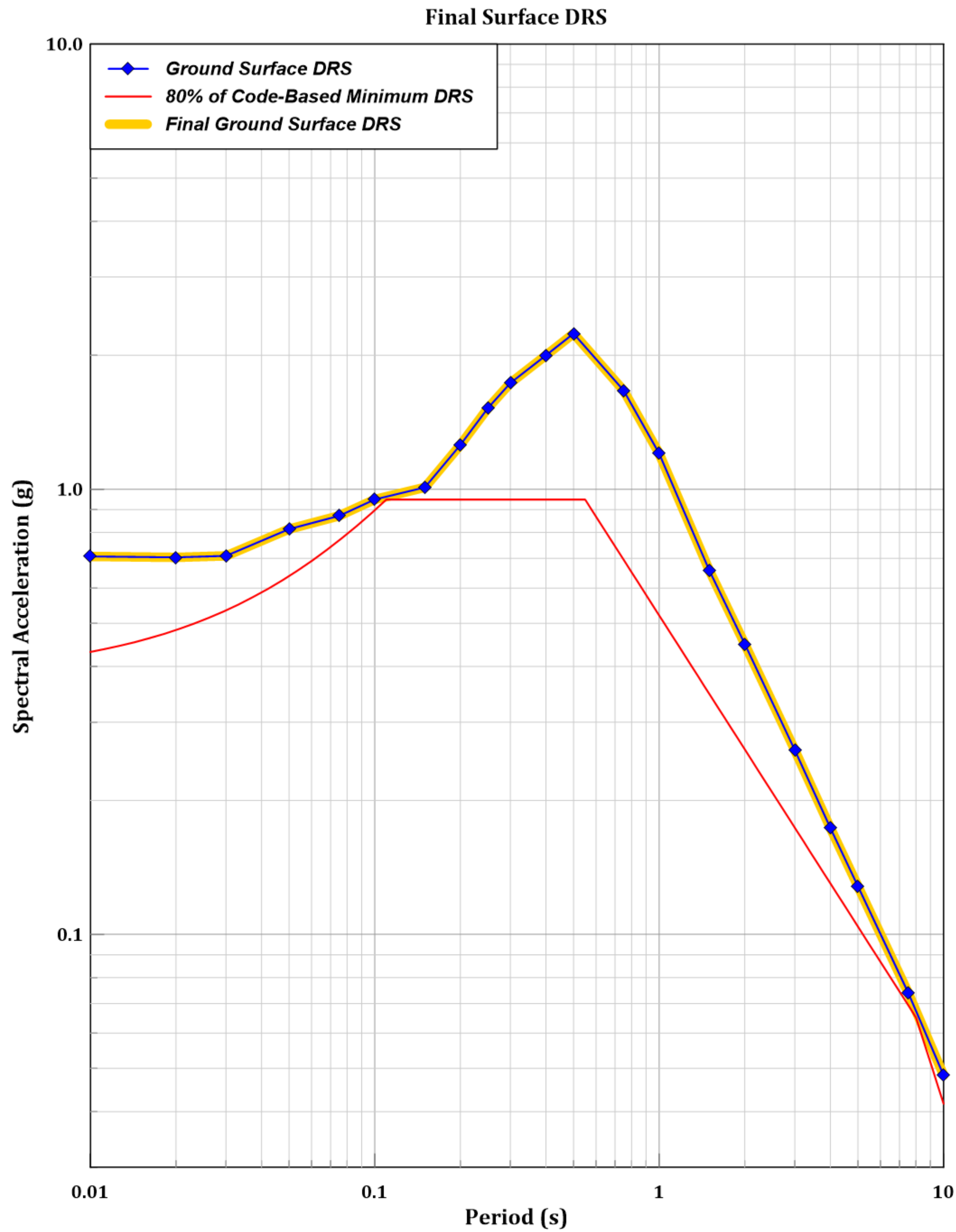


Note: All spectra are for Damping (β) = 5.0% unless otherwise indicated.

FINAL SURFACE MCE_R SPECTRUM

Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR 2018	Figure 24

GeoPentech



Note: All spectra are for Damping (β) = 5.0% unless otherwise indicated.

FINAL SURFACE DRS			
Project No.: 17025A	Project: 12575 BEATRICE GROUND MOTIONS	Date: MAR 2018	Figure 25

GeoPentech

Tuesday, April 03, 2018 via email: stang@geoteq.com

GEOTECHNOLOGIES, INC.
439 Western Ave.
Glendale, CA 91201

Attention: Mr. Stanley Tang

Re: Soil Corrosivity Study
Chait Company
Playa Del Rey, California
HDR #18-0198SCS, GI #21194

Introduction

Laboratory tests have been completed on three soil samples provided or the referenced project. The purpose of these tests was to determine whether the soils are likely to have deleterious effects on underground utility piping, hydraulic elevator cylinders, and concrete structures. HDR Engineering, Inc. (HDR) assumes that the samples provided are representative of the most corrosive soils at the site.

The proposed structure has 6 to 8 stories and 1.5 subterranean levels. The site is located at 12575 Beatrice Street in Playa Del Rey, California, and the water table is reportedly 24 to 30 feet deep.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. HDR's recommendations do not constitute, and are not meant as a substitute for, design documents for the purpose of construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, HDR will be happy to work with them as a separate phase of this project.

431 W. Baseline Road, Claremont, CA 91711-1608
(909) 626-0967

Laboratory Soil Corrosivity Tests

The electrical resistivity of each sample was measured in a soil box per ASTM G187 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured per CTM 643. A 5:1 water:soil extract from each sample was chemically analyzed for the major soluble salts commonly found in soil per ASTM D4327, ASTM D6919, and Standard Method 2320-B[1]. Laboratory test results are shown in the attached Table 1.

Soil Corrosivity

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and soluble salt contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:[2]

Soil Resistivity in ohm-centimeters	Corrosivity Category
Greater than 10,000	Mildly Corrosive
2,001 to 10,000	Moderately Corrosive
1,001 to 2,000	Corrosive
0 to 1,000	Severely Corrosive

Other soil characteristics that may influence corrosivity towards metals are pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

---

[1] American Public Health Association (APHA). 2012. Standard Methods of Water and Wastewater. 22nd ed. American Public Health Association, American Water Works Association, Water Environment Federation publication. APHA, Washington D.C.

[2] Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, pp. 166–167.

Electrical resistivities were in the moderately to severely corrosive categories with as-received moisture and at saturation. The as-received resistivities were at or near their saturated values.

Soil pH values varied from 7.4 to 7.6. This range is mildly alkaline.[3] These values do not particularly increase soil corrosivity.

The soluble salt content of the samples ranged from moderate to high. Bicarbonate, chloride, and sulfate salts were the primary constituents.

Nitrate as detected in low concentrations. The ammonium concentration in the sample from B-2 was high enough to be aggressive to copper.

Tests were not made for sulfide and oxidation-reduction (redox) potential because these samples did not exhibit characteristics typically associated with anaerobic conditions.

This soil is classified as severely corrosive to ferrous metals and aggressive to copper.

Corrosion Control Recommendations

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

The following recommendations are based on the soil conditions discussed in the Soil Corrosivity section above. Unless otherwise indicated, these recommendations apply to the entire site or alignment.

Steel Pipe

1. Underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints should be bonded for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.

2. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:

---

[3] *Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, p. 8.*

a. At each end of the pipeline.

b. At each end of all casings.

c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.

3. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically isolate each buried steel pipeline per NACE SP0286 from:

   a. Dissimilar metals.

   b. Dissimilarly coated piping (cement-mortar vs. dielectric).

   c. Above ground steel pipe.

   d. All existing piping.

4. Choose one of the following corrosion control options:

   OPTION 1

   a. Apply a suitable dielectric coating intended for underground use such as:

      i. Polyurethane per AWWA C222 *or*

      ii. Extruded polyethylene per AWWA C215 *or*

      iii. A tape coating system per AWWA C214 *or*

      iv. Hot applied coal tar enamel per AWWA C203 *or*

      v. Fusion bonded epoxy per AWWA C213.

   b. Apply cathodic protection to steel piping as per NACE SP0169.

   OPTION 2

   a. As an alternative to dielectric coating and cathodic protection, apply a ¾-inch cement mortar coating per AWWA C205 or encase in concrete 3 inches thick, using any type of ASTM C150 cement. Joint bonds, test stations, and insulated joints are still recommended for this alternative.

NOTE: Some steel piping systems, such as for oil, gas, and high-pressure piping systems, have special corrosion and cathodic protection requirements that must be evaluated for each specific application.

Hydraulic Elevators

1. Choose one of the following corrosion control options for the hydraulic steel cylinders.

   OPTION 1

   a. Coat hydraulic elevator cylinders with a suitable dielectric coating intended for underground use such as:

      i. Polyurethane per AWWA C222 or

      ii. Extruded polyethylene per AWWA C215 or

      iii. A tape coating system per AWWA C214 or

      iv. Hot applied coal tar enamel per AWWA C203 or

      v. Fusion bonded epoxy per AWWA C213.

   b. Electrically insulate each cylinder from building metals by installing dielectric material between the piston platen and car, insulating the bolts, and installing an insulated joint in the oil line.

   c. Apply cathodic protection to hydraulic cylinders as per NACE SP0169.

   OPTION 2

   a. As an alternative to electrical insulation and cathodic protection, place each cylinder in a plastic casing with a plastic watertight seal at the bottom.

2. The elevator oil line should be placed above ground if possible but, if underground, should be protected by one of the following corrosion control options:

   OPTION 1

   a. Provide a bonded dielectric coating.

b. Electrically isolate the pipeline.

c. Apply cathodic protection to steel piping as per NACE SP0169.

OPTION 2

a. Place the oil line in a PVC casing pipe with solvent-welded joints and sealed at both ends to prevent contact with soil and moisture.

Ductile Iron Pipe

1. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE SP0286.

2. Bond all nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.

3. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:

   a. At each end of the pipeline.

   b. At each end of any casings.

   c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.

4. Choose one of the following corrosion control options:

   OPTION 1

   a. Apply a suitable coating intended for underground use such as:

      i. Polyethylene encasement per AWWA C105; *or*

      ii. Epoxy coating; *or*

      iii. Polyurethane; *or*

      iv. Wax tape.

NOTE: The thin factory-applied asphaltic coating applied to ductile iron pipe for transportation and aesthetic purposes does not constitute a corrosion control coating.

b. Apply cathodic protection to cast and ductile iron piping as per NACE SP0169.

OPTION 2

a. As an alternative to the coating systems described in Option 1 and cathodic protection, concrete encase all buried portions of metallic piping so that there is a minimum of 3 inches of concrete cover provided over and around surfaces of pipe, fittings, and valves using any type of ASTM C150 cement.

NOTE: Some iron piping systems, such as for fire water piping, have special corrosion and cathodic protection requirements that must be evaluated for each specific application.

Cast Iron Soil Pipe

1. Protect cast iron soil pipe with either a double wrap 4-mil or single wrap 8-mil polyethylene encasement per AWWA C105.
2. It is not necessary to bond the pipe joints or apply cathodic protection.
3. Provide 6 inches of clean sand backfill all around the pipe.

Clean Sand Backfill

1. HDR recommends the following parameters for clean sand backfill:
    a. Minimum saturated resistivity of no less than 3,000 ohm-cm; *and*
    b. pH between 6.0 and 8.0.
2. All backfill testing should be performed by a corrosion engineering laboratory.

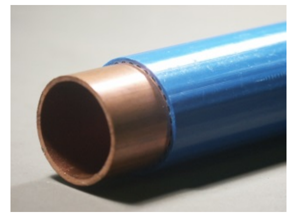
Copper Tubing

1. Electrically insulate underground copper pipe from dissimilar metals and from above ground copper pipe with insulating devices per NACE SP0286.
2. Electrically insulate cold water piping from hot water piping systems.

3. Protect buried copper tubing by one of the following measures:

    a. Prevention of soil contact. Soil contact may be prevented by placing the tubing above ground or encasing the tubing using PVC pipe with solvent-welded joints.

    b. Installation of a factory-coated copper pipe with a minimum 25-mil thickness such as Kamco's Aqua Shield™, Mueller's Streamline Protec™, or equal. The coating must be continuous with no cuts or defects.



    c. Installation of 12-mil polyethylene pipe wrapping tape with butyl rubber mastic over a suitable primer. Protect wrapped copper tubing by applying cathodic protection per NACE SP0169.

Plastic and Vitrified Clay Pipe

1. No special corrosion control measures are required for plastic and vitrified clay piping placed underground.

2. Protect all metallic fittings and valves with wax tape per AWWA C217, or with epoxy and appropriately sized cathodic protection per NACE SP0169.

All Pipe

1. On all pipes, appurtenances, and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA C217 after assembly.

2. Where metallic pipelines penetrate concrete structures such as building floors, vault walls, and thrust blocks use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete Structures and Pipe

1. From a corrosion standpoint, any type of ASTM C150 cement may be used for concrete structures and pipe because the sulfate concentration is negligible, from 0 to 0.10 percent.[4,5,6]

2. Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils due to the low chloride concentrations[7] found onsite. Limit the water-soluble chloride ion content in the concrete mix design to less than 0.3 percent by weight of cement.

3. Due to the deep reported groundwater at this site, cyclical or continual wetting of the subterranean levels is not anticipated. However, any contact between concrete structures and groundwater should be prevented.

Concrete Piles

Precast Concrete Piles

1. It is assumed that precast concrete piles will contain a minimum of 8 sacks of ASTM C150 Type V cement per cubic yard of concrete, a water/cement ratio not exceeding 0.45, and 2 inches of concrete cover. No further corrosion control measures are required for such piles.

2. If groundwater is present, solid steel lifting lugs are recommended to prevent groundwater from wicking into the pile interior. If wire rope lifting lugs are used, they should be carefully drilled out 1.5 inches deep and the hole filled with epoxy.

3. HDR understands that there may be no practical way to waterproof precast concrete piles. The concrete mix design for the piles should include supplementary cementitious admixtures to reduce permeability.

---

[4] 2015 International Building Code (IBC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

[5] 2015 International Residential Code (IRC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

[6] 2016 California Building Code (CBC) which refers to American Concrete Institute (ACI) 318-14 Table 19.3.2.1

[7] Design Manual 303: Concrete Cylinder Pipe. Ameron. p.65

Steel Reinforced Cast in Place Concrete Piles

1. Protect steel reinforced cast-in-place and cast-in-drilled-hole concrete piles in accordance with the recommendations of the concrete structures section in this report.

2. HDR understands that there may be no practical way to waterproof cast in place concrete piles. The concrete mix design for the piles should include supplementary cementitious admixtures to reduce permeability.

Closure

The analysis and recommendations presented in this report are based upon data obtained from the laboratory samples. This report does not reflect variations that may occur across the site or due to the modifying effects of construction. If variations appear, HDR should be notified immediately so that further evaluation and supplemental recommendations can be provided.

HDR's services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended.

Please call if you have any questions.

Respectfully Submitted,
HDR Engineering, Inc.

REGISTERED PROFESSIONAL ENGINEER
GREGORY K FROST
No. 83780
EXP. 3/31/19
CIVIL
STATE OF CALIFORNIA
04/03/2018

James Keegan Greg Frost, PE

Enc: Table 1

HDR

Table 1 - Laboratory Tests on Soil Samples

Geotechnologies, Inc.
Chait Company
Your #21194, HDR Lab #18-0198SCS
27-Mar-18

Sample ID

			B1 @ 7.5'	B2 @ 17.5'	B3 @ 47.5'
Resistivity		**Units**			
as-received		ohm-cm	2,000	680	3,840
saturated		ohm-cm	1,400	680	2,840
pH			7.4	7.5	7.6
Electrical Conductivity		mS/cm	0.21	0.57	0.20
Chemical Analyses					
Cations					
calcium	Ca^{2+}	mg/kg	41	186	33
magnesium	Mg^{2+}	mg/kg	22	46	20
sodium	Na^{1+}	mg/kg	164	318	129
potassium	K^{1+}	mg/kg	6.7	23	13
Anions					
carbonate	CO_3^{2-}	mg/kg	ND	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	256	461	122
fluoride	F^{1-}	mg/kg	4.1	8.0	1.9
chloride	Cl^{1-}	mg/kg	44	189	83
sulfate	SO_4^{2-}	mg/kg	202	778	204
phosphate	PO_4^{3-}	mg/kg	4.1	ND	ND
Other Tests					
ammonium	NH_4^{1+}	mg/kg	ND	19	0.1
nitrate	NO_3^{1-}	mg/kg	1.4	6.4	1.4
sulfide	S^{2-}	qual	na	na	na
Redox		mV	na	na	na

Resistivity per ASTM G187, Cations per ASTM D6919, Anions per ASTM D4327, and Alkalinity per APHA 2320-B.
Electrical conductivity in millisiemens/cm and chemical analyses were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

431 West Baseline Road · Claremont, CA 91711
Phone: 909.962.5485 · Fax: 909.626.3316

CITY OF LOS ANGELES

CALIFORNIA

ERIC GARCETTI
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

FRANK M. BUSH
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

OSAMA YOUNAN, P.E.
EXECUTIVE OFFICER

SOILS REPORT REVIEW LETTER

March 23, 2017

LOG # 97201
SOILS/GEOLOGY FILE - 2
LIQ

Chait Company Architects
7306 Coldwater Canyon Avenue, Unit 12
North Hollywood, CA 91605

TRACT:	30549
LOT(S):	20-21
LOCATION:	12575 W. Beatrice St.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE(S) OF DOCUMENT	PREPARED BY
Soils Report	21194	04/04/2016	Geotechnologies, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed 10-story office building over one level of subterranean parking.

The site is located in a designated liquefaction hazard zone as shown on the Seismic Hazard Zones map issued by the State of California.

Due to site access restrictions, no geotechnical borings were performed at this site. The consultants stated that "a comprehensive report shall be prepared when the site is available for exploration and the development plan achieves refinement".

The review of the subject report can not be completed at this time and will be continued upon submittal of an addendum to the report which shall include, but not be limited to, the following:

1. Perform comprehensive geotechnical investigation at this site including geotechnical borings, laboratory testing, liquefaction analysis, and foundation engineering analysis. Prepare a comprehensive geotechnical report and submit this report to the Department for review and approval. Note that the Department does not accept liquefaction analysis, foundation engineering analysis, site class classifications, and grading recommendations etc. solely based on Cone Penetration tests. Actual drilling, sampling, and laboratory testing shall be performed at this site.

The soils engineer shall prepare a report containing an itemized response to the review items indicated in this letter. If clarification concerning the review letter is necessary, the report review engineer may be contacted. Two copies of the response report, including one unbound wet-signed original for archiving purposes, a pdf-copy of the complete report in a CD or flash drive, and the appropriate fees will be required for submittal.

YING LIU
Geotechnical Engineer I

YL/yl
Log No. 97201
213-482-0480

cc: Geotechnologies, Inc., Project Consultant
WL District Office

Appendix IS-4

Drainage Technical Report

DRAINAGE TECHNICAL REPORT

FOR

New Beatrice West
12575 Beatrice Street
Los Angeles, CA

Date: May 7, 2020
Revised September 5, 2020

PREPARED FOR:

Michael Chait
CHAIT & COMPANY, INC.
7306 Coldwater Canyon Avenue #12
North Hollywood, California 91605

PREPARED BY:

Barbara L. Hall, P.E., Inc.
318 West Evergreen Avenue
Monrovia, CA 91016
626-256-3220
Fax: 626-256-3218

REGISTERED PROFESSIONAL ENGINEER
BARBARA L. HALL
No. 42206
Exp. 03/31/22
CIVIL
STATE OF CALIFORNIA

P:\Shared\Projects\Chait Company\18523 - Beatrice\DOC\CEQA REPORTS\DRAINAGE TECHNICAL REPORT\BEATRICE DRAINAGE TECHNICAL REPORT.docx

Table of Contents

PURPOSE

The purpose of the Drainage Technical Report is to determine the volume of runoff from the New Beatrice West Project (Project) site in both the existing and proposed project conditions and determine any impacts to the existing public storm drain system. This report also includes Preliminary Low Impact Development Calculations (LID) for compliance with the current MS4 Permit.

EXISTING CONDITIONS

The proposed New Beatrice West Project (Project) project site is located within the City of Los Angeles in the Palms-Mar Vista-Del Rey Community Plan Area. The project is located at the north east corner of Beatrice and Jandy. The project addresses are 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 South Jandy Place.

Existing zoning for this site is M2-1, and the General Plan Land Use Designation is Light Industrial. Existing facilities at the site include an existing 23,072 SF office building, an existing 87,881 SF office building, two accessory structures (2,144 SF and 5,044 SF respectively), 84,600 square feet of parking area, and 13,780 square feet of landscape. Public infrastructure is presently in place to provide storm drainage services to the project site.

A geotechnical report was prepared for the proposed project, entitled Geotechnical Engineering Investigation, Proposed Office Building 12575 Beatrice Street, Los Angeles - File Number: 21194, prepared by Geotechnologies, Inc. Subsurface exploration was performed between March 17, 2016 and December 20, 2017, which included drilling three (3) exploratory borings to a maximum depth of approximately one hundred-twenty (120) feet and four (4) Cone Penetration Test Soundings (CPTs) between depths of 53.5 and 56.25 feet below existing grade. Earth materials encountered were classified in accordance with the visual-manual procedures of the Unified Soil Classification System. The material encountered in the boreholes consisted of 12.5 feet of fill primarily sandy to silty clays. Upper native material consists of stratified younger alluvium soil of silts, clays, silty sands, and gravelly sands. Groundwater was encountered at depths between 22.5 and 30 feet below the existing grade. Historic high ground water level for the site was approximately 7 feet below ground surface. It should be noted that the site elevations for this vicinity of Playa Del Rey had been raised by past grading activities. It has been the policy of the Los Angeles Department of Building and Safety (LADBS) to establish the historic high water surface elevation in the Playa Vista area to be at an elevation of 9.0 feet above MSL, which corresponds to an approximate depth of 15 feet below the existing ground surface. The project site is located inside the seismically induced liquefaction zone.

