THE CITY OF SAN DIEGO

DEVELOPMENT SERVICES DEPARTMENT

Date of Notice: November 8, 2017

PUBLIC NOTICE
OF THE PREPARATION OF AN
ENVIRONMENTAL IMPACT REPORT

SAP No. 24007387

PUBLIC NOTICE: The City of San Diego as the Lead Agency has determined that the project described below will require the preparation of an Environmental Impact Report (EIR) in compliance with the California Environmental Quality Act (CEQA). This Notice of Preparation of a project EIR was publicly noticed and distributed on November 8, 2017. This notice was published in the SAN DIEGO DAILY TRANSCRIPT and placed on the City of San Diego website at: http://www.sandiego.gov/city-clerk/officialdocs/notices/index.shtml under the "California Environmental Quality Act (CEQA) Notices & Documents" section. In addition, the Public Notice was also distributed to the Central Library, as well as to the Mission Valley Branch Library.

Written comments may be sent to the following address**: E. Shearer-Nguyen, Environmental Planner, City of San Diego Development Services Department, 1222 First Avenue, MS 501, San Diego, CA 92101** or submitted via e-mail to **DSDEAS@sandiego.gov** with the Project Name and Number in the subject line within 30 days of the receipt of this notice. Responsible agencies are requested to indicate their statutory responsibilities in connection with this project when responding. An EIR incorporating public input will then be prepared and distributed for the public to review and comment.

GENERAL PROJECT INFORMATION:

- **PROJECT NAME / NUMBER:** WITT MISSION VALLEY / 562674
- **COMMUNITY AREA:** Mission Valley
- **COUNCIL DISTRICT:** 7

DESCRIPTION: A SITE DEVELOPMENT PERMIT and PLANNED DEVELOPMENT PERMIT demolish 38,070-square-feet of existing structures and on-site surface parking and construct a 533,100-square-foot mixed-use development comprised of 267 residential units and ten shopkeeper units totaling approximately 348,500-square-feet, 6,000-square-feet of retail space, and 3,400-square-feet of commercial space. The project would range in height from one-story to five stories. Parking would be provided in a central five-story, above-ground parking structure wrapped with residential units. A total of 411 parking spaces would be provided in the parking structure and 52 surface parking spaces would be provided. Various site improvements would also be constructed that include associated hardscape and landscape. The project would conform to the Affordable/In-Fill Housing and Sustainable Buildings Expedite Program by generating 50 percent or more of the projected total energy consumption on site through renewable energy resources (i.e. photovoltaic). The 5.128 acre project site is located at 588 Camino Del Rio North. The project site is designated Commercial Retail per the Mission Valley Community Plan and is zoned MV-CR. Additionally, the project site is within the Airport Land Use Compatibility Overlay Zone (Montgomery Field), the Airport Influence Area (Montgomery Field and San Diego International Airport (SDIA), Review Area 2), the Federal Aviation Administration Part 77 Noticing Area (Montgomery Field and SDIA), the Residential Tandem Parking Overlay Zone, and the Transit Area Overlay Zone. (Legal Description: Parcels 1 and 2 of Parcel Map No. 17806.) **Although the project site contains two**

Leaking Underground Storage Tank (LUST) Cleanup Sites that are included on a Government Code listing of hazardous waste sites, these sites have a "Completed - Case Closed" Cleanup Status.

APPLICANT: Josh Vasbinder, Din/Cal3, Inc., c/o The Dinerstein Companies

RECOMMENDED FINDING: Pursuant to Section 15060(d) of the CEQA Guidelines, it appears that the proposed project may result in significant environmental impacts in the following areas: **Agricultural Resources, Biological Resources, Health & Safety, Mineral Resources, Geologic Conditions, Land Use, Paleontological Resources, Public Utilities, Hydrology, and Water Quality.**

AVAILABILITY IN ALTERNATIVE FORMAT: To request the this Notice or the City's Scoping Letter to the applicant detailing the required scope of work in alternative format, call the Development Services Department at (619) 446-5460 or (800) 735-2929 (TEXT TELEPHONE).

ADDITIONAL INFORMATION: For environmental review information, contact Elizabeth Shearer-Nguyen at (619) 446-5369. The Scoping Letter and supporting documents may be reviewed, or purchased for the cost of reproduction, at the Fifth floor of the Development Services Department. **For information regarding public meetings/hearings on this project, contact the Project Manager, William Zounes at (619) 687-5942.** This notice was published in the SAN DIEGO DAILY TRANSCRIPT and distributed on November 8, 2017.

Kerry M. Santoro
Deputy Director
Development Services Department

DISTRIBUTION: See Attached

ATTACHMENTS: Figure 1: Project Vicinity Map
Figure 2: Project Location Map
Figure 3: Aerial Map
Figure 4: Site Plan
Scoping Letter

Distribution:

STATE OF CALIFORNIA
State Clearinghouse (46A)
California Department of Transportation (51)
California Transportation Commission (51A)
California Transportation Commission (51B)
California Native American Heritage Commission (222)

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Councilmember Cole, District 4 (MS 10A)
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Councilmember Sherman, District 7 (MS 10A)
Councilmember Alvarez, District 8 (MS 10A)
Councilmember Gomez, District 9 (MS 10A)
Development Services Department
    EAS, L. Sebastian
    EAS, E. Shearer-Nguyen
    Transportation, F. Mahzari
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Historical Resources Board (87)
Tom Tomlinson, Facilities Financing (93B)
Michael Pridemore, San Diego Police Department (MS776)
Larry Trame, San Diego Fire-Rescue (MS603)

OTHER ORGANIZATIONS AND INTERESTED INDIVIDUALS
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Carmen Lucas (206)
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The San Diego River Park Foundation (333)
The San Diego River Coalition (334)
Karen Ruggels, KLR Planning, Consultant (karen@klrplanning.com)
Josh Vasbinder, Din/Cal3, Inc., c/o The Dinerstein Companies, 777 S Hwy 101, Ste. 210, Solana Beach, CA 92075

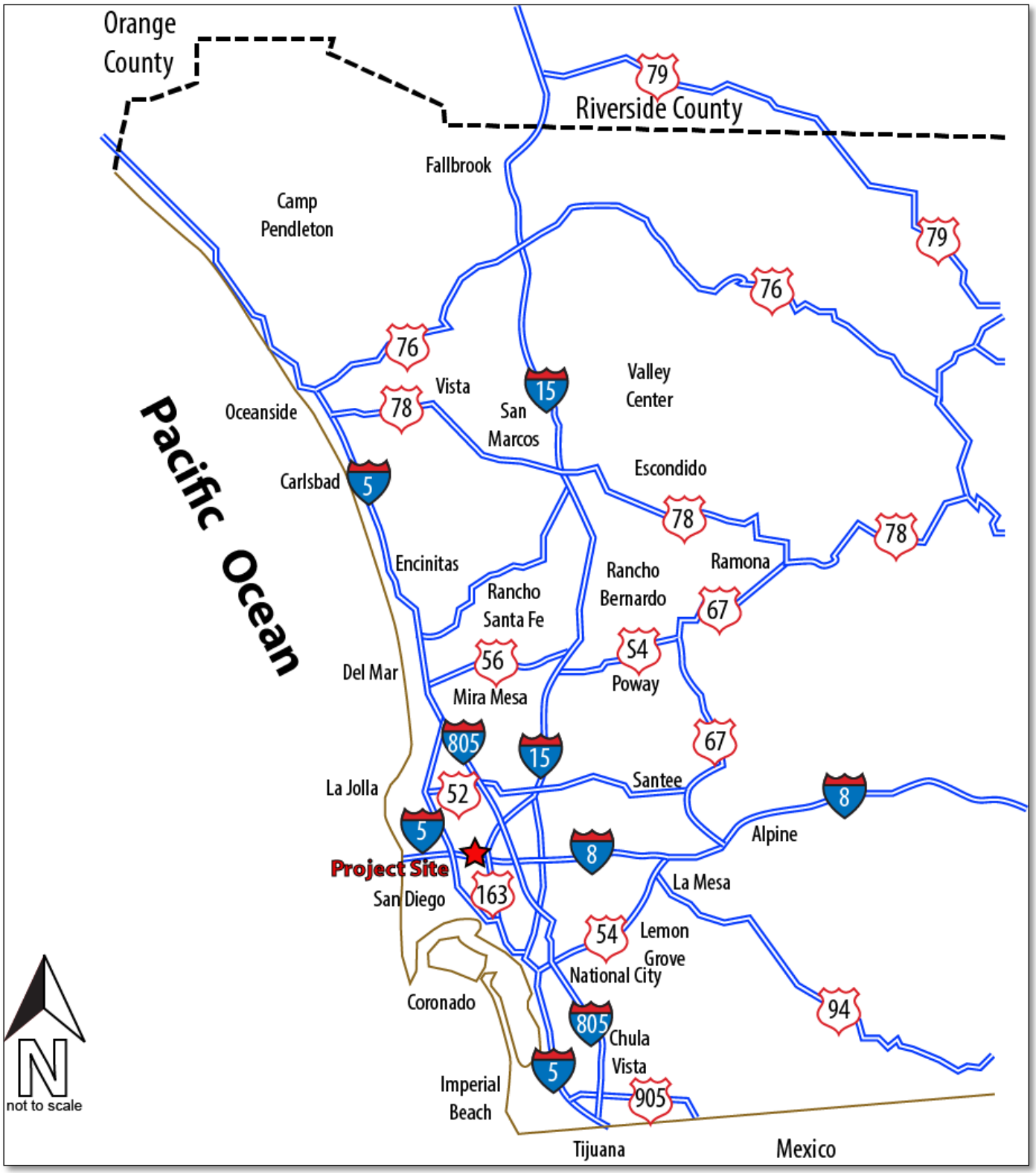

Figure 1. Project Vicinity Map

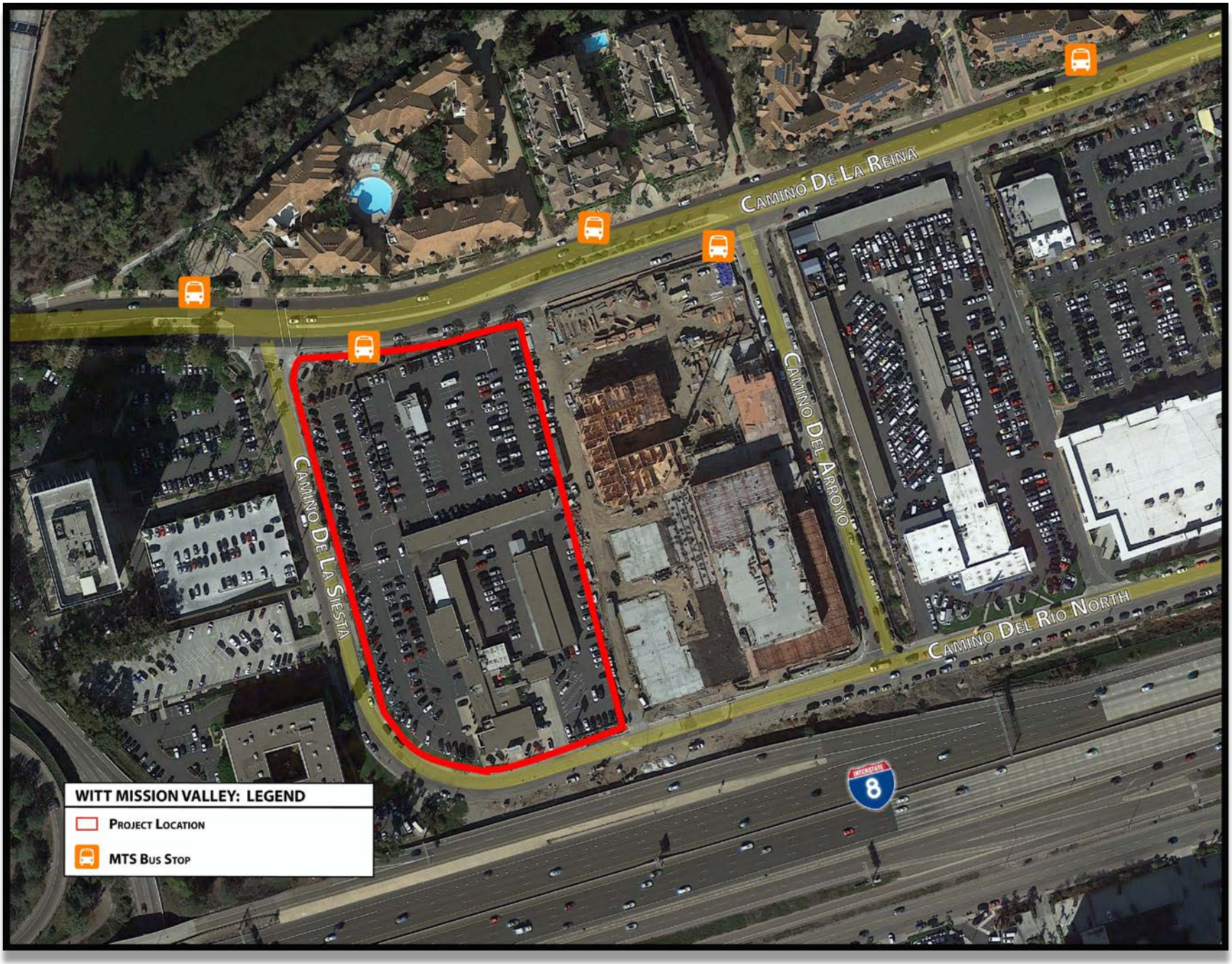

Figure 2. Project Location Map

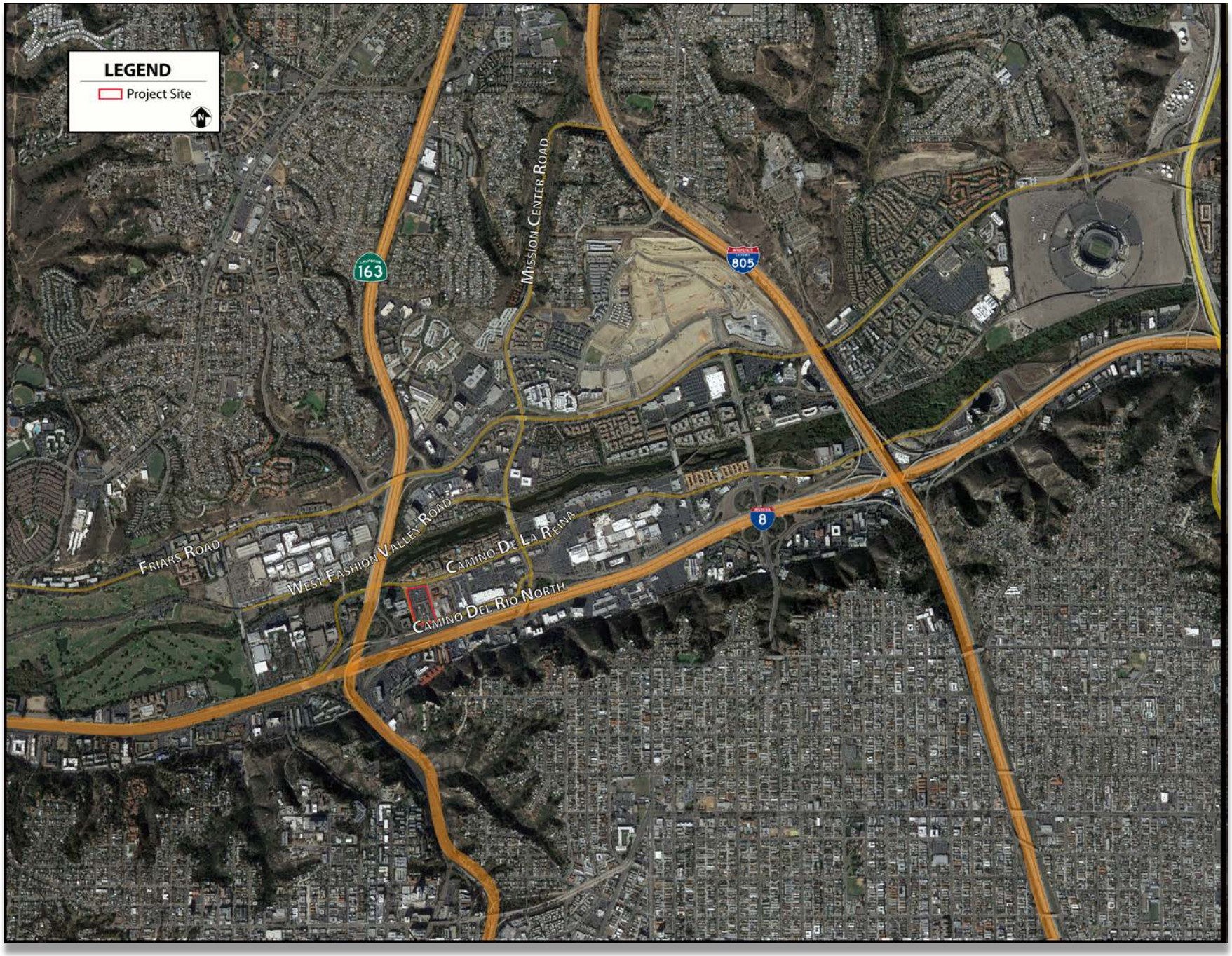

Figure 3. Aerial Map

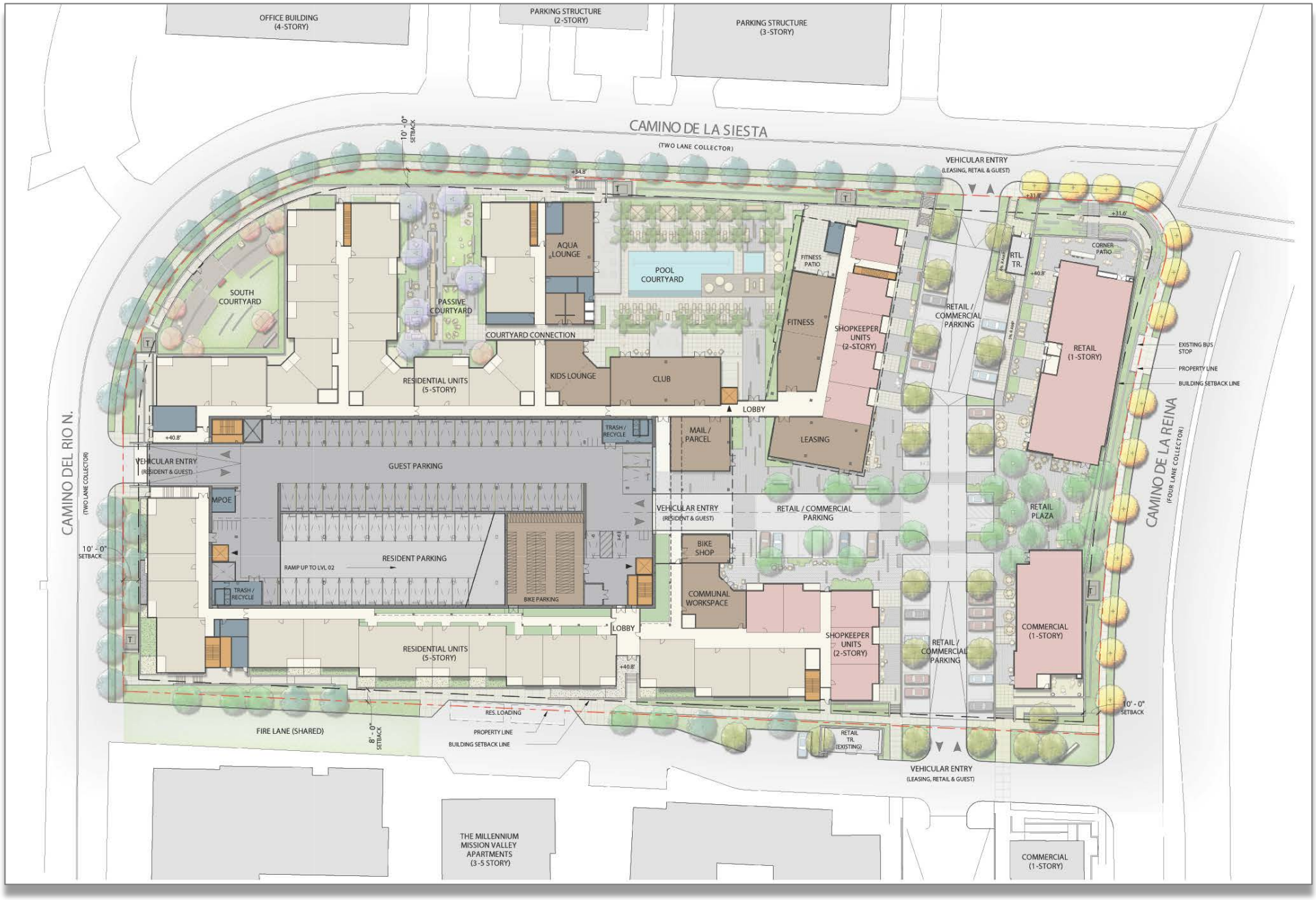

Figure 4. Site Plan

The City of SAN DIEGO

Development Services Department
Land Development Review Division

November 8, 2017

Mr. Josh Vasbinder
Din/Cal 4, Inc.
3411 Richmond Avenue, Suite 200
Houston, Texas 77046

SUBJECT: Scope of Work for an Environmental Impact Report for the Witt Mission Valley Project, Project No. 562674

Dear Mr. Vasbinder:

Pursuant to Section 15060(d) of the California Environmental Quality Act (CEQA), the Environmental Analysis Section (EAS) of the City of San Diego Development Services Department has determined that the Witt Mission Valley project (project) may have significant effects on the environment, and the preparation of an Environmental Impact Report (EIR) is required. Staff has determined that a project EIR is the appropriate environmental document for the project.

The purpose of this letter is to identify the issues to be specifically addressed in the EIR. The EIR shall be prepared in accordance with the City's "Technical Report and Environmental Impact Report Guidelines" (December 2005).

A Notice of Preparation (NOP) will be distributed to the Responsible Agencies and others who may have an interest in the project as required by CEQA Section 15082. Scoping meetings are required by CEQA Section 21083.9(a)(2) for projects that may have statewide, regional, or area-wide environmental impacts. The City's environmental review staff has determined that the project meets this threshold. A scoping meeting has been scheduled for November 28, 2017, from 6:00 PM to 7:30 PM at the Mission Valley Branch Library at 2123 Fenton Parkway, San Diego, CA 92108.

Please note, changes or additions to the scope of work may be required as a result of input received in response to the Notice of Preparation and Scoping Meeting. In addition, the applicant may adjust the project over time, and any such changes would be disclosed within the EIR under the section "History of Project Changes" and accounted for in the EIR impact analysis to the extent required by CEQA.

Each section/issue area of the EIR shall provide a descriptive analysis of the project followed by a comprehensive evaluation of the issue area. The EIR shall also include sufficient graphics and tables to provide a complete description of all major project features.

PROJECT DESCRIPTION

Discretionary Approvals

The project would require a Site Development Permit and a Planned Development Permit.

Location of Project

The 5.13-acre site for the Witt Mission Valley project is located at 588 Camino de la Reina. Camino de la Reina forms the project site's northern boundary; Camino de la Siesta is along the western project boundary; and Camino del Rio North forms the site's southern boundary, separating the project site from Interstate 8 (I-8). The project site is currently developed with commercial auto dealership sales and offices (Witt Lincoln), service bays, and exterior auto sales areas with surface parking lots. Regional access to the project area is provided by I-8, located immediately south of the project; State Route 163 (SR-163), located approximately one-half-mile west of the project site; and I-805, located less than two miles east of the project site. Local access to the project site occurs at driveways off Camino del Rio North and Camino del La Siesta.

Project Description

The project would demolish 38,070-square-feet of existing structures and on-site surface parking and construct a 533,100-square-foot mixed-use development comprised of 267 residential units and ten shopkeeper units totaling approximately 348,500-square-feet, 6,000-square-feet of retail space, and 3,400-square-feet of commercial space. The project would range in height from one-story to five stories. Parking would be provided in a central five-story, above-ground parking structure wrapped with residential units. A total of 411 parking spaces would be provided in the parking structure and 52 surface parking spaces would be provided.

Primary access to the project would occur via a new driveway off Camino de la Siesta along the western project boundary, as well as off a fire lane/drive aisle along the eastern project boundary. Entry to the parking structure, which is anticipated to be the primary access point for residents, would be provided from Camino del Rio North and from an internal drive aisle that would parallel Camino de la Reina and connect Camino de la Siesta on the west to the fire lane/drive aisle on the east.

The project site is zoned MV-CR (Mission Valley – Commercial Retail) and is within Development Intensity District (DID) G of the Mission Valley Community Plan and Planned District Ordinance. The project site is designated Commercial Retail in the Mission Valley Community Plan.

EIR FORMAT/CONTENT REQUIREMENTS

The EIR serves to inform governmental agencies and the public of a project's environmental impacts. Emphasis in the EIR must be on identifying feasible solutions to environmental impacts. The objective is not to simply describe and document an impact, but to actively create and suggest mitigation measures or project alternatives to substantially reduce the significant adverse environmental impacts. The adequacy of the EIR will depend greatly on the thoroughness of this effort.

The EIR must be written in an objective, clear, and concise manner, in plain language. The use of graphics is encouraged to replace extensive word descriptions and to assist in clarification. Conclusions must be supported with quantitative, as well as qualitative, information, to the extent feasible.

Prior to the distribution of the draft EIR for public review, City Certification pages, which are attached at the front of the draft EIR, will also need to be prepared. The City certification pages cannot be prepared until an approved draft has been submitted and accepted by the City. The EIR shall include a title page that includes the Project Tracking System (PTS) number and the date of publication. **The entire environmental document must be left justified. In addition, the environmental document is required to utilize Open Sans, 10-point font.** Please refer to the "Environmental Impact Report Guidelines" (December 2005) for additional details regarding the required information.

I. CONCLUSIONS

Prior to the distribution of the draft EIR for public review, Conclusions, which are attached at the front of the draft EIR, will also need to be prepared. The Conclusions cannot be prepared until an approved draft has been submitted and accepted by the City.

II. TITLE PAGE

The EIR shall include a Title Page that includes the Project Tracking System (PTS) number, State Clearinghouse (SCH) number, and date of publication. DO NOT include any company logos and applicant's or consultant's names.

III. TABLE OF CONTENTS

The EIR shall include a Table of Contents and must list all sections included in the EIR, as well as a list of the Appendices, Tables, and Figures. Immediately following the Table of Contents, a list of acronyms and abbreviations used in the document must be provided.

IV. EXECUTIVE SUMMARY

The consultant will prepare the Executive Summary to be submitted for review with the last screencheck draft EIR, unless otherwise determined. The Executive Summary shall have an independent page numbering system (e.g., S-1, S-2). In general, the Executive Summary should reflect the EIR outline but not need contain every element of the EIR. At a minimum, the Executive Summary must include: a brief project description; impacts determined to be significant (including cumulative effects); impacts found to be less than significant; alternatives; areas of controversy; and, lastly, a matrix listing the impacts and mitigation measures. Please refer to the Environmental Report Guidelines for further detailed information.

V. INTRODUCTION

The EIR shall introduce the project with a brief discussion on the intended use and purpose of the EIR. This discussion shall focus on the type of analysis that the EIR is providing and provide an explanation of why it is necessary to implement the project. This section shall describe and/or incorporate by reference any previously certified environmental documents that cover the project site including any EIRs. This section shall briefly describe areas where the project is in compliance or non-compliance with assumptions and mitigation contained in these previously certified documents. Additionally, this section shall provide a brief description of any other local, state and federal agencies that may be involved in the project review and/or any grant approvals.