The project site is also in a Methane Zone. A Methane Survey Report was prepared by Citadel Environmental, Project Number 1257.1001.0, dated April 12, 2018 and updated April 9, 2020.

The properties surrounding the Project Site are fully developed commercial sites and are characterized by gently sloping topography. The Project Site's topography slopes gradually from the north to south, generally towards Beatrice. The northerly portion of the west side of the site drains to Jandy. Runoff from the west parking area drains both north and west and south via sheet flow to existing driveways and out to Beatrice Street on the south or Jandy Street to the west. Runoff from the existing buildings drain via scuppers and downspouts to the parking lots. The east parking lot drains directly south to Beatrice.

The Project Site is tributary to the Centinela Creek, which is north of the project site and is fully improved. A City of Los Angeles storm drain exists in Jandy Street which conveys runoff from this site to the Centinela Creek.

A review of the Federal Emergency Management Agency flood insurance rate maps (FEMA MAP NUMBER 06037C1760F, effective on 09/26/2008) indicates that the Project is located within Zone X, area of minimal flood hazard. A FEMA Firmette map documenting this condition can be found in Appendix B.

PROPOSED PROJECT

The Project proposes construction of a new building totaling 199,500 square feet. The building will have 196,100 square feet of office space, 3,400 square feet of ground floor commercial space. In addition, the project provides 811 parking spaces on two subterranean parking levels and three above ground parking levels. The project will be developed in one phase. Twenty surface parking stalls will be provided outside of the structure.

The site work consists of 54,583 Square feet of new hardscape and 38,033 square feet of landscaping throughout the project site and on new terraces on the upper levels of the building.

The existing 87,881 square foot office building located on the site at 12541 Beatrice will remain and will be incorporated into the project. New site landscape and hardscape improvements are proposed around the existing building which are coordinated with the new structure and improvements.

Existing drainage patterns will be preserved by the proposed project. Runoff from the project building roofs and surface improvements will be intercepted by the site storm drainage system for conveyance to the two proposed cistern systems, one at 12575 Beatrice and the other ate 12541 Beatrice. Overflow from the cistern systems will be directed to the public street and ultimately discharged to Jandy Place or Beatrice.

HYDROLOGY

Hydrology Method

The City of Los Angeles defers to the County of Los Angeles methodology for storm water calculations. The methodology described in the Los Angeles County Department of Public Works (LACDPW) Hydrology Manual (2006) was used to compute the 10-year, 25-year and 50-year stormwater runoff flows from the project site to the existing drainage system. The hydrologic methods used in this study were based on procedures described in the 2006 LACDPW Hydrology Manual. Calculations for the existing and proposed conditions are provided in Appendix A. In accordance with LACDPW requirements, the 50 year and 25-year and 10-year (24-hour) storm events were used in this analysis.

Calculations to determine the storm water runoff from the proposed site were performed using the HydroCalc program, developed by the LACDPW, and the 2006 LACDPW Hydrology Manual. The HydroCalc program may be used to compute runoff volume and flow rate for small area watersheds (less than 10 acres). The program uses the 50-year 24 hour isohyet to compute storm intensity. To compute runoff for the 10- year and 25-year storm events, the 50-year isohyet value is adjusted using a standard reduction factor. The HydroCalc program automatically adjusts the 50-year isohyet value based on the storm event to be calculated. This information, along with other pertinent site information, is used to compute storm runoff flow rate for the required storm event.

Hydrology Results

Rainfall and soil characteristics for the Project site are shown on the Venice Quad Isohyetal Map included in Appendix A. The 50-year (24-hour) rainfall Isohyet nearest the project area is approximately 5.22 inches. The 25-year (24-hour) Isohyet reduction factor from the 50-year is 0.878, and thus, the 25-year (24-hour) rainfall Isohyet is 4.58 inches for this project area. The 10-year (24-hour) rainfall Isohyet reduction factor from the 50-year event is 0.714, and thus, the 10-year (24-hour) rainfall Isohyet is 3.73 inches. The reduction factors can be found in Table 5.3.1 of the LACPWD Hydrology Manual. As shown on the Venice Quad Isohyetal Map, the soil classification of the project site falls within LACDPW defined soil classification type 017. The project area to be disturbed is approximately 4.519 acres. The project is divided into two major subareas for the purposes of calculating the LID Vm and stormwater runoff, Area 1 of 3.225 acres and Area 2 of 1.294 acres. The percentage impervious for the pre-development condition is calculated to be 0.9044 (90.44%) for Area 1 and 0.9938 (99.38%) for Area 2. The percentage impervious for the post-development condition is calculated to be 0.9562 (95.62%) for Area 1 and 0.9348 (93.48%) for Area 2.

The maps showing the Hydrology and LID Pre-Development and Post-Development, Pervious and Impervious Areas are included as Appendix C. The results of the calculations can be found in Table

1. A system overflow sized for the 25-year storm will be discharged to the existing street when the proposed LID BMP is at capacity.

Table 1: Comparison of Existing and Proposed Hydrology, 50-year & 25-year Storm Events

Sub-Area	Area (Acres)	50-year Flow Rate, Q (cfs)		25-year Flow Rate, Q (cfs)		10-year Flow Rate, Q (cfs)	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
1	3.225	8.286	8.292	7.265	7.276	5.131	5.492
2	1.294	3.329	3.326	2.923	2.917	2.210	2.200
Total	4.519	11.615	11.618	10.188	10.913	7.341	7.692

Conclusion:

A comparison of the existing and proposed stormwater runoff conditions shows no significant increase in the peak flow rate for the 10-year, 25- year and 50-year storm events with the proposed development. With a small reduction in the percent impervious in the proposed condition, the proposed flow either remains the same or decreases, and no mitigation measure is required. Runoff is further reduced by implementation of capture and reuse of the 85th percentile stormwater runoff required by the LID ordinance. Therefore, existing public infrastructure can accommodate the proposed development and impacts would be less than significant.

WATER QUALITY

Water Quality Method

Per the new MS4 requirements incorporated in the recently updated City of Los Angeles Low Impact Development Ordinance, LID calculations must be performed using either 0.75-inch storm event or the 85th Percentile storm, whichever is greater, for the given site. The depth of the 85th percentile storm was determined using the County of Los Angeles Department of Public Works Website and the geographical information system (GIS) found there. Maps of the County showing the 85th percentile isohyet contours can be found at http://dpw.lacounty.gov/wrd/hydrologygis/. A copy of the contour map for this site can be found in Appendix A. The 85th percentile isohyet for the project site, taken from the County website, is 1.1 inches. For this project site, the he 85th percentile storm event governs. As previously stated, the project is located on the USGS Venice Quad Isohyetal Map, Soil Type 017, a copy of which is included in Appendix A.

Calculations to determine LID storm water runoff volume for the proposed site were performed using the HydroCalc program developed by the LACDPW and the 2006 LACDPW Hydrology Manual. The HydroCalc program may be used to compute runoff volume and flow rate for small area watersheds (less than 10 acres). The program uses either 0.75-inch storm event or 85th percentile storm data, along with other pertinent site information, to determine LID storm water runoff volume and other relevant hydrology data. The 85th percentile, 24-hour rain event of rainfall is 1.1 inches and will be used for design of the proposed LID BMP.

Water Quality Results

Table 2 shows the estimated required peak mitigation flow rates (QPM) and mitigation volumes (VM) for the proposed site two areas, and these peak mitigation quantities represent the treatment flows and volumes evaluated for the site. Detailed flow and volume calculations are given in Appendix A.

The presence of two levels of basement level parking and the location of the site within a liquefaction zone, precludes the use of infiltration BMPs. Therefore, the proposed project will be using green roof and capture and reuse for the BMPs to mitigate Low Impact Development requirements (LID).

The project LID Maps are included as Appendix C. The Project will incorporate a capture and reuse system for mitigation of the City of Los Angeles Low Impact Development Ordinance (LID). A cistern system that would satisfy the requirements for capture and reuse of stormwater for irrigation use is proposed. This BMP captures and stores the Vm for use in irrigating planter areas. The irrigation system is pressurized by a pump unit which also filters the stored water. Make-up water is supplied by potable water system during periods where stormwater is not available for use.

Table 2: LID Calculations, 85th Percentile Storm Event

Sub-Area	Area (Acres)	Peak Mitigation Flow Rate Qpm (cfs)		Mitigation Volume Vm (cf)	
		Existing	Proposed	Existing	Proposed
1	3.225	0.9666	1.0082	10,524	11,050
2	1.294	0.4280	0.3976	4,587	4,346
Total	4.519	1.3946	1.4058	15,111	15,396

The total volume of 15,396 cubic feet is required to be captured for reuse as irrigation water through site specific BMPs.

Conclusion:

Permanent water quality BMPs are required by the City of Los Angeles LID Ordinance to be implemented for the proposed project. The proposed cistern systems reduce the runoff from the project by intercepting runoff from the 85th percentile storm event for reuse in irrigating the landscaping on the site and terraces. Intercepting the first flush stormwater runoff removes contaminants from the runoff that would otherwise enter the storm drain system and downstream waterways. Water quality is improved by implementing permanent BMPs.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

A project is considered to have a significant impact on hydrology or water quality if the proposed project will have any of the following effects, according to CEQA Guidelines Appendix G:

	Threshold	Impact
a.	Violate any water quality standards or waste discharge requirements.	No Impact
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).	No Impact
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. Thresholds which could result in substantial erosion or siltation are increases in storm water velocity above the baseline condition.	No Impact
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of storm water runoff in a manner which would result in flooding on- or off-site. Thresholds which could result in an increased rate or amount of storm water runoff are increases in the flow rate or duration above the baseline condition.	No Impact
e.	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.	Less than significant

f.	Otherwise substantially degrade water quality. Thresholds which could result in degradation are water quality that it is unable to attain mandatory health-related standards for City water services established by the State of California Department of Health Services.	No Impact
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.	No Impact

The proposed project does not impact the above

Mitigation

Based on the results of this study, detention facilities are not required for the proposed project to address hydrology. However, compliance with the City of Los Angeles LID Ordinance requires the capture of runoff from the 85th percentile storm to mitigate stormwater runoff quality and quantity.

The project incorporates two cistern systems which will capture stormwater for reuse as irrigation water. Construction Document level LID calculations are required to be prepared and reviewed and approved by the City of Los Angeles before project construction permits can be issued.

Compliance with the Statewide Construction General Permit is required for this project, which disturbs more than 1 acre of land. This includes preparation and implementation of a project specific Stormwater Pollution Prevention Plan (SWPPP) and Wet Weather Erosion Control Plan in accordance with the Statewide permit requirements. Contractor is required to control erosion and runoff as necessary using site appropriate grading practices. Specifically, the contractor shall plan for and implement Best Management Practice (BMP) during construction to the satisfaction of the City of Los Angeles Bureau of Sanitation, and/or other designated responsible agencies/departments. This is expected to occur during each phase of the project.

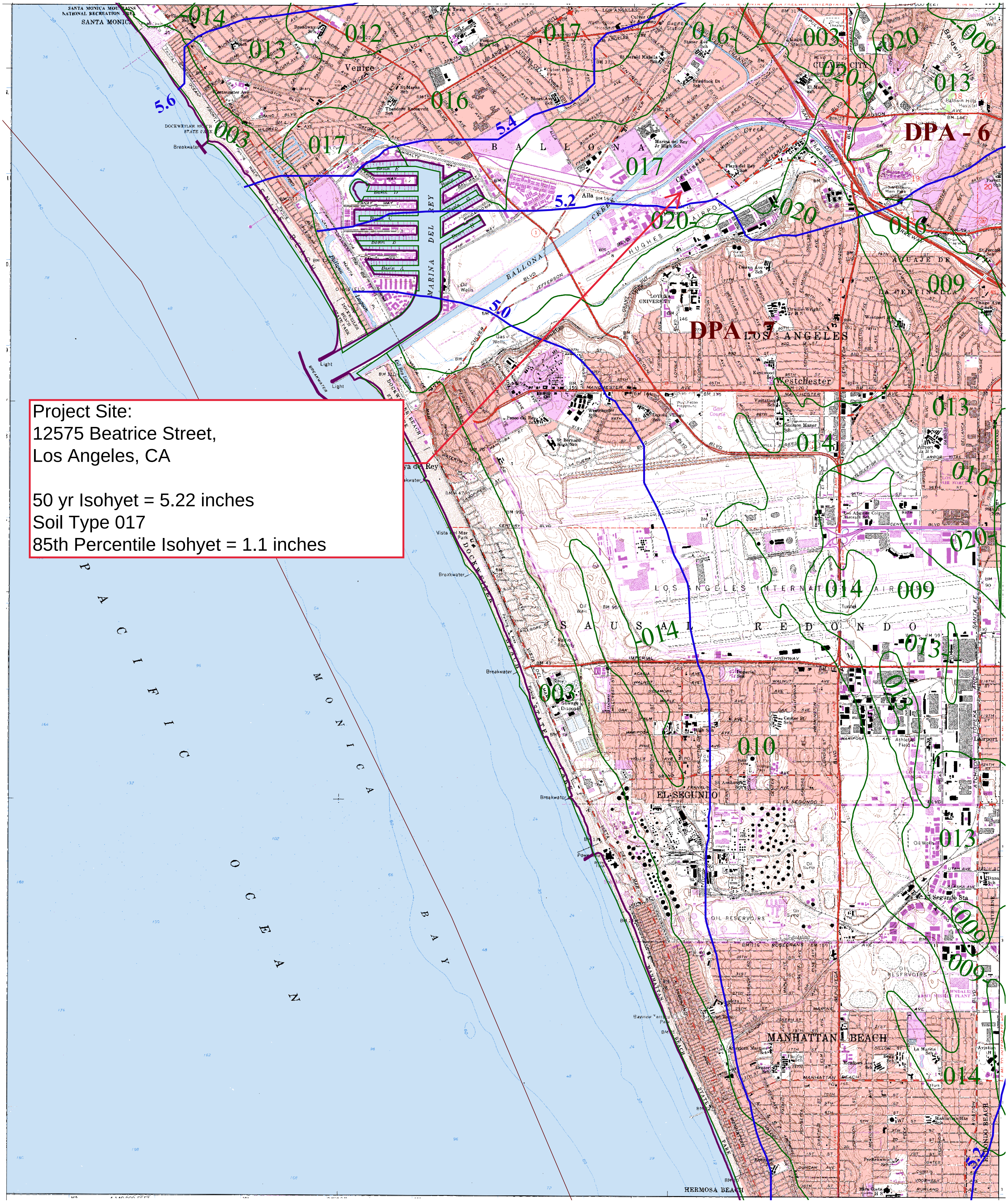
Through compliance with these mandatory regulations, drainage and water quality impacts are less than significant. No additional mitigation measures are required.

Appendix A: Hydrology & LID Calculations

34º 00' 00''

BEVERLY HILLS 1-H1.17

-118º 30' 00''



INGLEWOOD 1-H1.8

-118º 22' 30''

REDONDO BEACH 1-H1.3

33º 52' 30''

016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

N S W E

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

$C_D = (0.9 * IMP) + (1.0 - IMP) * C_U$

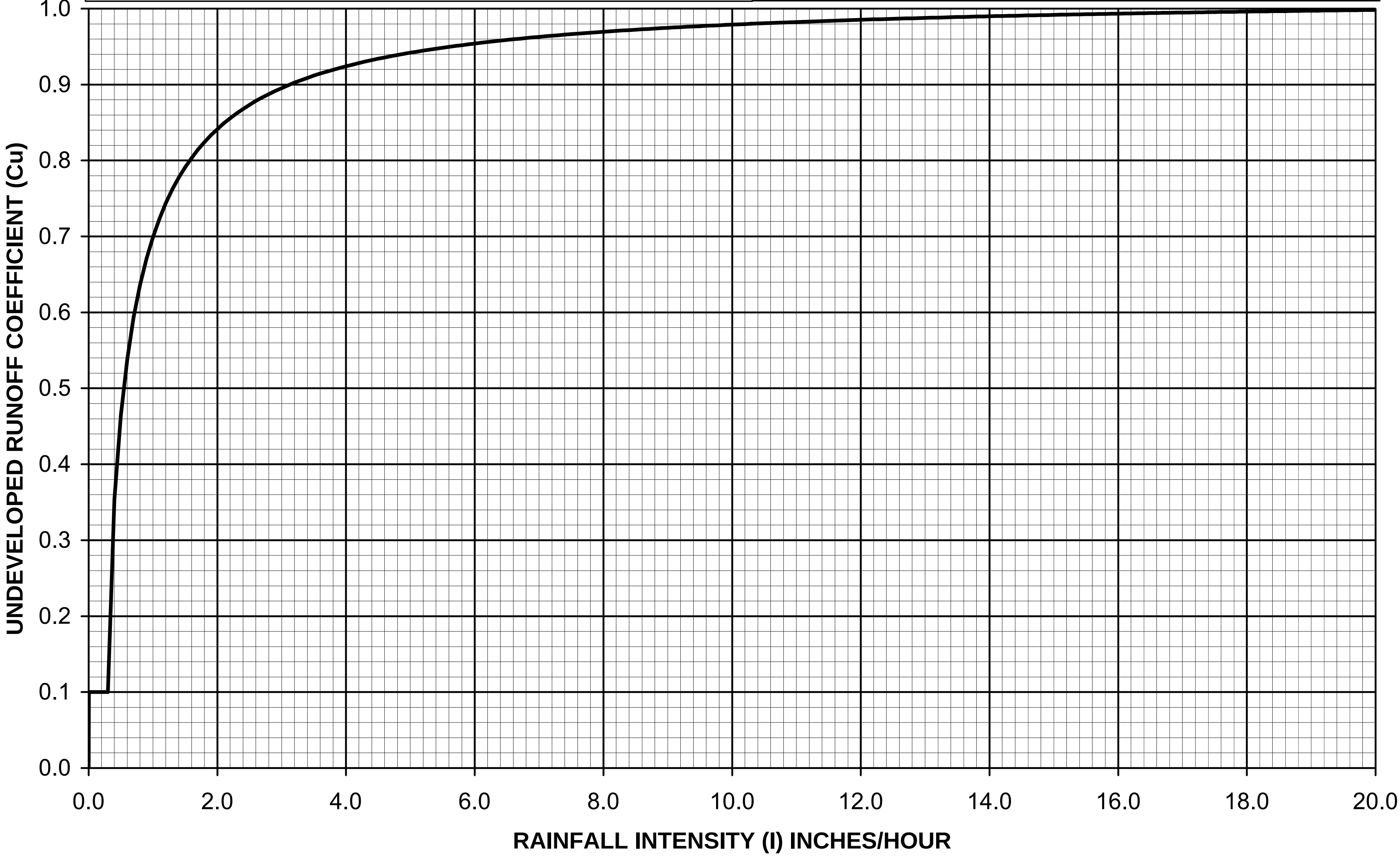
Where: C_D = Developed Runoff Coefficient

IMP = Proportion Impervious

C_U = Undeveloped runoff coefficient

Los Angeles County Department of Public Works

RUNOFF COEFFICIENT CURVE
SOIL TYPE NO. 017



Department of Public Works
dpw.lacounty.gov

search our site..

Hydrology Map

A GIS viewer application to view the data for the hydrology manual.

LAYERS

- [x] 50yr Two Tenths (Rainfall)
- [ ] DPA Zones
- [x] Soils 2004
- [x] Final 85th Percentile, 24-hr Rainfall
- [ ] Final 95th Percentile, 24-hr Rainfall
- [ ] 1-year, 1-hour Rainfall Intensity

SEARCH

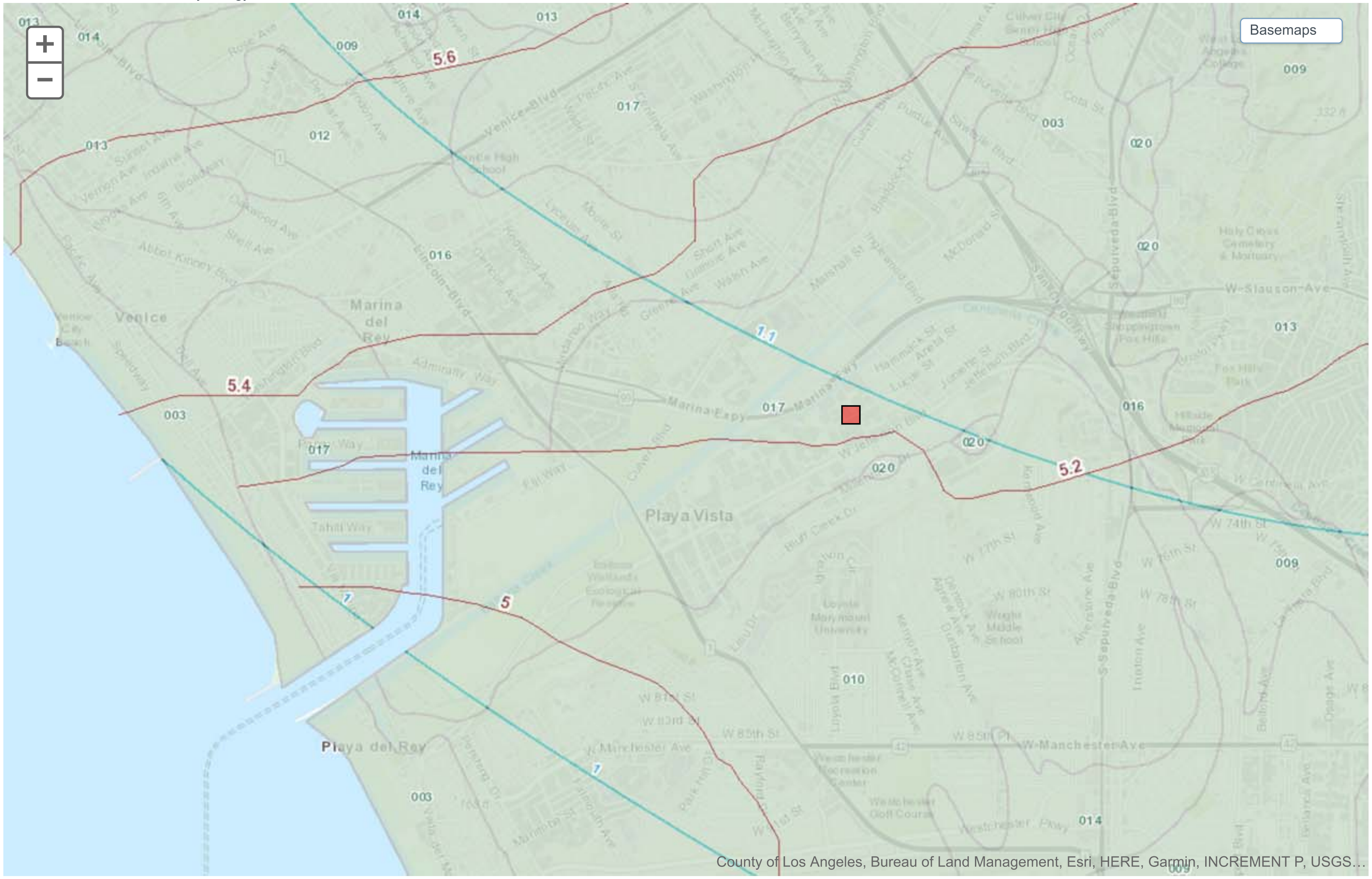
Enter Address, Cross Street, or Parcel No.:
(ex: 900 S. Fremont Ave., Fremont@Valley, 5342005904)

12575 Beatrice St, Los Angeles, CA

Search

Address Search Results:

12575 Beatrice St Los Angeles CA



Map Tips

Peak Flow Hydrologic Analysis

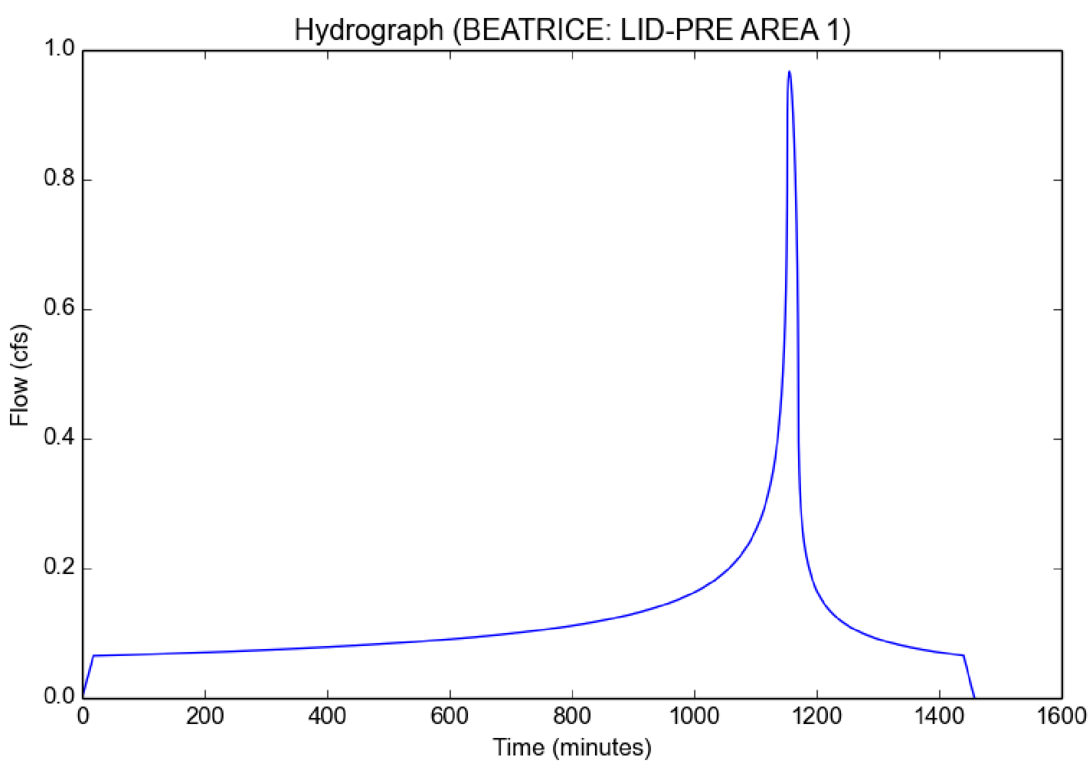
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	LID-PRE AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.1
Percent Impervious	0.9044
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.1
Peak Intensity (in/hr)	0.3594
Undeveloped Runoff Coefficient (Cu)	0.2084
Developed Runoff Coefficient (Cd)	0.8339
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	0.9666
Burned Peak Flow Rate (cfs)	0.9666
24-Hr Clear Runoff Volume (ac-ft)	0.2416
24-Hr Clear Runoff Volume (cu-ft)	10524.0607



Peak Flow Hydrologic Analysis

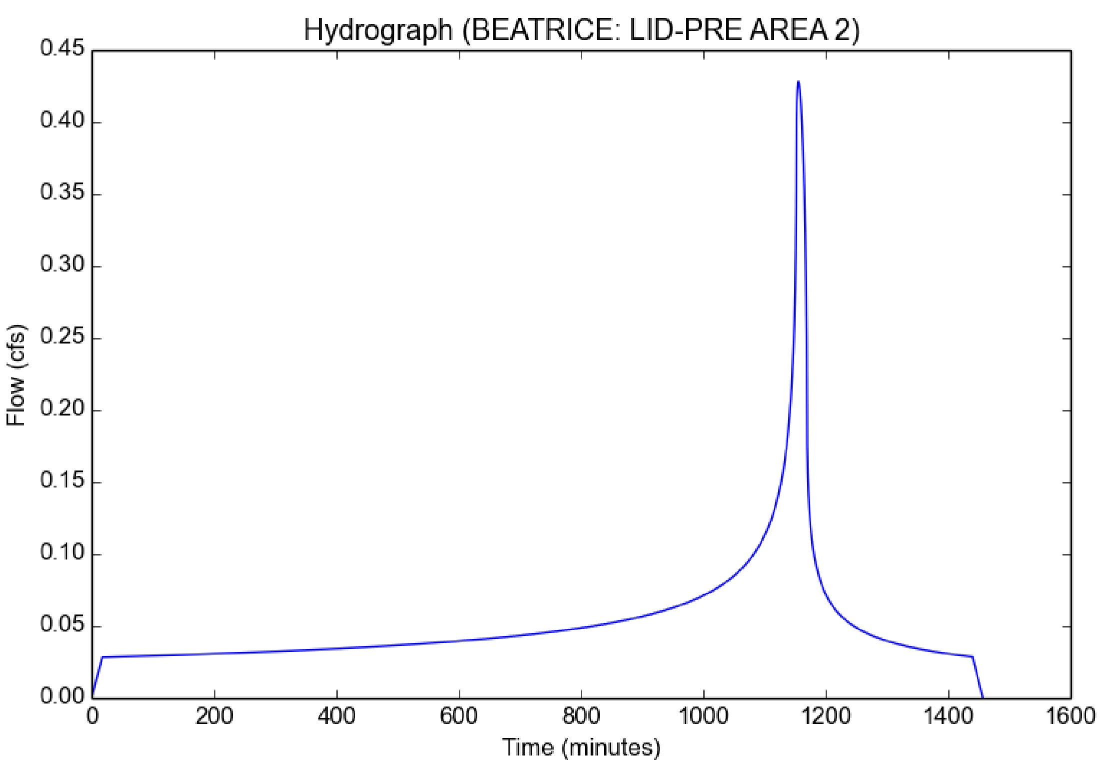
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	LID-PRE AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.1
Percent Impervious	0.9938
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.1
Peak Intensity (in/hr)	0.3692
Undeveloped Runoff Coefficient (Cu)	0.2262
Developed Runoff Coefficient (Cd)	0.8958
Time of Concentration (min)	17.0
Clear Peak Flow Rate (cfs)	0.428
Burned Peak Flow Rate (cfs)	0.428
24-Hr Clear Runoff Volume (ac-ft)	0.1053
24-Hr Clear Runoff Volume (cu-ft)	4586.6273



Peak Flow Hydrologic Analysis

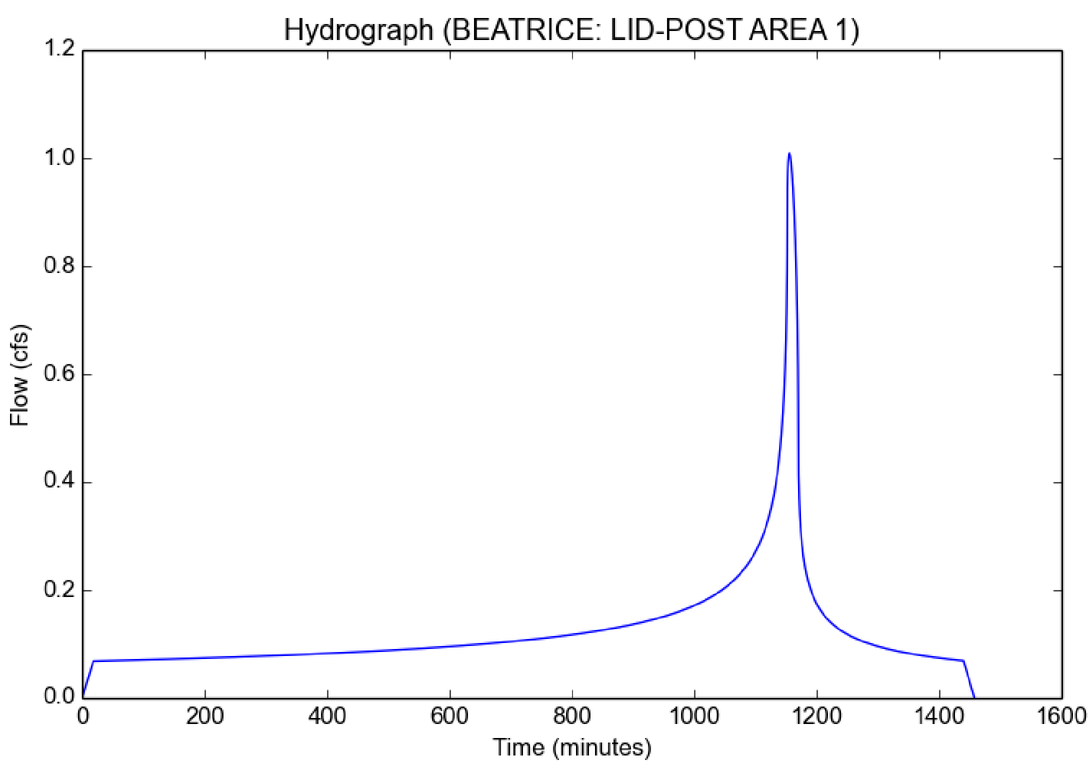
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	LID-POST AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.1
Percent Impervious	0.9562
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.1
Peak Intensity (in/hr)	0.3594
Undeveloped Runoff Coefficient (Cu)	0.2084
Developed Runoff Coefficient (Cd)	0.8697
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	1.0082
Burned Peak Flow Rate (cfs)	1.0082
24-Hr Clear Runoff Volume (ac-ft)	0.2537
24-Hr Clear Runoff Volume (cu-ft)	11049.5849



Peak Flow Hydrologic Analysis

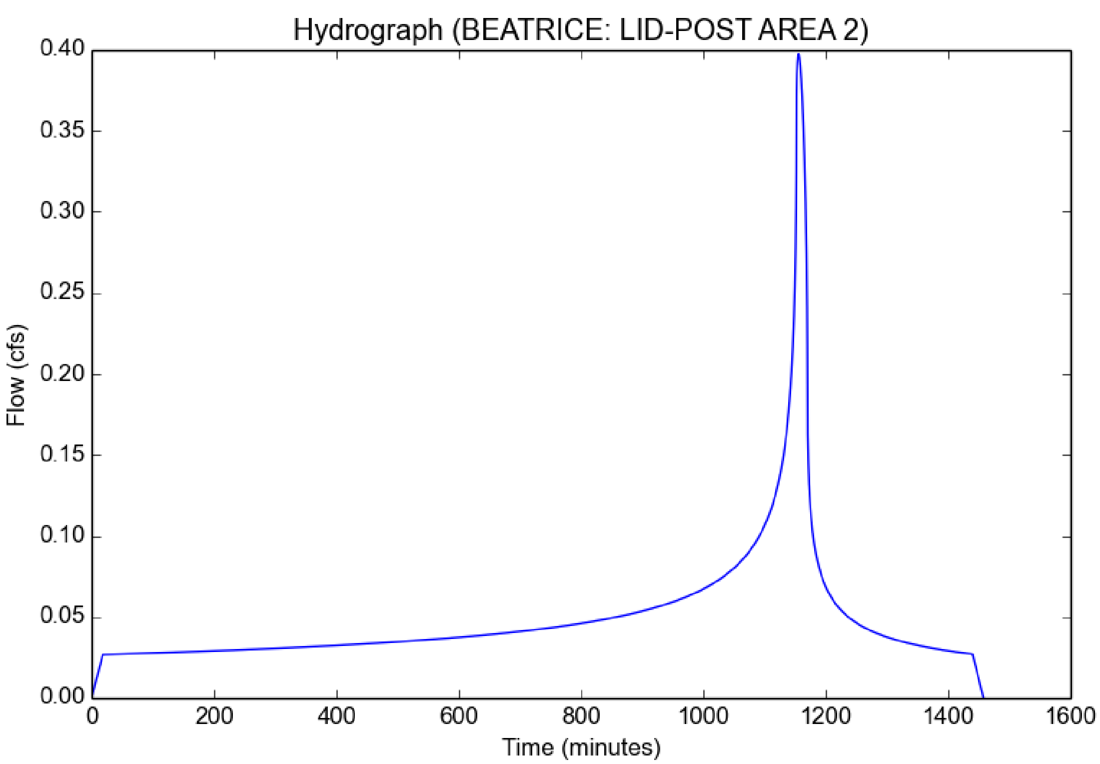
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	LID-POST AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.1
Percent Impervious	0.9348
Soil Type	17
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.1
Peak Intensity (in/hr)	0.3594
Undeveloped Runoff Coefficient (Cu)	0.2084
Developed Runoff Coefficient (Cd)	0.8549
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	0.3976
Burned Peak Flow Rate (cfs)	0.3976
24-Hr Clear Runoff Volume (ac-ft)	0.0998
24-Hr Clear Runoff Volume (cu-ft)	4346.4262



Peak Flow Hydrologic Analysis

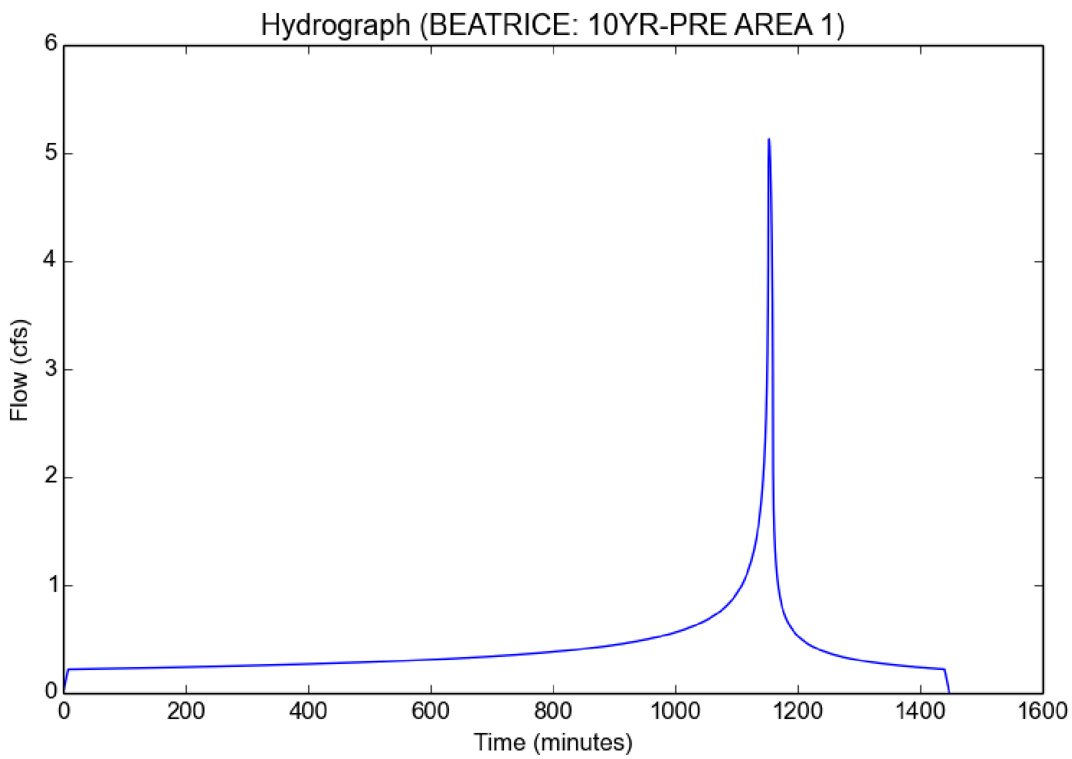
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	10YR-PRE AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9044
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7271
Peak Intensity (in/hr)	1.7829
Undeveloped Runoff Coefficient (Cu)	0.8196
Developed Runoff Coefficient (Cd)	0.8923
Time of Concentration (min)	8.0
Clear Peak Flow Rate (cfs)	5.1308
Burned Peak Flow Rate (cfs)	5.1308
24-Hr Clear Runoff Volume (ac-ft)	0.8268
24-Hr Clear Runoff Volume (cu-ft)	36014.6954



Peak Flow Hydrologic Analysis

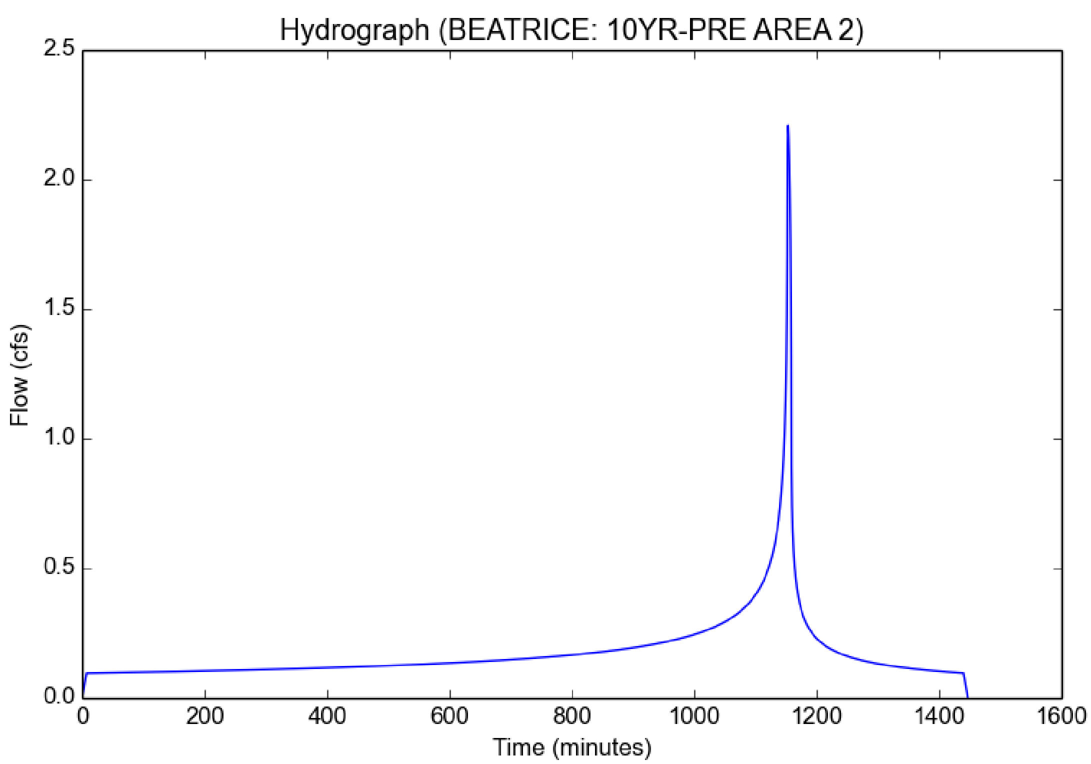
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	10YR-PRE AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9938
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7271
Peak Intensity (in/hr)	1.8984
Undeveloped Runoff Coefficient (Cu)	0.8312
Developed Runoff Coefficient (Cd)	0.8996
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	2.2098
Burned Peak Flow Rate (cfs)	2.2098
24-Hr Clear Runoff Volume (ac-ft)	0.357
24-Hr Clear Runoff Volume (cu-ft)	15549.7943