VI. ENVIRONMENTAL SETTING

The EIR shall describe the precise location of the project with an emphasis on the physical features of the site and the surrounding areas and present it on a detailed topographic map and regional map. This section shall also include a map of the specific proposal and discuss the existing conditions on the project site and in the project area. In addition, the section shall provide a local and regional description of the environmental setting of the project, as well as the zoning and land use designations of the site and its contiguous properties, area topography, drainage characteristics, and vegetation. It shall include any applicable land use plans such as the City's MSCP/MHPA and other applicable open space preserves or overlay zones that affect the project site, such as the City of San Diego General Plan. The section shall include a listing of any open space easements or building restricted easements that exist on the property. A description of other utilities that may be present on or in close proximity to the site and their maintenance accesses shall also be discussed. Provide a recent aerial photo of the site and surrounding uses, and clearly identify the project location. This section shall include a brief description of the location of the closest police and fire stations along with their response times.

VII. PROJECT DESCRIPTION

The EIR shall include a detailed discussion of the goals and objectives of the project, in terms of public benefit (increase in housing supply, employment centers, etc.). Project objectives will be critical in determining the appropriate alternatives for the project, which would avoid or substantially reduce potentially significant impacts. As stated in CEQA Section 15124 (b), "A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding consideration, if necessary. The statement of objectives should include the underlying purpose of the project." This section shall describe all discretionary actions needed to implement the project (e.g. Site Development Permit, Planned Development Permit, Tentative Map, etc.) including all permits required from federal, state, and local agencies. The description of the project shall include all major project features, including density, grading (cut and fill), relocation of existing facilities, land use, retaining walls, landscaping, drainage design, improvement plans, including any off-site improvements, vehicular access points and parking areas associated with the project. The

project description shall describe any off-site activities necessary to construct the project. The EIR shall include sufficient graphics and tables to provide a complete description of all major project features. Project phasing also should be described in this section. This discussion shall address the whole of the project.

VIII. HISTORY OF PROJECT CHANGES

This section of the EIR shall outline the history of the project and any physical changes that have been made to the project in response to environmental concerns identified during the City's review of the project.

IX. ENVIRONMENTAL IMPACT ANALYSIS

The potential for significant environmental impacts must be thoroughly analyzed and mitigation measures identified that would avoid or substantially lessen any significant impacts. Since the City of San Diego is the Lead Agency for this project, the EIR must represent the independent analyses of the Environmental Analysis Section (EAS). Therefore, all impact analysis must be based on the City's "Significance Determination Thresholds," dated January 2011 and July 2016. Below are key environmental issue areas that have been identified for this project, within which the issue statements must be addressed individually.

Discussion of each issue statement shall include an explanation of the existing project site conditions, impact analysis, significance determination, and appropriate mitigation. The impact analysis shall address potential direct, indirect, and cumulative impacts that could be created through implementation of the project and its alternatives. Lastly, the EIR should summarize each required technical study or survey report within each respective issue section, and all requested technical reports must be included as the appendices to the EIR and summarized in the text of the document.

In each environmental issue section, mitigation measures to avoid or substantially lessen impacts must be clearly identified and discussed. The ultimate outcome after mitigation should also be discussed (i.e., significant but mitigated, significant and unmitigated). If other potentially significant issue areas arise during the detailed environmental investigation of the project, consultation with Development Services Department is required to determine if these areas need to be added to the EIR. As supplementary information is required, the EIR may also need to be expanded.

<u>Land Use</u>

Issue 1: Would the proposal result in a conflict with the environmental goals, objectives, or recommendations of the community plan in which it is located?

Issue 2: Would the proposal require a deviation or variance, and the deviation or variance would in turn result in a physical impact on the environment?

Issue 3: Would the proposal result in land uses which are not compatible with an adopted airport Comprehensive Land Use Plan (CLUP)?

Issue 4: Would the proposal result in the exposure of sensitive receptors to current or future noise levels that would exceed standards established in the Noise Element of the General Plan or an adopted Airport Land Use Compatibility Plan (ALUCP)?

The project site is located within the Mission Valley Planned District and is zoned MV-CR. Section 1514.0307 of the Mission Valley Planned District Ordinance states multiple use development is permitted within the commercial zones, including the MV-CR zone. The project site is designated for commercial use in the Mission Valley Community Plan.

The project requires a Site Development Permit and a Planned Development Permit. The EIR shall evaluate consistencies/ inconsistencies (including all deviations, variances, etc.) with local, State, and Federal regulations (i.e., the City's General Plan, Mission Valley Community Plan, and City of San Diego Land Development Code). If the project is found to be inconsistent with any adopted land use plans, the EIR would disclose and analyze any physical effects that may result from the inconsistency that could be considered significantly adverse.

The project site is located within the Airport Influence Area and Federal Aviation Administration (FAA) Part 77 Notification Area for Montgomery Field Municipal Airport and the San Diego International Airport. Address the project's consistency with the respective Airport Land Use Compatibility Plans (ALUCPs) for these airports. Any inconsistencies identified shall be evaluated to determine if they would lead to a significant physical environmental impact and/or secondary land use impact.

Additionally, an acoustical technical report shall be prepared that includes an evaluation with regards to the adopted ALUCP and with the Noise Compatibility Guidelines (Table NE-3) in the Noise Element of the General Plan. If there is a potential for proposed uses to be incompatible with exterior noise levels at outdoor amenities or interior areas, measures must be included as project design features in order to ensure consistency with the General Plan Noise Element (i.e., setbacks, use of double-paned glass, noise walls/berms and other noise attenuation techniques).

The site is not located within or adjacent to any Multi-Habitat Planning area of the Multiple Species Conservation Program (MSCP), therefore no land use conflicts with the MSCP Subarea Plan are anticipated. This shall be disclosed and discussed in the Land Use section of the EIR.

Transportation/Circulation

Issue 1: Would the proposal result in substantial impact upon existing or planned transportation systems?

Issue 2: Would the proposal result in traffic generation in excess of specific community plan allocation?

Issue 3: Would the proposal result in an increase in projected traffic which is substantial in relation to the existing traffic load and capacity of the street system?

Issue 4: Would the proposal result in the addition of a substantial amount of traffic to a congested freeway segment, interchange, or ramp?

Issue 5: Would the proposal result in an increased demand for off-site parking and or affect existing parking?

Issue 6: Would the proposal result in an increase in traffic hazards for motor vehicles, bicyclists or pedestrians due to a proposed, non-standard design feature (e.g., poor sight distance or driveway onto an access- restricted roadway)?

Issue 7: Would the proposal conflict with adopted policies, plans or programs supporting alternative transportation models (e.g., bus turnouts, bicycle racks)?

The project meets the Average Daily Traffic (ADT) per gross acres as identified in the Mission Valley Community Plan for Development Intensity District "G". It is anticipated that the project will fall within the limitations of Threshold 2 and therefore requires the preparation of a traffic impact analysis. The traffic impact study must be prepared for this project to the satisfaction of the City Engineer.

Describe in this section any required modifications and/or improvements to the existing circulation system, including City streets, intersections, freeways, and interchanges required as a result of the project. Provide an analysis of any potential impacts of the construction of the required traffic improvements. Discuss any potential traffic impacts on the Mission Valley community, as well as adjacent communities (if applicable). Address cumulative traffic impacts, including any future development and/or re-development in the Mission Valley community. Note the assumption of traffic conditions at build-out. Describe the adequacy of parking and the pedestrian access and connectivity of the project, both internally and externally. Describe how any proposed pedestrian and bicycle access would connect with off-site circulation elements. Address emergency access, if modifications to the existing street system are proposed.

The EIR shall present mitigation measures that are required to reduce impacts. Discuss if those measures will mitigate impacts to below a level of significance. If the project results in traffic impacts, which cannot be mitigated to below a level of significance, the Alternatives section of the EIR should include a project alternative that will avoid or further reduce traffic impacts.

Air Quality

Issue 1: Would the proposal conflict with or obstruct implementation of the applicable air quality plan?

Issue 2: Would the proposal result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?

Issue 3: Would the proposal exceed 100 pounds per day of Particulate Matter (PM) (dust)?

Issue 4: Would the proposal result in creating objectionable odors affecting a substantial number of people?

Issue 5: Would the proposal expose sensitive receptors to substantial pollutant concentrations?

The construction and operation phases of the project have the potential to affect air quality. Construction can create short-term air quality impacts through equipment use, ground-disturbing activities, architectural coatings, and worker automotive trips. Air quality impacts resulting from the operation of the project would be primarily generated by increases in automotive trips. An air quality analysis must be prepared which discusses the project's impact on the ability to meet state, regional, and local air quality strategies/standards, as well as any health risks associated with construction. The development would not generate odor impacts; thus, this issue does not need to be addressed further.

Describe the project's climatological setting within the San Diego Air Basin and the basin's current attainment levels for State and Federal Ambient Air Quality Standards. Discuss short- and long-term and cumulative impacts on regional air quality, including construction and operational-related sources of air pollutants. Discuss the potential impacts from the increase in trips to the Regional Air Quality Standards, and the overall air quality impacts from such trips, and any proposed mitigation measures. Should the project result in a significant decrease in the levels of service of any roadway or intersection in the vicinity of a sensitive receptor, address the potential degradation of air quality, which may result, including the possibility of "hot spots" within the area. Also include a discussion of potential dust generation during construction within this section of the document together with any proposed dust suppression measures that would avoid or lessen dust related impacts to sensitive receptors within the area.

The significance of potential air quality impacts shall be assessed and control strategies identified. The EIR shall analyze the proposed project's compliance with the State Implementation Plan (SIP), the Regional Transportation Plan (RTP), and the Regional Transportation Improvement Plan (RTIP).

The EIR shall also assess the potential health risks associated with particulate emissions from, and shall assess whether the proposed project would allow for future development which would create a significant adverse effect on air quality that could affect public health.

Energy

Issue 1: Would the construction and operation of the proposal result in the use of excessive amounts of electrical power?

Issue 2: Would the proposal result in the use of excessive amounts of fuel or other forms of energy (including natural gas, oil, etc.)?

Appendix F of the State CEQA Guidelines requires that potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. Particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy should be included in this section. The EIR section shall address the estimated energy use for the project and assess whether the project would generate a demand for energy (electricity and/or natural gas) that would exceed the planned capacity of the energy suppliers. A description of any energy and/or water saving project features should also be included in this section. (Cross-reference with GHG Emissions discussion section as appropriate.) Describe any proposed measures included as part of the project or required as mitigation measures directed at conserving energy and reducing energy consumption. Ensure this section addresses all issues described within Appendix F of the CEQA Guidelines.

Geologic Conditions

Issue 1: Would the proposal expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?

Issue 2: Would the proposal result in a substantial increase in wind or water erosion of soils, either on or off the site?

Issue 3: Would the proposal 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 project site is located in a seismically active region of California where the potential for geologic hazards, such as earthquakes and ground failures exist. According to the City of San Diego Seismic Safety Study, the project site is located within Geologic Hazard Category 31, characterized as liquefaction having a high potential with shallow groundwater, major

drainages, and hydraulic fills. No active, potentially active, or inactive faults are known to exist onsite. Furthermore, the project site has been previously graded and is fully developed with commercial buildings, maintenance bays, and associated surface parking. The project would replace the existing land uses with a mixed-use development. The project site could be subject to liquefaction, due to its location proximate to the San Diego River. A geotechnical investigation, prepared in accordance with the City's Geotechnical Report Guidelines, is required to address the feasibility and suitability of the entire site for the development.

The section shall describe the geologic and subsurface conditions in the project area. It shall describe the general setting in terms of existing topography, geology (surface and subsurface), tectonics and soil types. It shall assess possible impacts to the project from geologic hazards and unfavorable soil conditions. The constraints discussion shall include issues such as the potential for liquefaction, slope instability, and other hazards. Any secondary impacts due to soils/geology mitigation (e.g., excavation of unsuitable soil) shall also be addressed. Additionally, the sections shall provide mitigation, as appropriate, that would reduce the potential for future adverse impacts resulting from on-site soils and geologic hazards.

Greenhouse Gas Emissions

Issue 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Issue 2: Would the project conflict with the City's Climate Action Plan or an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of greenhouse gases?

This section shall present an overview of greenhouse gases (GHG) including the most recent information regarding the current understanding of the mechanisms behind current conditions and trends, and the broad environmental issues related to global climate change. A discussion of current domestic legislation, plans, policies, and programs pertinent to global climate change shall also be included. The EIR shall provide details of the project's sustainable features such as pedestrian access and orientation, sustainable design and building features, and others that meet criteria outlined in the Conservation Element of the General Plan. This section will specifically address how the project meets the CAP Consistency Checklist, based on the CAP Consistency Checklist Application.

Health and Safety

Issue 1: Would the proposal result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school?

Issue 2: Would the proposal impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Issue 3: Would the proposal 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, create a significant hazard to the public or environment?

Issue 4: Would the proposal result in a safety hazard for people residing or working in a designated airport influence area?

Issue5: Would the proposal result in a safety hazard for people residing or working within two miles of a private airstrip or a private airport or heliport facility that is not covered by an adopted Airport Land Use Compatibility Plan?

The EIR shall identify known contamination site(s) within the project areas and address the potential impact to occupants of the proposed project. This section should also address any other hazardous materials that would be utilized and/or stored on-site. Please provide the types and quantities of hazardous materials along with the locations of storage areas on the plans. The EIR shall also discuss project effects on emergency routes and access within the project area during and after project construction.

The project site is located in the Airport Influence Area (AIA) Review Area 2 for Montgomery Field and San Diego International Airport. Discuss the project's consistency with the ALUCPs relative to safety hazards.

Historical Resources

Issue 1: Would the proposal result in an alteration, including the adverse physical or aesthetic effects and/or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, or object, or site?

Issue 1: Would the proposal result in any impact to existing religious or sacred uses within the potential impact area?

Issue 1: Would the proposal result in the disturbance of any human remains, including those interred outside of formal cemeteries?

Historic resources include all properties eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to State and local laws and registration programs such as the California Register of Historical Resources of the City of San Diego Historical Resources Register. Historical resources include buildings, structures, objects, archaeological sites, districts, landscaping, and traditional cultural properties possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. CEQA requires that before approving discretionary projects, the Lead Agency must identify and examine the significant adverse environmental effects which may result from that project. Pursuant to Section 21084.1 of the State CEQA Guidelines, 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.

Built Environment

Provide information regarding the age of any existing buildings to be demolished and evidence relative to potential historic relevance. If structures are determined to be historically significant, provide appropriate mitigation to ensure impacts would be reduced to below a level of significance.

Archaeological Resources

Important cultural resources and prehistoric sites are associated with Mission Valley. Due to the sensitivity of Mission Valley with regard to archeological resources and the potential for unknown subsurface resources, archeological monitoring will be required during grading and excavation activities.

Hydrology

Issue 1: Would the proposal result in an increase in impervious surfaces and associated increased runoff?

Issue 2: Would the proposal result in a substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?

Issue 3: Would the proposal develop wholly or partially within the 100-year floodplain identified in the FEMA maps or impose flood hazards on other properties.

Increases in impervious surfaces could potentially result in significant erosion and subsequent sedimentation downstream. A hydrology study is required to address these issues. The study shall pay particular attention to addressing anticipated changes to existing drainage patterns and runoff volumes affecting adjacent properties. The Hydrology section should include changes in impervious surfaces and the resulting changes in drainage patterns.

Noise

Issue 1: Would the proposal result or create a significant increase in the existing ambient noise levels which exceed the City's adopted ordinances or thresholds?

An acoustical analysis, prepared in accordance with the City's "Acoustical Report Guidelines," is required to determine if any impacts would occur due to project implementation. The report must determine if the project has the potential to create significant noise impacts. Include tables within the noise study, which show the existing, and future noise levels of dB(A) and any increased noise levels over dB(A) in 3 dB(A) increments along affected roads.

The analysis should discuss how the project would conform to the City of San Diego Municipal Code Noise and Abatement Control Ordinance §59.5.01. Additionally, construction noise may impact surrounding uses and the EIR should include a discussion regarding this potential impact.

Public Services and Facilities

Issue 1: Would the proposal have a substantial effect upon, or result in a need for new or altered governmental services in any of the following areas: Police protection; Fire/Life Safety protection; Libraries; Parks or other recreational facilities; Maintenance of public facilities, including roads, and Schools?

The EIR shall describe the public services currently available to serve the project site, and discuss any intensification of land use on the property and if it would lead to an increased demand on existing and planned public services and facilities. The EIR shall identify whether or not construction of new facilities would be required, and describe how the construction and long-term maintenance and operation of these facilities could be financed. In particular, identify fire, police, and road facilities in relation to the project site. Disclose the Fire and Police Departments' current response time to the area. Discuss if the site currently receives six-minute response time for fire crews and equipment, eight-minute emergency services response time, and whether the Police Department's goal of a seven-minute response time for priority calls are currently able to be met on-site. Discuss if or how the project would alter any existing or planned response times to the site or surrounding service area. Discuss the project impact on existing or future recreational facilities.

Public Utilities

Issue 1: Would the proposal result in a need for new systems, or require substantial alterations to existing utilities, the construction of which would create physical impacts with regard to the following utilities: Natural gas; Water; Sewer; Communication systems; and Solid waste disposal?

Issue 2: Would the proposal use of excessive amounts of water?

Issue 3: Does the proposal propose landscaping which is predominantly non-drought resistant vegetation?

The EIR shall include a discussion of potential impacts to public utilities as a result of the project. Electricity and gas are provided by Sempra Energy. Water and wastewater services are supplied by the City. The EIR will also identify any conflicts with existing and planned infrastructure, and evaluate any need for upgrading infrastructure and include an analysis of any impacts resulting from the construction of needed new facilities.

The EIR will include a discussion of the project's construction and operational effects on the City's ability to handle solid waste. According to Assembly Bill 939, the City of San Diego is required to divert at least 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. The project meets the City's threshold of demolition and/or development of 40,000 square feet or more and therefore a Waste Management Plan must be prepared by the applicant, approved by the City's Environmental Services Department, and summarized in the EIR. The Plan must address recycling and solid waste disposal, for demolition, construction, and post-construction occupancy phases of the project.

In regard to water usage, the project would not require a Water Supply Assessment, as it does not meet the requirements of SB 610 and SB 221.

Tribal Cultural Resources

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

Issue 1: 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

Issue 2: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying 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.

The EIR should describe City consultation with tribes as required by Public Resources Code Sections 21080.3.1 and 21080.3.2. Should consultation identify potential impacts to tribal cultural resources, the EIR shall provide measures determined through the tribal consultation to ensure that potential impacts to tribal cultural resources are appropriately mitigated.

Visual Quality/Neighborhood Character

Issue 1: Would the proposal result in the creation of a negative aesthetic site or project?

Issue 2: Would the proposal's bulk, scale, materials, or style be incompatible with surrounding development?

Issue 3: Would the proposal create substantial light or glare which would adversely affect daytime or nighttime view in the area?

Issue 4: Would the proposal result in substantial alteration to the existing or planned character of the area, such as could occur with the construction of a subdivision in a previously underdeveloped area? Note: for substantial alteration to occur, new development would have to be of a size, scale, or design that would markedly contrast with the character of the surrounding area.

This section should evaluate grading associated with the project and the potential change in the visual environment based on the development. Provide an evaluation of the Visual Quality/Neighborhood Character (Aesthetics) impacts due to the project. Describe the structures in terms of building mass, bulk, height, and architecture. Describe or state how this complies with or is allowed by the City's standards for the zone (or proposed zone). Describe how the character of the surrounding community area would be affected with development of the project. Address visual impacts of the project from public vantage points. Visibility of the site from public vantage points should be identified through a photo survey/inventory and/or photo simulations, and any changes in these views should be described.

Describe how the character of the surrounding area would be affected with development of the project. Describe any unifying theme proposed for the development area, and include a description of the design guidelines. Would the project result in a homogenous style of architecture, or would varied architectural designs be encouraged?

If significant impacts to Visual Quality/Neighborhood Character are identified, mitigation measures and/or project alternatives that would reduce significant impacts to below a level of significance should be provided. Any deviations/variances relating to visual quality/neighborhood character and bulk and scale must be discussed in this section.

<u>Water Quality</u>

Issue 1: Would the proposal result in an increase in pollutant discharge to receiving waters during or following construction? Would the proposal discharge identified pollutants to an already impaired water body?

Issue 2: What short-term and long-term effects would the proposal have on local and regional water quality? What types of pre- and post-construction Best Management Practices (BMPs) would be incorporated into the proposal to preclude impacts to local and regional water quality?

Water Quality is affected by sedimentation caused by erosion, by urban run-off carrying contaminants, and by direct discharge of pollutants (point-source pollution). As land is developed or redeveloped, the impervious surfaces could send an increased volume of runoff containing oils, heavy metals, pesticides, fertilizers, and other contaminants (non-

source pollution) into associated watersheds. Sedimentation can impede stream flow. Compliance with the City's Storm Water Standards is generally considered to preclude water quality impacts. The Storm Water Standards are available online.

Discuss the project's effect on water quality within the project area and downstream. If the project requires treatment control Best Management Practices (BMPs), submit a Storm Water Quality Management Plan (SWQMP) consistent with the City's Storm Water Standards. The report must describe how source control and site design have been incorporated into the project, the selection and calculations regarding the numeric sizing treatment standards, BMP maintenance schedules and maintenance costs, and the responsible party for future maintenance and associated costs. The report must also address water quality, by describing the types of pollutants that would be generated during post construction, the pollutants to be captured and treated by the BMPs. The findings in this report must be reflected within this section of the EIR. Based on the analysis and conclusions of the WQTR, the EIR shall disclose how the project would comply with local, state, and federal regulations and standards.

X. SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

This section shall describe any significant unavoidable impacts of the project, including those significant impacts that can be mitigated but not reduced to below a level of significance. Provide mitigation measures where appropriate; including triggers, details, responsible entities, and a monitoring and report schedule. Include a sentence on the significance of each impact area discussed, with effect of the proposed mitigation if appropriate. Do not include analysis.

XI. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

In accordance with CEQA Section 15126.2(c), the EIR shall include a discussion of any significant irreversible environmental changes which would be caused by the action should it be implemented. This section shall address the use of nonrenewable resources during the construction and life of the project. See CEQA Section 15127 for limitation on the requirements for this discussion.

XII. GROWTH INDUCEMENT

The EIR shall address the potential for growth inducement through implementation of the project. The EIR shall discuss the ways in which the project 1) is directly and indirectly growth inducing (i.e. fostering economic or population growth by land use changes, construction of additional housing, etc.) and 2) if the subsequent consequences (i.e. impacts to existing infrastructure, requirement of new facilities, roadways, etc.) of the growth inducing project would create a significant and/or unavoidable impact, and provide for mitigation or avoidance. Accelerated growth could further strain existing community facilities or encourage activities that could significantly affect the environment. This section need not conclude that growth-inducing impacts if any are

significant unless the project would induce substantial growth or concentration of population.

XIII. CUMULATIVE IMPACTS

In accordance with CEQA Section 15130, potential cumulative impacts shall be discussed in a separate section of the EIR. This section shall include all existing and pending development proposals, including those undergoing review with the Development Services Department. The discussion shall address the potential cumulative effects related to each environmental resource area that should be discussed in the EIR as outlined above.

The EIR shall summarize the overall short-term and long-term impacts this project could have in relation to other planned and proposed projects. When this project is considered with other past, present and reasonably foreseeable probable future projects within close proximity, would the project result in significant environmental changes that are individually limited but cumulatively considerable? If incremental impacts do not rise to the level of cumulatively significant the Draft EIR shall make a statement to that extent.

XIV. EFFECTS FOUND NOT TO BE SIGNIFICANT

A separate section of the EIR shall include a brief discussion of why certain areas were not considered to be potentially significant and were therefore not included in the EIR. For the project, these include agricultural resources, biological resources, agricultural resources, geologic conditions, land use, paleontological resources, public utilities, hydrology, water quality, health and safety, and mineral resources,. If issues related to these areas or other potentially significant issues areas arise during the detailed environmental investigation of the project, consultation with EAS is recommended to determine if subsequent issue area discussions need to be added to the EIR. Additionally, as supplementary information is submitted (such as with the technical reports), the EIR may need to be expanded to include these or other additional use areas.

XV. ALTERNATIVES

The EIR shall place major attention on reasonable alternatives that avoid or reduce the project's significant environmental impacts while still achieving the stated project objectives. Therefore, a discussion of the project's objectives should be included in this section. The alternatives should be identified and discussed in detail and should address all significant impacts. Refer to Section 15364 of the CEQA Guidelines for the CEQA definition of "feasible."

This section should provide a meaningful evaluation, analysis, and comparison of alternatives' impacts to those of the project (matrix format recommended). These alternatives should be identified and discussed in detail and should address all significant impacts. The alternatives analysis should be conducted with sufficient

graphics, narrative and detail to clearly assess the relative level of impacts and feasibility. Issues to consider when assessing "feasibility" are site suitability, economic viability, availability of infrastructure, general plan consistency, other regulatory limitations, jurisdictional boundaries and the applicant's control over alternative sites (own, ability to purchase, etc.).

Preceding the detailed alternatives analysis, provide a section entitled "Alternatives Considered but Rejected." This section should include a discussion of preliminary alternatives that were considered but not analyzed in detail. The reasons for rejection must be explained in detail and demonstrate to the public the analytical route followed in rejecting certain alternatives.

No Project Alternatives

The No Project Alternative discussion shall compare the environmental effects of approving the project with impacts of not approving the project. In accordance with CEQA Guidelines Section 15126.6(e)(3)(B), the No Project Alternatives shall discuss the existing conditions at the time of the NOP, as well as what would be reasonably expected to occur in the foreseeable future if the proposed project is not approved, based on current zoning, and use designations, and available infrastructure.

The No Project/Development Alternative assumes no construction associated with the proposed project, with future development occurring with the existing land use. The intent of this alternate is to satisfy CEQA's requirement to address development of the project site in accordance with any approved plans and/or existing zoning.

Other Project Alternatives

In addition to the No Project alternatives, the EIR shall consider other alternatives that are determined through the environmental review process that could reduce or avoid potentially significant environmental effects associated with the proposed project. These alternatives must be discussed and/or defines with EAS staff prior to included them in the EIR.

The Alternatives section of the EIR will be based on a description of "reasonable" project alternatives, which are capable of reducing or avoiding potentially significant impacts associated with the proposed project. Site-specific alternatives, if needed, will be developed in response to the conclusions of the environmental analyses and the various technical studies and may include alternative project design(s) that can reduce one or more of the identified significant adverse impacts of the proposed project. This may include a reduction in land use intensity, alternative land use plan(s), or feasible design scenarios.

If any of the technical reports prepared for the project show significant impacts as a result of project build-out, a Reduced Development Alternative that reduces those impacts should be presented and evaluated. The applicant should work with City staff to

determine the development area and intensity that should be considered din this alternative.

If, through the environmental analysis, other alternatives become apparent that would mitigate potential impacts, these should be discussed with EAS staff prior to including them in the Draft EIR. It is important to emphasize that the alternatives section of the EIR should constitute a major part of the report. The timely processing of the environmental review will likely be dependent on the thoroughness of effort exhibited in the alternative analysis.