Peak Flow Hydrologic Analysis

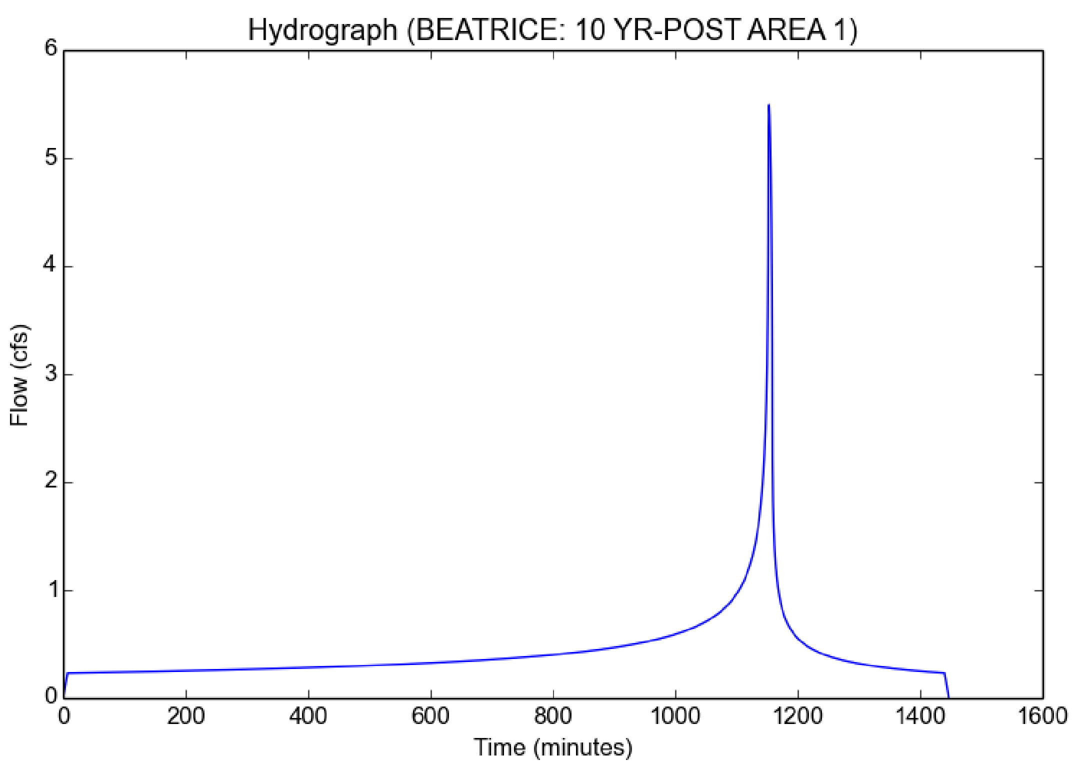
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	10 YR-POST AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9562
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7271
Peak Intensity (in/hr)	1.8984
Undeveloped Runoff Coefficient (Cu)	0.8312
Developed Runoff Coefficient (Cd)	0.897
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	5.4917
Burned Peak Flow Rate (cfs)	5.4917
24-Hr Clear Runoff Volume (ac-ft)	0.8632
24-Hr Clear Runoff Volume (cu-ft)	37602.2683



Peak Flow Hydrologic Analysis

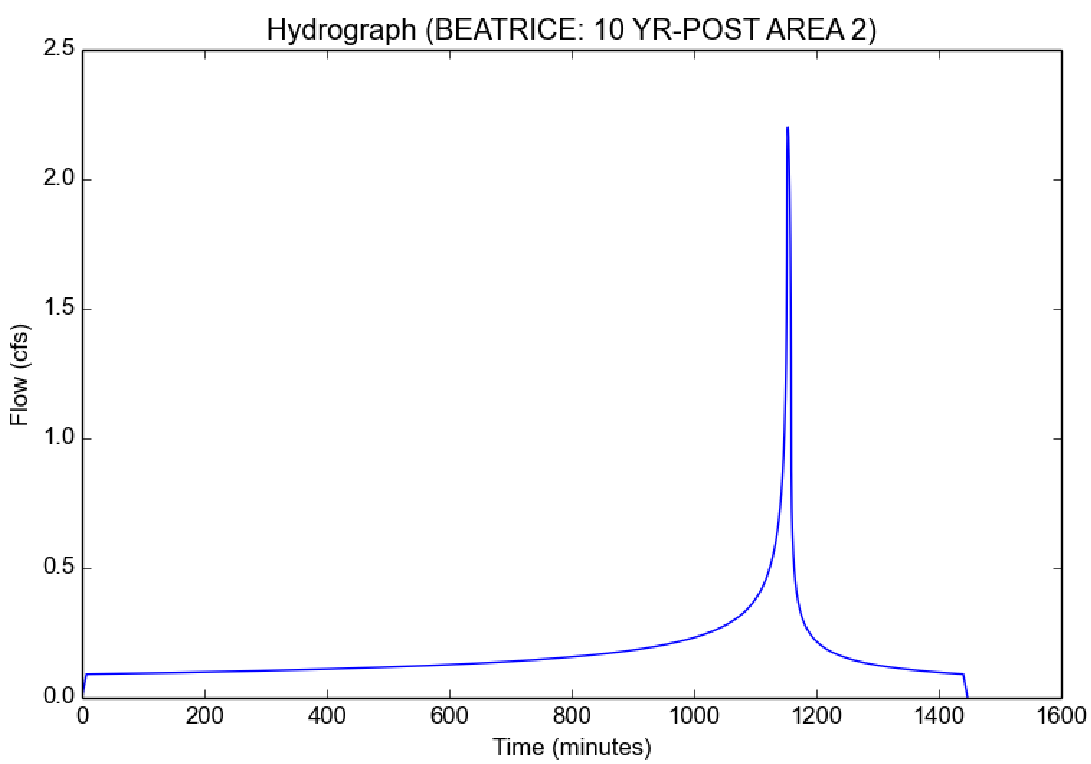
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	10 YR-POST AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9348
Soil Type	17
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7271
Peak Intensity (in/hr)	1.8984
Undeveloped Runoff Coefficient (Cu)	0.8312
Developed Runoff Coefficient (Cd)	0.8955
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	2.1999
Burned Peak Flow Rate (cfs)	2.1999
24-Hr Clear Runoff Volume (ac-ft)	0.3403
24-Hr Clear Runoff Volume (cu-ft)	14824.4575



Peak Flow Hydrologic Analysis

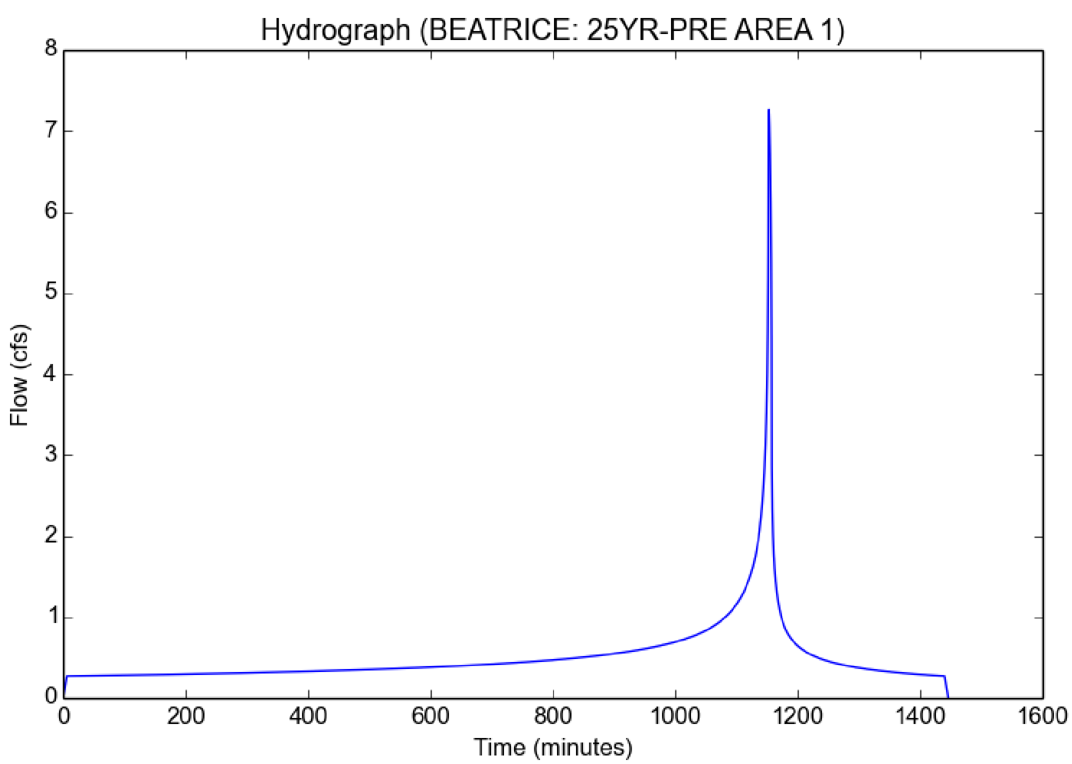
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	25YR-PRE AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9044
Soil Type	17
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5832
Peak Intensity (in/hr)	2.5099
Undeveloped Runoff Coefficient (Cu)	0.8737
Developed Runoff Coefficient (Cd)	0.8975
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	7.2646
Burned Peak Flow Rate (cfs)	7.2646
24-Hr Clear Runoff Volume (ac-ft)	1.0196
24-Hr Clear Runoff Volume (cu-ft)	44412.453



Peak Flow Hydrologic Analysis

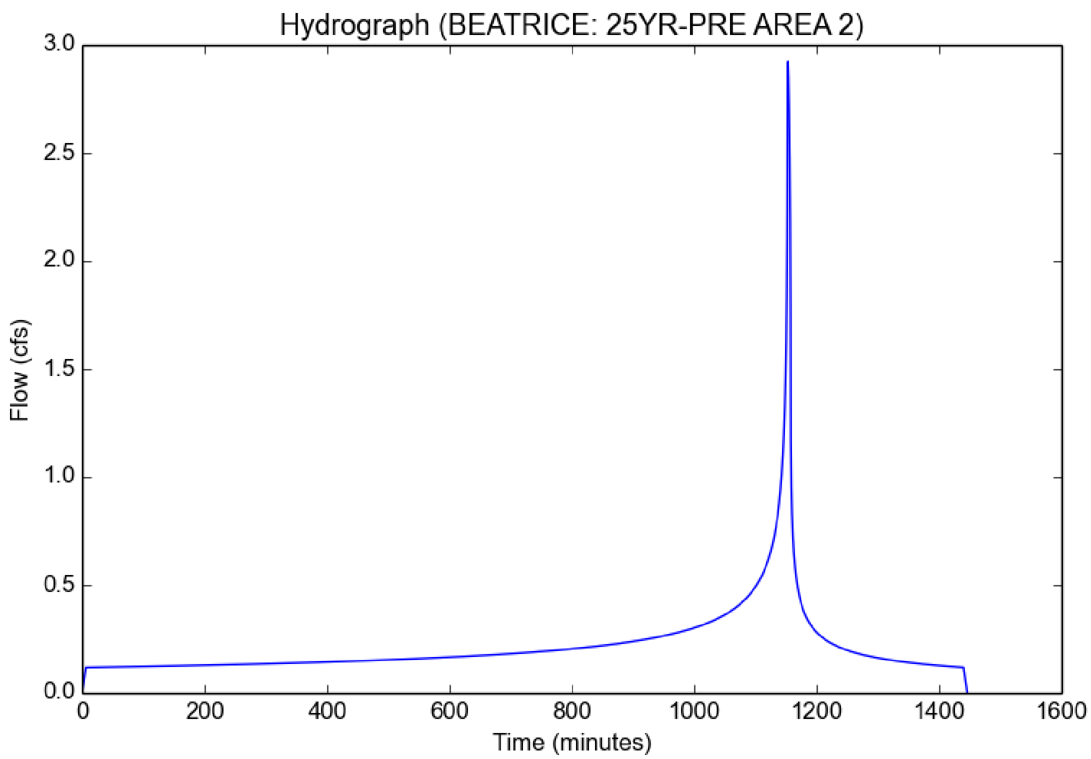
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	25YR-PRE AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9938
Soil Type	17
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5832
Peak Intensity (in/hr)	2.5099
Undeveloped Runoff Coefficient (Cu)	0.8737
Developed Runoff Coefficient (Cd)	0.8998
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	2.9225
Burned Peak Flow Rate (cfs)	2.9225
24-Hr Clear Runoff Volume (ac-ft)	0.439
24-Hr Clear Runoff Volume (cu-ft)	19124.7038



Peak Flow Hydrologic Analysis

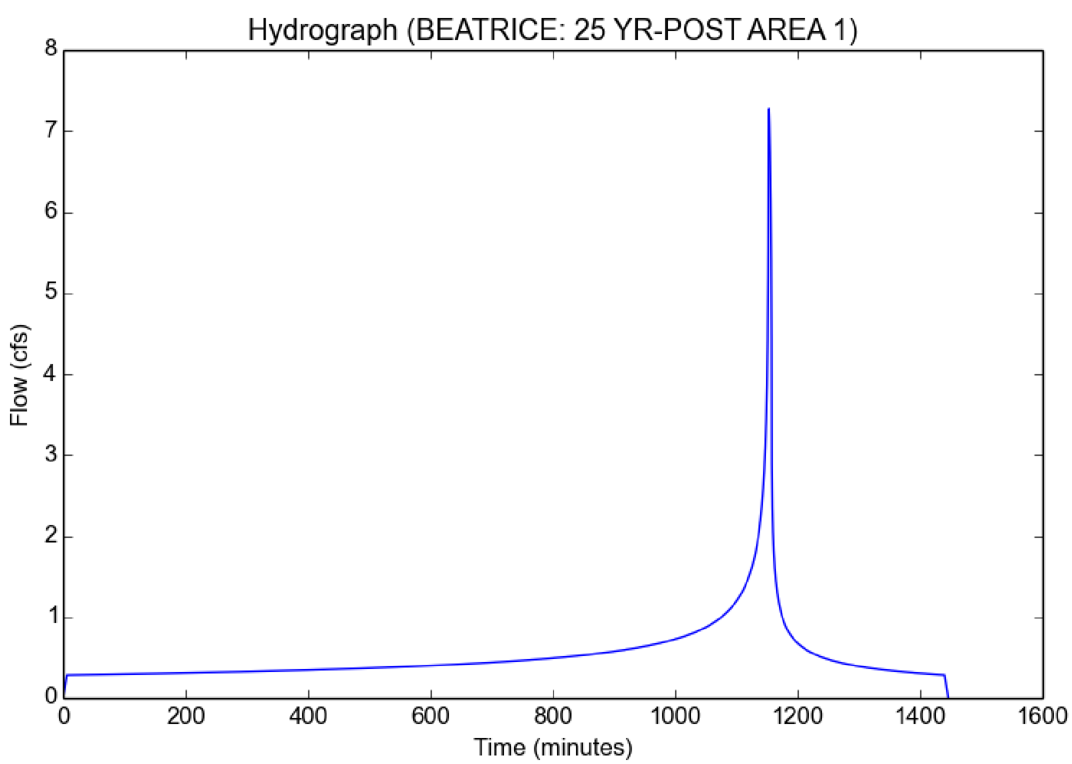
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	25 YR-POST AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9562
Soil Type	17
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5832
Peak Intensity (in/hr)	2.5099
Undeveloped Runoff Coefficient (Cu)	0.8737
Developed Runoff Coefficient (Cd)	0.8989
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	7.2756
Burned Peak Flow Rate (cfs)	7.2756
24-Hr Clear Runoff Volume (ac-ft)	1.0628
24-Hr Clear Runoff Volume (cu-ft)	46296.4382



Peak Flow Hydrologic Analysis

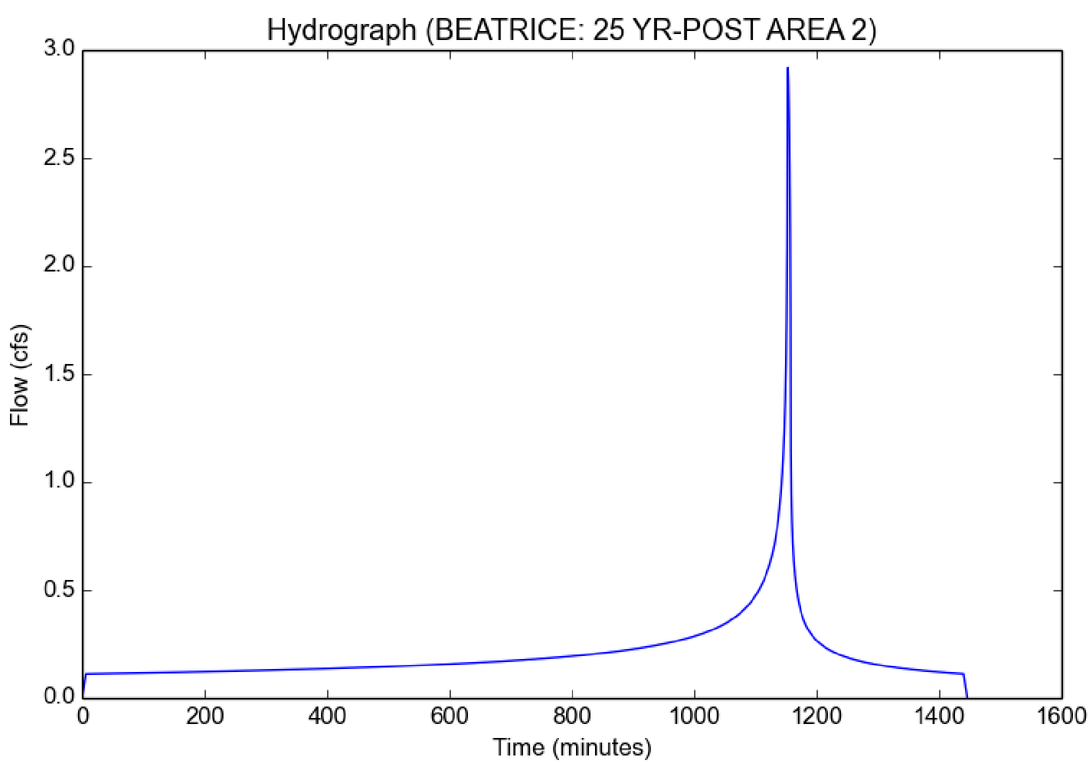
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	25 YR-POST AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9348
Soil Type	17
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5832
Peak Intensity (in/hr)	2.5099
Undeveloped Runoff Coefficient (Cu)	0.8737
Developed Runoff Coefficient (Cd)	0.8983
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	2.9174
Burned Peak Flow Rate (cfs)	2.9174
24-Hr Clear Runoff Volume (ac-ft)	0.4193
24-Hr Clear Runoff Volume (cu-ft)	18263.7015



Peak Flow Hydrologic Analysis

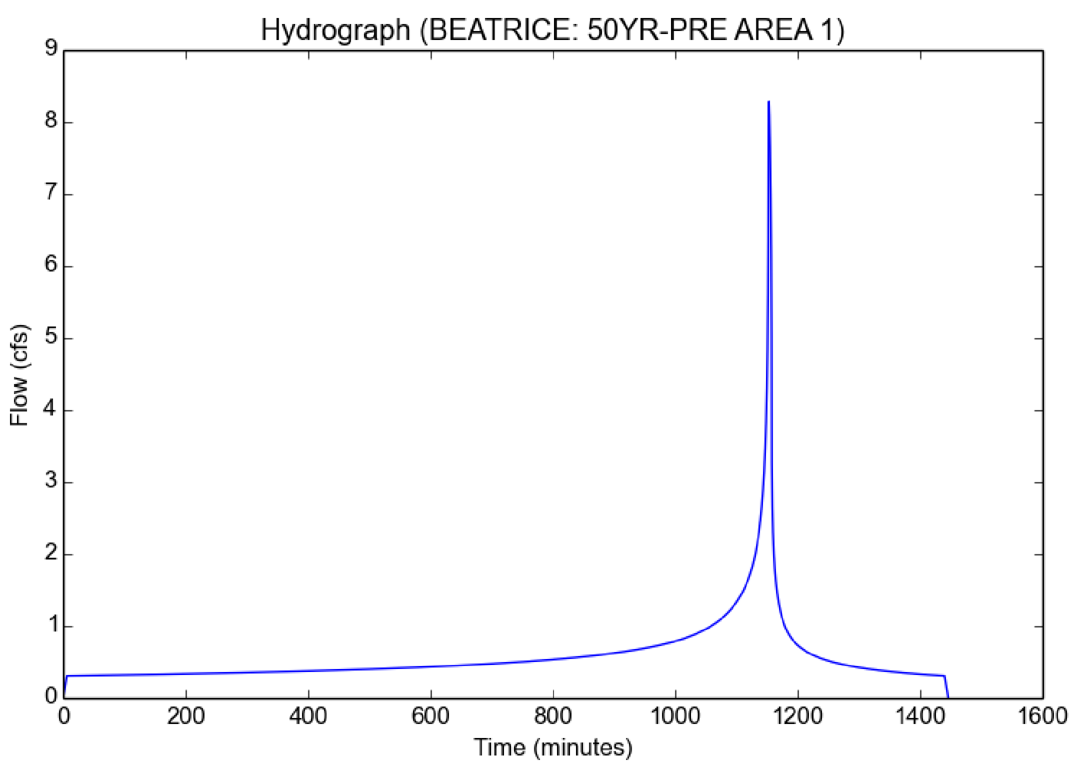
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	50YR-PRE AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9044
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.22
Peak Intensity (in/hr)	2.8586
Undeveloped Runoff Coefficient (Cu)	0.8871
Developed Runoff Coefficient (Cd)	0.8988
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	8.2858
Burned Peak Flow Rate (cfs)	8.2858
24-Hr Clear Runoff Volume (ac-ft)	1.1637
24-Hr Clear Runoff Volume (cu-ft)	50690.5853