XVI. MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Mitigation measures should be clearly identified and discussed and their effectiveness assessed in each issue section of the EIR. A Mitigation Monitoring and Reporting Program (MMRP) for each issue area with significant impacts is mandatory and projected effectiveness must be assessed (i.e., all or some CEQA impacts would be reduced to below a level of significance, etc.). At a minimum, the MMRP should identify: 1) the department responsible for the monitoring; 2) the monitoring and reporting schedule; and 3) the completion requirements. In addition, mitigation measures and the monitoring and reporting program for each impact should also be contained (verbatim) to be included within the EIR in a separate section and a duplicate separate copy (Word version) must also be provided to EAS.

XVII. REFERENCES

Material must be reasonably accessible. Use the most up-to-date possible and reference source documents.

XVIII. INDIVIDUALS AND AGENCIES CONSULTED

List those consulted in preparation of the EIR. Seek out parties who would normally be expected to be a responsible agency or an interest in the project.

XIX. CERTIFICATION PAGE

Include City and Consulting staff members, titles, and affiliations.

XX. APPENDICES

Include the EIR Notice of Preparation (NOP), and any comments received regarding the NOP and Scoping Letter. Include all accepted technical studies.

CONCLUSION

If other potentially significant issue areas arise during detailed environmental investigation of the project, consultation with this division is required to determine if these other areas need to be addressed in the EIR. Should the project description be revised, an additional scope of work may be required. Furthermore, as the project design progresses and supplementary information becomes available, the EIR may need to be expanded to include additional issue areas.

It is important to note that timely processing of your project will be contingent in large part on your selection of a well-qualified consultant. Prior to starting work on the EIR, a meeting between the consultant and EAS will be required to discuss and clarify the scope of work. Until the screencheck for the draft EIR is submitted, which addresses all of the above issues, the environmental processing timeline will be held in abeyance. Should you have any questions, please contact the environmental analyst, Elizabeth Shearer-Nguyen at (619) 446-5369; for general question regarding the project contact William Zounes, Project Manager, at (619) 687-5942.

Sincerely,

Kerry M. Santoro
Deputy Director
Development Services Department

cc: Elizabeth Shearer-Nguyen, Development Services Department
Environmental Project File
Karen L. Ruggels, K L R PLANNING, Consultant

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

RECEIVED

NOV 17 2017

Development Services

Notice of Preparation

November 8, 2017

To: Reviewing Agencies

Re: Witt Mission Valley
SCH# 2017111027

Attached for your review and comment is the Notice of Preparation (NOP) for the Witt Mission Valley draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Elizabeth Shearer-Nguyen
City of San Diego
1222 First Avenue, MS-501
San Diego, CA 92101

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2017111027
Project Title Witt Mission Valley
Lead Agency San Diego, City of

Type NOP Notice of Preparation

Description A site development permit and planned development permit demolish 38,700 sf of existing structures and on-site surface parking and construct a 533,100 sf mixed use development comprised of 267 residential units and ten shopkeeper units totaling approx 348,500 sf, 6,000 sf of retail space, and 3,400 sf of commercial space. The project would range in height from one-story to five stories. Parking would be provided in a central five-story, above-ground parking structure wrapped with residential units. A total of 411 parking spaces would be provided in the parking structure and 52 surface parking spaces would be provided. Various site improvements would also be constructed that includes associated hardscape and landscape. The project would conform to the Affordable/In-Fill Housing and Sustainable Buildings Expedite Program by generating 50% or more of the projected total energy consumption on site through renewable energy resources.

Lead Agency Contact

Name Elizabeth Shearer-Nguyen
Agency City of San Diego
Phone (619) 446-5369 **Fax**
email
Address 1222 First Avenue, MS-501
City San Diego **State** CA **Zip** 92101

Project Location

County San Diego
City San Diego
Region
Cross Streets Camino De La Siesta/Camino Del Arroyo/Camino De La Reina
Lat / Long 32.765042° N / 117.159627° W
Parcel No. 438-020-7400
Township **Range** **Section** **Base**

Proximity to:

Highways I-8, I-805
Airports
Railways Fashion Valley Transit Ctr.
Waterways San Diego River
Schools
Land Use Commercial retail/MV-CR/Commercial employment, retail, and services

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Geologic/Seismic; Noise; Public Services; Traffic/Circulation; Water Quality; Landuse; Cumulative Effects; Other Issues; Tribal Cultural Resources

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Department of Housing and Community Development; California Energy Commission; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 11; Resources, Recycling and Recovery; State Water Resources Control Board, Division of Water Quality; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 9; San Diego River Conservancy

Date Received 11/08/2017 **Start of Review** 11/08/2017 **End of Review** 12/07/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

2017111027

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # N/A

Project Title: Witt Mission Valley

Lead Agency: City of San Diego | Contact Person: Elizabeth Shearer-Nguyen

Mailing Address: 1222 First Avenue, MS 501 | Phone: (619) 446-5369

City: San Diego, CA | Zip: 92101 | County: San Diego

Project Location: County: San Diego | City/Nearest Community: San Diego/Mission Valley

Cross Streets: Camino De La Siesta/Camino Del Arroyo/Camino De La Reina | Zip Code: 92108

Lat. / Long.: 32.765042 / -117.159627

Total Acres: approx. 5.13

Assessor's Parcel No.: 438-020-7400 | Section: ____ Twp.: ____ Range: ____ Base

Within 2 Miles: State Hwy #: Interstate 8, Interstate 805 | Waterways: San Diego River

Airports: | Railways: Fashion Valley Transit

Governor's Office of Planning & Research

NOV 08 2017

STATE CLEARINGHOUSE

Document Type:

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ____ Other ____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI Other: ☐ Joint Document ☐ Other ____

NOV 08 2017

STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan ☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan ☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.) ☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other: Site

Development Permit and Planned Development Permit

Development Type:

☒ Residential: Units 267 Acres 5.13
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. 3,400 Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational ____
☐ Recreational ____

☐ Water Facilities: Type ____ MGD ____
☐ Transportation: Type ____
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☒ Other: 6,000-square-feet of retail

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☐ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☒ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☐ Toxic/Hazardous
☒ Traffic/Circulation
☐ Vegetation
☒ Water Quality
☐ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Wildlife
☐ Growth Inducing
☒ Land Use
☒ Cumulative Effects
☒ Other Energy, Greenhouse Gas Emissions, Tribal Cultural Resources, Hydrology

Present Land Use/Zoning/General Plan Designation: Commercial Retail/MV-CR/Commercial Employment, Retail, and Services

Project Description: *(please use a separate page if necessary)* See attached Public Notice / Project Description

Note: The state Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

_____Air Resources Board
_____Boating & Waterways, Department of
_____ California Highway Patrol
_____CalFire
_____ Caltrans District # 11
_____ Caltrans Division of Aeronautics
_____ Caltrans Planning (Headquarters)
_____ Central Valley Flood Protection Board
_____ Coachella Valley Mountains Conservancy
_____ Coastal Commission
_____Colorado River Board
_____Conservation, Department of
_____Corrections, Department of
_____Delta Protection Commission
_____Education, Department of
_____ Energy Commission
_____ Fish & Game Region # _____
_____Food & Agriculture, Department of
_____General Services, Department of
_____ Health Services, Department of
_____Housing & Community Development
_____ Integrated Waste Management Board
_____ Native American Heritage Commission
_____Office of Emergency Services
_____Office of Historic Preservation
_____Office of Public School Construction
_____Parks & Recreation
_____Pesticide Regulation, Department of
_____Public Utilities Commission
_____ Regional WQCB # _____
_____Resources Agency
_____S.F. Bay Conservation & Development Commission
_____San Gabriel & Lower L.A. Rivers and Mtns Conservancy
_____San Joaquin River Conservancy
_____Santa Monica Mountains Conservancy
_____State Lands Commission
_____SWRCB: Clean Water Grants
_____SWRCB: Water Quality
_____SWRCB: Water Rights
_____Tahoe Regional Planning Agency
_____ Toxic Substances Control, Department of
_____Water Resources, Department of

_____ Other _____
_____ Other _____

Local Public Review Period (to be filled in by lead agency)

Starting Date November 8, 2017 Ending Date December 8, 2017

Lead Agency (Complete if applicable):

Consulting Firm: _____
Address: _____
City/State/Zip: _____
Contact: _____
Phone: _____

Applicant: _____
Address: _____
City/State/Zip: _____

Signature of Lead Agency Representative: Lindsay H. Sebastian **Date:** 11/08/2017

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: San Diego **SCH#** 2017111027

Resources Agency

- [■] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Denise Peterson
- [ ] **California Coastal Commission** Allyson Hitt
- [ ] **Colorado River Board** Lisa Johansen
- [ ] **Dept. of Conservation** Crina Chan
- [ ] **Cal Fire** Dan Foster
- [ ] **Central Valley Flood Protection Board** James Herota
- [ ] **Office of Historic Preservation** Ron Parsons
- [■] **Dept of Parks & Recreation** Environmental Stewardship Section
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve Goldbeck
- [▨] **Dept. of Water Resources** Resources Agency Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife** Scott Flint Environmental Services Division
- [ ] **Fish & Wildlife Region 1** Curt Babcock
- [ ] **Fish & Wildlife Region 1E** Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2** Jeff Drongesen
- [ ] **Fish & Wildlife Region 3** Craig Weightman
- [ ] **Fish & Wildlife Region 4** Julie Vance
- [▨] **Fish & Wildlife Region 5** Leslie Newton-Reed Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6** Tiffany Ellis Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M** Heidi Calvert Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M** William Paznokas Marine Region

Other Departments

- [ ] **California Department of Education** Lesley Taylor
- [ ] **OES (Office of Emergency Services)** Monique Wilber
- [ ] **Food & Agriculture** Sandra Schubert Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Cathy Buck Environmental Services Section
- [▨] **Housing & Comm. Dev.** CEQA Coordinator Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Erik Vink
- [ ] **Delta Stewardship Council** Anthony Navasero
- [▨] **California Energy Commission** Eric Knight
- [■] **Native American Heritage Comm.** Debbie Treadway
- [▨] **Public Utilities Commission** Supervisor
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [ ] **State Lands Commission** Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics** Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR** Christian Bushong
- [▨] **California Highway Patrol** Suzann Ikeuchi Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Eric Federicks – South Susan Zanchi - North
- [ ] **Caltrans, District 4** Patricia Maurice
- [ ] **Caltrans, District 5** Larry Newland
- [ ] **Caltrans, District 6** Michael Navarro
- [ ] **Caltrans, District 7** Dianna Watson
- [ ] **Caltrans, District 8** Mark Roberts
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [▨] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Maureen El Harake

Cal EPA

Air Resources Board

- [ ] **Airport & Freight** Jack Wursten
  - [ ] **Transportation Projects** Nesamani Kalandiyur
  - [ ] **Industrial/Energy Projects** Mike Tollstrup
- [▨] **California Department of Resources, Recycling & Recovery** Sue O'Leary
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [ ] **State Water Resources Control Board** Cindy Forbes – Asst Deputy Division of Drinking Water
- [ ] **State Water Resources Control Board Div. Drinking Water #_____**
- [▨] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Phil Crader Division of Water Rights
- [▨] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [▨] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____
- [▨] San Diego River Conservancy

Last Updated 11/06/17

VIEJAS
TRIBAL GOVERNMENT

P.O Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 619.445.3810
Fax: 619.445.5337
viejas.com

November 13, 2017

RECEIVED
NOV 20 2017
Development Services

E. Shearer-Nguyen
Environmental Planner
City of San Diego Development Services Dept.
1222 First Avenue, MS 501
San Diego, CA 92101

RE: Witt Mission Valley Project

Dear E. Shearer-Nguyen,

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to Viejas.

Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314 or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov , for scheduling. Thank you.

Sincerely,

Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS

401 B Street, Suite 800
San Diego, CA 92101-4231
(619) 699-1900
Fax (619) 699-1905
sandag.org

December 8, 2017 File Number 3300300

Ms. Elizabeth Shearer-Nguyen
City of San Diego
Development Services Center
1222 First Avenue, Mail Station 501
San Diego, CA 92101

MEMBER AGENCIES
Cities of
Carlsbad
Chula Vista
Coronado
Del Mar
El Cajon
Encinitas
Escondido
Imperial Beach
La Mesa
Lemon Grove
National City
Oceanside
Poway
San Diego
San Marcos
Santee
Solana Beach
Vista
and
County of San Diego

ADVISORY MEMBERS
Imperial County
California Department of Transportation
Metropolitan Transit System
North County Transit District
United States Department of Defense
San Diego Unified Port District
San Diego County Water Authority
Southern California Tribal Chairmen's Association
Mexico

Dear Ms. Shearer-Nguyen:

SUBJECT: The City of San Diego's Witt Mission Valley Notice of Preparation (Project No. 562674)

Thank you for the opportunity to comment on the City of San Diego's Witt Mission Valley Notice of Preparation (NOP). The San Diego Association of Governments (SANDAG) appreciates the City of San Diego's efforts to implement the policies included in San Diego Forward: The 2015 Regional Plan (Regional Plan) that emphasize the need for better land use and transportation coordination. These policies will help provide people with more travel and housing choices, protect the environment, create healthy communities, and stimulate economic growth. SANDAG comments are based on policies included in the Regional Plan and are submitted from a regional perspective.

SMART GROWTH

The project site is in a Smart Growth Opportunity Area (SD MV-3, designated as a Town Center) on the SANDAG Smart Growth Concept Map. Development in these areas supports a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all. Furthermore, these areas can support increased transit use, walking, and biking. Please consider including the following planned transit routes and services in the plan documents and increasing access to these services (e.g., through pedestrian and bike improvements to ensure access to the Fashion Valley Transit Station):

- *Rapid* service – Routes 41 and 120
    - Route 120, currently a high-frequency local bus service, will be transitioned to a *Rapid* service
- High-frequency local bus service – Routes 25, 88, 646, and 928

TRANSPORTATION DEMAND MANAGEMENT

When preparing the Environmental Impact Report for the Witt Mission Valley project, please consider incorporating Transportation Demand Management (TDM) strategies to help reduce traffic and parking demand within and around the development. TDM strategies could include:

- Provision and promotion of shared mobility services to employees and residents (e.g., carshare, bikeshare, on-demand rideshare) to reduce reliance on private automobiles, reduce demand for parking, and improve circulation within and around the development.

- Implementation of reduced parking requirements, given the close proximity to transit service and the opportunity for shared parking for commercial and residential uses. Additional parking management strategies could include unbundled parking, priced parking, parking cash-out, and designated parking for carpools, vanpools, and carshare vehicles.

- Provision of enhanced bike and pedestrian facilities that connect residents and employees to nearby retail and commercial areas, future regional bikeways, and nearby high-frequency transit services.

- Provision of bike amenities, such as secure and convenient bike parking, locker rooms, and bike repair stands.

- Encouraging employers to offer commuter benefit programs for their employees. Commuter benefit programs offer incentives to employees who use transportation alternatives to driving alone.

- Offering subsidized transit passes to employees and residents to encourage ridership of the Green Line Trolley and other connecting transit services.

- Transportation kiosks with information about regional transit services and TDM programs.

- A designated transportation coordinator to manage and monitor TDM programs for employees and residents.

The SANDAG TDM program, iCommute, can assist with developing customized commuter benefit programs for employers and promoting regional commuting services to tenants and employees. These services include the SANDAG Vanpool Program, which offers a subsidy of up to $400 per month for eligible vans, Guaranteed Ride Home services, support for taking transit, and bike education and encouragement programs. More information on regional TDM programs can be accessed through www.iCommuteSD.com.

OTHER CONSIDERATIONS

SANDAG has a number of additional resources that can be used for additional information or clarification on topics discussed in this letter. The following resources can be found on our website at www.sandag.org/igr:

- Riding to 2050, the San Diego Regional Bike Plan
- Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region
- Integrating Transportation Demand Management into the Planning and Development Process – A Reference for Cities
- Trip Generation for Smart Growth
- Parking Strategies for Smart Growth
- Designing for Smart Growth, Creating Great Places in the San Diego Region

When available, please send any additional environmental documents related to this project to:

Intergovernmental Review
c/o SANDAG
401 B Street, Suite 800
San Diego, CA 92101

We appreciate the opportunity to comment on the City of San Diego's Witt Mission Valley NOP. If you have any questions, please contact me at (619) 699-1943 or seth.litchney@sandag.org.

Sincerely,

SETH LITCHNEY
Senior Regional Planner

SLI/KHE/kwa

San Diego County Archaeological Society, Inc.

Environmental Review Committee

18 November 2017

RECEIVED
NOV 22 2017
Development Services

To: Ms. Elizabeth Shearer-Nguyen
Development Services Department
City of San Diego
1222 First Avenue, Mail Station 501
San Diego, California 92101

Subject: Notice of Preparation of a Draft Environmental Impact Report
Witt Mission Valley
Project No. 562674

Dear Ms. Shearer-Nguyen:

Thank you for the Notice of Preparation for the subject project, received by this Society last week.

We are pleased to note the inclusion of historical resources in the list of subject areas to be addressed in the DEIR, and look forward to reviewing it during the upcoming public comment period. To that end, please include us in the distribution of the DEIR, and also provide us with a copy of the cultural resources technical report(s).

SDCAS appreciates being included in the City's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 San Diego, CA 92138-1106 (858) 538-0935

RINCON BAND OF LUISEÑO INDIANS

Cultural Resources Department

1 W. Tribal Road · Valley Center, California 92082 ·
(760) 297-2330 Fax:(760) 297-2339

November 15, 2017

E. Shearer-Nguyen
The City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, CA 92101

Re: Witt Mission Valley Project No. 562674

Dear Ms. Shearer-Nguyen:

This letter is written on behalf of the Rincon Band of Luiseño Indians. Thank you for inviting us to submit comments on the Witt Mission Valley Project No. 562674. Rincon is submitting these comments concerning your projects potential impact on Luiseño cultural resources.

The Rincon Band has concerns for the impacts to historic and cultural resources and the finding of items of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is not within the Luiseño Aboriginal Territory. We recommend that you locate a tribe within the project area to receive direction on how to handle any inadvertent findings according to their customs and traditions.

If you would like information on tribes within your project area, please contact the Native American Heritage Commission and they will assist with a referral.

Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Destiny Colocho
Manager
Rincon Cultural Resources Department

Bo Mazzetti, Tribal Chairman · Tishmall Turner, Vice Chairwoman · Steve Stallings, Council Member · Laurie E. Gonzalez, Council Member · Alfonso Kolb, Council Member

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

Edmund G. Brown Jr., Governor

RECEIVED
NOV 20 2017
Development Services

November 14, 2017

Elizabeth Shearer-Nguyen
City of San Diego
1222 First Avenue, MS-501
San Diego, CA 92101

Sent via e-mail: dsdeas@sandiego.gov

RE: SCH# 2017111027; Witt Mission Valley Project; San Diego County, California

Dear Ms. Shearer-Nguyen:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an 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 Section 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, § 15064 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 with the area of project 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). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. 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 or a notice of negative declaration or 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 **lead agencies consult with all 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 sections 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 section 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 section 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 section 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 section 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 nonfederally 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 sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 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 section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

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 section 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 sections 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 been 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, section 15064.5(f) (CEQA Guidelines section 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 section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 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.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst
(916) 373-3714

cc: State Clearinghouse

DEPARTMENT OF TRANSPORTATION
DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
PHONE (619) 688-3193
FAX (619) 688-4299
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

December 4, 2017

11-SD-8
PM 3.04
Witt Mission Valley
SCH#2017111027

Ms. Elizabeth Shearer-Nguyen
City of San Diego
1222 First Avenue
San Diego, CA 92101

Dear Ms. Shearer-Nguyen:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Notice of Preparation (NOP) for the Witt Mission Valley Project located near Interstate 8 (I-8) and State Route 163 (SR-163). The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Caltrans has the following comments:

Traffic Impact Study

A traffic impact study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities – existing and proposed – and to propose appropriate mitigation measures.

- The geographic area examined in the TIS should also include, at a minimum, all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.
- A focused analysis may be required for project trips assigned to a State highway facility that is experiencing significant delay, such as where traffic ques exceed ramp storage capacity. A focused analysis may also be necessary if there is an increased risk of a potential traffic accident.
- In addition, the TIS could also consider implementing vehicles miles traveled (VMT) analysis into their modeling projections.

- Any increase in goods movement operations and its impacts to State highway facilities should be addressed in the TIS.
- The data used in the TIS should not be more than 2 years old.
- Please provide Synchro files.
- Early coordination with Caltrans is recommended.

Complete Streets and Mobility Network

Caltrans views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation system. Caltrans supports improved transit accommodation through the provision of Park and Ride facilities, improved bicycle and pedestrian access and safety improvements, signal prioritization for transit, bus on shoulders, ramp improvements, or other enhancements that promotes a complete and integrated transportation system. Early coordination with Caltrans, in locations that may affect both Caltrans and the City of San Diego, is encouraged.

To reduce greenhouse gas emissions and achieve California's Climate Change target, Caltrans is implementing Complete Streets and Climate Change policies into State Highway Operations and Protection Program (SHOPP) projects to meet multi-modal mobility needs. Caltrans looks forward to working with the City to evaluate potential Complete Streets projects.

Land Use and Smart Growth

Caltrans recognizes there is a strong link between transportation and land use. Development can have a significant impact on traffic and congestion on State transportation facilities. In particular, the pattern of land use can affect both local vehicle miles traveled and the number of trips. Caltrans supports collaboration with local agencies to work towards a safe, functional, interconnected, multi-modal transportation system integrated through applicable "smart growth" type land use planning and policies.

The City should continue to coordinate with Caltrans to implement necessary improvements at intersections and interchanges where the agencies have joint jurisdiction, as well as coordinate with Caltrans as development proceeds and funds become available to ensure that the capacity of on-/off-ramps is adequate.

Mitigation

Caltrans endeavors that any direct and cumulative impacts to the State Highway System be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

Mitigation measures to State facilities should be included in TIS. Mitigation identified in the traffic study, subsequent environmental documents, and mitigation monitoring reports, should be coordinated with Caltrans to identify and implement the appropriate mitigation. This includes the actual implementation and collection of any "fair share" monies, as well as the appropriate timing of the mitigation. Mitigation improvements should be compatible with Caltrans concepts.

Any work performed within Caltrans right-of-way (R/W) will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans R/W prior to construction. As part of the encroachment permit process, the applicant must provide an approved final environmental document including the California Environmental Quality Act (CEQA) determination addressing any environmental impacts within the Caltrans's R/W, and any corresponding technical studies.

If you have any questions, please contact Roy Abboud, of the Caltrans Development Review Branch, at (619) 688-6968 or by e-mail sent to roy.abboud@dot.ca.gov.

Sincerely,

KERI ROBINSON, Acting Branch Chief
Local Development and Intergovernmental Review Branch

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

November 16, 2017

Ms. Elizabeth Shearer-Nguyen
Environmental Planner
City of San Diego Development Services Department
1222 First Avenue, MS 501
San Diego, California 92101
DSDEAS@sandiego.gov

NOTICE OF PREPARATION (NOP) FOR AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR WITT MISSION VALLEY PROJECT (SCH# 2017111027)

Dear Ms. Shearer-Nguyen:

The Department of Toxic Substances Control (DTSC) has reviewed the subject NOP. The following project description is stated in the NOP: "The project would demolish 38,070-square-feet of existing structures and on-site surface parking and construct a 533, 1 OD-square-foot mixed-use development comprised of 267 residential units and ten shopkeeper units totaling approximately 348,500-square-feet, 6,000-square-feet of retail space, and 3,400-square-feet of commercial space. The project would range in height from one-story to five stories. Parking would be provided in a central five-story, above-ground parking structure wrapped with residential units. A total of 411 parking spaces would be provided in the parking structure and 52 surface parking spaces would be provided."

Based on the review of the submitted document, DTSC has the following comments:

1. The EIR should identify and determine whether current or historic uses at the project site may have resulted in any release of hazardous wastes/substances. A Phase I Environmental Site Assessment may be appropriate to identify any recognized environmental conditions.

2. If there are any recognized environmental conditions in the project area, then proper investigation, sampling and remedial actions overseen by the appropriate regulatory agencies should be conducted prior to the new development or any construction.

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3. If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB).

4. If the proposed project involves the demolition of existing structures, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations.

5. If the site was used for agricultural or related activities, residual pesticides may be present in onsite soil. DTSC recommends investigation and mitigation, as necessary, to address potential impact to human health and environment from residual pesticides.

6. DTSC recommends evaluation, proper investigation and mitigation, if necessary, of onsite areas with current or historic PCB-containing transformers.

7. Aerially deposited lead (ADL) is generally encountered in unpaved or formerly unpaved areas adjoining older roads, primarily as a result of deposition from historical vehicle emissions when gasoline contained lead. As the project site is located adjacent to I-8 Freeway, this issue should be addressed in accordance with all applicable and relevant laws and regulations.

8. If the project development involves soil export/import, proper evaluation is required. If soil contamination is suspected or observed in the project area, then excavated soil should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. In addition, if imported soil was used as backfill onsite and/or backfill soil will be imported, DTSC recommends proper evaluation/sampling as necessary to ensure the backfill material is free of contamination.

9. If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the PEIR should identify how any required investigation and/or remediation will be conducted and the appropriate government agency to provide regulatory oversight.

If you have any questions regarding this letter, please contact me at (714) 484-5380 or email at Johnson.Abraham@dtsc.ca.gov.

Sincerely,

Johnson P. Abraham
Project Manager
Brownfields Restoration and School Evaluation Branch
Brownfields and Environmental Restoration Program – Cypress

kl/sh/ja

cc: Governor's Office of Planning and Research (via e-mail)
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044
State.clearinghouse@opr.ca.gov

Mr. Dave Kereazis (via e-mail)
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Mr. Shahir Haddad, Chief (via e-mail)
Schools Evaluation and Brownfields Cleanup
Brownfields and Environmental Restoration Program - Cypress
Shahir.Haddad@dtsc.ca.gov

CEQA# 2017111027

TRANSCRIPT
SCOPING MEETING

Tuesday, November 28, 2017
Environmental Impact Report EIR for the Witt Mission Valley project

Good Evening. Thank you for attending and welcome to the scoping meeting for the Environmental Impact Report EIR for the Witt Mission Valley project.

I am Lindsey Sebastian. With me is Elizabeth Shearer-Nguyen, and we are both with the City of San Diego's Development Services Department.

This meeting is referred to as a scoping meeting and the purpose is to give the public and interested parties an opportunity to submit comments regarding the potential environmental impacts of the project. The information gathered tonight will be used to guide the scope and content of the Environmental Impact Report - EIR. We are not here to respond to questions about the project, but to gather input from the public.

Comments may be provided verbally or in writing. In order to facilitate written comments, there are comment forms provided. Please include your name and address on any written comments. Additionally, comments can be emailed to the address indicated in the scoping meeting notice.

As previously mentioned, this meeting has been scheduled to gather public input prior to preparing the project's environmental document.

The environmental review staff is required by the City's Municipal Code to provide the public and the decision makers with independently prepared environmental documents which disclose impacts to the physical environment.

Environmental documents are prepared in accordance with the California Environmental Quality Act – CEQA.

CEQA requires analysis of a proposed project's environmental impacts in order to identify ways that those impacts can be avoided or significantly reduced.

This information is used by the City's decision makers as part of the deliberating process in approving or denying a project. The environmental document itself does not recommend approval or denial of the project.

A few comments about how the meeting will be conducted:

First, a brief description of the project by Josh Vasbinder will take place, and then we will open the meeting for public comment.

This, - the meeting is designed to get as much public input as possible on areas that need to be addressed in the EIR in the time allocated for this meeting.

Your verbal comments will be recorded, therefore, each speaker is asked to introduce themselves, state their address, and complete their comments within the one to three – one to three minutes allotted.

Please refrain from trying to conduct a debate on the merits of the project at this meeting, for that is not the purpose of today's gathering.

I need to emphasize that the focus of the comments must stay on those environmental impacts you believe need to be thoroughly analyzed in the project's EIR.

Lastly, Elizabeth Shearer-Nguyen will act as moderator and timekeepers for the duration of the meeting, and we respectfully request that you end your comments when notified that your time is up.

Thank you in advance for your patience.

We will now begin. I would like to introduce Josh, who will provide a brief – a project description and short presentation.

Which we will forego…. Because there are no attendees.

(So we read these? No, I would just say closing remarks.)

Since there are no attendees, we will be doing the closing remarks right now.

This closes the public environmental scoping meeting for the Witt Mission Valley project. Your input will be considered by City staff for use in the scope of the EIR and included as part of the official record for the document.

Speakers and commenters who provided contact information will also be placed on the notification list for further environmental review actions related to this project provided your complete, legible address has been provided.

I would also like to remind everyone that this is just the start of the environmental review process. There will be other opportunities to provide comment on the environmental document and the project, such as during public review of the draft environmental document and any public hearings.

And this closes the scoping meeting… that's it.

CLIMATE ACTION PLAN
CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: 562674 / Witt Mission Valley

Property Address: 588 Camino del Rio North San Diego 92108

Applicant Name/Co.: Josh Vasbinder / Din/Cal 4, Inc.

Contact Phone: 858.847.9311 Contact Email: josh.vasbinder@tdc-properties

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: Brittany Ruggels Wallace Contact Phone: 619.204.9757

Company Name: KLR Planning Contact Email: brittany@klrplanning.com

Project Information

1. What is the size of the project (acres)? 5.13
2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units):
   - ■ Residential (indicate # of multi-family units): 277 units
   - ■ Commercial (total square footage): 9,600 square feet
   - ☐ Industrial (total square footage):
   - ☐ Other (describe):
3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No
4. Provide a brief description of the project proposed:

In-fill redevelopment of an existing auto dealership with 277 multi-family residential units and 9,600 sq ft of commercial and retail space.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR,		
B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR,	☑	☐
C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?		

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

The proposed project is consistent with the existing General Plan and Community Plan land use desig nation. The project is designated as Commercial Employment, Retail, and Services within the General Plan and proposes a mix of uses, to include commercial retail and office employment. The project is de signated as Commercial Retail in the Mission Valley Community Plan. The project site is zoned MVPD-MV-CR, which allows for commercial retail development. The Mission Valley Community Plan includes a provision for multiple uses in the commercial zones, to provide for pedestrian oriented projects contai ning at least three functionally and physically integrated land uses. The project proposes to include thr ee functionally and physically integrated land uses - multi-family residential, commercial retail, and com mercial office - and is therefore consistent with the provisions of the Community Plan.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component. The project would include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code.	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings. Within residential buildings, the project would include: kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; standard dishwashers not to exceed 4.25 gallons per cycle; compact dishwashers not to exceed 3.5 gallons per cycle; and clothes washers' water factor not to exceed 6 gallons per cubic feet of drum capacity. Within commercial office and commercial retail buildings, the project would include: plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code; and appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces. The project is required to provide 405 vehicle parking spaces for the multi-family residential component and 26 vehicle parking spaces for the commercial component. As such, the project requires 12 multi-family residential parking spaces (three percent of total required parking spaces) be provided with a listed cabinet, box, or enclosure, with six spaces (50 percent) equipped with the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations for ready use by residents. Additionally, the project	☑	☐	☐
Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. The proposed project would provide short-term and long term bicycle parking. Parking for the commercial component of the project would be a minimum of three short term and three long term spaces where two short term and two long term spaces are required by the San Diego Municipal Code.	☑	☐	☐

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

For the project's non-residential component, shower/changing and locker facilities would be provided at the appropriate level as shown in the above table.

☑	☐	☐

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

The project would be required to provide 26 parking spaces for the retail component of the project. As such, the project would provide four (4) designated parking spaces for a combination of low-emitting, fuel-efficient, and carpool/ vanpool vehicles, in accordance with the above table for the project's non-residential component.

☑	☐	☐

7. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies • Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees). This strategy is not applicable to the proposed project, because the project would not generate more than 50 employees. However, the Witt Mission Valley Transportation Impact Analysis (TIA) included a Transportation Demand Management (TDM) Program as Appendix I to the TIA. The TDM Program Plan includes the following TDM Program Measures: o Participation on SANDAG's iCommute o Transit Subsidies o Bicycle and Pedestrian Facilities o Preferred Parking for Carpoolers o Guaranteed Ride Home o Compressed Workweek o Flexible Schedule o Telecommuting o User Information o Bike-share Program	☐	☐	☑

STEP 2: CAP STRATEGIES CONSISTENCY

Expanded Responses

Strategy 1: Energy & Water Efficient Buildings

2. Plumbing fixtures and fittings
Within residential buildings, the project would include: kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; standard dishwashers not to exceed 4.25 gallons per cycle; compact dishwashers not to exceed 3.5 gallons per cycle; and clothes washers' water factor not to exceed 6 gallons per cubic feet of drum capacity. Within commercial office and commercial retail buildings, the project would include: plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code; and appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code.

Strategy 3: Bicycling, Walking, Transit & Land Use

3. Electric Vehicle Charging
The project is required to provide 405 vehicle parking spaces for the multi-family residential component and 26 vehicle parking spaces for the commercial component. As such, the project requires 12 multi-family residential parking spaces (three percent of total required parking spaces) be provided with a listed cabinet, box, or enclosure, with six spaces (50 percent) equipped with the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations for ready use by residents. Additionally, the project requires one commercial parking space (three percent of total required commercial parking spaces) be provided with a listed cabinet, box, or enclosure that is equipped with the necessary electric vehicle supply equipment installed to provide an active electric vehicle charging station for ready use.

7. Transportation Demand Management Program
This strategy is not applicable to the proposed project, because the project would not generate more than 50 employees. However, the Witt Mission Valley Transportation Impact Analysis (TIA) included a Transportation Demand Management (TDM) Program as Appendix I to the TIA. The TDM Program Plan includes the following TDM Program Measures:

o Participation on SANDAG's iCommute
o Transit Subsidies
o Bicycle and Pedestrian Facilities
o Preferred Parking for Carpoolers
o Guaranteed Ride Home
o Compressed Workweek
o Flexible Schedule
o Telecommuting
o User Information
o Bike-share Program
o Bicycle Repair Station
o Reduced Cost Ride-share
o Incentive Program for Carpoolers and Off-Peak Employees

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

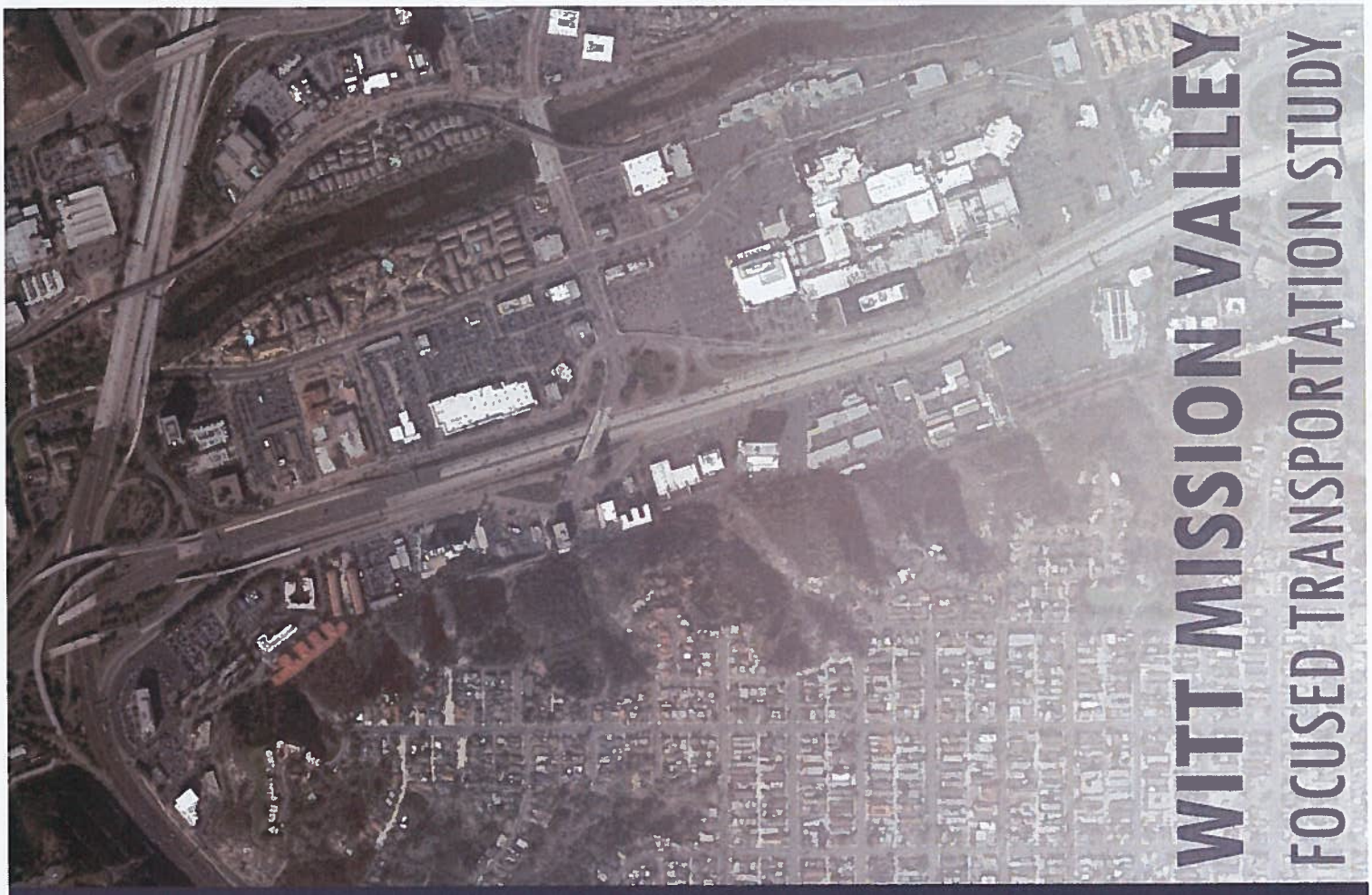
Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	**Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**	
Appliance/Fixture Type	**Standard**	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*.	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)



WITT MISSION VALLEY

FOCUSED TRANSPORTATION STUDY

Prepared For: The City of San Diego and Din / Cal 4, Inc.

Project Number: 002817
Date: February 12, 2018

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1.0 EXECUTIVE SUMMARY

This study was commissioned by Din / Cal 4, Inc. to determine potential transportation impacts and appropriate mitigation measures for the proposed Witt Mission Valley project. The proposed project site is located between Camino Del Rio North and Camino De La Reina just east of Camino De La Siesta in the Mission Valley community of the City of San Diego. The proposed project includes a planned 277 multi-dwelling units, 3,600 sq. ft. of commercial office, 2,500 sq. ft. of specialty retail, and 3,500 sq. ft. of high-turnover sit-down restaurant. The proposed project is expected to generate 581 new average daily trips (ADT) with 84 (-2 in / 86 out) trips in the AM peak hour and 62 trips (67 in / -5 out) in the PM peak hour. The traffic generation of the Project was estimated based on trip generation rates in the City of San Diego's May 2003 Trip Generation Manual. Additionally, this trip generation was based off of driveway rates with mixed-use and transit reductions from the SANDANG MXD model obtained for Millennium 1 (Camino Del Rio Mixed-Use) project and assumed credit for the Witt Lincoln dealership currently operating on the project site.

In order to determine a scope of work for the Focused Transportation Study, staff at Urban Systems Associates, Inc. (USAI) completed a preliminary analysis and had discussions with City Transportation staff. Within the preliminary analysis, study area intersections and street segments were identified and traffic generation and trip distribution were presented.

The addition of project traffic was evaluated in the Existing, Near Term, and Horizon Year 2035 conditions.

1.1 Study Results

Based upon this transportation impact analysis, it was determined that development of the proposed project would have the following impacts:

1. **Street Segments** – As shown in **Table 1-1**, **Table 1-2**, and **Table 1-3**, the proposed project is not expected to cause any significant impacts to street segments in the Existing With Project, Near Term With Project, and Horizon Year 2035 With Project scenarios except for the following cumulatively significant impact:

- Camino Del Rio North (from Camino De La Siesta to Camino Del Arroyo)
    - Horizon Year 2035 + Project E

2. **Intersections** – As shown in **Table 1-4**, **Table 1-5**, and **Table 1-6**, the proposed project is not expected to cause any significant impacts to intersections in the Existing With Project, Near Term With Project, and Horizon Year 2035 With Project scenarios.

3. **Freeway Segments** – The project study area was established pursuant to City of San Diego thresholds. Based on these thresholds, no freeway segments were included in the study area. Therefore, no evaluation of freeway segments was completed.

4. **Metered Freeway Onramps** – The project study area was established pursuant to City of San Diego thresholds. Based on these thresholds, no metered freeway onramps were included in the study area. Therefore, no evaluation of metered freeway onramps was completed.

Table 1-1: Existing & Existing + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Existing			Existing + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,430	0.31	A	12,640	0.32	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,124	0.64	D	5,434	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	C	4,970	0.62	D	5,244	0.66	0.034	***NO***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 1-2: Near Term & Near Term + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Near Term			Near Term + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	C	4,984	0.62	D	5,258	0.66	0.034	***NO***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 1-3: Horizon Year 2035 & Horizon Year 2035 + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Year 2035			Year 2035 + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	D	6,500	0.81	E	6,774	0.85	0.034	***YES***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 1-4: Existing & Existing + Project Intersection Summary

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.2	A	8.8	A	0.2	No	9.8	A	0.6	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10	A	10.8	B	10.1	B	0.1	No	10.9	B	0.1	No

Notes:

LOS = Level of Service
Δ = Change
S = Significant
D= Delay

Table 1-5: Near Term & Near Term + Project Intersection Summary

#	Intersection	Near Term				Near Term + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.8	A	0.2	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	10.4	B	15.3	C	10.6	B	0.2	No	15.4	C	0.1	No
3	Camino Del Rio North at Camino Del Arroyo	10.3	B	11.3	B	10.4	B	0.1	No	11.4	B	0.1	No

Notes:
DNE = Does Not Exist
LOS = Level of Service
Δ = Change
S = Significant
D= Delay

Table 1-6: Horizon Year 2035 & Horizon Year 2035 + Project Intersection Summary

#	Intersection	Year 2035				Year 2035 + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.9	A	0.3	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12.0	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10.5	B	10.9	B	10.6	B	0.1	No	11.1	B	0.2	No

Notes:

DNE = Does Not Exist

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

1.2 Mitigation

The only project impact discovered was the following cumulatively significant street segment impact:

- Camino Del Rio North (from Camino De La Siesta to Camino Del Arroyo)
    - Horizon Year 2035 + Project E

This cumulatively significant impact will be handled through mitigation measures. In order to mitigate the project's cumulatively significant impact to the street segment of Camino Del Rio North (from Camino de la Siesta to Camino Del Arroyo), the street segment of Camino Del Rio North has a two-way left turn lane which will be extended through the segment to Camino De La Siesta. Doing so will provide adequate storage for vehicles wishing to access the project and increase overall segment capacity. This improvement would reduce cumulative significant impacts to below a level of significance. Conceptual striping plans can be found in **Appendix B**.

1.3 Access

Access for the project is planned via driveways on Camino Del Rio North and Camino De La Siesta which connects Camino Del Rio North to Camino De La Reina on the west side of the property. A fire lane on the east side of the property will provide emergency access from both Camino Del Rio North and Camino De La Reina as well as additional vehicular access to Camino De La Reina. This fire lane is also utilized by the Millennium 1 (Camino Del Rio Mixed-Use) project.

2.0 INTRODUCTION

This study was commissioned by Din / Cal 4, Inc. to determine potential transportation impacts and appropriate mitigation measures for the proposed Witt Mission Valley project. The proposed project site is located between Camino Del Rio North and Camino De La Reina just east of Camino De La Siesta in the Mission Valley community of the City of San Diego. The proposed project includes a planned 277 multi-dwelling units, 3,600 sq. ft. of commercial office, 2,500 sq. ft. of specialty retail, and 3,500 sq. ft. of high-turnover sit-down restaurant. The proposed project is expected to generate 581 new average daily trips (ADT) with 84 (-2 in / 86 out) trips in the AM peak hour and 62 trips (67 in / -5 out) in the PM peak hour.

Figure 2-1 shows the project location. **Figure 2-2** shows the project site plan. **Figure 2-3** shows the project vicinity map. A site distance visibility exhibit can be found in **Appendix B**.

Witt Mission Valley project proposes nearly identical uses as the Millennium 1 (Camino Del Rio Mixed-Use) project. Identical trip distribution for the Witt Mission Valley project was used with adjustments made to account for the project access. The previously approved trip distribution is shown in **Appendix A**. To determine the study area, USAI used City and regional guidelines that 50 trips in one direction during a peak hour be used as a threshold for study intersections and street segments. Also, based on the City and regional guidelines, USAI used 50 peak directional trips as the basis for studying freeway segments and 20 peak hour trips for studying metered freeway ramp meters. No freeway segments or freeway ramp meters met these criteria and therefore, none of these facilities were included in this study. **Figure 2-5** shows the study area

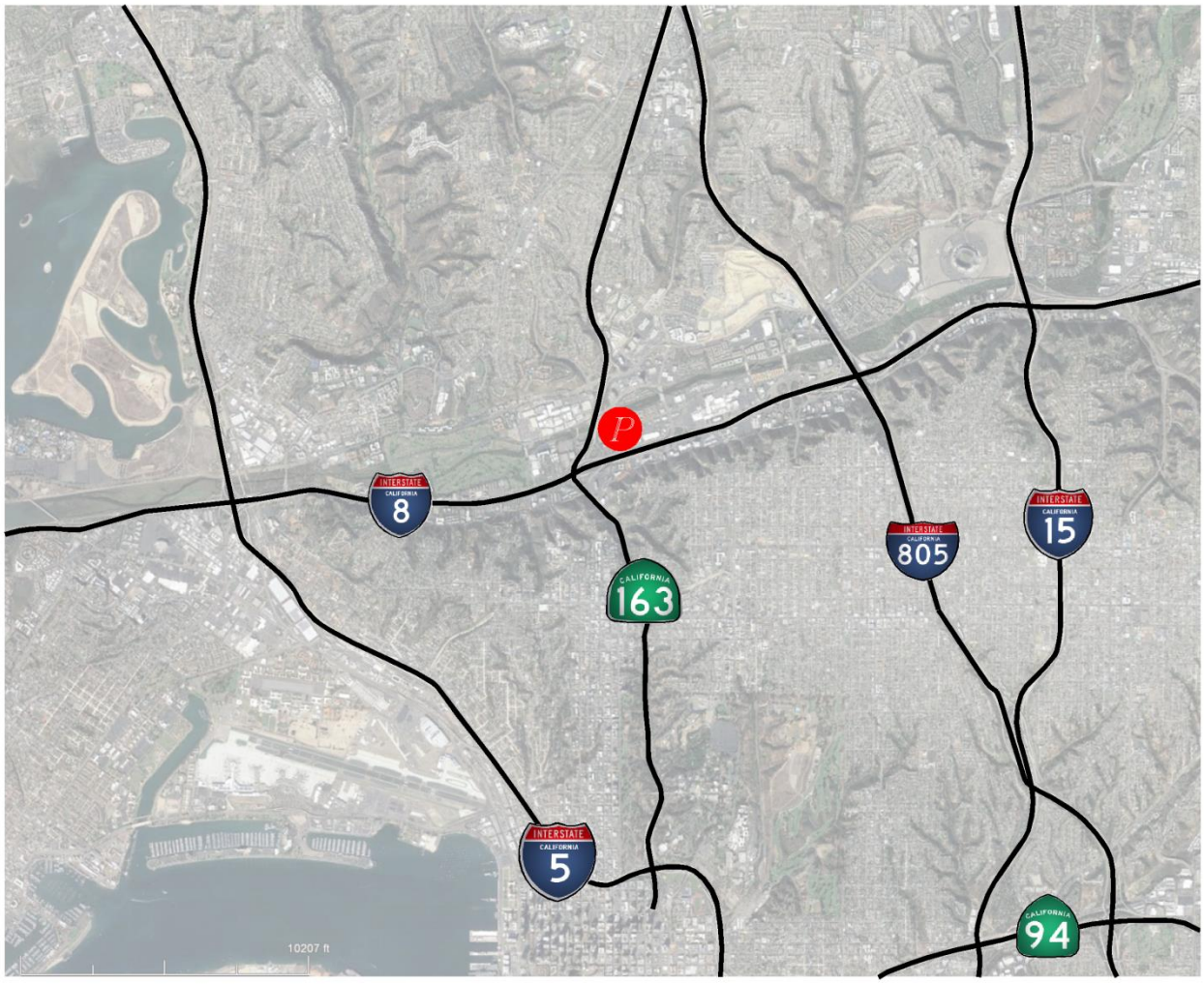
boundary and the studied intersections and street segments. **Table 2-1** shows the study area street segments and **Table 2-2** intersections.

Figure 2-1: Project Location Map

Figure 2-2: Project Site Plan

Provided on the following page in 11”x17” format.

Figure 2-3: Project Vicinity Map



P = Project Location

N
NO SCALE

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Figure 2-4: Study Area Boundary and Intersection Key

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Table 2-1: Study Area Street Segments

Street Segments	
Road	**Segment**
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo

Table 2-2: Study Area Intersections

Intersections	
Number	**Intersection**
1	Camino De La Reina at Camino De La Siesta
2	Camino De La Reina at Camino Del Arroyo
3	Camino Del Rio North at Camino Del Arroyo

3.0 PROPOSED PROJECT

The proposed project is located between Camino Del Rio North and Camino De La Reina, just east of Camino De La Siesta in the Mission Valley Community of the City of San Diego. The proposed project includes a planned 277 multi-dwelling units, 3,600 sq. ft. of commercial office, 2,500 sq. ft. of specialty retail, and 3,500 sq. ft. of high-turnover sit-down restaurant. Up to 10 of the proposed residential units may be so-called "shopkeeper" units which are optimized for residents to work from home. This configuration is expected to primarily serve residents who wish to work out of their residence which would tend to reduce trip generation from what is discussed below.

3.1 Trip Generation

The proposed project includes 277 multi-dwelling units, 3,600 sq. ft. of commercial office, 2,500 sq. ft. of specialty retail, and 3,500 sq. ft. of high-turnover sit-down restaurant. The resultant residential density is approximately 54 units per acre. The project site is located within a 0.5-mile straight line or 0.7-mile walking distance from the Fashion Valley Transit Center, a 0.65-mile walking distance from the Mission Valley Center Station, and approximately 0.3-mile straight line distance or 0.7-mile walking distance to a trolley stop at Hazard Center Station. The commercial and retail component of the project will be primarily oriented along the Camino De La Reina corridor to continue the "Main Street" focus provided by the Camino Del Rio project.

Trip generation estimates for the Witt Mission Valley project are based on the land-use assumptions discussed above. The existing car dealership area totals 5.13 acres, with 38,070 sq.

ft. of building area (excluding 640 sq. ft. of carport) split between 20,378 sq. ft. of car dealership showroom and office areas and 17,692 sq. ft. of repair shop area. As of 11/20/17, the car dealership and repair shop were in full and normal operation. Urban Systems Associates extensively researched in City of San Diego records to obtain building records for the project site. After consulting City of San Diego records, City of San Diego staff directed Urban Systems Associates to the County of San Diego to obtain building records of the project site. These records (refer to **Attachment C**) reflect the best square footage approximation of the existing built facilities within the project site.

In addition, adjustments that were approved for the adjacent Millennium 1 (Camino Del Rio Mixed-Use) project were utilized. The previous Millennium 1 (Camino Del Rio Mixed-Use) project had nearly identical land uses and residential density and is immediately adjacent to the Witt Mission Valley project site. The Camino Del Rio Mixed-Use had an adjustment deemed an "MXD credit" which was taken based on the project's mixed-use nature and proximity to transit. **Figure 3-1** shows the location of the nearest transit stations. This credit was based on the application of a SANDAG "MXD model" which estimated the amount of traffic which is reduced by walkable features, mixed-use development in the area, and transit integration. The Mission Valley Community is well served by transit and has significant pedestrian and bicycle options which has the effect of reducing overall traffic as compared to a typical suburban community.

Using City of San Diego standard trip generation rates along with mixed-use and transit reductions from the SANDAG MXD model obtained for the Millennium 1 (Camino Del Rio Mixed-Use) project and assuming credit for the Witt Lincoln dealership currently operating on the

project site, the total project trip generation has been calculated to be expected to generate 581 new average daily trips (ADT) with 84 (-2 in / 86 out) trips in the AM peak hour and 62 trips (67 in / -5 out) in the PM peak hour. Trip Generation for the project is presented in **Table 3-1**.

Figure 3-1: Transit Proximity Map

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Figure 3-2: ADA Path of Travel Onsite

Provided on the following page in 11”x17” format.