Peak Flow Hydrologic Analysis

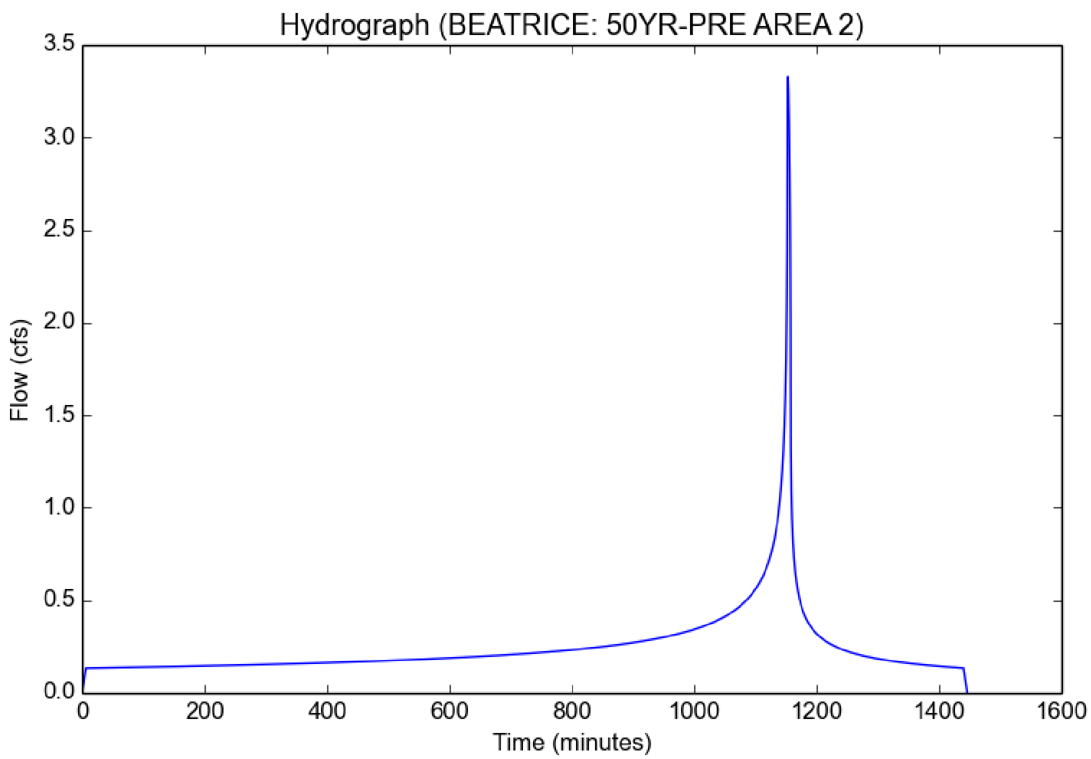
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	50YR-PRE AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9938
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.22
Peak Intensity (in/hr)	2.8586
Undeveloped Runoff Coefficient (Cu)	0.8871
Developed Runoff Coefficient (Cd)	0.8999
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	3.3289
Burned Peak Flow Rate (cfs)	3.3289
24-Hr Clear Runoff Volume (ac-ft)	0.5001
24-Hr Clear Runoff Volume (cu-ft)	21784.9051



Peak Flow Hydrologic Analysis

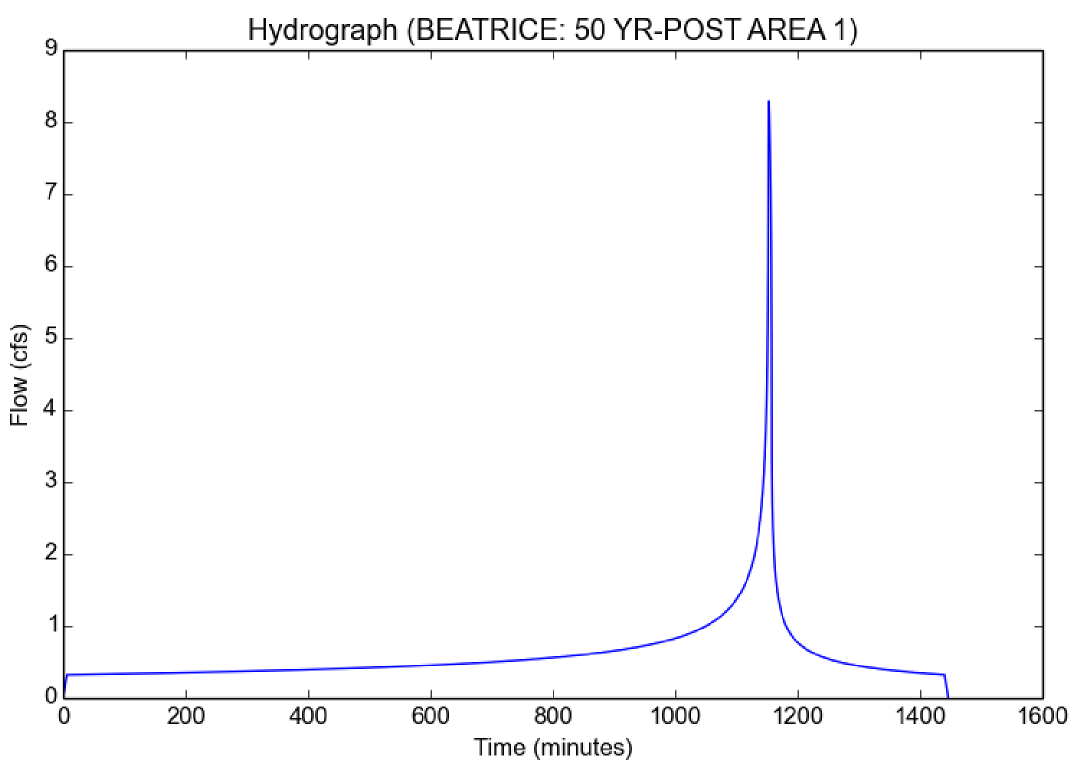
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

Input Parameters

Project Name	BEATRICE
Subarea ID	50 YR-POST AREA 1
Area (ac)	3.225
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9562
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.22
Peak Intensity (in/hr)	2.8586
Undeveloped Runoff Coefficient (Cu)	0.8871
Developed Runoff Coefficient (Cd)	0.8994
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	8.292
Burned Peak Flow Rate (cfs)	8.292
24-Hr Clear Runoff Volume (ac-ft)	1.2116
24-Hr Clear Runoff Volume (cu-ft)	52778.4175



Peak Flow Hydrologic Analysis

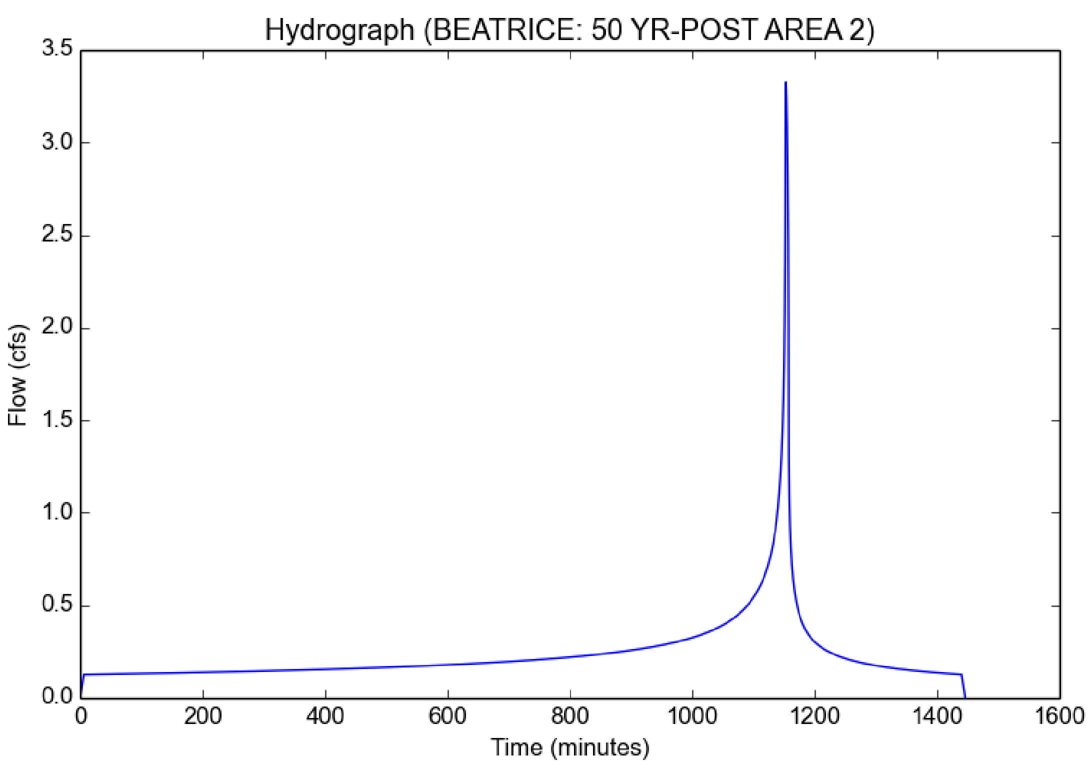
File location: P:/Shared/Projects/Chait Company/18523 - Beatrice/DOC/CEQA REPORTS/DRAINAGE TECHNICAL REPORT/APPENDIX A-CALCULAT
Version: HydroCalc 1.0.2

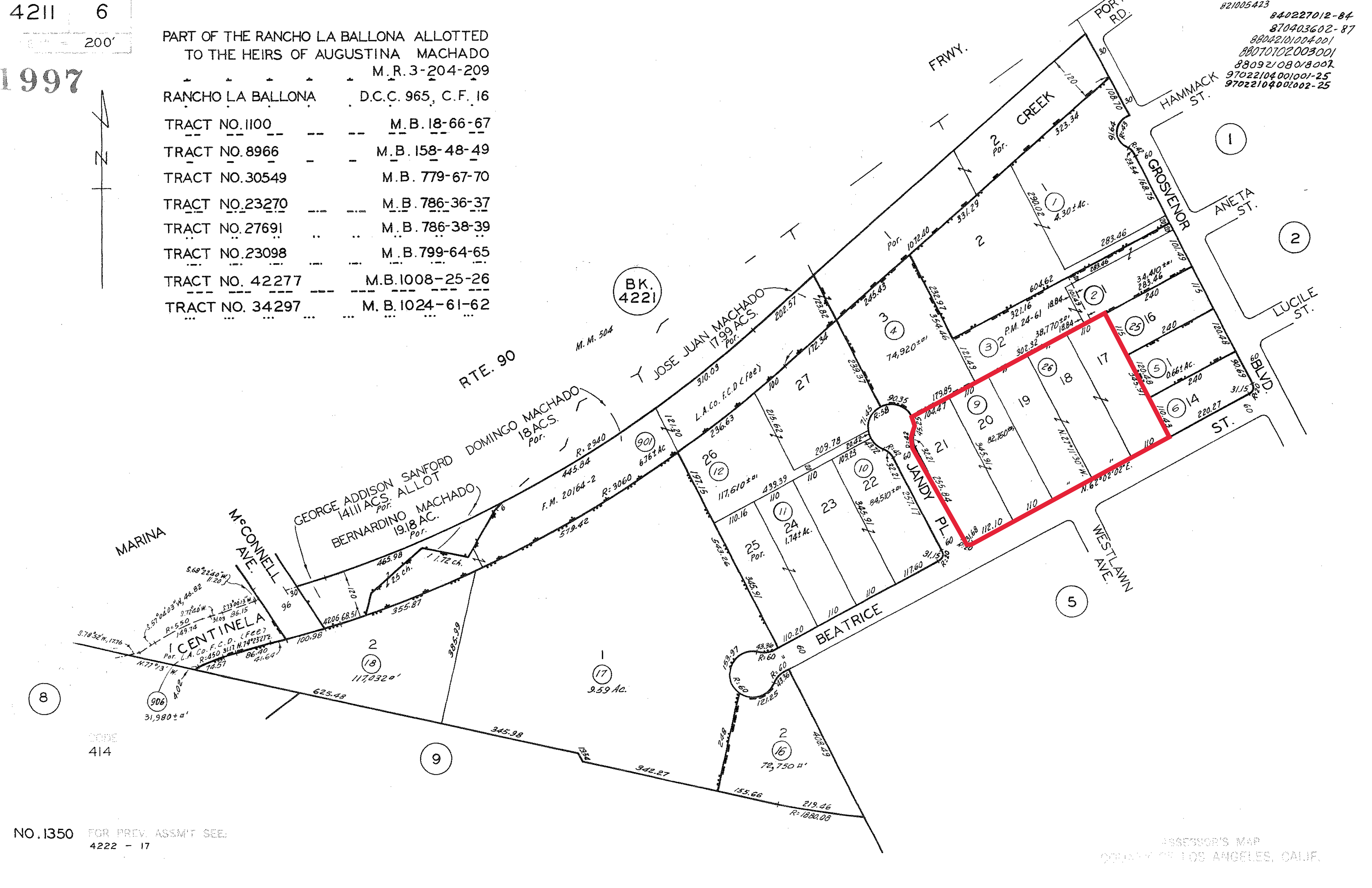
Input Parameters

Project Name	BEATRICE
Subarea ID	50 YR-POST AREA 2
Area (ac)	1.294
Flow Path Length (ft)	345.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.22
Percent Impervious	0.9348
Soil Type	17
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.22
Peak Intensity (in/hr)	2.8586
Undeveloped Runoff Coefficient (Cu)	0.8871
Developed Runoff Coefficient (Cd)	0.8992
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	3.3261
Burned Peak Flow Rate (cfs)	3.3261
24-Hr Clear Runoff Volume (ac-ft)	0.4782
24-Hr Clear Runoff Volume (cu-ft)	20830.7425




4211 6
SCALE 1" = 200'
1997
PART OF THE RANCHO LA BALLONA ALLOTTED
TO THE HEIRS OF AUGUSTINA MACHADO
M.R. 3-204-209
RANCHO LA BALLONA D.C.C. 965, C.F. 16
TRACT NO. 1100 M.B. 18-66-67
TRACT NO. 8966 M.B. 158-48-49
TRACT NO. 30549 M.B. 779-67-70
TRACT NO. 23270 M.B. 786-36-37
TRACT NO. 27691 M.B. 786-38-39
TRACT NO. 23098 M.B. 799-64-65
TRACT NO. 42277 M.B. 1008-25-26
TRACT NO. 34297 M.B. 1024-61-62
N
BK. 4221
RTE. 90
FRWY.
CREEK
JOSE JUAN MACHADO 17.99 ACS. Por.
DOMINGO MACHADO 18 ACS. Por.
GEORGE ADDISON SANFORD 141.11 ACS. ALLOT Por.
BERNARDINO MACHADO 19.18 AC. Por.
L.A. Co. F.C.D. (Fee)
MARINA
McCONNELL AVE.
CENTINELA
JANDY PL.
BEATRICE
ST.
WESTLAWN AVE.
GROSVENOR BLVD.
HAMMACK ST.
ANETA ST.
LUCILE ST.
PORT RD.
P.M. 24-61
M.M. 504
F.M. 20164-2
9.59 Ac.
4.30± Ac.
74,920±sf
117,610±sf
84,510±sf
82,760±sf
38,770±sf
34,410±sf
1.74± Ac.
0.66± Ac.
6.76± Ac
117,032sf
72,750±sf
31,980±sf
821005423
840227012-84
870403602-87
880421010040001
880707020030001
880921080180007
970221040010001-25
970221040020002-25
CODE 414
NO. 1350
FOR PREV. ASSM'T SEE:
4222 - 17
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

Department of Public Works
dpw.lacounty.gov

search our site..

Los Angeles County Storm Drain System

File Geodatabase Download | MS4 Outfalls Download

Search | Layers | Info

Enter Address, Cross Street, or Parcel No.:
(ex: 900 S. Fremont Ave., Fremont@Valley, 5342005904)

12575 beatrice street, los angeles

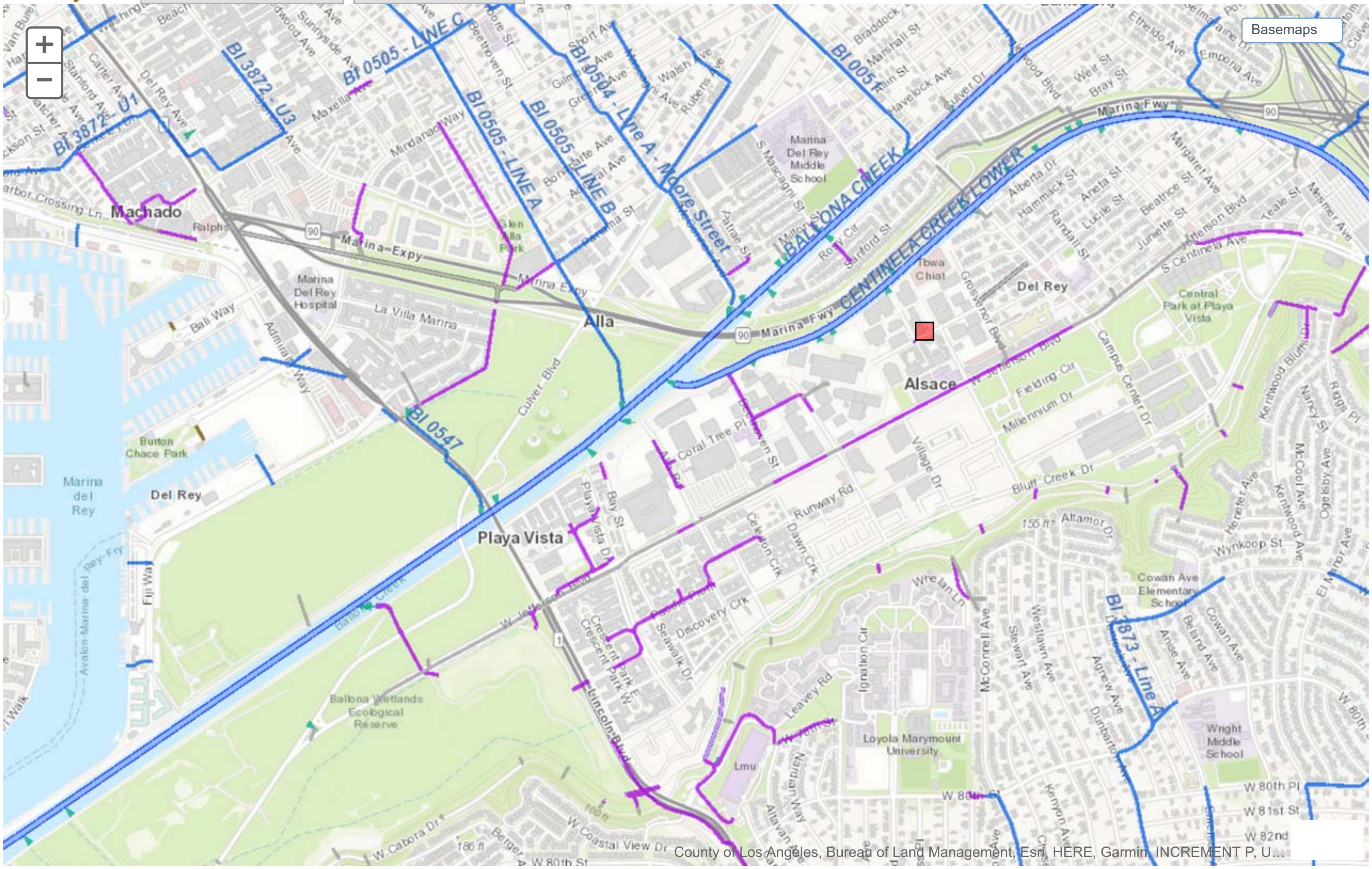
Search

Search Results:

12575 beatrice street los angeles

Enter Channel, Drain, or Old Drawing No.:
(ex. Coyote Creek, MTD 359, 275-416-D2, CC 2650)

Search



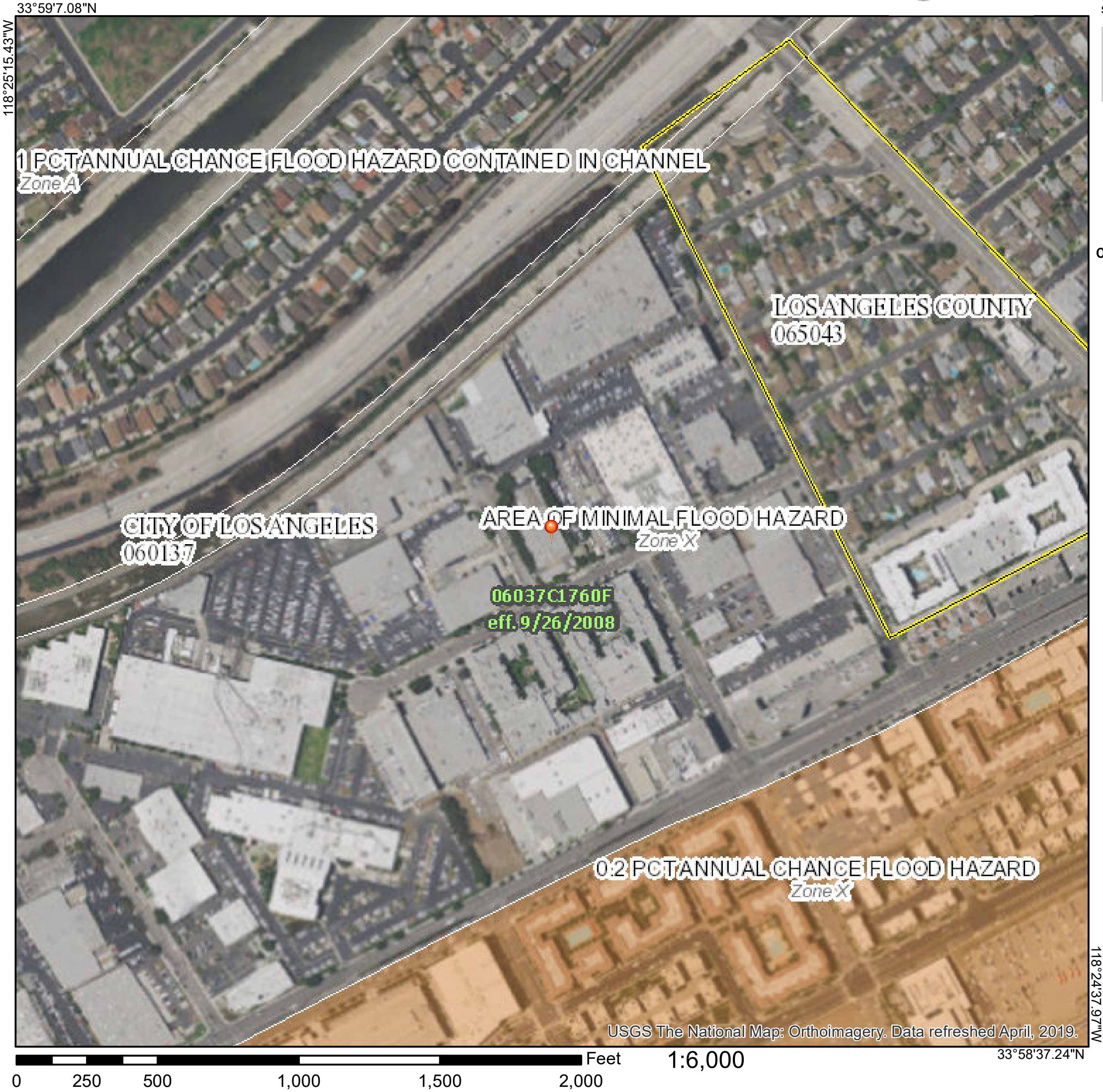
Map Tips

lacounty.gov | Public Works FAQ | Privacy / Terms of Use | Feedback |

Appendix B: FEMA Map

National Flood Hazard Layer FIRMette

FEMA



1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- B 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 — Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