Table 3-1: Trip Generation

Driveway Rates

Land Use	Intensity	Rate*	ADT	AM						PM					
				Peak%*	Vol.	In %	Out%	In	Out	Peak%*	Vol.	In %	Out%	In	Out
Multiple Dwelling Units	277	6 /unit	1,662	8%	133	20% : 80%		27	106	9%	150	70% : 30%		105	45
Commercial Office	3600	Formula	137	13%	18	90% : 10%		16	2	14%	19	20% : 80%		4	15
Specialty Retail Center / Strip Commercial	2.5 /KSF	40 /KSF	100	3%	3	60% : 40%		2	1	9%	9	50% : 50%		5	5
High Turnover (sit-down) Restaurant	3.5 /KSF	130 /KSF	455	8%	36	50% : 50%		18	18	8%	36	60% : 40%		22	15
PROPOSED SUB-TOTAL			2,354		190			63	127		214			136	80
MXD CREDIT %			17%		14%			14%	14%		15%			15%	15%
MXD CREDIT			400		27			9	18		32			20	12
SUB-TOTAL- WITH MXD CREDIT			1,954		163			54	109		182			116	68
Existing Land Uses															
Car Dealer	20.4 /KSF	50 /KSF	1,019	5%	51	70% : 30%		36	15	8%	82	40% : 60%		33	49
Repair Shop	17.7 /KSF	20 /KSF	354	8%	28	70% : 30%		20	8	11%	39	40% : 60%		16	23
EXISTING SUB-TOTAL			1,373		79			55	24		120			48	72
NET TOTAL (PROPOSED - MXD - EXISTING)			581		84			0	86		62			68	0

Source:

*Rates taken from the City of San Diego Trip Generation Manual, May 2003

*Negative values have been adjusted to zero (0)

Note:

ADT= Average Daily Trips
KSF = 1,000 Square Feet
Density = 54 units per acre

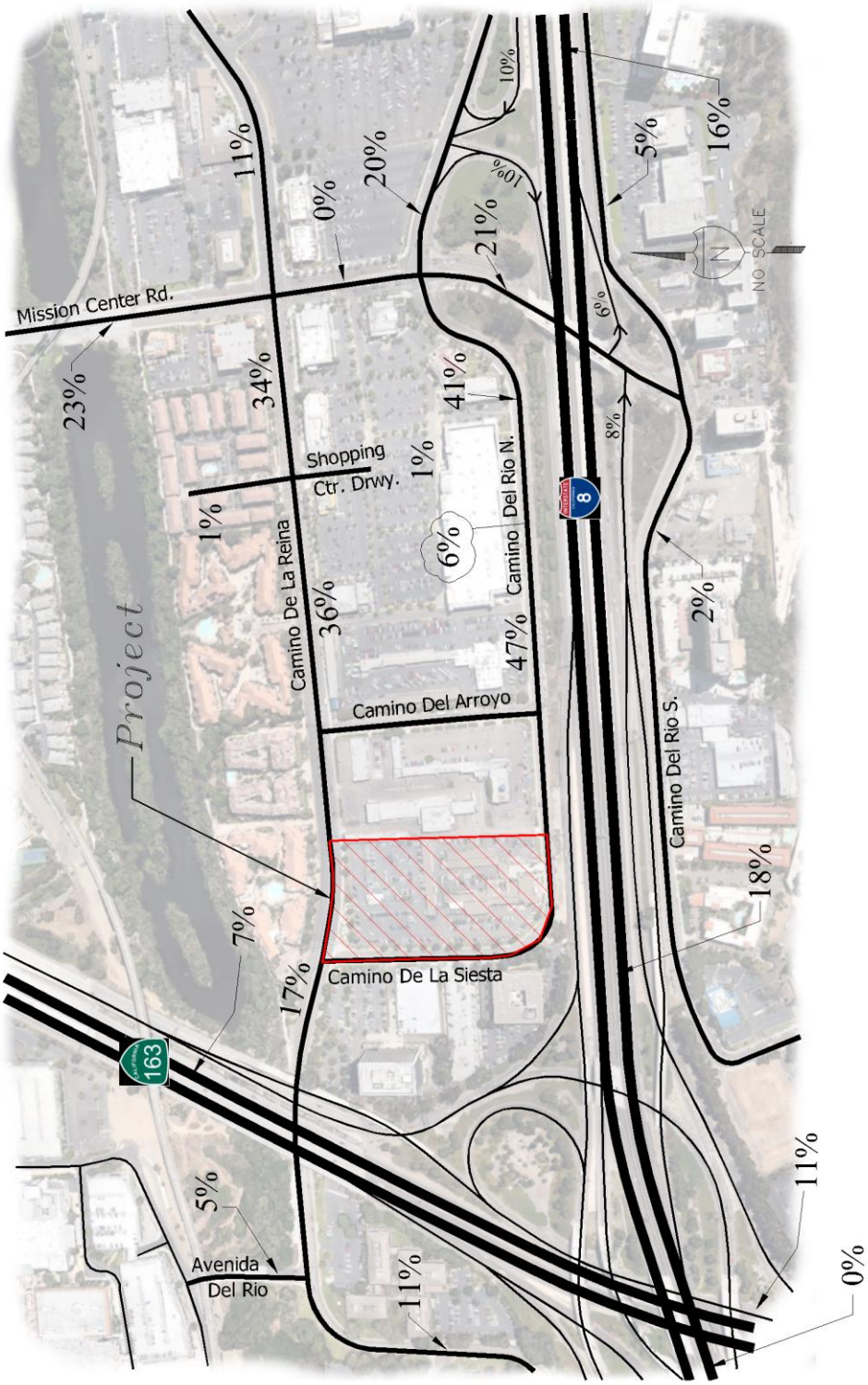
3.2 Trip Distribution and Assignment

In order to forecast Horizon Year 2035 traffic volumes, the SANDAG Traffic Forecast Information Center (TFIC) volumes were compared to volumes projected for other recently approved traffic studies in the immediate vicinity. The SANDAG, Series 13, Year 2035 volumes received preference unless they were lower than existing counts.

As previously mentioned, the Witt Mission Valley project proposes nearly identical uses as the Millennium 1 (Camino Del Rio Mixed-Use) project. Identical trip distribution for the Witt Mission Valley project was used with adjustments made to account for the project access. The previously approved trip distribution is shown in **Attachment A**. **Figure 3-3** shows the project only trip distribution percentages.

The Camino Del Rio Mixed-Use project trip generation was derived from a select zone analysis using SANDAG's Series 11 Traffic Model. This model reflected estimated buildout conditions for the adopted Mission Valley Community Plan. This traffic model was adjusted to include land uses for the Camino Del Rio Mixed-Use project. Please refer to **Appendix A** for the SANDAG Series 11 traffic model information and the select zone plot used in the Camino Del Rio Mixed-Use project. The Camino Del Rio Mixed-Use project trip distribution was manually adjusted to distribute more traffic onto Mission Center Road and ultimately to Friars Road, since the SANDAG Series 11 traffic model includes roadways within the Levi-Cushman Specific Plan area (Riverwalk golf course) which do not currently exist and would allow traffic to bypass Mission Center Road and Friars Road.

Figure 3-3: Project Only Trip Distribution Percentages



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Based on the trip generation and the trip distribution discussed above, all intersections and street segments which received 50 or more peak hour trips in the peak direction were analyzed. This equates to a trip distribution percentage of 60% or greater. In addition, all adjacent intersections and street segments were be studied.

As shown in the select-zone plot found in **Appendix A**, the traffic model distributed project traffic 17% to the west of the project and 83% to the east of the project on Camino De La Reina and Camino Del Rio North. **Figure 3-3** shows the traffic distribution based on the forecast mentioned above. **Figure 3-4** shows the project only average daily traffic volumes, which are based on the daily new traffic generation from **Table 3-1** and distribution of project only traffic from **Figure 3-3**. **Figure 3-5** shows the AM/PM peak hour project only traffic.

A queueing analysis for all plus project scenarios can be found in **Appendix N**. The 95th percentile queue length is 8 feet. The analysis shows that there will be no issue with queueing or stacking seeing as 95% of the time, the usage is at or below 8 feet (which is significantly less than one vehicle).

Figure 3-4: Project Only Average Daily Traffic

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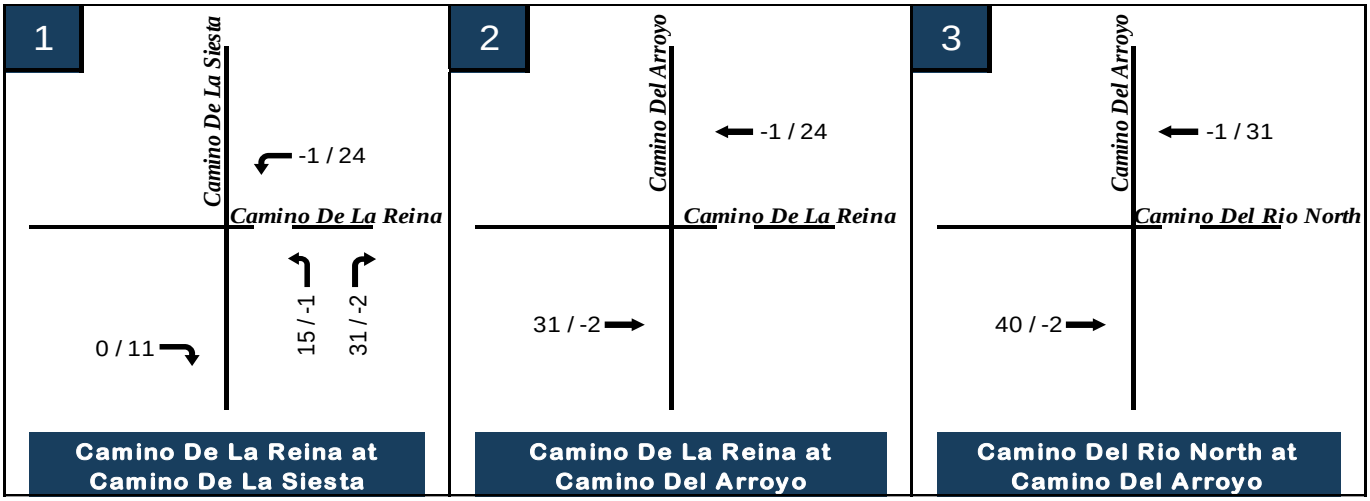
Figure 3-5: Project Only AM / PM Peak Hour Traffic



XX / XX = AM / PM Peak hour volumes

4.0 METHODOLOGY

This section of the report describes various analysis procedures and criteria that are used to determine if the proposed project has a significant impact and if mitigation is required. Mitigation may be either specific improvements by the project for a direct or cumulative impact or a financial contribution toward an improvement by others if a cumulative impact occurs. Two criteria must be met before project mitigation is required. First, the intersection or street segment must be projected to operate at an unacceptable LOS after project trips are added (i.e., "E" or "F" as discussed below). Second, the amount of project traffic must be significant based on the application of criteria also discussed below. For an intersection, if the change in delay anticipated due to the project is greater than 2 seconds or 1 second and the LOS is "E" or "F" respectively, then the project's intersection impacts would be considered significant. For a street segment, if the change in volume to capacity ratio (V/C ratio) anticipated due to the project exceeds 0.02 or 0.01, and the LOS is "E" or "F," respectively, then the project's street segment impact would be considered significant. If project traffic causes an intersection, roadway segment, or freeway segment to degrade from LOS "D" to LOS "E" or LOS "F," the project impact would be significant and project mitigation is required. For freeway segment impacts to be considered significant, the segment would need to operate at an unacceptable LOS and exceed a change in V/C ratio of 0.01 or 0.005 for LOS "E" and "F," respectively. A project ramp meter impact would be significant if the ramp meter calculations show 15 minutes of delay or greater and the change in delay due to the project is greater than 2 minutes or 1 minute and the freeway mainline segments are expected to operate at LOS "E" and "F,"

respectively, using the most restrictive meter rate method. For this study both the freeway and ramp meter criteria are not applicable because there are no freeways or freeway ramps within our project study area.

4.1 City of San Diego Guidelines

The City of San Diego has developed a Traffic Impact Study Manual (July 1998). The stated purpose of the Traffic Impact Study Manual (TISM) is "....to ensure consistency with all applicable City and State regulations." The Traffic Impact Study Manual provides guidance regarding preparation of traffic impact reports in the City of San Diego. Since the proposed project is located in the City of San Diego, this traffic impact report follows the procedures outlined in their traffic manual. The manual includes guidelines for forecasting, trip generation, trip assignment, and analysis procedures.

The City's Significance Determination Thresholds (January 2011) establish criteria that identify the allowable change in delay or V/C ratio due to project impacts. This publication also establishes criteria for measuring project impacts at intersections. This method establishes an allowable increase in delay at intersections due to the addition of project trips. The City of San Diego's Traffic Impact Study Manual specifies use of the most current Highway Capacity Manual (HCM) operational method for studying intersections. For analyzing intersections, a software package called Synchro is used. To be more specific, Synchro 10, which is the most current version; Synchro 10 implements the most current HCM methodology, HCM 6th Edition. For all

intersections unable to be processed in HCM 6th Edition methodology, HCM 2000 methodology is used. This software package is a direct and faithful application of the HCM methodology.

4.2 Trip Distribution

As previously mentioned, the Witt Mission Valley project proposes nearly identical uses as the Millennium 1 (Camino Del Rio Mixed-Use) project. Identical trip distribution for the Witt Mission Valley project was used with adjustments made to account for the project access. The previously approved trip distribution is shown in **Attachment A**.

4.3 Street Level of Service Thresholds

When analyzing street segments, the Level of Service (LOS) must be determined. LOS is a measure used to describe the conditions of traffic flow. LOS is expressed using letter designations from "A" to "F." LOS "A" represents the best case, and LOS "F" represents the worst case. Generally LOS "A" through "C" represents free-flowing traffic conditions with little or no delay. LOS "D" represents limited congestion and some delay. However, the duration of periods of delay is acceptable to most people. LOS "E" and "F" represent significant delays on local streets, which are generally unacceptable for urban design purposes. The City of San Diego has developed LOS threshold tables based on the different functional street classifications and their ability to carry traffic. For the City of San Diego, LOS "D" is the acceptable LOS standard for roadways and intersections.

4.4 Intersection Level of Service Procedures

The City determines the procedures to be used for intersection peak hour analysis. To determine an intersection peak hour LOS, the Traffic Impact Study Manual guidelines require use of the most current Highway Capacity Manual's signalized intersection operational methodology for determining intersection delay. The most recent publication of the Highway Capacity Manual is the HCM 6th Edition. HCM 6th Edition methodology determines LOS based on average control delay expressed in seconds. **Table 4-1** shows the LOS based upon the delay for signalized intersections. **Table 4-2** shows the LOS based upon the delay for unsignalized intersections.

Table 4-2: Level of Service Criteria for Signalized Intersections

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	≤1.0	>1.0
≤10	A	F
>10–20	B	F
>20–35	C	F
>35–55	D	F
>55–80	E	F
>80	F	F

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

Source: *Highway Capacity Manual, 6th Edition: A Guide for Multimodal Mobility Analysis (2016)*

Table 4-2: Level of Service Criteria for Un-Signalized Intersections

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤ 1.0	*v/c* > 1.0
0–10	A	F
>10–15	B	F
>15–25	C	F
>25–35	D	F
>35–50	E	F
>50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

Source: *Highway Capacity Manual, 6th Edition: A Guide for Multimodal Mobility Analysis (2016)*

A computer program known as Synchro is used to complete the analysis. As discussed above, the City guidelines have established LOS "D" or better as the objective for intersections and street segments. The intersection analysis includes pedestrian and bike volumes based on actual count data obtained in the field.

4.5 Freeway Segment LOS Procedures

To determine the LOS of main-lane freeway segments, a V/C analysis would be conducted consistent with California Department of Transportation (Caltrans) District 11 Procedures for Estimating Freeway Level of Service. This analysis study area does not include any freeway or freeway ramps so these procedures have not been utilized.

4.6 Significance Thresholds

As discussed above, two criteria must be met before project traffic mitigation is required. First, an unacceptable LOS (i.e., "E" or "F") must occur, and second, significance thresholds for only project traffic must be exceeded. Alternatively, if project traffic causes a facility to degrade from LOS "D" to "E" or "F", a significant impact would occur. The City's significance thresholds are summarized in **Table 4-3**. These thresholds are used in this analysis along with LOS to determine if project mitigation is required. **Table 4-4** shows the roadway classifications for the City of San Diego. The study area for this TIA was based on criteria and thresholds established in the City of San Diego, Traffic Impact Study Manual. Based on this criteria, street segments and intersections with less than 50 peak hour trips in the peak direction were not evaluated. Likewise, metered freeway ramp locations with less than 20 peak hour trips were not evaluated.

Table 4-3: Significance Thresholds

Level of Service with Project*	Allowable Increase Due to Project Impacts**					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	*Speed (mph)*	*V/C*	*Speed (mph)*	*Delay (sec.)*	*Delay (min.)*
E (or ramp meter delays above 15 minutes)	0.010	1.0	0.02	1.0	2.0	2.0
F (or ramp meter delays above 15 minutes)	0.005	0.5	0.01	0.5	1.0	1.0

Note 1: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS E is 2 minutes.
Note 2: The allowable increase in delay at a ramp meter with more than 15 minutes delay and freeway LOS F is 1 minute.
* All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped locations). For metered freeway ramps, LOS does not apply. However,ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/ and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and / or cumulatively considerable traffic impacts.

Key:

1. V/C =Volume to Capacity Ratio
2. Speed = Arterial speed measured in miles per hour
3. Delay = Average control delay per vehicle measured in seconds for intersections, or minutes for ramp meters
4. LOS = Level of Service

Table 4-4: Roadway Classifications

STREET CLASSIFICATION	LANES	CROSS SECTIONS	LEVEL OF SERVICE A	B	C	D	E
Freeway	8 lanes		60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes		45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes		30,000	42,000	60,000	70,000	80,000
Expressway	6 lanes	102/122	30,000	42,000	60,000	70,000	80,000
Primary Arterial	6 lanes	102/122	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	102/122	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	78/98	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	72/92	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) continuous left-turn lane)	4 lanes 2 lanes	64/84 50/70	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	40/60	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	50/70	2,500	3,500	5,000	6,500	8,000
Collector (multifamily)	2 lanes	40/60	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	36/56	—	—	2,200	—	—

LEGEND:

XXX/XXX = Curb to curb width (feet)/right-of-way width (feet): based on the City of San Diego Street Design. Manual

XX/XXX= Approximate recommended ADT based on the City of San Diego Street Design Manual.

NOTES:

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.

2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

5.0 EXISTING

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Existing condition. See **Figure 2-1** for the project location. **Appendix D** includes the Circulation Element from the Mission Valley Community Plan and the 2017 Mission Valley Community Plan Update Existing Roadway table.

5.1 Existing Roadway Facilities

Camino De La Reina is an east–west four lane Major roadway that runs from Hotel Circle to Qualcomm Way. A small portion of Camino De La Reina within the study area (beneath SR-163) exists as a two lane Collector roadway with widening at intersections and no fronting property. The remaining length of Camino De La Reina within the study area functions as a four-lane Major arterial with a raised median. The ultimate classification for Camino De La Reina within the Mission Valley Community Plan is a 4-lane Major road. Parking is permitted along much of Camino De La Reina with the exception of the two lane portion. The posted speed limit is 35 miles per hour. There is no bike lane on Camino De La Reina within the study area.

Camino De La Siesta is a north-south two lane Collector Road from Camino De La Reina to Camino Del Rio North within the study area. Camino De La Reina acts as a northbound extension of Camino Del Rio North and ends at Camino De La Reina with a designated left turn pocket and a shared right turn. Parallel parking is permitted along this segment excluding red curb near

driveways and the intersection. The posted speed limit is 25 miles per hour. There is no bike path that exists along Camino De La Siesta.

Camino Del Rio North is an east–west roadway from the I-8 westbound on-ramps to Camino De La Siesta within the study area. This portion of Camino Del Rio North functions as a 4-lane Collector road between the I-8 ramps and Mission Center Road and a two-lane Collector with a two-way left turn lane west of that point to Camino Del Arroyo. The Mission Valley Community Plan identifies the ultimate classification for this roadway as 4-lane Major Arterial from the I-8 westbound on-ramp to Mission Center Road and either a 3 or 2-lane Collector along the remaining portion within the study area. Parking is prohibited along the 4-lane stretch of Camino Del Rio North and permitted elsewhere. The posted speed limit is 30 miles per hour. There are no bike lanes along Camino Del Rio North.

Camino Del Arroyo is a north–south roadway connecting Camino De La Reina with Camino Del Rio North within the study area. Camino Del Arroyo functions as a 2-lane Collector road. Parking is allowed along the road. Camino Del Arroyo is unclassified according to the Community Plan. The speed limit on Camino Del Arroyo is 25 miles per hour. There are no bike lanes along Camino Del Arroyo.

5.2 Existing Traffic Volumes

Figure 5-1 shows the existing average weekday 24-hour traffic volumes for street segments in the project study area. Existing street segment functional classifications were used for purposes of this analysis. Traffic counts summarized on **Figure 5-1** were conducted on Thursday, June 14th, 2017.

Figure 5-2 shows the lane configurations and intersection control for the existing roadway network at the study area intersections evaluated.

Appendix E includes the existing count data for street segments and intersections as well as signal timing sheets for study intersections.

5.3 Street Segments

The following street segments were analyzed in the Existing condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 5-1 displays the Existing ADT volumes for the study street segments.

Based on Existing volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better. See **Table 5-1** for the Existing street segment analysis.

Figure 5-1: Existing Average Daily Traffic

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Figure 5-2: Existing Lane Configuration

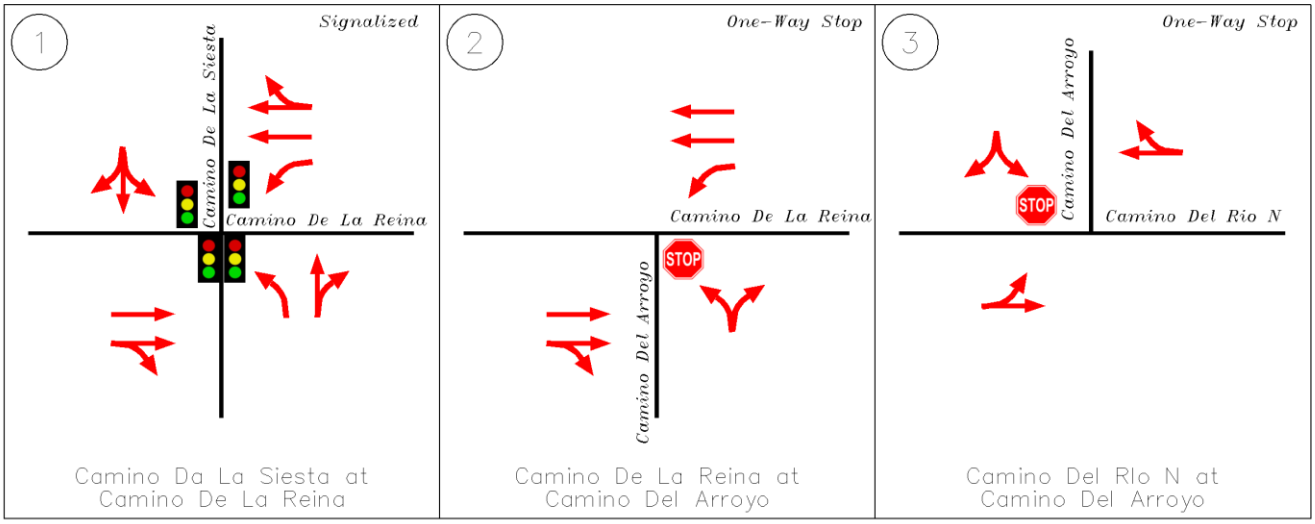
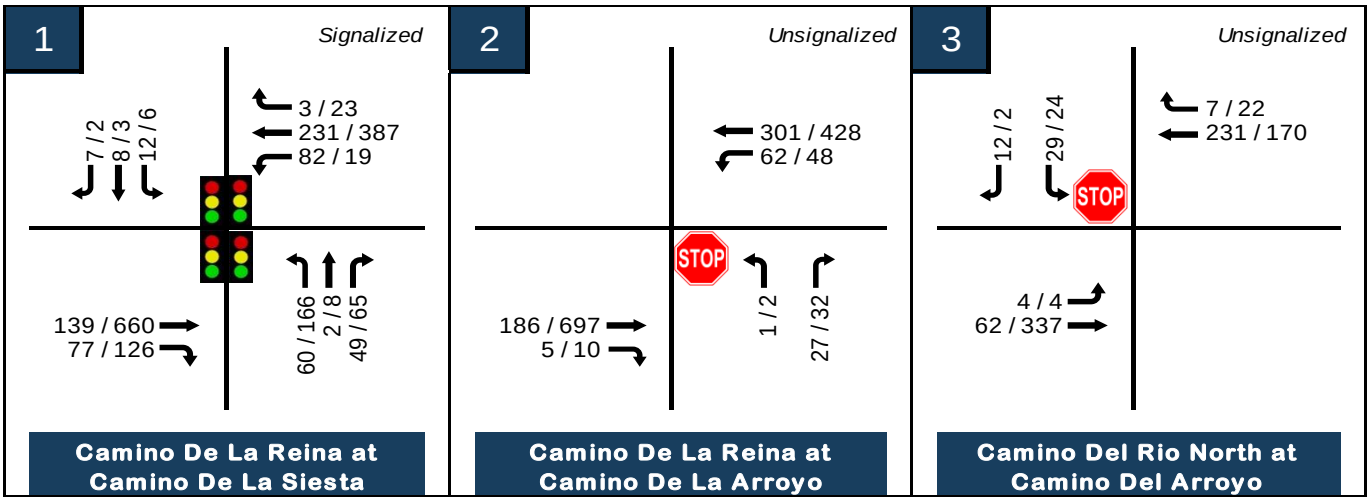


Figure 5-3: Existing AM / PM Peak Hour Traffic



XX / XX = AM / PM Peak hour volumes

Table 5-1: Existing Street Segment Level of Service

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	12,430	0.31	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,124	0.64	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	4,970	0.62	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

5.4 Intersections

The following intersections were analyzed in the Existing conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Existing peak hour traffic volumes at the studied intersections can be found in **Figure 5-3**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 5-2** for the Existing intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. Refer to **Appendix F** for Existing Synchro worksheets.

Table 5-2: Existing Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.6	A	9.2	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	9.1	A	12.0	B
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.0	A	10.8	B

Notes:

LOS = Level of Service

6.0 EXISTING WITH PROJECT

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Existing With Project condition.

6.1 Street Segments

The following street segments were analyzed in the Existing With Project condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 6-1 displays the Existing With Project ADT volumes for the study street segments.

Based on Existing With Project volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better. See **Table 6-1** for the Existing With Project street segment analysis.

An Existing and Existing With Project street segment comparison can be found in **Table 6-2**.

Figure 6-1: Existing With Project Average Daily Traffic

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Table 6-1: Existing With Project Street Segment

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	12,640	0.32	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,434	0.68	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	5,244	0.66	D

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 6-2: Existing & Existing + Project Street Segment Comparison

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.2	A	8.8	A	0.2	No	9.8	A	0.6	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10	A	10.8	B	10.1	B	0.1	No	10.9	B	0.1	No

Notes:

LOS = Level of Service
Δ = Change
S = Significant
D= Delay

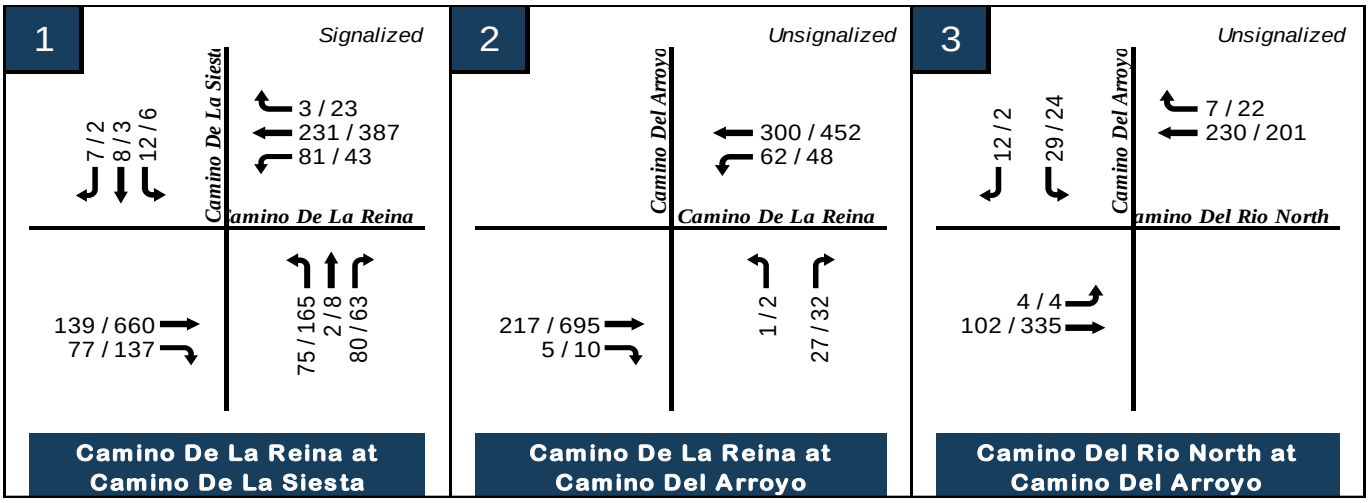
6.2 Intersections

The following intersections were analyzed in the Existing With Project conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Existing With Project peak hour traffic volumes at the studied intersections can be found in **Figure 6-2**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 6-3** for the Existing With Project intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. **Table 6-4** displays the Existing and Existing With Project intersection LOS comparison. Refer to **Appendix G** for Existing With Project Synchro worksheets.

Figure 6-2: Existing With Project AM / PM Peak Hour Volumes



XX / XX = AM / PM Peak hour volumes

Table 6-3: Existing With Project Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.8	A	9.8	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	9.2	A	12	B
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.1	B	10.9	B

Notes:

Delay = seconds per vehicle

LOS = Level of Service

Table 6-4: Existing & Existing + Project Intersection Summary

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.2	A	8.8	A	0.2	No	9.8	A	0.6	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10	A	10.8	B	10.1	B	0.1	No	10.9	B	0.1	No

Notes:

LOS = Level of Service
Δ = Change
S = Significant
D= Delay

7.0 OTHER PROJECTS

To find Other Project volumes, USAI included volumes from approved projects that are expected to have impacts within the project study area. These "other projects" are added to existing traffic in order to determine "cumulative impacts" as required by the California Environmental Quality Act (CEQA). According to CEQA, a list of "past, present and probable future projects" should be used to determine cumulative project conditions.

Other Project Traffic Volumes:

There are two (2) reasonably foreseeable projects that may have traffic impacts within the project study area. The two projects included are the Camino Del Rio Mixed-Use project and the Alexan Fashion Valley project.

Although there are other active projects in the Mission Valley area including Civita, Town and Country, Legacy International Center, Riverwalk and others, an exploration of the proposed opening day and study area of these projects indicates that they will have little or no effect on the study area in the Near Term. The Witt Mission Valley project is expected to have an opening day in Year 2020. Due to the complexity of projects such as Riverwalk, they are expected to have a later opening day. Projects such as Town and Country and Legacy International Center are not expected to generate significant new trips and projects such as Civita have a relatively small influence in the study area. One final other project explored is the Union-Tribune project which is undergoing project revision at the time of this analysis. No significant additional traffic from the Union-Tribune site is anticipated in the immediate short-term. Development of

Mission Valley consistent with regional plans is anticipated in future years and is included in the Long-Term analysis pursuant to the SANDAG regional travel forecast model. This is further discussed in Section 10.0.

Figure 7-1 shows the locations of these other projects.

Figure 7-2 shows the other projects average daily traffic volumes when added to existing traffic.

Figure 7-1: Other Projects Locations

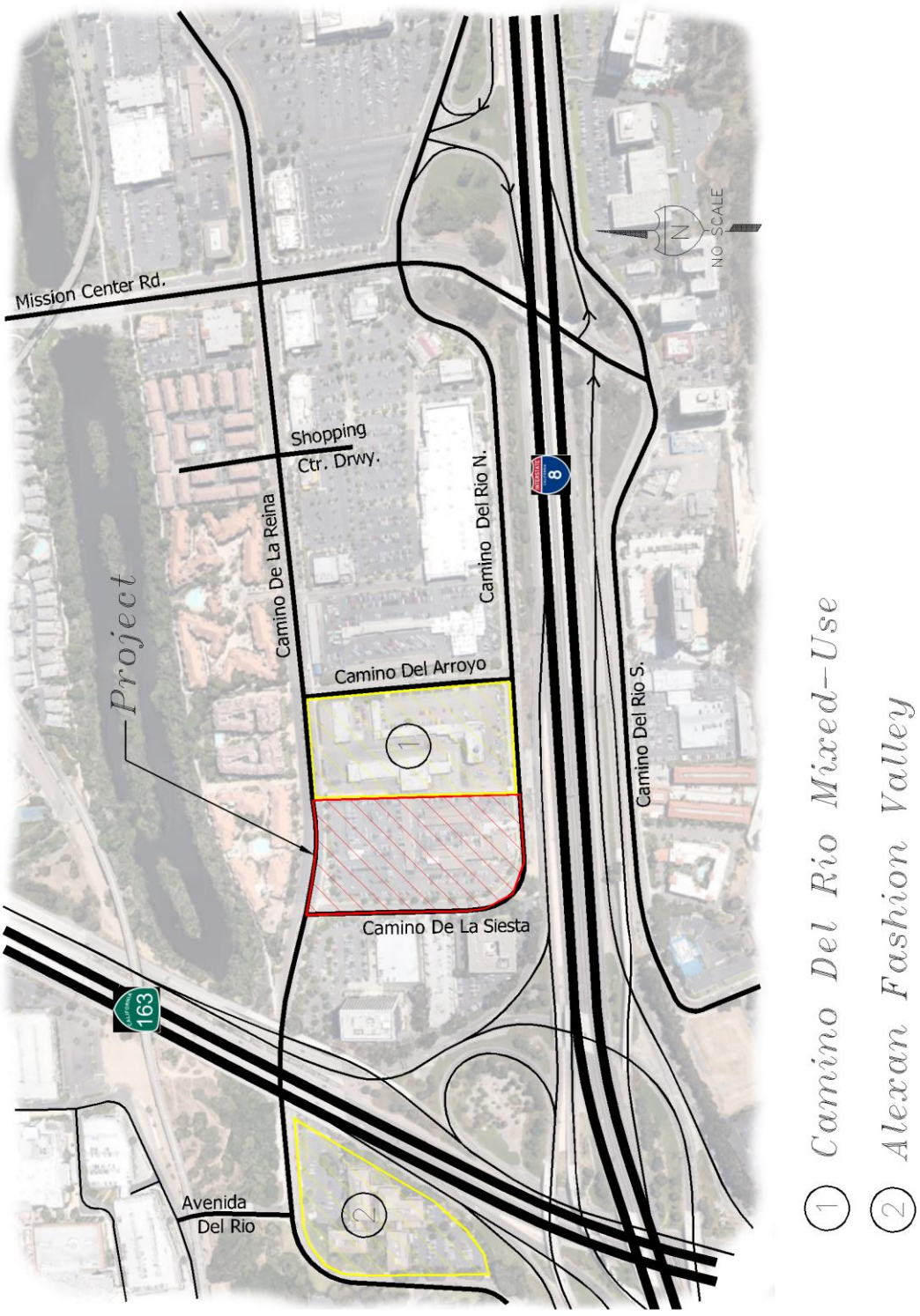


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Figure 7-2: Other Projects Average Daily Traffic

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8.0 NEAR TERM

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Near Term condition.

8.1 Street Segments

The following street segments were analyzed in the Near Term condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 8-1 displays the Near Term ADT volumes for the study street segments.

Based on Near Term volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better. See **Table 8-1** for the Near Term street segment analysis.

Figure 8-1: Near Term Average Daily Traffic

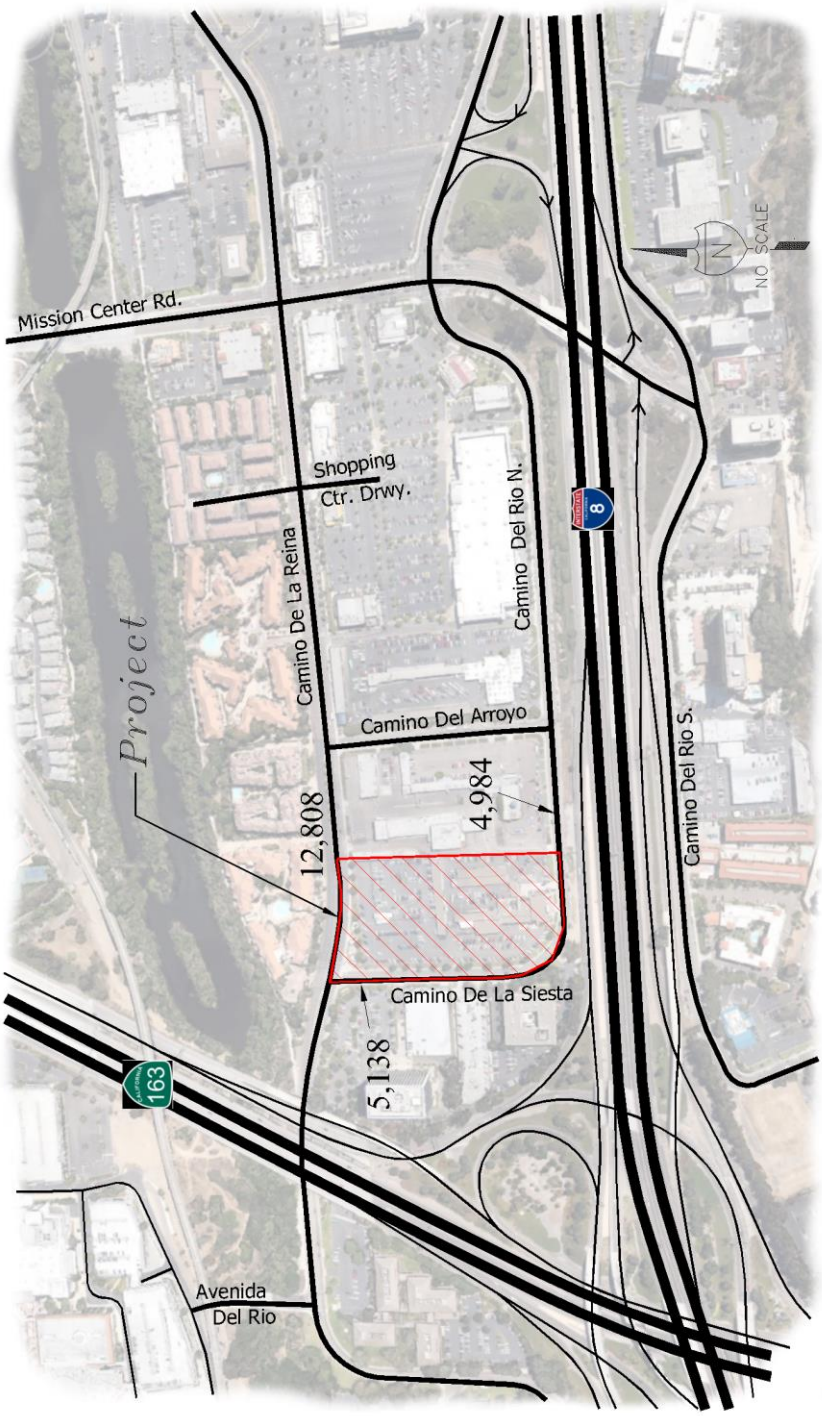

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Table 8-1: Near Term Street Segment

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	12,808	0.32	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,138	0.64	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	4,984	0.62	C

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

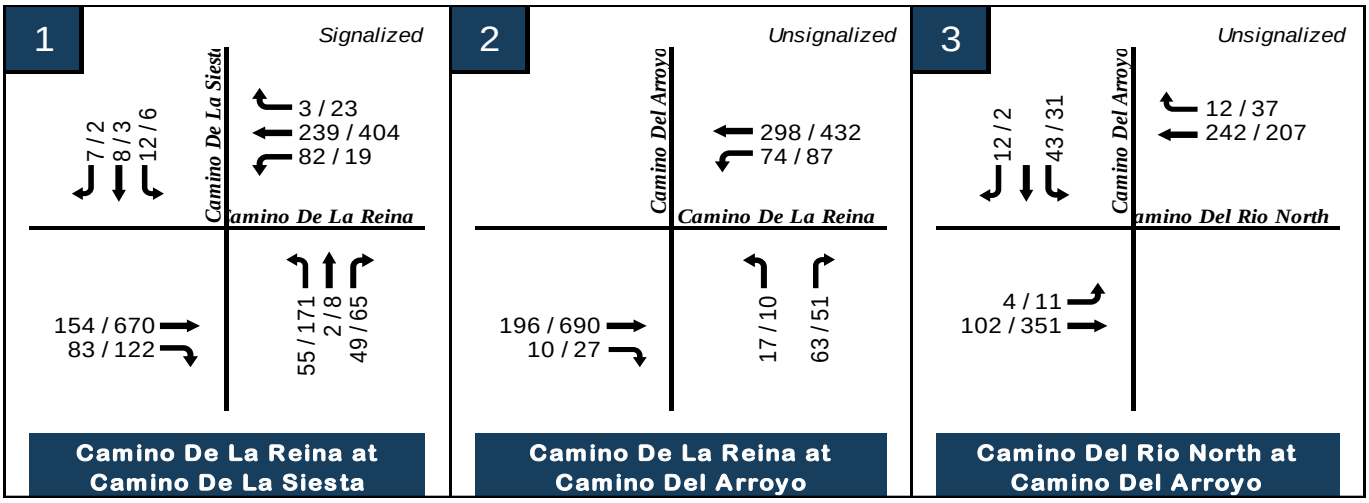
8.2 Intersections

The following intersections were analyzed in the Near Term conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Near Term peak hour traffic volumes at the studied intersections can be found in **Figure 8-2**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 8-2** for the Near Term intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. Refer to **Appendix H** for Near Term Synchro worksheets.

Figure 8-2: Near Term AM / PM Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

Table 8-2: Near Term Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.6	A	9.3	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	10.4	B	15.3	C
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.3	B	11.3	B

Notes:

Delay = seconds per vehicle

LOS = Level of Service

9.0 NEAR TERM WITH PROJECT

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Near Term With Project condition.

9.1 Street Segments

The following street segments were analyzed in the Near Term With Project condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 9-1 displays the Near Term With Project ADT volumes for the study street segments.

Based on Near Term With Project volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better. See **Table 9-1** for the Near Term With Project street segment analysis.

A Near Term and Near Term With Project street segment comparison can be found in **Table 9-2**.

Figure 9-1: Near Term With Project Average Daily Traffic

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Table 9-1: Near Term With Project Street Segment

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	13,018	0.33	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,448	0.68	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	5,258	0.66	D

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 9-2: Near Term & Near Term + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Near Term			Near Term + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	C	4,984	0.62	D	5,258	0.66	0.034	***NO***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

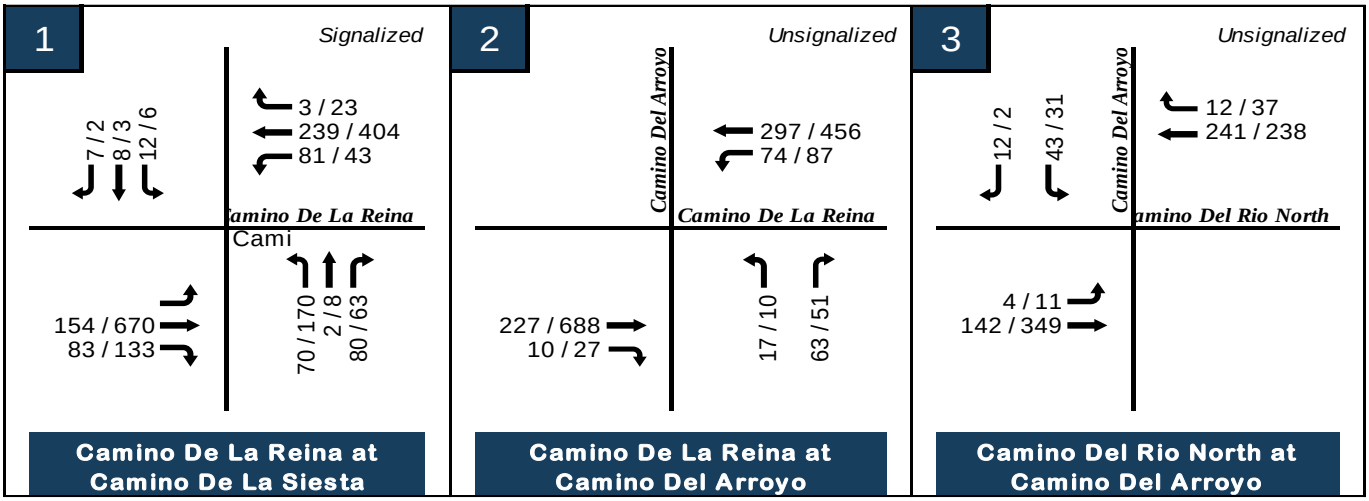
9.2 Intersections

The following intersections were analyzed in the Near Term With Project conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Near Term With Project peak hour traffic volumes at the studied intersections can be found in **Figure 9-2**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 9-3** for the Near Term With Project intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. **Table 9-4** displays the Near Term and Near Term With Project intersection LOS comparison. Refer to **Appendix I** for Near Term With Project Synchro worksheets.

Figure 9-2: Near Term With Project AM / PM Peak Hour Volumes



XX / XX = AM / PM Peak hour volumes

Table 9-3: Near Term With Project Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.8	A	9.8	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	10.6	B	15.4	C
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.4	B	11.4	B

Notes:

LOS = Level of Service

Table 9-4: Near Term & Near Term + Project Intersection Summary

#	Intersection	Near Term				Near Term + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.8	A	0.2	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	10.4	B	15.3	C	10.6	B	0.2	No	15.4	C	0.1	No
3	Camino Del Rio North at Camino Del Arroyo	10.3	B	11.3	B	10.4	B	0.1	No	11.4	B	0.1	No

Notes:

DNE = Does Not Exist

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

10.0 HORIZON YEAR 2035

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Horizon Year 2035 condition.

10.1 Street Segments

The following street segments were analyzed in the Horizon Year 2035 condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 10-1 displays the Horizon Year 2035 ADT volumes for the study street segments.

Based on Horizon Year 2035 volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better. See **Table 10-1** for the Horizon Year 2035 street segment analysis.

Figure 10-1: Horizon Year 2035 Average Daily Traffic

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Table 10-1: Horizon Year 2035 Street Segment

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	12,808	0.32	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,138	0.64	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	6,500	0.81	D

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Notes:

Taken from SANDAG Series 13 Year 2035 traffic model

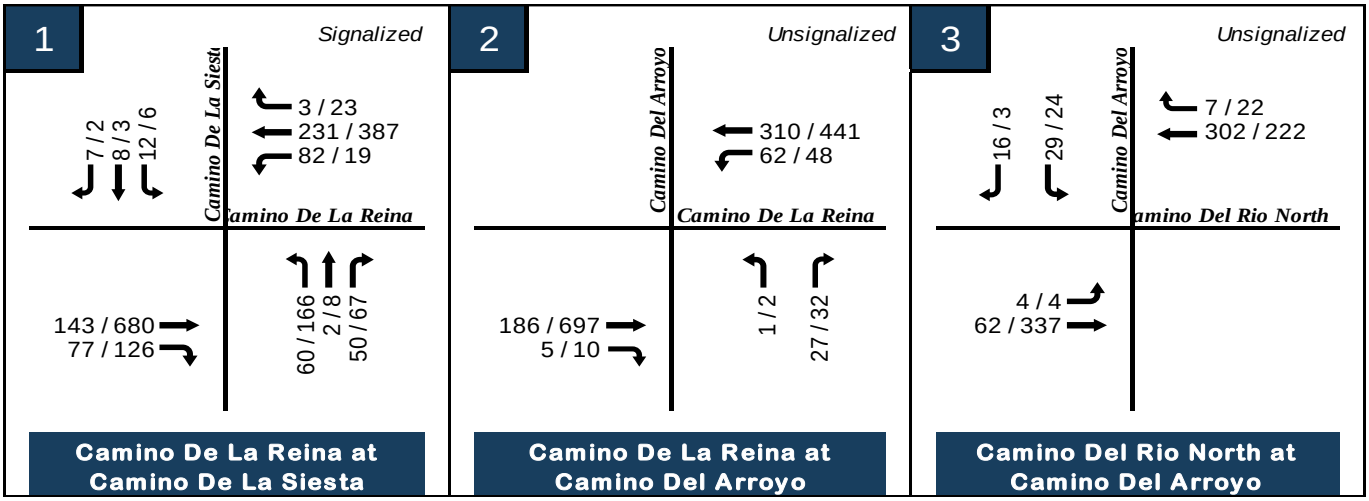
10.2 Intersections

The following intersections were analyzed in the Horizon Year 2035 conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Horizon Year 2035 peak hour traffic volumes at the studied intersections can be found in **Figure 10-2**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 10-2** for the Horizon Year 2035 intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. Refer to **Appendix J** for Horizon Year 2035 Synchro worksheets.

Figure 10-2: Horizon Year 2035 AM / PM Peak Hour Traffic Volumes



XX / XX = AM / PM Peak hour volumes

Table 10-2: Horizon Year 2035 Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.6	A	9.3	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	9.1	A	12.0	B
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.5	B	10.9	B

Notes:

LOS = Level of Service

11.0 HORIZON YEAR 2035 WITH PROJECT

The purpose of this chapter is to evaluate street segments and intersections within the project's study area in the Horizon Year 2035 With Project condition.

11.1 Street Segments

The following street segments were analyzed in the Horizon Year 2035 With Project condition:

- Camino De La Reina (Between Camino De La Siesta and Camino Del Arroyo)
- Camino De La Siesta (North of Driveway A)
- Camino De La Siesta (West of Camino Del Arroyo)

Figure 11-1 displays the Horizon Year 2035 With Project ADT volumes for the study street segments.

Based on Horizon Year 2035 With Project volumes and the City's street classification thresholds, all study street segments are anticipated to operate at an acceptable level of service (LOS) D or better except for the following street segment:

- Camino Del Rio North (from Camino De La Siesta to Camino Del Arroyo)
    - Horizon Year 2035 + Project E

This cumulatively significant impact will be handled through mitigation measures. In order to mitigate the project's cumulatively significant impact to the street segment of Camino Del Rio North (from Camino de la Siesta to Camino Del Arroyo), the street segment of Camino Del Rio

North has a two-way left turn lane which will be extended through the segment to Camino De La Siesta. Doing so will provide adequate storage for vehicles wishing to access the project and increase overall segment capacity. This improvement would reduce cumulative significant impacts to below a level of significance. Conceptual striping plans can be found in **Appendix B**.

See **Table 11-1** for the Horizon Year 2035 With Project street segment analysis.

A Horizon Year 2035 and Horizon Year 2035 With Project street segment comparison can be found in **Table 11-2**.

Figure 11-1: Horizon Year 2035 With Project Average Daily Traffic

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Table 11-1: Horizon Year 2035 With Project Street Segment

Road	Segment	Standard	# of Ln.	Class.	Cap.	Volume	V/C	LOS
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	SD	4	4-M	40,000	13,018	0.33	A
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	SD	2	2-Cc	8,000	5,448	0.68	D
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	SD	2	2-Cc	8,000	6,774	0.85	E

Legend:

Class. = Functional Class

Cap. = Capacity

LOS = Level of Service

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 11-2: Horizon Year 2035 & Horizon Year 2035 + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Year 2035			Year 2035 + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	D	6,500	0.81	E	6,774	0.85	0.034	***YES***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

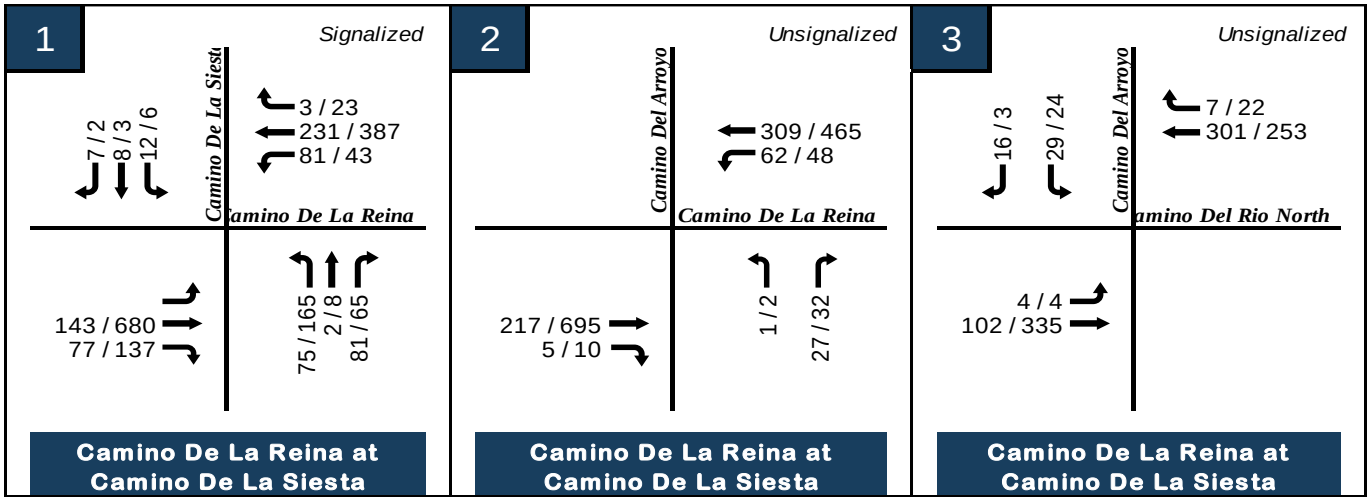
11.2 Intersections

The following intersections were analyzed in the Horizon Year 2035 With Project conditions:

- Camino De La Reina at Camino De La Siesta
- Camino De La Reina at Camino Del Arroyo
- Camino Del Arroyo at Camino Del Rio North

Horizon Year 2035 With Project peak hour traffic volumes at the studied intersections can be found in **Figure 11-2**. The average delay and level of service at the study intersections in the AM and PM peak hour were analyzed using a software package called Synchro, which is an application of the Highway Capacity Manual methodology. Refer to **Table 11-3** for the Horizon Year 2035 With Project intersection level of service analysis. As shown in the table, the study intersections currently operate at an acceptable LOS D or better in both the AM and PM peak hour setting. **Table 11-4** displays the Horizon Year 2035 and Horizon Year 2035 With Project intersection LOS comparison. Refer to **Appendix K** for Horizon Year 2035 With Project Synchro worksheets.

Figure 11-2: Horizon Year 2035 With Project AM / PM Peak Hour Volumes



XX / XX = AM / PM Peak hour volumes

Table 11-3: Horizon Year 2035 With Project Intersection Level of Service

Number	Intersection	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Camino De La Reina at Camino De La Siesta	Signalized	8.9	A	9.8	A
2	Camino De La Reina at Camino Del Arroyo	Unsignalized	9.2	A	12.0	B
3	Camino Del Rio North at Camino Del Arroyo	Unsignalized	10.6	B	11.1	B

Notes:

LOS = Level of Service

Table 11-4: Horizon Year 2035 & Horizon Year 2035 + Project Intersection Summary

#	Intersection	Year 2035				Year 2035 + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.9	A	0.3	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12.0	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10.5	B	10.9	B	10.6	B	0.1	No	11.1	B	0.2	No

Notes:

DNE = Does Not Exist

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

12.0 ACCESS & PARKING

12.1 Access

Access for the project is planned via two full access driveways both on Camino Del Rio North and Camino De La Siesta, which connects Camino Del Rio North to Camino De La Reina on the west side of the property. Additionally, a private drive on the east side of the property will provide emergency access to both Camino Del Rio North and Camino De La Reina. The emergency access to Camino Del Rio North will be closed off to regular traffic with bollards. No signalized access is currently planned. Access will be configured as shown on the site plan in **Figure 2-2**.