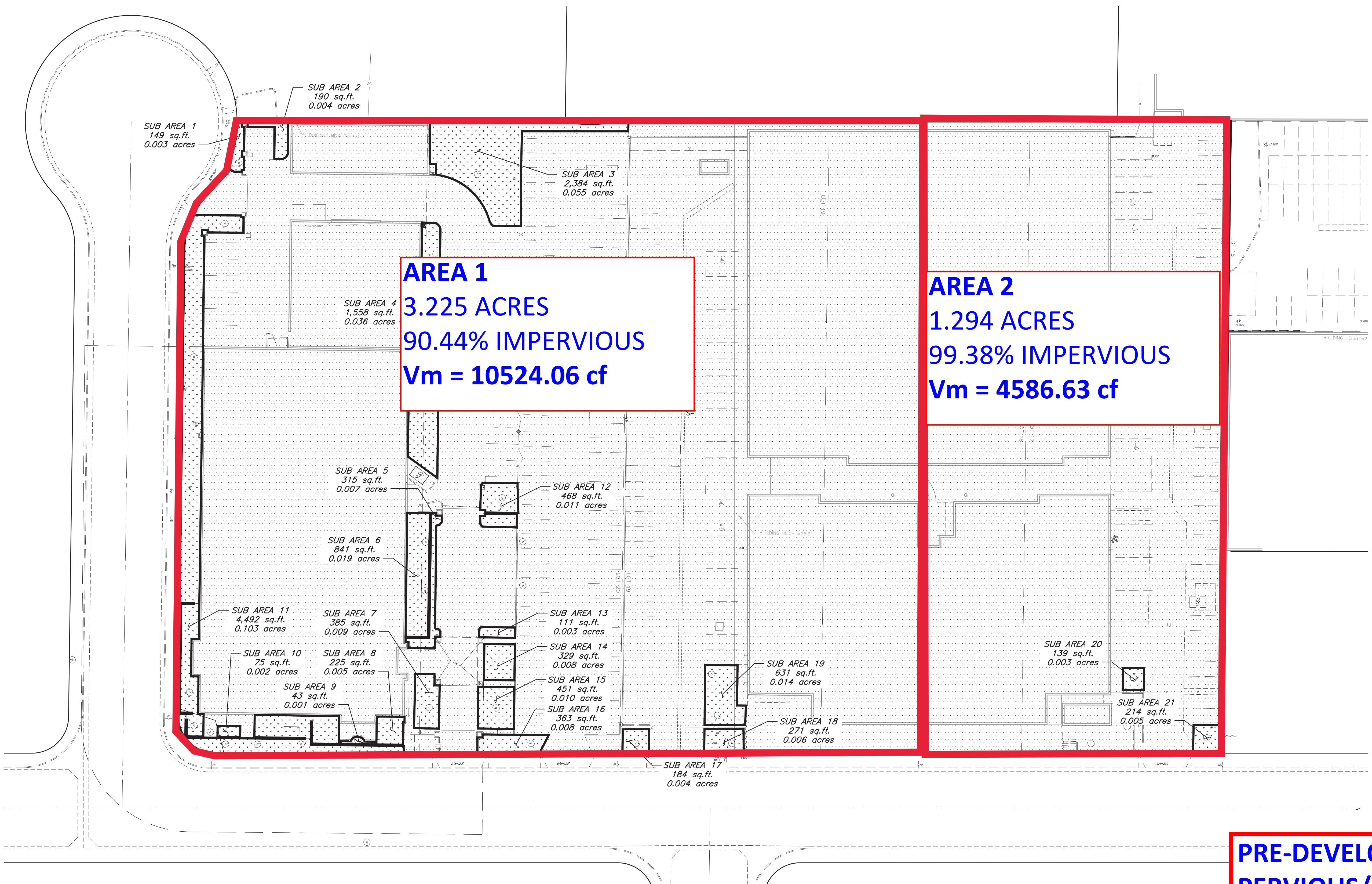
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/8/2020 at 9:39:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix C: Area Maps – Pre and Post Development



LEGEND:

PERVIOUS AREA

IMPERVIOUS AREA

AREA CALCULATIONS

AREA No.	AREA (ACRES)	PERVIOUS (ACRES)	IMPERVIOUS (ACRES)
1	0.003	0.003	0
2	0.004	0.004	0
3	0.055	0.055	0
4	0.036	0.036	0
5	0.007	0.007	0
6	0.019	0.019	0
7	0.009	0.009	0
8	0.005	0.005	0
9	0.001	0.001	0
10	0.002	0.002	0
11	0.103	0.103	0
12	0.011	0.011	0
13	0.003	0.003	0
14	0.008	0.008	0
15	0.010	0.010	0
16	0.008	0.008	0
17	0.004	0.004	0
18	0.006	0.006	0
19	0.014	0.014	0
20	0.003	0.003	0
21	0.005	0.005	0
22	4.203	0	4.203
TOTAL	4.519	0.316	4.203
PERVIOUS AREA		= 0.316 ACRES (7%)	
IMPERVIOUS AREA		= 4.203 ACRES (93%)	
TOTAL SITE		= 4.519 ACRES	

PRE-DEVELOPMENT PERVIOUS/IMPERVIOUS AREAS

0' 20'

DIG ALERT

BENCHMARK NO. 8Y9245 EL. 16.617 FT

FD. "LACE" MONUMENT IN WEST END OF CB. AT NW. CORNER OF JEFFERSON BLVD. AND WESTLAWN AVENUE.

NAVD 1988 2005 ADJ.

IF THIS SHEET DOES NOT MEASURE 30" x 48", IT HAS BEEN REDUCED AND IS NOT TO SCALE

EXECUTIVE ARCHITECT

CHAIT

THE CHAIT COMPANY, INC.
7306 COLDWATER CANYON AVE., UNIT 12
LOS ANGELES, CA 91605
TEL 818 764-2067
FAX 818 764-2070
WEB WWW.CHAITCO.COM

DESIGN ARCHITECT

GEHRY PARTNERS, LLP.

12541 BEATRICE STREET
LOS ANGELES, CALIFORNIA 90066 USA
TEL: 310-482-3000
FAX: 310-482-3006

STAMP

LICENSED ARCHITECT
MICHAEL SAMUEL CHAIT
No. C-15381
12-31-2019
RENEW DATE
STATE OF CALIFORNIA

CONSULTANT

Barbara L. Hall, P.E., Inc.
318 West Evergreen Avenue
Monrovia, CA 91016
Phone: (626) 256-3220
Fax: (626) 256-3218

STAMP

REGISTERED PROFESSIONAL ENGINEER
BARBARA L. HALL
No. 42206
Exp. 03/31/20
CIVIL
STATE OF CALIFORNIA

NOTES

PROJECT

NEW BEATRICE WEST

12575 BEATRICE STREET

PROJECT NO.

KEY PLAN

REVISIONS / ISSUES

NO.	BY	DESCRIPTION	DATE
		PLAN CHECK	02/11/18
		85% CD SET	12/21/18
		100% DD SET	09/11/18

DRAWING NAME

LID
PRE-DEVELOPMENT:
PERVIOUS AND
IMPERVIOUS AREAS

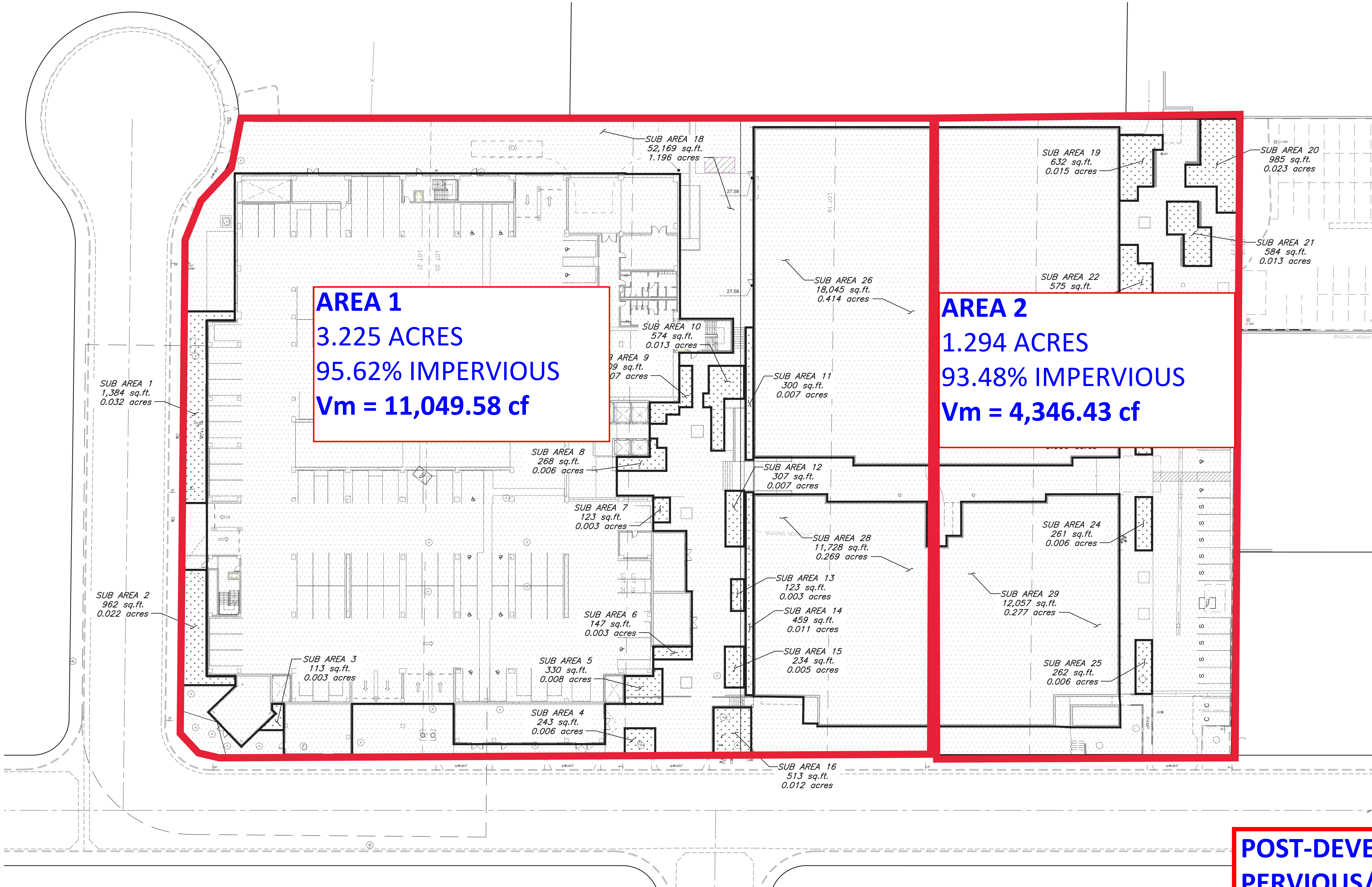
SCALE AS SHOWN

PHASE DD

DRAWING NO. LID-1

DATE 09/11/18

DRAWN BY DS



POST-DEVELOPMENT PERVIOUS/IMPERVIOUS AREAS

0' 20'

811 DIG ALERT

BENCHMARK NO. 8Y9245 EL. 16.617 FT

FD. "LACE" MONUMENT IN WEST END OF CB. AT NW. CORNER OF JEFFERSON BLVD. AND WESTLAWN AVENUE.

NAVD 1988 2005 ADJ.

IF THIS SHEET DOES NOT MEASURE 30" x 48", IT HAS BEEN REDUCED AND IS NOT TO SCALE

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FAX 818 764-2070
WEB WWW.CHAITCO.COM

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LOS ANGELES, CALIFORNIA 90066 USA
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FAX: 310-482-3006

STAMP

LICENSED ARCHITECT
MICHAEL SAMUEL CHAIT
No. C-15381
12-31-2019
RENEW DATE
STATE OF CALIFORNIA

CONSULTANT

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Monrovia, CA 91016
Phone: (626) 256-3220
Fax: (626) 256-3218

STAMP

REGISTERED PROFESSIONAL ENGINEER
BARBARA L. HALL
No. 42206
Exp. 03/31/20
CIVIL
STATE OF CALIFORNIA

NOTES

PROJECT

NEW BEATRICE WEST

12575 BEATRICE STREET

PROJECT NO.

KEY PLAN

REVISIONS / ISSUES

NO.	BY	DESCRIPTION	DATE
		PLAN CHECK	02/11/18
		85% CD SET	12/21/18
		100% DD SET	09/11/18

DRAWING NAME

LID POST-DEVELOPMENT: PERVIOUS AND IMPERVIOUS AREAS

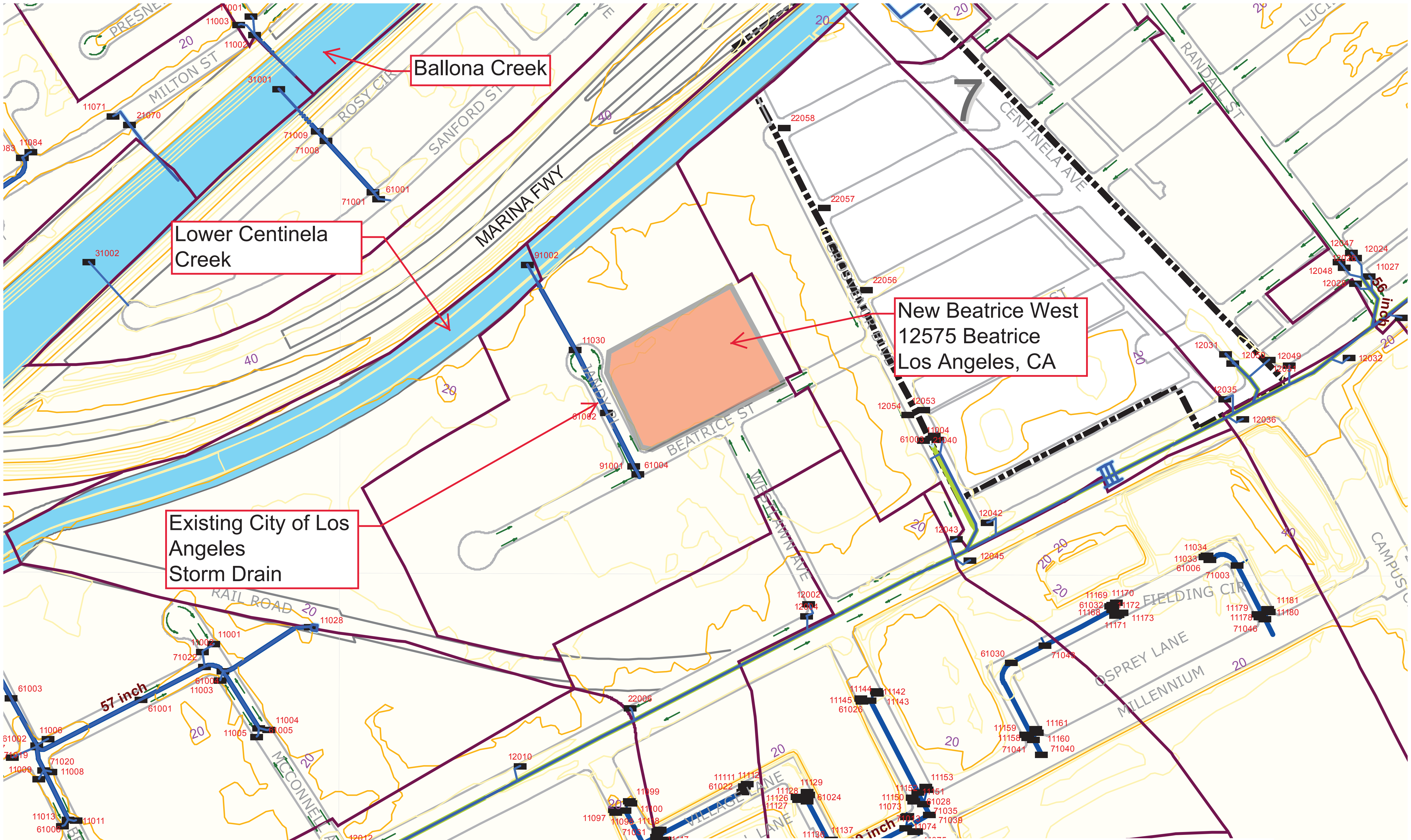
SCALE AS SHOWN

PHASE DD

DRAWING NO. LID-2

DATE 09/11/18

DRAWN BY DS



ENLARGEMENT OF AREA DRAINAGE MAP 560

Appendix IS-5

Utility Technical Report

UTILITY TECHNICAL REPORT

FOR

New Beatrice West
12575 Beatrice Street
Los Angeles, CA

Date: June 7, 2020
Revised September 5, 2020
Revised October 1, 2020
Revised October 26, 2020

PREPARED FOR:

Michael Chait
CHAIT & COMPANY, INC.
7306 Coldwater Canyon Avenue #12
North Hollywood, California 91605

PREPARED BY:

Barbara L. Hall, P.E., Inc.
318 West Evergreen Avenue
Monrovia, CA 91016
626-256-3220
Fax: 626-256-3218

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PURPOSE

The purpose of the Utility Technical Report is to determine the estimated water and wastewater demand resulting from the project and determine any impacts to the existing public utilities systems. This report is based on information provided by local utilities responsible for providing utility services to the proposed project. Los Angeles Department of Water and Power and Los Angeles Bureau of Sanitation. The existing conditions; thresholds for determining significance; impacts; mitigation; and the level of significance after mitigation are described.

EXISTING CONDITIONS

The proposed New Beatrice West Project (Project) project site is located within the City of Los Angeles in the Palms-Mar Vista-Del Rey Community Plan Area. The project is located at the north east corner of Beatrice and Jandy. The project addresses are 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 South Jandy Place.

Existing zoning for this site is M2-1, and the General Plan Land Use Designation is Light Industrial. Existing facilities at the site include an existing 23,072 SF office building, an existing 87,881 SF office building, two accessory structures (2,144 SF and 5,044 SF respectively), 84,600 square feet of parking area, and 13,780 square feet of landscape. Public infrastructure is presently in place to provide storm drainage services to the project site.

A geotechnical report was prepared for the proposed project, entitled Geotechnical Engineering Investigation, Proposed Office Building 12575 Beatrice Street, Los Angeles - File Number: 21194, prepared by Geotechnologies, Inc. The project site is also in a Methane Zone. A Methane Survey Report was prepared by Citadel Environmental, Project Number 1257.1001.0, dated April 12, 2018 and updated April 9, 2020.

The properties surrounding the Project Site are fully developed commercial sites and are characterized by gently sloping topography. The Project Site's topography slopes gradually from the north to south, generally towards Beatrice.

The City of Los Angeles Department of Water and Power (LADWP) provides and maintains potable and fire water and electric power services to the site. Existing sewer and storm drainage systems serving the site are owned and maintained by the City of Los Angeles, Bureau of Sanitation (BOS).

The project area is served by an existing LADWP water main in Jandy Place. The building has an existing 8-inch combination domestic/fire service lateral. The existing water main in Jandy Place is 8-inch diameter. There are two fire hydrants near the site. One at the south west corner of Beatrice and Jandy, the other at the north end of the cul-de-sac on Jandy.

LADWP has overhead service to the site frontage via an existing power poles on Jandy Place and Beatrice Street. Service from the power pole in Jandy is overhead to a second power pole on site with pole mounted transformers, near the middle of the west property line.

The project is served by City of Los Angeles sanitary sewer mains in Jandy Place and Beatrice Street. The existing sewer in Beatrice Street fronting the project is an 8-inch VCP pipe. The existing sanitary sewer on Jandy Place is a 10-inch VCP pipe. House connection laterals to serve the project site exist on both the 8-inch sewer main in Beatrice Street and on the 10-inch sewer main in Jandy Place.

The project area is served by the City of Los Angeles storm drain system in Jandy Place. There is an existing catch basin and storm drain at the cul-de-sac termination of Jandy Place, which discharges at Centinella Creek. The storm drain (D-22075) is a 42-inch diameter RCP. This storm drain was extended upstream in Jandy Place (D-32573) and presently terminates at the south side of Beatrice Street.

PROPOSED PROJECT

The Project proposes construction of a new building totaling 199,500 square feet. The building will have 196,100 square feet of office space, 3,400 square feet of ground floor commercial space. In addition, the project provides 811 parking spaces on one and two subterranean parking levels and three above ground parking levels. The project will be developed in one phase. Twenty surface parking stalls will be provided outside of the structure.

The site work consists of 54,583 Square feet of new hardscape and 38,033 square feet of landscaping throughout the project site and on new terraces on the upper levels of the building.

The existing 87,881 square foot office building located on the site at 12541 Beatrice will remain and will be incorporated into the project. New site landscape and hardscape improvements are proposed around the existing building which are coordinated with the new structure and improvements.

The project will be served fire and domestic water from the 8-inch water main in Jandy Place at a location near the existing service point. The service size is estimated to be 6-inch for fire sprinkler and 4-inch for domestic. There are three existing fire hydrants within 300 feet of the project site.

The Project will be served from the two existing 6-inch sewer laterals, one in Jandy Place and one in Beatrice Street.

A separate Drainage Technical Report was prepared for the Project to determine if there are any impacts to the existing drainage system. This report is provided under separate cover.

Project Wastewater Generation

The project will generate more wastewater than the existing office use. A Sewer Capacity Availability Request (SCAR) was made for this project to the Bureau of Sanitation. The results of the SCAR report can be found in Appendix A. Subsequently, a Request for Wastewater Service Information (WWSI) was provided by Wastewater Engineering Services Division of the Bureau of Sanitation and Environment. This report includes additional information and requirements for stormwater, groundwater reuse options and solid resource requirements the project will be required to meet. Stormwater is addressed in the separate Drainage Technical Report.

The total amount of wastewater discharge from this project is estimated to be 34,326 gallons per day (GPD). Table 1 summarizes the estimated wastewater generation by site use. Both the SCAR and WWSI reports confirm that sufficient capacity is available in the sewage collection system and wastewater treatment plant for the increased wastewater discharge from this project.

Table 1 - Project Wastewater Generation

Proposed Use	Quantity[b]	Unit	Wastewater Generation Per-Unit (GPD) [a]	Units	Total Wastewater Generation (GPD)
Office Building	196,100	SF	170	KSF	33,337
Coffee House: No Pastry Baking & Food Prep	1,300	SF	720	KSF	936
Retail (Less than 100,000 sf)	2,100	SF	25	KSF	53
Total Generation					**34,326**

[a] *Wastewater generation calculated using City of Los Angeles Bureau of Sanitation Sewer Generation Factors. Taken from the WWSI report prepared for this project by the Bureau of Sanitation and Environment.*
[b] *Quantities reflect final project uses and areas. SCAR report was prepared prior to finalizing area calculations. WWSI report reflects final project area calculations.*

Project Water Generation

The project will generate more water demand than the existing office use. Table 2 summarizes the estimates domestic water demand by site use.

Table 2 - Project Water Demand

Proposed Use	Quantity[c]	Unit	Water Demand Factor [a]	Daily Demand (GPD)	Annual Demand (AFY)[b]
Office Building	196,100	SF	200	39,220	43.93
Coffee House: No Pastry Baking & Food Prep	1,300	SF	850	1,105	1.24
Retail (Less than 100,000 sf)	2,100	SF	30	63	0.071
Total Water Demand				40,388	45.24

[a] *Water demand for Project uses was conservatively calculated by increasing the City of Los Angeles Bureau of Sanitation Sewer Generation Factors by 18 percent. Updated Sewer Generation Factors issued in WWSI report by the Bureau of Sanitation and Environment were used in the calculation.*
[b] *One acre foot (af) = 325,850 gallons.*
[c] *Quantities reflect final project area calculations from the WWSI. The SCAR report was prepared prior to finalizing area calculations, and therefore has out of date information.*

ENVIRONMENTAL IMPACTS

Thresholds of Significance

This section analyzes the potential for significant impacts on utility systems that would occur from implementation of the Project. The threshold for determining if significant impacts on utilities and service systems would occur is based on Appendix G of the California Environmental Quality

Act Statutes and Guidelines. The likelihood for significant impacts on utilities and service systems to occur was evaluated based on the potential for the proposed Project to:

- Cause the existing sewer system to exceed its design capacity;
- Cause the existing storm drain system to exceed its design capacity during a capital storm event; (this is the subject of a separate report)
- Require upgrading the existing electrical transmission facilities to the site(s); or
- Require relocation of a significant portion of an existing utility.

Electrical infrastructure sufficient to serve the site exists in the area along the perimeter streets. The existing commercial/industrial uses require significant electrical power. The Project does not result in a need for new electrical infrastructure, nor does it substantially alter existing electrical facilities.

The Project requires sewer service. House connection laterals exist on the 8-inch sewer main in Beatrice Street and the 10-inch sewer main on Jandy Place to serve the Project. A Sewer Capacity Availability Request (SCAR) was processed through the City of Los Angeles Bureau of Engineering, by the BOS for this Project. The results indicate that capacity is available for this Project in the existing sanitary sewers in Beatrice Street and Jandy Place, in the downstream sewage collection system, and in the regional wastewater treatment facilities. The SCAR and WWSI reports can be found in Appendix A.

Mitigation

The Project does not result in the need for new systems or supplies, or result in substantial alteration to existing utilities, including power, local or regional water treatment or distribution facilities, local or regional sewer system, or local or regional water supplies. Therefore, mitigation measures are not recommended.

Appendix A: City of Los Angeles Utility Capacity Reports

Sewer Capacity Availability Report (SCAR)

New Beatrice West Project – Request for Wastewater Service Information (WWSI)

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.

Job Address:	**12575 W Beatrice Street**	Sanitation Scar ID:	
Date Submitted	04/03/2020	Request Will Serve Letter?	Yes
BOE District:	West LA District		
Applicant:	Wendy Balvaneda / B.L. Hall, Inc.		
Address:	318 W> Evergreen Ave	City :	Monrovia
State:	CA	Zip:	91016
Phone:	(626) 256-3220	Fax:	
Email:	wbalvaneda@blhallpe.net	BPA No.	N/A
S-Map:		Wye Map:	105-161-3

SIMM Map - Maintenance Hole Locations

No.	Street Name	U/S MH	D/S MH	Diam. (in)	Approved Flow %	Notes
1	JANDY PL	56007126	56007183	10	50.00	Proposed mixed use (office, cafe, and retail)
2	Beatrice St	56007115	56007126	8	50.00	Proposed mixed use (office, cafe, and retail)

Proposed Facility Description

No.	Proposed Use Description	Sewage Generation (GPD)	Unit	Qty	GPD
1	OFFICE BUILDING	120	KGSF	195,750	23,490
2	COFFEE HOUSE: NO PASTRY BAKING & FOOD PREPARATION *15	720	KGSF	1,732	1,247
3	RETAIL AREA (LESS THAN 100,000 SF)	25	KGSF	2,198	55
4	AUTO PARKING	20	KGSF	347,850	6,957
				Proposed Total Flow (gpd):	**31,749**

Remarks

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

Date Processed: Expires On:

Processed by:
Bureau of Sanitation
Phone: 323-342-6207

Reviewed by:
on

Submitted by: Dinah Garin
Bureau of Engineering
West LA District
Phone:

Scar Request Number: 3450

Fees Collected	Yes	SCAR FEE (W:37 / QC:704)	$1,430.00
Date Collected	04/22/2020	SCAR Status:	**To Sanitation**

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: 3450

CITY OF LOS ANGELES

CALIFORNIA

MAYOR

WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

September 16, 2020

Mr. Jordan Martinez, Assistant Planner
Eyestone Environmental
2121 Rosecrans Avenue, Suite 3355
El Segundo, California 90245

Dear Mr.Martinez,

NEW BEATRICE WEST PROJECT - REQUEST FOR WASTEWATER SERVICE INFORMATION

This is in response to your September 9, 2020 letter requesting a review of your proposed mixed-use project located at 12541 W. Beatrice Street, 12575 W. Beatrice Street, 12553-12575 W. Beatrice Street, and 5410-5454 S. Jandy Place, Los Angeles, CA 90066. The project will consist of office building and commercial. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Proposed			
Office	170 GPD/1000 SQ.FT	196,100 SQ.FT	33,337
Café	720 GPD/1000 SQ.FT	1,300 SQ.FT	936
Retail	25 GPD/1000 SQ.FT	2,100 SQ.FT	53
Total			**34,326**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 8-inch line on Beatrice St. The sewage from the existing 8-inch line feeds into a 12-inch line on Jandy Pl then into a 30-inch line on McConnell Ave before discharging into a 42-inch sewer line on Jefferson Blvd. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 8-inch line and the 10-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
8	Beatrice St.	*	240,516 GPD
10	Jandy Pl.	*	394,453 GPD
12	Jandy Pl.	20	545,105 GPD
30	McConnell Ave.	37	2.75 MGD
42	Jefferson Blvd.	27	9.55 MGD

* No gauging available

Based on estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer lacks sufficient capacity, then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at the time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

All sanitary wastewater ejectors and fire tank overflow ejectors shall be designed, operated, and maintained as separate systems. All sanitary wastewater ejectors with ejection rates greater than 30 GPM shall be reviewed and must be approved by LASAN WESD staff prior to other City plan check approvals. Lateral connection of development shall adhere to Bureau of Engineering Sewer Design Manual Section F 480.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org.

STORMWATER REQUIREMENTS

LA Sanitation, Stormwater Program is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

In accordance with the Municipal Separate Storm Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2012-0175, NPDES No. CAS004001) and the City of Los Angeles Stormwater and Urban Runoff Pollution Control requirements (Chapter VI, Article 4.4, of the Los Angeles Municipal Code), the Project shall comply with all mandatory provisions to the Stormwater Pollution Control Measures for Development Planning (also known as Low Impact Development [LID] Ordinance). Prior to issuance of grading or building permits, the applicant shall submit a LID Plan to the City of Los Angeles, Public Works, LA Sanitation, Stormwater Program for review and approval. The LID Plan shall be prepared consistent with the requirements of the Planning and Land Development Handbook for Low Impact Development.

Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lacitysan.org. It is advised that input regarding LID requirements be received in the preliminary design phases of the project from plan-checking staff. Additional information regarding LID requirements can be found at: www.lacitysan.org or by visiting the stormwater public counter at 201 N. Figueroa, 2nd Fl, Suite 280.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-way to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local groundwater basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements. Green Street standard plans can be found at: www.eng2.lacity.org/techdocs/stdplans/

CONSTRUCTION REQUIREMENTS

All construction sites are required to implement a minimum set of BMPs for erosion control, sediment control, non-stormwater management, and waste management. In addition, construction sites with active grading permits are required to prepare and implement a Wet Weather Erosion Control Plan during the rainy season between October 1 and April 15. Construction sites that disturb more than one-acre of land are subject to the NPDES Construction General Permit issued by the State of California, and are required to prepare, submit, and implement the Storm Water Pollution Prevention Plan (SWPPP).

If there are questions regarding the stormwater requirements, please call WPP's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 2nd Fl, Suite 280.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers a Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from the Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

<u>SOLID RESOURCE REQUIREMENTS</u>

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact LA Sanitation Solid Resources Recycling hotline 213-922-8300.

Sincerely,

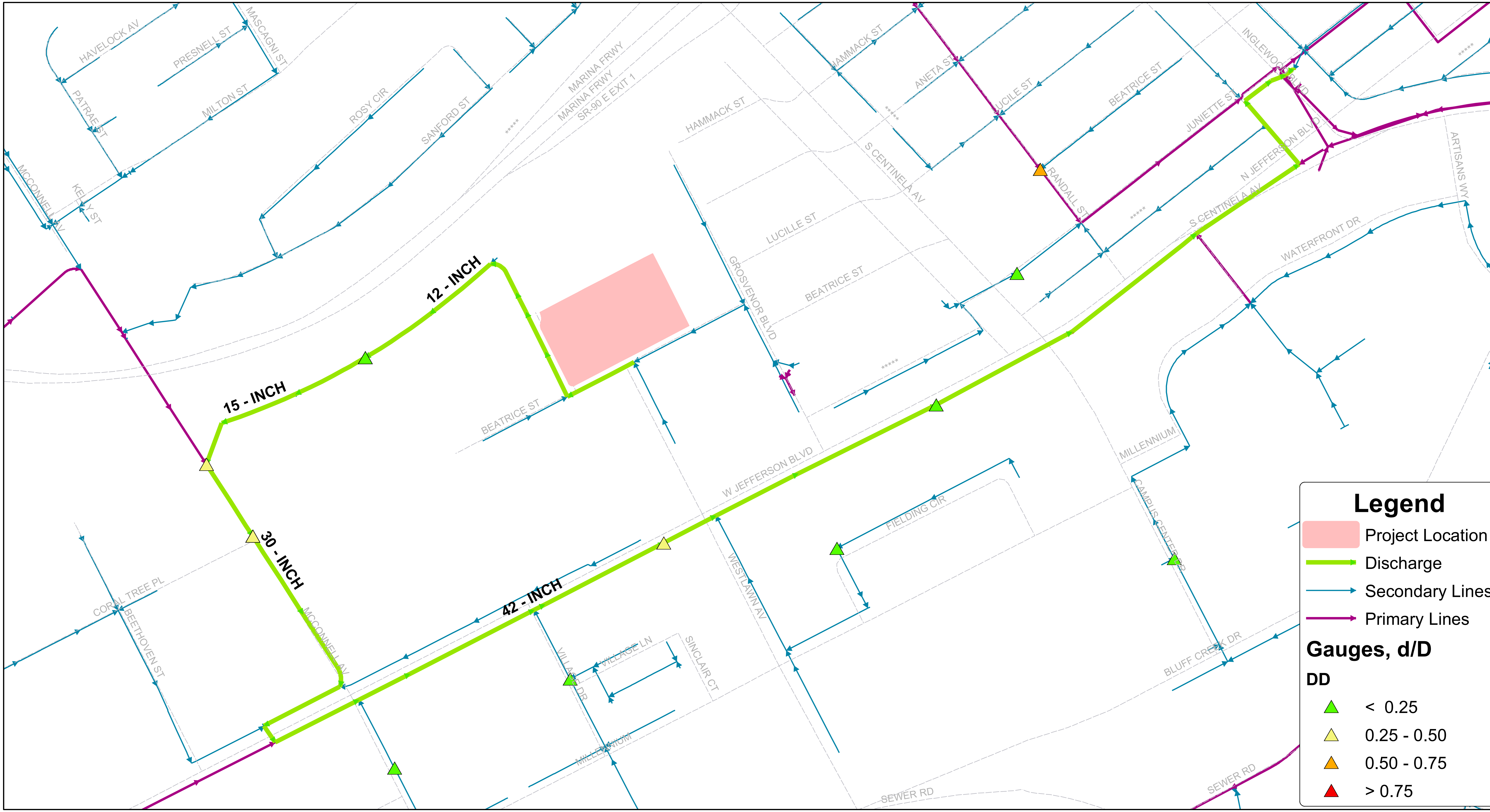
Ali Poosti

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

AP/CD: sa

Attachment: Figure 1 - Sewer Map

c: Shahram Kharaghani, LASAN
Michael Scaduto, LASAN
Wing Tam, LASAN
Christopher DeMonbrun, LASAN



Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

Figure 1
New Beatrice West Project
Sewer Map

N W E S

0 187.5 375 750 1,125 1,500 Feet

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

December 8, 2020

Puede obtener información en Español llamando al (213) 847-3637.

CASE NO.: ENV-2020-3533-EIR
PROJECT NAME: New Beatrice West Project
PROJECT APPLICANT: NSB Associates
PROJECT ADDRESS: 12541 West Beatrice Street, 12575 West Beatrice Street, 12553-12575 West Beatrice Street, and 5410-5454 South Jandy Place, Los Angeles, CA 90066
COMMUNITY PLANNING AREA: Palms-Mar Vista-Del Rey
COUNCIL DISTRICT: 11 - Bonin
PUBLIC COMMENT PERIOD: December 8, 2020–January 8, 2021

The City of Los Angeles (City) intends to prepare an Environmental Impact Report (EIR) for the proposed New Beatrice West 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 effects from the Project. Comments must be submitted in writing according to 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 BACKGOUND: The Project was previously considered and approved by the City under Case No. CPC-2016-1208-CU-SPR, and Case No. AA-2017-397-PMEX. To comply with CEQA, the City prepared and adopted a mitigated negative declaration (Case No. ENV-2016-1209-MND). Subsequently, two petitions for writ of mandate were filed and consolidated challenging the City's approvals of the Project, on the grounds, among others, that the City's mitigated negative declaration was inadequate under CEQA (*Karney Management v. City of Los Angeles*, Case No. BS172677 [Consolidated with Case No. 18STCP03226]). The Honorable John A. Torribio of the Los Angeles County Superior Court ruled that the mitigated negative declaration was inadequate as to aesthetics, noise and traffic. On January 21, 2020, the court entered a judgment granting the petition for writ of mandate as to the CEQA cause of action, and denying the remainder of the causes of action. The judgment vacates the City's approval of the mitigated negative declaration and requires that an environmental impact report (EIR) be prepared for the Project. However, the judgment does not invalidate the underlying land use approvals (i.e., CPC-2016-1208-CU-SPR and AA-2017-397-PMEX) which remain valid.

PROJECT LOCATION AND EXISTING ON-SITE USES: The Project site consists of property located at 12541 W. Beatrice Street, 12575 W. Beatrice Street, 12553-12575 W. Beatrice Street, and 5410-5454 S. Jandy Place within the Palms–Mar Vista–Del Rey Community Plan area of the City of Los Angeles. (**See attached Project Location Map.**) The Project site is currently developed with a one-story (20-foot tall), 23,072-square-foot office building and two single-story accessory buildings comprised of 5,044 square feet and 2,144 square feet at 12575 W. Beatrice Street, and a two-story, (26-foot tall), 87,881-square-foot office building at 12541 W. Beatrice Street as well as surface parking.

PROJECT DESCRIPTION: The New Beatrice West Project (Project) includes the construction of an eight-story, 199,500-square-foot office building with 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. As part of the Project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. As part of the Project, the existing property lot lines would be adjusted to accommodate a corner landscaped parcel, a building site for the construction of the proposed new building (at 12575 W. Beatrice Street, 12553–12575 W. Beatrice Street, and 5410–5454 S. Jandy Place), and a parcel for the existing building (12541 W. Beatrice Street). When the lot line adjustment is complete, the lot at 12575 W. Beatrice Street would contain approximately 103,281 square feet (2.37 acres) and the lot at 12541 W. Beatrice Street would contain approximately 93,182 square feet (2.14 acres). An approximately 389-square-foot lot would also be created at the corner of Jandy Place and Beatrice Street for landscaping and open space purposes.

The Project would provide 811 parking spaces, exceeding the requirements of the Los Angeles Municipal Code. The majority of the parking spaces (791 spaces) would be provided in a five-level parking structure, including three levels above grade and two subterranean levels, with the remaining spaces (20 spaces) provided in a surface parking area. The Project would include landscaped courtyards and walkways to connect and integrate the proposed building with the office building to remain to create an integrated creative office campus. The Project would provide approximately 38,033 square feet of landscaping throughout the Project site. Construction of the Project is anticipated to be completed in 2024.

The following table identifies the proposed uses for the Project:

Existing Project Site Uses

Existing Uses	Floor Area (sf)
Existing Uses to be Removed	
Office (12575 W. Beatrice Street)	23,072 sf
Accessory (12575 W. Beatrice Street)	7,188 sf
Existing Uses to Remain	
Office (12541 W. Beatrice Street)	87,881 sf

Proposed Uses

Proposed Uses	Floor Area (sf)
Commercial Land Uses	
Retail	3,400 sf
Office	196,100 sf
Total Commercial	**199,500 sf**
Open Space	
Total Open Space	**38,033 sf**

PROJECT ENTITLEMENTS: The Applicant requests the following entitlements from the City of Los Angeles:

1. Pursuant to the Los Angeles Municipal Code (LAMC), Site Plan Review to authorize the Project's new buildings and uses;
2. Pursuant to the LAMC, a Conditional Use Permit (CUP) for "Major" development projects;
3. Pursuant to the LAMC, a Parcel Map Exemption – Lot Line Adjustment
4. A haul route, if required, by the Los Angeles Department of Building and Safety; and
5. Other discretionary and ministerial permits and approvals 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, Cultural Resources (Archaeological Resources), Energy, Geology and Soils (Paleontological Resources), Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services (Fire Protection and Police Protection), Transportation, Tribal Cultural Resources, and Utilities and Service Systems (Water Infrastructure and Energy).

FILE REVIEW AND COMMENTS: The Department of City Planning recognizes the unprecedented nature of COVID-19 and, having been identified as an essential City service, continues to work and respond to all inquiries pertaining to our ongoing efforts to process entitlement applications. As a result of the Mayor's "Safer at Home" Order issued on March 19, 2020, means to access project-related materials in-person may be limited. To that end, the Department of City Planning will ensure that interested parties seeking information about the Project will have access. A copy of this notice and the Initial Study prepared for the Project may be viewed with the environmental file or online at https://planning4la.com/development-services/eir/.

The environmental file is available for public review, by appointment only, at the City of Los Angeles, Department of City Planning, 221 N. 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.

The City will consider all written comments regarding the potential environmental effects of the Project and issues to be addressed in the EIR. If you wish to submit comments, please reference the Environmental Case No. ENV-2020-3533-EIR, and submit them in writing by **January, 8, 2021, no later than 4:30 P.M**.