12.2 Parking

As Shown in **Figure 12-1**, parking for the project is planned to meet the parking requirements contained in the City of San Diego Municipal Code. Parking for the residential portion of the project will be primarily accommodated in a parking structure accessed off of Camino De La Siesta or Camino Del Rio North as discussed above. The parking structure is planned to accommodate a total of 462 vehicular parking spaces, 127 bicycle parking spaces, and 28 motorcycle parking spaces. Parking for the commercial/retail portion of the project will be accommodated in an on-grade parking lot with a total of 52 parking spaces. The planned parking supply greatly exceeds the minimum required by the Municipal Code.

Figure 12-1: Parking Summary

Parking Summary provided on the following page in 11” by 17” format.

13.0 ONSITE VEHICULAR AND PEDESTRIAN CIRCULATION

As shown in **Figure 2-2**, on-site vehicular circulation will be accommodated by two driveways into a parking garage for the residential portion of the project. One driveway entry will be located on Camino De La Siesta mid-block between Camino del Rio North and Camino De La Reina. A second driveway will be located directly on Camino Del Rio North. Additional circulation for the retail portion of the project will be accomplished through a private drive parallel to and east of Camino De La Siesta. This private drive will primarily serve retail tenants along with fire service. There will be limited on-street parking on the new private drive. Primary access for the project will be from Camino De La Siesta.

Pedestrian circulation for the project will be accommodated through internal walkways within the project as well as sidewalks on the surrounding segments. A crosswalk will be located in the retail parking lot connecting the retail portion of the project to the residential portion of the project in a convenient location. Project sidewalks will connect to sidewalks on the public streets which will allow access to transit and adjacent retail services.

14.0 TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management, called "TDM" for short, is a strategy designed to reduce single occupant vehicle trips during the AM and PM peak weekday hours. Since most commuting and congestion occur during weekday peak periods, TDM seeks to shift commuters to transportation modes other than cars as well as reduce peak hour trips by encouraging commuting in non-peak periods and other strategies.

As a condition of project approval, the Camino Del Rio Mixed-Use project will incorporate TDM measures including the following:

- Kiosks or bulletin boards in central locations, which encourage alternative modes of transportation.

- Informational newsletters to residents, tenants and employees discussing RideLink and other tools for carpooling, bicycling, and alternative modes of transportation.

- Designated carpool coordinator for the residents

- Bicycle parking in central locations

- Preferred parking for fuel efficient vehicles

- Shuttle- 9 passenger shuttle, including driver, to transport residents and employees of the development to the nearest transit stations at Fashion Valley and Mission Valley shopping

Centers. This shuttle will travel on a regular schedule and the service will be provided to residents free of charge.

Please Refer to **Appendix I** for an extended Transportation Demand Management report.

15.0 TRANSIT & OTHER MODES

15.1 Pedestrian & Bicycle

Pedestrian access will be provided through sidewalks on Camino De La Reina, Camino Del Arroyo and Camino Del Rio North. From the proposed project, pedestrians can utilize sidewalks on Camino De La Reina., Camino Del Arroyo and Camino Del Rio North to reach the rest of the community. Pedestrian paths of travel onsite are shown in **Figure 3-2**. Likewise, bicyclists can access the street system from the project at Camino Del Rio North, Camino De La Reina and Camino Del Arroyo. Pedestrian and bicycle improvements—primarily through the Transportation Demand Management Plan as presented in Section 14.0—include centrally-located bicycle-parking, informational newsletter, kiosks or newsletters which encourage alternative modes of transportation, such as bicycling. Additionally, a 9 passenger shuttle to transport residents and employees of the development to the nearest transit stations would serve and benefit those who do choose to walk and/or bicycle as an alternative.

15.2 Transit

The project site is served by bus. Route 6 travels on Camino De La Reina along the project frontage and connects the project site with Mission Valley Center and Fashion Valley Center along with North Park. More transit—including a route map—for route 6 can be found in **Appendix J**. The route is active Monday through Friday at approximately 15 minute intervals. The route is also active on Saturday and Sunday at lesser and varying intervals. As shown on **Figure 3-1**, walking distance to the nearest trolley station is approximately 3432 feet.

16.0 CONCLUSIONS & RECOMMENDATIONS

16.1 Project Trip Generation

The proposed project includes a planned 277 multi-dwelling units, 3,600 sq. ft. of commercial office, 2,500 sq. ft. of specialty retail, and 3,500 sq. ft. of high-turnover sit-down restaurant. The proposed project is expected to generate 581 new average daily trips (ADT) with 84 (-2 in / 86 out) trips in the AM peak hour and 62 trips (67 in / -5 out) in the PM peak hour. Trip generation can be found on **Table 3-1**.

16.2 Existing

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Existing condition.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Existing condition.

16.3 Existing With Project

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Existing With Project condition.

Please see **Table 16-1** for an Existing & Existing With Project street segment comparison.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Existing With Project condition.

Please see **Table 16-1** for an Existing & Existing With Project intersection summary.

Table 16-1: Existing & Existing + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Existing			Existing + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,430	0.31	A	12,640	0.32	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,124	0.64	D	5,434	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	C	4,970	0.62	D	5,244	0.66	0.034	***NO***

Legend:

LOS= Level of Service
V/C= Volume to Capacity Ratio
ΔV/C= Change in V/C ratio
2-Cc = 2 Lane Collector (w/ commercial-industrial property)
4-M = 4 Lane Major Arterial

Table 16-2: Existing & Existing + Project Intersection Summary

#	Intersection	Existing				Existing + Project (Buildout)							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.2	A	8.8	A	0.2	No	9.8	A	0.6	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10	A	10.8	B	10.1	B	0.1	No	10.9	B	0.1	No

Notes:

LOS = Level of Service
Δ = Change
S = Significant
D= Delay

16.4 Near Term

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Near Term condition.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Near Term condition.

16.5 Near Term With Project

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Near Term With Project condition.

Please see **Table 16-3** for a Near Term & Near Term With Project street segment comparison.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Near Term With Project condition.

Please see **Table 16-4** for a Near Term & Near Term With Project intersection summary.

Table 1-2: Near Term & Near Term + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Near Term			Near Term + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	C	4,984	0.62	D	5,258	0.66	0.034	***NO***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 1-5: Near Term & Near Term + Project Intersection Summary

#	Intersection	Near Term				Near Term + Project							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.8	A	0.2	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	10.4	B	15.3	C	10.6	B	0.2	No	15.4	C	0.1	No
3	Camino Del Rio North at Camino Del Arroyo	10.3	B	11.3	B	10.4	B	0.1	No	11.4	B	0.1	No

Notes:

DNE = Does Not Exist

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

16.6 Horizon Year 2035

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Horizon Year 2035 condition.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Horizon Year 2035 condition.

16.7 Horizon Year 2035 With Project

Street Segments:

All street segments are shown to operate at LOS "D" or better in the Horizon Year 2035 With Project condition except for the following street segment:

- Camino Del Rio North (from Camino De La Siesta to Camino Del Arroyo)
    - Horizon Year 2035 + Project E

This cumulatively significant impact will be handled through mitigation measures. In order to mitigate the project's cumulatively significant impact to the street segment of Camino Del Rio North (from Camino de la Siesta to Camino Del Arroyo), the street segment of Camino Del Rio North has a two-way left turn lane which will be extended through the segment to Camino De La Siesta. Doing so will provide adequate storage for vehicles wishing to access the project and

increase overall segment capacity. This improvement would reduce cumulative significant impacts to below a level of significance. Conceptual striping plans can be found in **Appendix B**. Please see **Table 16-5** for a Horizon Year 2035 & Horizon Year 2035 With Project street segment comparison.

Intersections:

All intersections are expected to operate at LOS "D" or better in the Horizon Year 2035 With Project condition.

Please see **Table 16-6** for a Horizon Year 2035 & Horizon Year 2035 With Project intersection summary.

Table 16-5: Horizon Year 2035 & Horizon Year 2035 + Project Street Segment Comparison

Road	Segment	# of Lanes	LOS "E" Capacity	Class.	Year 2035			Year 2035 + Project			ΔV/C	Is this impact Significant?
					LOS	Volume	V/C	LOS	Volume	V/C		
Camino De La Reina	from Camino De La Siesta to Camino Del Arroyo	4	40,000	4-M	A	12,808	0.32	A	13,018	0.33	0.005	***NO***
Camino De La Siesta	from Camino De La Reina to Camino Del Rio North	2	8,000	2-Cc	D	5,138	0.64	D	5,448	0.68	0.039	***NO***
Camino Del Rio North	from Camino De La Siesta to Camino Del Arroyo	2	8,000	2-Cc	D	6,500	0.81	E	6,774	0.85	0.034	***YES***

Legend:

LOS= Level of Service

V/C= Volume to Capacity Ratio

ΔV/C= Change in V/C ratio

2-Cc = 2 Lane Collector (w/ commercial-industrial property)

4-M = 4 Lane Major Arterial

Table 16-6: Horizon Year 2035 & Horizon Year 2035 + Project Intersection Summary

#	Intersection	Year 2035				Year 2035 + Project						
		AM Peak Hour		PM Peak Hour		AM Peak Hour		Δ	S ?	PM Peak Hour		Δ	S ?
		D	LOS	D	LOS	D	LOS			D	LOS		
1	Camino De La Reina at Camino De La Siesta	8.6	A	9.3	A	8.9	A	0.3	No	9.8	A	0.5	No
2	Camino De La Reina at Camino Del Arroyo	9.1	A	12.0	B	9.2	A	0.1	No	12.0	B	0.0	No
3	Camino Del Rio North at Camino Del Arroyo	10.5	B	10.9	B	10.6	B	0.1	No	11.1	B	0.2	No

Notes:

DNE = Does Not Exist

LOS = Level of Service

Δ = Change

S = Significant

D= Delay

16.8 Community Plan Conformance

Chapter 15, Article 14 of the City of San Diego, Municipal Code establishes rules for the Mission Valley Planned District (MVPDO). The proposed project is located within this district in Development Intensity District G (See Appendix D, MVPDO). Within this district, the MVPDO limits development as follows: "Development intensity shall be limited by the number of average daily trips (ADT) generated by the existing and proposed land uses of any development proposal" (§1514.0301 (c) (1)). According to Table 1514-03A in the MVPDO, up to 344 ADT per gross acre is allowed within development threshold 2. For the 5.13 acre project site, the Community Plan would allow up to 1,765 ADT within the allowable development thresholds.

The MVPDO establishes trip rates based on equivalent dwelling units similar to the trip rates previously presented but slightly different. Based on these trip rates, it can be seen that the proposed project would be within the threshold 2 limits established by the MVPDO (seen to the right).

Land Use	Intensity	Rate*	ADT
Multiple Dwelling Units	277	6 /unit	1,662
Commercial Office	3600	20 /KSF	72
Specialty Retail Center / Strip Commercial	2.5 /KSF	40 /KSF	100
High Turnover (sit-down) Restaurant	3.5 /KSF	40 /KSF	140
PROPOSED SUB-TOTAL			1,974
MXD CREDIT %			17%
MXD CREDIT			336
SUB-TOTAL- WITH MXD CREDIT			1,638

Source:

*Rates taken from the City of San Diego, Municipal Code Table 1514-03B

Note:
ADT= Average Daily Trips
KSF = 1,000 Square Feet
Density = 54 units per acre

16.9 Vehicle Miles Traveled

The Witt Mission Valley project is planned as a mixed-use, infill project combining residential, office, retail and restaurant into one vertically and horizontally integrated project. In addition, the project is located in Mission Valley with connections to transit. These characteristics provide significant opportunities to eliminate traditional single-occupancy vehicle travel. In addition, according to maps provided by the City of San Diego, the proposed project is located in an SB743 transit priority area.

The metric, Vehicle Miles Traveled (VMT) has been selected for future use in CA in determining primary transportation impacts for CEQA purposes. Pursuant to SB743 and anticipated changes to the CEQA Guidelines, a project in a Transit Priority Area may be presumed to have a less than significant impact. In addition, projects that result in automobile VMT per capita less than 15% below existing city-wide or regional values for similar land use types may not have a significant CEQA transportation impact. Although the regulations are being finalized, substantial evidence indicates that the proposed Witt project would fall below these thresholds.

Specifically, the proposed project utilizes a trip estimation tool called the MXD model. This model is one of several tools used to estimate VMT reductions. According to the MXD model ran for the adjacent Millennium site which has nearly identical characteristics, there would be a VMT reduction of as much as 27% in daily trips with AM and PM peak hour reductions of 19% and 24% respectively compared to ordinary suburban land uses and trip rates. After reviewing information regarding this model and recognizing the similar nature and nearly identical

characteristics of the Witt project, Urban Systems and City staff determined that trip reductions for the Witt project would be comparable to the previous Millennium (Camino Del Rio Mixed-Use) project. Similarly, VMT reduction rates derived from the same MXD model would be comparable as discussed above.

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Air Quality Technical Report

for the

Witt Mission Valley Mixed Use Project
PTS No. 562674

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Glossary of Terms and Acronyms

APCD	Air Pollution Control District
ARB	California Air Resources Board
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CALINE4	California Line Source Dispersion Model (Version 4)
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CO	Carbon Monoxide
EPA	United States Environmental Protection Agency
H_2S	Hydrogen Sulfide
mg/m^3	Milligrams per Cubic Meter
$\mu g/m^3$	Micrograms per Cubic Meter
NAAQS	National Ambient Air Quality Standard
NOx	Oxides of Nitrogen
NO_2	Nitrogen Dioxide
O_3	Ozone
$PM_{2.5}$	Fine Particulate Matter (particulate matter with an aerodynamic diameter of 2.5 microns or less
PM_{10}	Respirable Particulate Matter (particulate matter with an aerodynamic diameter of 10 microns or less
ppm	Parts per million
RAQS	San Diego County Regional Air Quality Strategy
ROCs	Reactive Organic Compounds
ROG	Reactive Organic Gases
SANDAG	San Diego Association of Governments
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SIP	State Implementation Plan
SOx	Oxides of Sulfur
SO_2	Sulfur Dioxide
TACs	Toxic Air Contaminants
T-BACT	Toxics Best Available Control Technology
VOCs	Volatile Organic Compounds

1.0 Introduction

This report presents an assessment of potential air quality impacts associated with the Witt Mission Valley Mixed Use Project (project) in the City of San Diego. The project site is located at 588 Camino del Rio North and is situated with Camino del Rio North on the south, Camino de la Siesta on the west, and Camino de la Reina on the north. Office development occurs to the west of the project site, multi-family residential (apartments and condominiums) to the north, a mixed-use development under construction to the east, and the Interstate 8 (I-8) freeway to the south. The project site is developed with commercial auto sales and offices (Witt Lincoln), service bays, and exterior auto sales areas with surface parking lots.

Regional access to the site is provided by I-8, located immediately south of the project site; State Route 163 (SR-163), located approximately one-half mile west of the project site; and I-805, located less than two miles east of the project site. Currently, direct access to the site is via Camino del Rio North on the south and from Camino de la Siesta on the west. The site is in the Mission Valley Community Plan area and the Mission Valley Planned District. Zoned MV-CR (Mission Valley – Commercial Retail), development is regulated by the Mission Valley Planned District Ordinance (MVPDO). The project site is within Development Intensity District G and is designated Commercial Retail in the Mission Valley Community Plan.

The proposed project involves demolition of existing structures (approximately 38,070 square feet) and on-site surface parking and construction of a mixed-use development (approximately 533,100 square feet gross floor area) consisting of residential, retail, and shopkeepers units in a "wrap design." The project would range in height from one to five stories and would have a total of 267 residential units, 10 shopkeeper units, 6,000 square feet of retail space, and 3,400 square feet of commercial space. A total of 450 parking spaces would be provided in a five-story, above ground parking structure, in addition to 52 surface parking spaces, for a total of 502 parking spaces.

Access to the project site currently occurs from two driveways located on Camino de la Siesta and Camino del Rio North. Primary vehicular access to the project would occur via a new driveway off Camino de la Siesta in the northwest portion of the project, an internal drive paralleling Camino

de la Reina, which provides access to surface parking for leasing, retail, and guests and the parking structure, and an additional driveway off Camino de la Reina in the northeast corner of the project site. Direct entry to the parking structure would be provided from Camino del Rio North. A fire lane would be provided along the eastern boundary of the project site.

The project requires a Site Development Permit and a Planned Development Permit. The project proposes a mix of residential, commercial, and shopkeeper units and complies with the Multiple Use Option of the Mission Valley Community Plan. The project would develop under the existing zone and land use designation; therefore, a Rezone and Community Plan Amendment would not be required.

This Air Quality Technical Report includes an evaluation of existing conditions in the project vicinity, an assessment of potential impacts associated with project construction, and an evaluation of project operational impacts.

2.0 Existing Conditions

As discussed in Section 1.0, the site is located within the Mission Valley Community of the City of San Diego. The site is currently occupied by existing structures (38,070 square feet) and on-site surface parking. The existing structures and surface parking will be demolished to accommodate the development.

The following section provides information about the existing air quality regulatory framework, climate, air pollutants and sources, and sensitive receptors in the project area.

2.1 Regulatory Framework

2.1.1 Federal Regulations

Air quality is defined by ambient air concentrations of specific pollutants identified by the United States Environmental Protection Agency (EPA) to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for seven pollutants (called "criteria" pollutants). The seven pollutants regulated under the NAAQS are as follows: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), respirable particulate matter (or particulate matter with an aerodynamic diameter of 10 microns or less, PM_{10}), fine particulate matter (or particulate matter with an aerodynamic diameter of 2.5 microns or less, $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Areas that do not meet the NAAQS for a particular pollutant are considered to be "non-attainment areas" for that pollutant. The San Diego Air Basin (SDAB) has been designated a marginal non-attainment area for the 8-hour NAAQS for O_3.

The following specific descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on EPA (EPA 2017) and the California Air Resources Board (ARB) (ARB 2008).

Ozone. O_3 is considered a photochemical oxidant, which is a chemical that is formed when reactive organic gases (ROG) and oxides of nitrogen (NOx), both by-products of combustion, react in the presence of ultraviolet light. O_3 is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to O_3.

Carbon Monoxide. CO is a product of combustion, and the main source of CO in the SDAB is from motor vehicle exhaust. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion, and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in this size range has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, combustion, tire and brake wear, construction operations and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs.

Sulfur dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Pb in the atmosphere occurs as particulate matter. Pb has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead

emissions. Pb has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Pb is also classified as a probable human carcinogen.

2.1.2 State Regulations

California Clean Air Act. The California Clean Air Act was signed into law on September 30, 1988, and became effective on January 1, 1989. The Act requires that local air districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures. The California Clean Air Act required the SDAB to achieve a five percent annual reduction in ozone precursor emissions from 1987 until the standards are attained. If this reduction cannot be achieved, all feasible control measures must be implemented. Furthermore, the California Clean Air Act required local air districts to implement a Best Available Control Technology rule and to require emission offsets for non-attainment pollutants.

The ARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain air quality in the state. The ARB is responsible for the development, adoption, and enforcement of the state's motor vehicle emissions program, as well as the adoption of the California Ambient Air Quality Standards (CAAQS). The ARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a non-attainment area to develop its own strategy for achieving the NAAQS and CAAQS. The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The ARB has established the more stringent CAAQS for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. The SDAB is currently classified as a non-attainment area under the CAAQS for O_3, $PM_{10,}$ and $PM_{2.5}$. It should be noted that the ARB does not differentiate between attainment of the 1-hour and 8-hour CAAQS for O_3; therefore, if an air basin records exceedances of either standard the area is considered a non-attainment area for the CAAQS for O_3. The SDAB has recorded exceedances of both the 1-hour and 8-hour CAAQS for O_3. The following specific descriptions of health effects for the additional California criteria air pollutants are based on the ARB (ARB 2001).

Sulfates. Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The ARB's sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide. H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the standard would result in exposure to a very disagreeable odor. In 1984, an ARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Vinyl Chloride. Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans.

Visibility Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and

chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The CAAQS is intended to limit the frequency and severity of visibility impairment due to regional haze. A separate standard for visibility-reducing particles that is applicable only in the Lake Tahoe Air Basin is based on reduction in scenic quality.

Table 1 presents a summary of the ambient air quality standards adopted by the federal and California Clean Air Acts.

Table 1
Ambient Air Quality Standards

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		Concentration	Method	Primary	Secondary	Method
Ozone (O_3)	1 hour	0.09 ppm (176 µg/m^3)	Ultraviolet Photometry	--	--	Ethylene Chemiluminescence
	8 hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)	0.075 ppm (147 µg/m^3)	
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m^3)	--	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm (56 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	--	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m^3)		0.100 ppm (188 µg/m^3)	--	
Sulfur Dioxide (SO_2)	24 hours	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	--	--	Pararosaniline
	3 hours	--		--	0.5 ppm (1300 µg/m^3)	
	1 hour	0.25 ppm (655 µg/m^3)		0.075 ppm (196 µg/m^3)	--	
Respirable Particulate Matter (PM_{10})	24 hours	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	150 µg/m^3	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		--	--	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	--	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 µg/m^3	--	
Sulfates	24 hours	25 µg/m^3	Ion Chromatography	--	--	--
Lead	30-day Average	1.5 µg/m^3	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 µg/m^3	1.5 µg/m^3	
	3-Month Rolling Average	--		0.15 µg/m^3	0.15 µg/m^3	

Table 1 Ambient Air Quality Standards						
POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		Concentration	Method	Primary	Secondary	Method
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence	--	--	--
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m^3)	Gas Chromatography	--	--	--

ppm= parts per million; µg/m^3 = micrograms per cubic meter ; mg/m^3= milligrams per cubic meter
Source: California Air Resources Board, www.arb.ca.gov, 2013, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Toxic Air Contaminants. In 1983, the California Legislature enacted a program to identify the health effects of Toxic Air Contaminants (TACs) and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code sections 39650-39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The State of California has identified diesel particulate matter as a TAC. Diesel particulate matter is emitted from on- and off-road vehicles that utilize diesel as fuel. Following identification of diesel particulate matter as a TAC in 1998, the ARB has worked on developing strategies and regulations aimed at reducing the emissions and associated risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter from Diesel-Fueled Engines and Vehicles* (State of California 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to diesel particulate matter by 75 percent by 2010 and by 85 percent by 2020. The *Risk Reduction Plan* contains the following three components:

- New regulatory standards for all new on-road, off-road and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter emissions by about 90 percent overall from current levels;
- New retrofit requirements for existing on-road, off-road and stationary diesel-fueled engines and vehicles were determined to be technically feasible and cost-effective; and

- New Phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 ppm to provide the quality of diesel fuel needed by the advanced diesel particulate matter emission controls.

As an ongoing process, the ARB reviews air contaminants and identifies those that are classified as TACs. The ARB also continues to establish new programs and regulations for the control of TACs, including diesel particulate matter, as appropriate.

The local air pollution control district (APCD) has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The San Diego APCD is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County.

The APCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in 2016 (APCD 2016). The RAQS outlines APCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS does not address the state air quality standards for PM_{10} or $PM_{2.5}$. The APCD has also developed the air basin's input to the State Implementation Plan (SIP), which is required under the Federal Clean Air Act for areas that are out of attainment of air quality standards. The SIP includes the APCD's plans and control measures for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. The latest SIP update that has been approved by EPA was in 2007. The current SIP is the APCD's *Eight-Hour Ozone Attainment Plan for San Diego County* (hereinafter referred to as the Attainment Plan) (APCD 2007). The Attainment Plan forms the basis for the SIP update, as it contains documentation on emission inventories and trends, the APCD's emission control strategy, and an attainment demonstration that shows that the SDAB will meet the NAAQS for O_3. Emission inventories, projections, and trends in the Attainment Plan are based on the latest O_3 SIP planning emission projections compiled and maintained by ARB. The inventories are based on

data submitted by stakeholder agencies, including the San Diego Association of Governments (SANDAG), based on growth projections in municipal General Plans.

The ARB compiles annual statewide emission inventories in its emission-related information database, the California Emission Inventory Development and Reporting System (CEIDARS). Emission projections for past and future years were generated using the California Emission Forecasting System (CEFS), developed by ARB to project emission trends and track progress towards meeting emission reduction goals and mandates. CEFS utilizes the most current growth and emissions control data available and agreed upon by the stakeholder agencies to provide comprehensive projections of anthropogenic (human activity-related) emissions for any year from 1975 through 2030. Local air districts are responsible for compiling emissions data for all point sources and many stationary area-wide sources. For mobile sources, CEFS integrates emission estimates from ARB's EMFAC and OFFROAD models. SANDAG incorporates data regarding highway and transit projects into their Travel Demand Models for estimating and projecting vehicle miles traveled (VMT) and speed. The ARB's on-road emissions inventory in EMFAC relies on these VMT and speed estimates.

Because the ARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of General Plans, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS and the Attainment Plan. In the event that a project would propose development which is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS and the Attainment Plan. If a project proposes development that is greater than that anticipated in the general plan and SANDAG's growth projections, the project might be in conflict with the RAQS and SIP, and might have a potentially significant impact on air quality.

2.1.3 Local Regulations

In San Diego County, the San Diego APCD is the regulatory agency that is responsible for maintaining air quality, including implementation and enforcement of state and federal regulations.

The project site is located in the City of San Diego. The City of San Diego has adopted a General Plan that includes a Conservation Element that adopts policies to reduce air emissions and improve air quality within the City.

2.2 Climate and Meteorology

The project site is located in the SDAB. The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

Figure 1 provides a graphic representation of the prevailing winds in the project vicinity, as measured at MCAS Miramar, which is the closest meteorological monitoring station to the site.

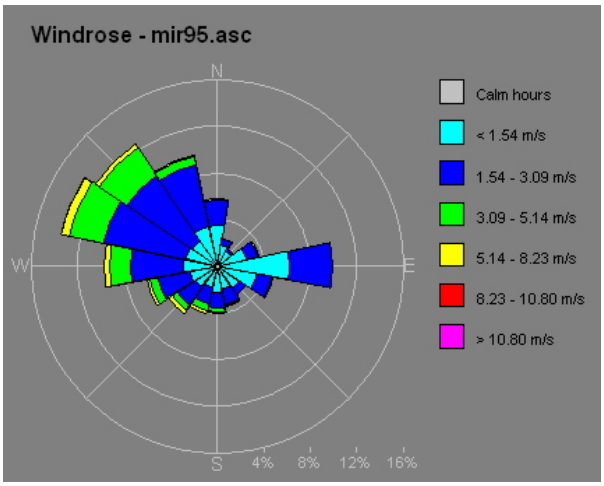

Figure 1. Wind Rose – MCAS Miramar

2.3 Background Air Quality

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the project site is the Kearny Mesa monitoring station, which measures O_3, NO_2, PM_{10}, and $PM_{2.5}$. The nearest station that measures CO and SO_2 is the downtown San Diego monitoring station. Ambient concentrations of pollutants over the last five years are presented in Table 2.

The Kearny Mesa monitoring station measured five exceedances of the 8-hour NAAQS in 2008, one exceedance in 2009 and one exceedance in 2011. The station measured 12 exceedances of the 8-hour CAAQS in 2008, three exceedances each in 2009, 2010, and 2011. The monitoring station measured 3 exceedances of the 24-hour NAAQS for $PM_{2.5}$ in 2008, and 3 exceedances in 2009. No exceedances of the 24-hour NAAQS for $PM_{2.5}$ were measured in 2010 or 2011. The data from the monitoring station indicates that air quality is in attainment of all other air quality standards.