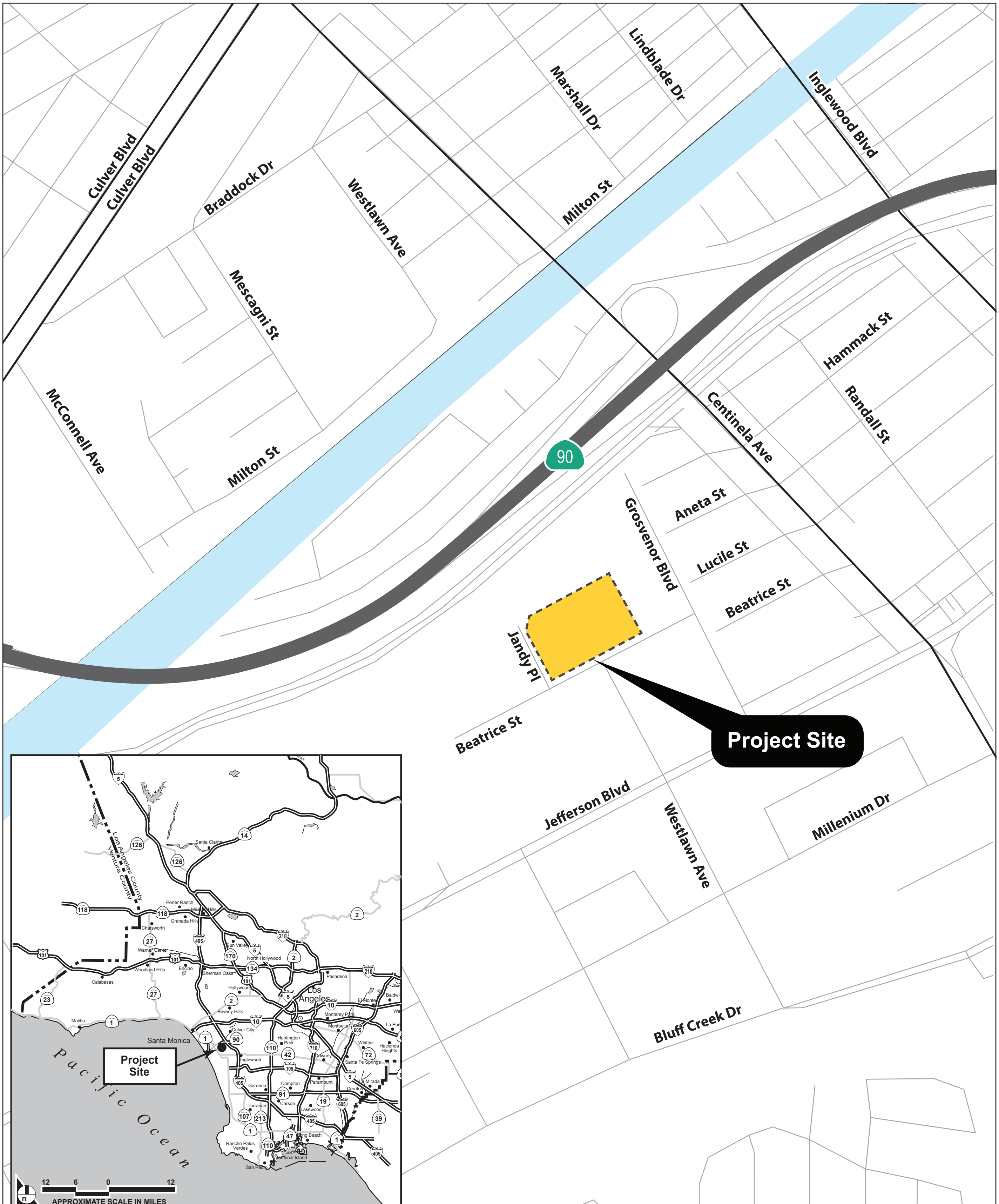
Please direct your comments to:

Mail: William Lamborn
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012
E-mail: william.lamborn@lacity.org

VINCENT P. BERTONI, AICP
Director of Planning

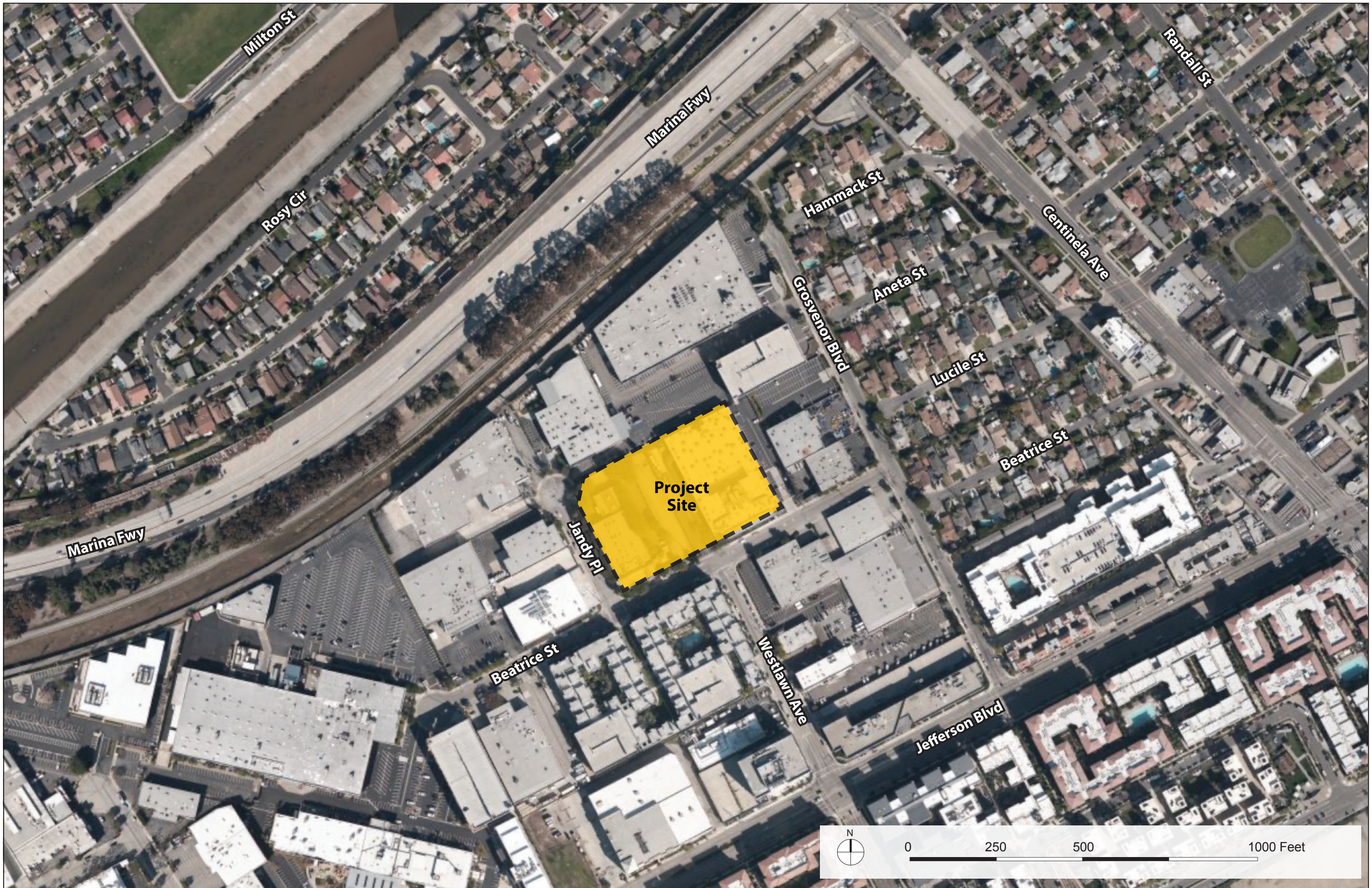
William Lamborn
Major Projects
Department of City Planning
(213) 847-3637

Attachments:
Project Location Map
Aerial Photograph of the Project Vicinity
Conceptual Site Plan



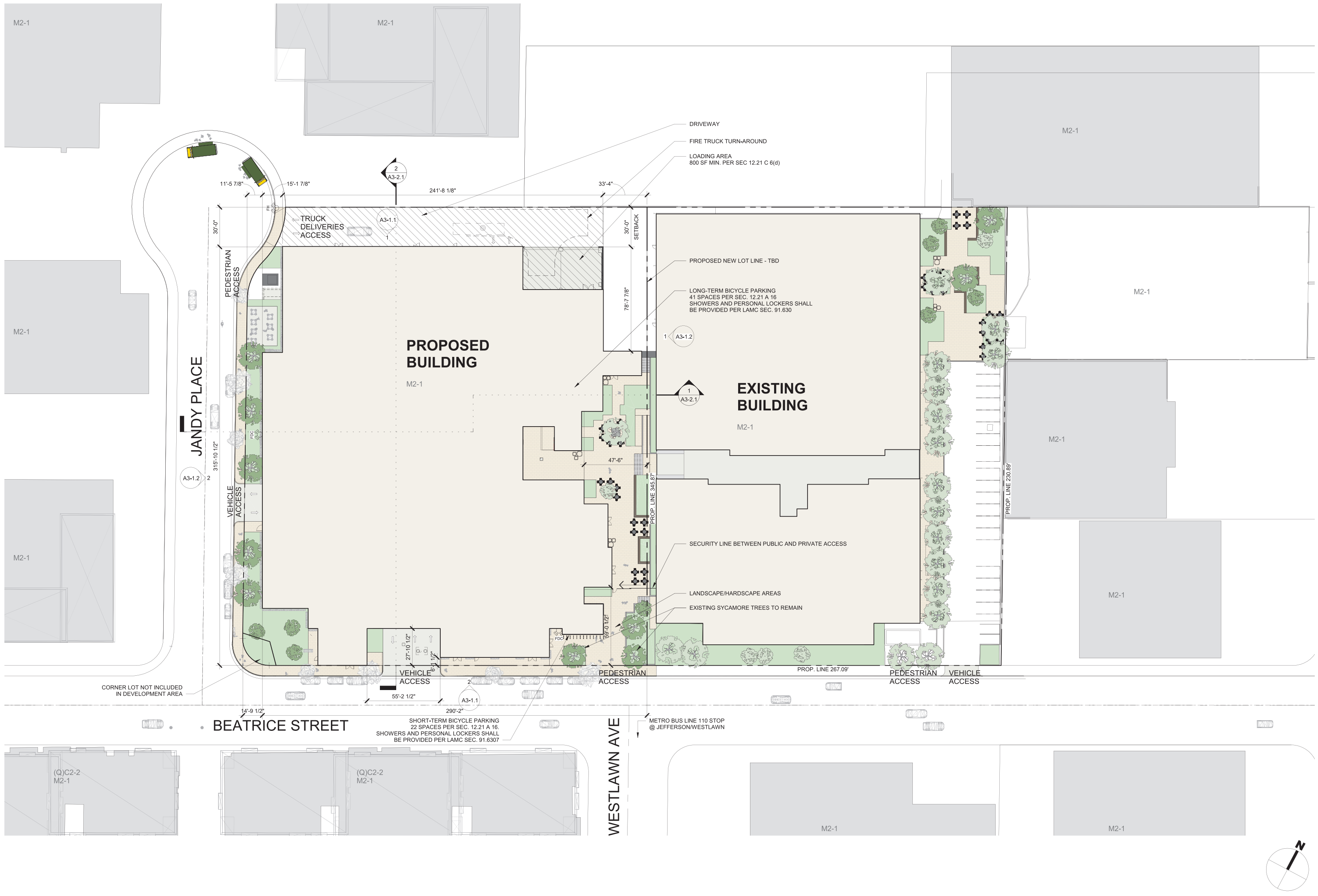
Project Location Map

Source: Eyestone Environmental, 2020.



Aerial Photograph of the Project Vicinity

Source: Apple Maps, 2020; Eyestone Environmental, 2020.



Conceptual Site Plan

Source: Eyestone Environmental, 2020.

Appendix A.3

NOP Comment Letters

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0475
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

December 30, 2020

William Lamborn
City of Los Angeles
221 North Figueroa Street, Suite 1350
Los Angeles, CA 90012

RE: New Beatrice West Project – Notice of Preparation of an EIR (NOP)
SCH # 2020120119
GTS # 07-LA-2020-03443
Vic. LA-90/PM: R1.495

Dear William Lamborn:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced NOP. The New Beatrice West Project includes the construction of a new eight-story office building with a total floor area of 199,500 square feet, comprised of 196,100 square feet of office space and 3,400 square feet of ground floor commercial space. The project is proposed on a 196,463-square-foot (4.51 acre) site located in the Palms–Mar Vista–Del Rey Community Plan area of the City of Los Angeles. As part of the project, the existing structures at 12575 W. Beatrice Street would be removed while the existing office building at 12541 W. Beatrice Street would be retained. The City of Los Angeles is the Lead Agency under the California Environmental Quality Act (CEQA).

The project is located near the following state facilities:

- **State Route 90 (SR-90):** approximately 1,700 feet from the SR-90 and S Centinela Avenue ramps.
- **Interstate 405 (I-405):** approximately 1 mile from the SR-90 and I-405 interchange.
- **State Route 1 (also known as Pacific Coast Highway or PCH):** approximately 1 mile from the PCH and W Jefferson Boulevard intersection.
- **State Route 187 (SR-187):** approximately 2 miles from the SR-187 and S Centinela Avenue intersection.

From reviewing the NOP, Caltrans has the following comments:

- For information on determining transportation impacts in terms of Vehicle Miles Traveled (VMT) on the State Highway System, see the *Technical Advisory on Evaluating Transportation Impacts in CEQA* by the California Governor's Office of Planning and Research (OPR), dated December 2018: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.
- The City can also refer to Caltrans' updated *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), dated May 2020 and released on Caltrans' website in July 2020: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf. Caltrans' new TISG is largely based on the OPR 2018 Technical Advisory.

- The updated TISG states, "Additional future guidance will include the basis for requesting transportation impact analysis that is not based on VMT. This guidance will include a simplified safety analysis approach that reduces risks to all road users and that focuses on multi-modal conflict analysis as well as access management issues." Since releasing the TISG, Caltrans has released interim safety analysis guidance, dated December 2020 and found here, for the City's reference: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-12-22-updated-interim-ldigr-safety-review-guidance-a11y.pdf.
- Caltrans looks forward to reviewing the VMT analysis for this project. As discussed in Caltrans' new TISG, Caltrans strongly recommends undertaking project VMT analysis, significance determination, and potential mitigation in a manner consistent with OPR's Technical Advisory.

The following information is included for your consideration.

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Furthermore, Caltrans encourages Lead Agencies to implement Transportation Demand Management (TDM) strategies that reduce VMT and Greenhouse Gas (GHG) emissions. Thus, Caltrans supports the TDM strategies this project has incorporated, such as providing long- and short-term bicycle parking spaces, as well as showers and lockers for cyclists. Additional TDM strategies that the City may want to consider integrating into this project to further reduce VMT include:

- Decrease the number of parking spaces provided from 811 to 586, which according to the NOP would be the minimum required Per LAMC Section 12.21.A.4(c), as research has shown that surplus parking can induce VMT.
- Ensure that project driveway placements do not directly cause issues related to line of sight of pedestrians or bicyclists.
- Provide transit vouchers to building users to incentivize the use of Metro Bus Line 110, which has a stop adjacent to the project site.

Also, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. Caltrans recommends that the project limit construction traffic to off-peak periods to minimize the potential impact on State facilities. If construction traffic is expected to cause delays on any State facilities, please submit a construction traffic control plan detailing these delays for Caltrans' review.

If you have any questions about these comments, please contact Emily Gibson, the project coordinator, at Emily.Gibson@dot.ca.gov, and refer to GTS # 07-LA-2020-03443.

Sincerely,

Miya Edmonson

MIYA EDMONSON
IGR/CEQA Branch Chief
cc: Scott Morgan, State Clearinghouse

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

SENT VIA E-MAIL: January 7, 2021

william.lamborn@lacity.org
William Lamborn, Planner
City of Los Angeles, Planning Department
221 N. Figueroa Street, Room 1350
Los Angeles, CA 90012

Notice of Preparation of an Environmental Impact Report for the New Beatrice West Project (Proposed Project)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates 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 Environmental Impact Report (EIR). Please send a copy of the EIR upon its completion and public release directly to South Coast AQMD as copies of the 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 and electronic versions of all emission calculation spreadsheets, and 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 CEQA regional pollutant emissions 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.

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

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[1] South Coast AQMD's CEQA 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 CEQA regional pollutant emissions significance thresholds can be found at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-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.

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 regional air quality CEQA ***operational*** thresholds 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].

In the event that implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the EIR. The assumptions in the air quality analysis in the EIR will be the basis for evaluating the permit under CEQA and imposing permit conditions and limits. Questions on permits should be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

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[1], South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2016 Air Quality Management Plan[6], and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy[7].

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 mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
LAC201208-03
Control Number

[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] South Coast AQMD's 2016 Air Quality Management Plan can be found at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf (starting on page 86).

[7] 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.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 8, 2020

William Lamborn
City of Los Angeles
221 North Figueroa Street, Suite 1350
Los Angeles, CA 90012

Re: 2020120119, New Beatrice West Project, Los Angeles County

Dear Mr. Lamborn:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
   - **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
   - **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
   - **a.** If part or all of the APE has been previously surveyed for cultural resources.
   - **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
   - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
   - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

William Lamborn <william.lamborn@lacity.org>

Case ENV-2020-1533-EIR

Elizabeth Pollock <eliz.pollock@gmail.com> Tue, Jan 5, 2021 at 9:56 AM
To: William Lamborn <william.lamborn@lacity.org>
Cc: kmansfield@nsbinc.com, Kinikia Gardner <Kinikia.Gardner@lacity.org>, Diego Janacua <diego.janacua@lacity.org>, board@delreync.org, Mike Bonin <mike.bonin@lacity.org>, Vishesh Anand <Vishesh.anand@lacity.org>, Len Nguyen <len.nguyen@lacity.org>

Elizabeth Pollock
eliz.pollock@gmail.com
11923 Bray Street
Culver City, CA 90230
Mobile: (310) 699-5165

2 attachments

ltr re eir signed 010521.pdf
191K

ltr planning signed05152017.pdf
954K

Del Rey
Residents Association
Since 1972

Post Office Box 661450 – Los Angeles, CA 90066
www.delreyhome.org

January 5, 2021

VIA EMAIL and U.S.P.S.
William.lamborn@lacity.org

William Lamborn
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012

Re: Case No.: ENV-2020-3533-EIR
Aka NEW BEATRICE WEST PROJECT
Project Address: 12541 West Beatrice Street, 12575 West Beatrice Street, 12553-12575 West Beatrice Street and 5410 South Jandy Place, Los Angeles, CA 90066

Dear Mr. Lamborn:

Our land use committee and board have met to discuss the planned EIR, and we would like to submit the following comments as to necessary requirements:

1. Address the concerns expressed in our letter of May 15, 2017 (copy attached).
2. Regarding aesthetics, provide for a binding covenant that the flat wall that will be visible from the 90 freeway can never be used for advertising or signage, and any mural must be non-political and reflect the Del Rey community.
3. Minimize the effect of the project on patients' access to the medical facilities that have moved to the area since May 2017: Kaiser, 5300 McConnell Ave.; St. John's Health Center, 12555 W. Jefferson Blvd. #300; Cedars Sinai Urgent Care, 12746 W. Jefferson Blvd. F2.
4. Address sanitation and public safety issues posed by the homeless encampments that have been established on neighboring streets (Grosvenor Blvd. and Beethoven Street in particular).

Very truly yours,

Maureen Madison

Maureen Madison
President

Enclosure: Letter of May 15, 2017

cc: Kevin Mansfield, NSB Associates
Kinikia Gardner, Planning Department
Diego Janacua, Planning Department
Del Rey Neighborhood Council board
Councilmember Mike Bonin, C.D. 11
Vishesh Anand, C.D. 11 Del Rey deputy
Len Nguyen, C.D. 11 senior planner (projects)

Del Rey Residents Association
Since 1972

Post Office Box 661450 – Los Angeles, CA 90066
www.delreyhome.org

May 15, 2017

VIA EMAIL:
Jennafer.Monterrosa@planning.lacity.org

Re: 12575 Beatrice Street
Case No: CPC-2016-1208-CU-SPR
Hearing Date per public notice: May 17, 2017, 3:30 p.m., City Hall

Dear Ms. Monterrosa:

Representatives of the applicant first presented the project to our board in March 2016, and on May 1, 2017, they presented the revised design. Although there are some redeeming qualities offered by this development, the Del Rey Residents Association opposes this project for the following reasons:

1. **Height**. Although the revised design is not as tall as the initial design, at 135 feet it is still substantially taller than any other building in Del Rey or in neighboring Playa Vista. The result of allowing consolidation of five lots is that the height of this project is grossly incompatible with the neighborhood. It will be a striking and jarring contrast to nearby property and sets a very bad precedent for future developments, which are waiting to see what happens here.

   This project needs to be constrained to a height that is no taller than the tallest building in the area, which is **88'**. That project is the 12655 Jefferson Blvd. building, which the Applicant inaccurately presented to the community as 110' tall.

2. **Severe Population Growth.** Due to the size of this project, it will add up to 1,000 new occupants to this neighborhood. Such drastic growth brings problems that cannot be mitigated because this area has very limited vehicular and transportation access. It has 3 dead-end streets and only 2 intersections that connect back into the local street system. Some of the problems that will come with the added population load are:

   a. **Traffic Load** – Even though traffic studies have been provided, we believe that the data is biased and that an impartial party should undertake a more objective study, which will reveal the real impact of this project in combination with all of the other recent and potential developments nearby.

   b. **Traffic Management** – This project needs to provide and maintain a comprehensive TDM (Transportation Demand Management) plan. Although due to its size, it is not required; there are, however, special circumstances at this location to consider.

c. **Emergency Evacuation** – Because of the street pattern here (Del Rey's Area 'H'), an impartial and comprehensive study of egress from this neighborhood in an emergency situation must be completed prior to any approval of this type.

d. **Utilities/Infrastructure.** –The city's infrastructure cannot handle this much local population boom. There have been frequent power outages in this area. Roadways, specifically Jefferson Boulevard, are not maintained and improved properly. We are in a tenuous situation with future availability of water, and our water mains are aging. Until the City makes the commitment to upgrade our infrastructure to keep up with development, this project will dramatically add to our infrastructure crisis.

3. **Non-binding Restrictions.** We recognize that the developer is applying the allowable FAR from multiple adjoining parcels of land in order to allow this much development in this location. Our experience shows that Approval Conditions that limit future expansion are too easily overturned or not enforced. We have little confidence that the undeveloped portions of this property will not be developed later.

   There must be a more permanent and binding way of guaranteeing that no further densification will occur on the other parcels that are part of this project.

This letter was prepared by our Land Use and Planning Committee and approved by a quorum of our Board of Directors on May 15, 2017.

Very truly yours,

Elizabeth A. Pollock

Elizabeth A. Pollock
President

cc: Kevin Mansfield, NSB Associates
Michael S. Chait, Chait & Company, Inc.
Clare Bronowski, Glaser Weil
Tensho Takemori, Gehry Partners, LLP
Samuel A. S. Gehry, Gehry Partners, LLP
Tom Rothmann, re:code LA
Del Rey Neighborhood Council board
Councilmember Mike Bonin, C.D. 11
Chuy Orozco, C.D. 11 Del Rey deputy
Ezra Gale, C.D. 11 senior planner (projects)