Table 2
Ambient Background Concentrations

Air Quality Indicator	2012	2013	2014	2015	2016
Ozone (O_3)					
Peak 1-hour value (ppm)	0.099	0.081	0.099	0.077	0.087
Days above state standard (0.09 ppm)	1	0	1	0	0
Peak 8-hour value (ppm)	0.076	0.070	0.081	0.070	0.075
Fourth high 8-hour value (ppm)	0.067	0.066	0.071	0.067	0.068
Days above federal standard (0.070 ppm)[1]	2	0	4	0	3
Days above state standard (0.070 ppm)	2	0	4	0	3
Particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$)					
Peak 24-hour value ($\mu g/m^3$)	20.1	22.0	20.2	25.7	19.4
Days above federal standard (35 $\mu g/m^3$)	0	0	0	0	0
Annual Average value ($\mu g/m^3$)	8.7	8.3	8.3	7.2	7.5
Particulate matter less than or equal to 10 microns in diameter (PM_{10})					
Peak 24-hour value (federal) ($\mu g/m^3$) [2]	35	39	39	39	36
Peak 24-hour value (state) ($\mu g/m^3$) [2]	35	38	39	37	35
Days above federal standard (150 $\mu g/m^3$)	0	0	0	0	0
Days above state standard (50 $\mu g/m^3$)	0	0	0	0	0
Annual Average value (federal) ($\mu g/m^3$) [2]	14.7	19.9	19.4	17.0	17.1
Annual Average value (state) ($\mu g/m^3$) [2]	16.0	20.0	19.5	16.7	17.1
Carbon Monoxide (CO)					
Peak 1-hour value (ppm)	2.6	1.9	2.0	1.4	1.7
Days above federal and state standard (9 ppm)	0	0	0	0	0
Peak 8-hour value (ppm)	1.9	1.2	1.8	1.1	1.3

Table 2 Ambient Background Concentrations					
Air Quality Indicator	**2012**	**2013**	**2014**	**2015**	**2016**
Days above federal standard (35 ppm)	0	0	0	0	0
Days above state standard (20 ppm)	0	0	0	0	0
Nitrogen Dioxide (NO_2)					
Peak 1-hour value (ppm)	0.057	0.067	0.051	0.051	0.053
Days above federal standard (0.100 ppm)	0	0	0	0	0
Days above state standard (0.18 ppm)	0	0	0	0	0
Annual Average value (ppm)	0.011	0.011	0.010	0.009	0.009
Sulfur Dioxide (SO_2)					
Peak 1-hour value (ppm)	0.002	0.007	0.001	0.001	0.002
Days above federal standard (0.075 ppm) [3]	0	0	0	0	0
Peak 24-hour value (ppm)	0.000	0.000	0.000	0.000	0.000
Days above state standard (0.04 ppm)	0	0	0	0	0
Annual Average value (ppm)	0.000	0.000	0.000	0.000	0.000

Notes:

[1] The federal 8-hour O_3 standard was revised downward in 2015 to 0.070 ppm.

[2] State and federal statistics may differ for the following reasons: (1) State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and federal statistics may therefore be based on different samplers. (2) State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; NA = data not available

Source: ARB http://www.arb.ca.gov/adam/topfour/topfourdisplay.php; Five-Year Summary, http://www.sdapcd.org/info/reports/5-year-summary.pdf.

3.0 Thresholds of Significance

The City of San Diego has adopted its Significance Determination Thresholds (City of San Diego 2011) that are based on Appendix G of the State CEQA Guidelines. According to the Significance Determination Thresholds, a project would have a significant environmental impact if the project would result in:

- A conflict with or obstruct the implementation of the applicable air quality plan;
- A violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Exposing sensitive receptors to substantial pollutant concentrations;
- Creating objectionable odors affecting a substantial number of people;
- Exceeding 100 pounds per day of particulate matter (PM) (dust); or
- Substantial alteration of air movement in the area of the project.

In their Significance Determination Thresholds, the City of San Diego has adopted emission thresholds based on the thresholds for an Air Quality Impact Assessment in the San Diego Air

Pollution Control District's Rule 20.2. These thresholds are shown in Table 3.

Table 3
Significance Criteria for Air Quality Impacts

Pollutant	Emission Rate		
	Lbs/Hr	Lbs/Day	Tons/Year
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NOx)	25	250	40
Respirable Particulate Matter (PM_{10})	--	100	15
Oxides of Sulfur (SOx)	25	250	40
Lead and Lead Compounds	--	3.2	0.6
Fine Particulate Matter ($PM_{2.5}$)	--	55	10
Volatile Organic Compounds (VOCs)	--	137	15

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or Hazardous Air Pollutants (HAPs). If a project has the potential to result in emissions of any TAC or HAP which may expose sensitive receptors to substantial pollutant concentrations, the project would be deemed to have a potentially significant impact. With regard to evaluating whether a project would have a significant impact on sensitive receptors, air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality.

With regard to odor impacts, a project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of offsite receptors.

Construction and operation emissions of the project were evaluated based on the Federal and State standards as referenced in the City's Significance Determination Thresholds.

4.0 Impacts

The Witt Mission Valley Mixed Use Project would result in both construction and operational impacts. Construction impacts include emissions associated with the construction of the project. Operational impacts include emissions associated with the project, including traffic, at full

buildout. The following sections present the analysis of air quality impacts based on the City's Significance Determination Thresholds.

4.1 Consistency with the RAQS and SIP

The Proposed Project would have a significant impact if it conflicts with or obstructs implementation of the applicable air quality plans (the RAQS and SIP).

As discussed in Section 2.1, the SIP is the document that sets forth the state's strategies for attaining and maintaining the NAAQS. The APCD is responsible for developing the San Diego portion of the SIP, and has developed an attainment plan for attaining the 8-hour NAAQS for O_3. The RAQS sets forth the plans and programs designed to meet the state air quality standards. Through the RAQS and SIP planning processes, the APCD adopts rules, regulations, and programs designed to achieve attainment of the ambient air quality standards and maintain air quality in the SDAB.

Conformance with the RAQS and SIP determines whether a Project will conflict with or obstruct implementation of the applicable air quality plans. Because the CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the City of San Diego as part of the development of General Plans, projects that propose development that is consistent with the growth anticipated by the general plan would be consistent with the RAQS and SIP. In the event that a project would propose development which is less dense than anticipated within the general plan, the project would likewise be consistent with the RAQS and SIP.

The RAQS and SIP address air emissions and impacts from industrial sources, area-wide sources, and mobile sources. The programs also consider transportation control measures and indirect source review. Industrial sources are typically stationary air pollution sources that are subject to APCD rules and regulations, and over which the APCD has regulatory authority. Area-wide sources include sources such as consumer products use, small utility engines, hot water heaters, and furnaces. Both the ARB and the APCD have authority to regulate these sources and have developed plans and programs to reduce emissions from certain types of area-wide sources.

Mobile sources are principally emissions from motor vehicles. The ARB establishes emission standards for motor vehicles and establishes regulations for other mobile source activities including off-road vehicles.

Both the RAQS and SIP address emissions of ozone precursors (ROG and NOx), as the SDAB is classified as a basic non-attainment area for the NAAQS and a non-attainment area for the CAAQS. The RAQS and SIP do not address particulate matter. The California CAA requires an air quality strategy to achieve a 5% average annual ozone precursor emission reduction when implemented or, if that is not achievable, an expeditious schedule for adopting every feasible emission control measure under air district purview (California Health and Safety Code (H&SC) Section 40914). The current RAQS represents an expeditious schedule for adopting feasible control measures, since neither San Diego nor any air district in the State has demonstrated sustained 5% average annual ozone precursor reductions.

Most of the control measures adopted in the RAQS apply to industrial sources and specific source categories. SDAPCD Rule 55 would apply to construction of the project, and requires control of fugitive dust during construction. Should the properties include stationary sources such as boilers or emergency generators, these sources would be subject to SDAPCD rules and would be required to obtain a permit to operate.

As discussed in Section 1.0, the project proposes a mix of residential, commercial, and shopkeepers units and complies with the Mission Valley Community Plan, which allows for a Multi-Use Option. The project would develop under the existing zone and land use designation; therefore, a Rezone and Community Plan Amendment would not be required. Accordingly, the project is consistent with the City's General Plan and would therefore be consistent with the RAQS and SIP. The project would not conflict with or obstruct implementation of the RAQS or SIP, and would not result in a significant impact.

4.2 Violation of an Air Quality Standard

The Proposed Project would have a significant impact if it violates any air quality standard or contributes substantially to an existing or projected air quality violation.

To address this significance threshold, an evaluation of emissions associated with both the construction and operational phases of the Project was conducted.

4.2.1 Construction Impacts

Emissions of pollutants such as fugitive dust and heavy equipment exhaust that are generated during construction are generally highest near the construction site. Emissions from the construction of the project were estimated using the CalEEMod Model (SCAQMD 2016), Version 2016.3.1. The CalEEMod Model provides default assumptions regarding horsepower rating, load factors for heavy equipment, and hours of operation per day. Default assumptions within the CalEEMod Model and assumptions for similar projects were used to represent operation of heavy construction equipment. Construction calculations within the CalEEMod Model utilize the number and type of construction equipment to calculate emissions from heavy construction equipment. Fugitive PM_{10} and $PM_{2.5}$ emissions estimates take into account compliance with Rule 55 requirements for fugitive dust suppression, which require that no visible dust be present beyond the site boundaries.

In addition to calculating emissions from heavy construction equipment, the CalEEMod Model contains calculation modules to estimate emissions of fugitive dust, based on the amount of earthmoving or surface disturbance required; emissions from heavy-duty truck trips or vendor trips during construction activities; emissions from construction worker vehicles during daily commutes; and emissions of ROG during application of architectural coatings. As part of the project design features, it was assumed that standard dust control measures (watering three times daily; reducing speeds to 15 mph on unpaved surfaces) and architectural coatings that comply with SDAPCD Rule 67.0.1 (assumed to meet a VOC content of 50 g/l for interior (flat) painting and 100 g/l for exterior (non-flat) painting) would be used during construction.

Based on information from the project applicant, construction would be conducted in a single phase and would require 25 months to complete. The grading phase of construction would include 100 cubic yards of cut and 29,000 cubic yards of fill, for a net import of 28,900 cubic yards of material. Emissions from truck trips associated with import of material are calculated by the CalEEMod model based on the amount of fill imported.

Table 4 provides the detailed construction emission estimates as calculated with the CalEEMod Model. Appendix A provides CalEEMod Model outputs showing the construction calculations. As shown in Table 4, emissions of criteria pollutants during construction would be below the thresholds of significance for all project construction phases for all pollutants. Project criteria pollutant emissions during construction would be temporary and are less than significant.

Table 4
Estimated Maximum Daily Construction Emissions
Witt Mission Valley Mixed Use Project

Emission Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition						
Fugitive Dust	-	-	-	-	0.67	0.10
Offroad Equipment	3.51	35.78	22.06	0.04	1.79	1.67
Onroad Emissions	0.07	2.36	0.51	0.01	0.14	0.05
Worker Trips	0.06	0.04	0.46	0.001	0.12	0.03
Subtotal	**3.64**	**38.18**	**23.03**	**0.05**	**2.72**	**1.75**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Grading						
Fugitive Dust	-	-	-	-	2.38	1.25
Offroad Equipment	2.58	28.35	16.29	0.03	1.40	1.29
Onroad Emissions	0.29	9.87	2.13	0.03	0.63	0.20
Worker Trips	0.06	0.04	0.46	0.001	0.12	0.03
Subtotal	**2.93**	**38.26**	**18.48**	**0.06**	**4.53**	**2.77**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Paving/Foundations						
Asphalt Offgassing	0.09	-	-	-	-	-
Offroad Equipment	1.27	12.76	12.31	0.02	0.72	0.66
Worker Trips	0.08	0.05	0.62	0.002	0.17	0.04
Subtotal	**1.44**	**12.81**	**12.93**	**0.02**	**0.89**	**0.70**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Building Construction						
Offroad Equipment	2.36	21.08	17.16	0.03	1.29	1.21
Vendor Trips	0.29	7.94	2.05	0.02	0.49	0.18
Worker Trips	1.13	0.79	8.88	0.03	2.37	0.64

Table 4
Estimated Maximum Daily Construction Emissions
Witt Mission Valley Mixed Use Project

Emission Source	ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Subtotal	**3.78**	**29.81**	**28.09**	**0.08**	**4.15**	**2.03**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Architectural Coatings Application						
Architectural Coatings	17.72	-	-	-	-	-
Offroad Equipment	0.24	1.68	1.83	0.003	0.11	0.11
Worker Trips	0.21	0.14	1.62	0.005	0.47	0.13
Subtotal	**18.17**	**1.82**	**3.45**	**0.01**	**0.58**	**0.24**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Maximum Daily Emissions[a]	**22.85**	**42.62**	**43.12**	**0.10**	**5.36**	**2.81**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

[a]Maximum emissions of criteria pollutants occur during simultaneous building construction, paving, and architectural coatings application.

4.2.2 Operational Impacts

Operational impacts associated with the development of the Witt Mission Valley Mixed Use Project would include impacts associated with vehicular traffic, as well as area sources such as energy use, landscaping, consumer products use, and architectural coatings use for maintenance purposes.

A Focused Transportation Study (Urban Systems Associates 2017) was prepared to evaluate trip generation rates and indicate the approach to address traffic impacts from the proposed project. The Focused Transportation Study provides trip generation rates, and the air quality analysis is based on the project-specific average daily trips (ADTs) as presented in the Study. According to the Focused Transportation Study, based on the mix of uses for the project, the trips would be reduced by 17%. (This credit is based on the application of a SANDAG "MXD model," which estimates the amount of traffic that is reduced by walkable features, mixed-use development in the area, and transit integration. The Mission Valley Community is well served by transit and has significant pedestrian and bicycle options. Thus, a mixed-use reduction of 17% has been applied to the overall traffic associated with the project.) The existing development on the project site generates 1,373 ADT. The project would generate a total of 581 new trips. Therefore, a total of

1,954 ADT would result from the proposed redevelopment of the project site as a mixed use project.

Operational impacts associated with vehicular traffic and area sources including energy use, landscaping, and architectural coatings use for maintenance purposes were estimated using the CalEEMod Model, Version 2016.3.1. The CalEEMod Model calculates vehicle emissions based on emission factors from the EMFAC2014 model. It was assumed that the first year of full occupancy would be 2020. Based on the results of the EMFAC2014 model for subsequent years, emissions would decrease on an annual basis from 2020 onward due to phase-out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the EMFAC2014 model. Table 5 presents the results of the emission calculations, in lbs/day, for the project.

Based on the estimated emissions associated with Project operations, the emissions of all criteria pollutants are below the significance thresholds for the project. Impacts would be less than significant.

Table 5
Operational Emissions
Witt Mission Valley Mixed Use Project

	ROG	**NOx**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Maximum Daily Emissions						
Summer Day, Lbs/day						
Area Sources	13.35	0.26	22.95	0.001	0.13	0.13
Energy Use	0.08	0.71	0.38	0.004	0.07	0.07
Vehicular Emissions	3.62	14.19	38.72	0.13	10.74	2.94
TOTAL	**17.05**	**15.17**	**62.05**	**0.13**	**10.94**	**3.13**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Winter Day, Lbs/day						
Area Sources	13.35	0.26	22.95	0.001	0.13	0.13
Energy Use	0.08	0.71	0.38	0.004	0.07	0.07
Vehicular Emissions	3.51	14.54	38.57	0.12	10.74	2.94
TOTAL	**16.95**	**15.52**	**61.90**	**0.13**	**10.94**	**3.13**
Significance Criteria	137	250	550	250	100	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

CO "Hot Spots"

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO "hot spots." To verify that the project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO "hot spots" was conducted. Project-related traffic would have the potential to result in CO "hot spots" if project-related traffic resulted in a degradation in the level of service at any intersection to LOS E or F. The Focused Transportation Study evaluated whether or not there would be a decrease in the level of service at the intersections affected by the Project.

Based on the results of the Focused Transportation Study, all intersections within the study area would operate at LOS D or better with the project and cumulative traffic for Existing plus Project, Near Term with Project, and Horizon Year with Project scenarios. Emissions from project-related traffic would therefore not result in CO "hot spots".

The project has incorporated design features such as a mix of uses and also will provides local-serving retail and office uses for residential and business land uses currently located in the project area. Furthermore, the project is an infill development that meets the City's goals for providing mixed uses within existing developed areas. The project would therefore not result in an exceedance of an air quality standard, and no mitigation measures are required.

4.3 Cumulatively Considerable Net Increase of Non-attainment Pollutants

The Proposed Project would have a significant impact if it results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors.

As discussed in Section 2.0, the SDAB is considered a non-attainment area for the 8-hour NAAQS for O_3, and is considered a non-attainment area for the CAAQS for O_3, PM_{10}, and $PM_{2.5}$. An evaluation of emissions of non-attainment pollutants was conducted in Section 4.2. Based on that evaluation, emissions of non-attainment pollutants during construction would be below the

significance thresholds for ozone precursors, PM_{10}, and $PM_{2.5}$. Emissions of all pollutants would be below the significance thresholds for operations.

The region surrounding the project is already developed; the project provides infill development. Furthermore, the project provides a mix of uses. Because operational emissions for development of the project are below the significance thresholds for nonattainment pollutants, they would not result in a cumulatively considerable impact.

4.4 Exposure of Sensitive Receptors to Substantial Pollutant Concentrations

The Proposed Project would have a significant impact if it exposes sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, parks, or day-care centers) to substantial pollutant concentrations.

Carbon Monoxide

As discussed in Section 4.2, the project would not result in exposure of sensitive receptors to substantial concentrations of CO, as CO "hot spots" would not result from project-related traffic. Impacts from CO would therefore be less than significant.

Toxic Air Contaminants

The threshold concerns whether the project could expose sensitive receptors to substantial pollutant concentrations of TACs. If a project has the potential to result in emissions of any TAC which result in a cancer risk of greater than 10 in 1 million or substantial non-cancer risk, the project would be deemed to have a potentially significant impact.

Air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Residential land uses may also be considered sensitive receptors. The nearest sensitive receptors to the site include the multi-family housing developments located across Camino de la Reina to the north of the site.

Emissions of TACs are attributable to temporary emissions from construction emissions, and minor emissions associated with diesel truck traffic used for deliveries at the site. Truck traffic may result in emissions of diesel particulate matter, which is characterized by the State of California as a toxic air contaminant (TAC). Certain types of projects are recommended to be evaluated for impacts associated with TACs. In accordance with the SCAQMD's "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis" (SCAQMD 2003), projects that should be evaluated for diesel particulate emissions include truck stops, distribution centers, warehouses, and transit centers which diesel vehicles would utilize and which would be sources of diesel particulate matter from heavy-duty diesel trucks. The project would not attract a disproportionate amount of diesel trucks and would not be considered a source of TAC emissions. Based on the CalEEMod Model, heavy-duty diesel trucks would account for only 0.9 percent of the total trips associated with the project. Impacts to sensitive receptors from TAC emissions would therefore be less than significant.

The project is located in the vicinity of, but not adjacent to, the Interstate 8 freeway. Camino del Rio North lies between the freeway and the project site. Project design features for the portion of the project that is nearest the freeway include a setback from Camino del Rio N and the sidewalk, as well as plantings of trees that screen the project from noise and air emissions. These features would reduce the potential for exposure from TACs from the freeway.

Other Criteria Pollutants

Because emissions of all criteria pollutants are below the thresholds set forth in the City's Significance Determination Thresholds, the project would not expose sensitive receptors to substantial pollutant concentrations and impacts from other criteria pollutants would be less than significant.

4.5 Objectionable Odors

The Proposed Project would have a significant impact if it creates objectionable odors affecting a substantial number of people.

Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. These compounds would be emitted in various amounts and at various locations during construction. Sensitive receptors located in the vicinity of the construction site include the residences to the south of the site. Odors are highest near the source and would quickly dissipate offsite; any odors associated with construction would be temporary.

The project would not be considered a source of objectionable odors during operations. Thus the potential for odor impacts associated with the project for both construction and operations is less than significant.

5.0 Project Design Features

Standard best management practices to reduce construction emissions will be employed during construction and operation of the project. The Project is subject to the requirements of San Diego APCD Rule 55, which requires that no visible dust be present beyond the site boundaries. Standard dust control measures will be employed during construction. These standard dust control measures include the following:

- Watering active grading sites a minimum of three times daily
- Apply soil stabilizers to inactive construction sites
- Replace ground cover in disturbed areas as soon as possible
- Control dust during equipment loading/unloading (load moist material, ensure at least 12 inches of freeboard in haul trucks
- Reduce speeds on unpaved surfaces

These dust control measures will reduce the amount of fugitive dust generated during construction. In addition to dust control measures, architectural coatings applied to interior and exterior surfaces

will be required to meet the ROG limitations of SDAPCD Rule 67.0.1, which limits the ROG content of most coatings to 100 grams/liter. Coatings will also be applied using high volume, low pressure spray equipment to reduce overspray to the extent possible.

Operational emissions would be below the significance thresholds for all pollutants. Air quality impacts are less than significant and no mitigation measures are required.

6.0 Summary and Conclusions

In summary, the project would result in emissions of air pollutants for both the construction phase and operational phase of the project. The air quality impact analysis evaluated the potential for adverse impacts to the ambient air quality due to construction and operational emissions. Construction emissions would include emissions associated with fugitive dust, heavy construction equipment and construction worker commuting to and from the site. The project would employ dust control measures such as watering to control emissions during construction and use of low-ROG paints. Emissions are less than the significance thresholds for all pollutants during construction. Construction impacts are less than significant and would not be cumulatively considerable.

Operational emissions would include emissions associated with residential, office and retail operations, including area sources, energy use, and vehicle traffic. As discussed in Section 4.0, the impacts would be below the significance thresholds for all pollutants. Impacts from project-related traffic were evaluated to assess whether impacts would exceed the ambient air quality standards for CO, and it was demonstrated that emissions of CO would not result in a significant air quality impact or a cumulatively considerable impact.

Emissions of TACs or odors would not result in a significant impact to the project, and project emissions of TACs and odors would be less than significant.

7.0 References

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Appendix A

CalEEMod Model Output

Witt Mission Valley EIR 2017

Mission Valley is within the service area of the City of San Diego's Fire-Rescue Department. San Diego, the eighth largest city in the United States and the second largest city in the State of California, has a population of over 1.39 million and is a culturally diverse community covering 372 square miles and consisting of over 57,000 businesses employing (as of December 2016) approximately 688,300 people. In addition to residents and employment population to protect, Fire-Rescue also has responsibilities for the majority of the region's annual tourism count of about 34 million. (Citygate 2017 report, Volume 2, Standards of Response coverage) The primary fire station that serves this area is Fire Station 45 located at 9366 Friars Road, San Diego, CA 92108. The additional 267 residential units and 10 new shopkeeper sites will have less than significant impacts for this specific project. Of note, this area is prone to seasonal flooding.* Depending on the nature and size of an incident, the Mission Valley area includes B2, B3, and B4 engine companies for response coverage. Cumulative effects of increased housing units in Mission Valley will increase emergency responses. An additional fire station is planned on the west side of Mission Valley to assist with increasing emergency responses.

*Reference: http://www.10news.com/news/fashion-valley-westfield-mission-valley-malls-open

Fire stations are equipped to respond to calls within established standards based on speed and weight of attack. Fire Department deployment simply stated is about the speed and weight of attack. Speed calls for first-due, all risk intervention units (engines, trucks and/or rescue ambulances) strategically located across a community responding in effective travel time. These units are tasked with controlling moderate emergencies without the incident escalating to a second alarm or greater size, which unnecessarily depletes departmental resources as multiple requests for service occur. Weight is about multiple unit response for serious emergencies such as a room and contents structure fire, multiple patient incident, a vehicle accident with extrication required or a heavy rescue incident. In these situations, enough firefighters must be assembled within a reasonable timeframe to safely control the emergency, thereby keeping it from escalating to greater alarms (Citygate 2017). The science of fire crew deployment is to spread crews out across a community to keep emergencies small with positive outcomes, without spreading the crews so far apart that they cannot amass together quickly enough to be effective in major emergencies (Citygate 2017). Access and water supply issues for projects in this area will be addressed upon final plan submissions in the future. Additionally, portions of this area are classified as an extreme high fire severity zone per the state map on grid tiles 18, 19 and 20: https://www.sandiego.gov/fire/services/brush/severityzones.

Distribution of Fire Stations

To treat medical patients and control small fires, the first-due unit should arrive within 7.5 minutes, 90 percent of the time from the receipt of the 911 call in fire dispatch. This equates to 1-minute dispatch time, 1.5 minutes company turnout time and five minutes drive time in the most populated areas (Citygate 2017).

Multiple-Unit Effective Response Force for Serious Emergencies

To confine fires near the room of origin, to stop wildland fires to under 3 acres when noticed promptly, and to treat up to 5 medical patients at once, a multiple-unit response of at least 17 personnel should arrive within 10.5 minutes from the time of 9-1-1 call receipt in fire dispatch, 90 percent of the time. This equates to 1-minute dispatch time, 1.5 minutes company turnout time and eight minutes drive time spacing for multiple units in the most populated areas (Citygate 2017).

Adopted Fire Station Location Measures

To direct fire station location timing and crew size planning as the community grows, the adopted fire unit deployment performance measures based on population density zones are listed in the table below (Citygate 2017):

General Plan TABLE PF-D.1 Deployment Measures to address future growth by Population Density per Square Mile

	Structure Fire Urban Area	Structure Fire Rural Area	Structure Fire Remote Area	Wildfires Populated Areas
	>1,000-people/sq. mi.	**1,000 to 500 people/sq. mi.**	**500 to 50 people/sq. mi. ***	**Permanent open space areas**
1st Due Travel Time	5	12	20	10
Total Reflex Time	7.5	14.5	22.5	12.5
1st Alarm Travel Time	8	16	24	15
1st Alarm Total Reflex	10.5	18.5	26.5	17.5

General Plan TABLE PF-D.2 Deployment Measures to Address Future Growth by Population Clusters:

Where more than one square mile is not populated at similar densities, and/or a contiguous area with different zoning types aggregates into a population "cluster," these measures guide the determination of response time measures and the need for fire stations (Citygate 2017):

Area	Aggregate Population	First-Due Unit Travel Time Goal
Metropolitan	> 200,000 people	4 minutes
Urban-Suburban	< 200,000 people	5 minutes
Rural	500 - 1,000 people	12 minutes
Remote	< 500	> 15 minutes

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August 7, 2017

Sarah Hudson
Demographer
San Diego Unified School District
4100 Normal Street
Annex 2, Room 101
San Diego, CA 92103-2682

SUBJECT: SCHOOL SERVICE TO A PROJECT PROPOSED IN THE MISSION VALLEY COMMUNITY OF THE CITY OF SAN DIEGO

Dear Ms. Hudson:

Din/Cal 4, Inc., (applicant) is proposing the *Witt Mission Valley* project on an approximate 5.13-acre site in the Mission Valley community. KLR Planning will be preparing an Environmental Impact Report (EIR) for the project based on specific issues identified by the City of San Diego, as Lead Agency, including public services and utilities.

The Witt Mission Valley project involves a Mission Valley Development Permit in the form of a Site Development Permit and a Planned Development Permit for the development of the 5.13-acre site located in the MV-CR Zone. The proposed project involves demolition of existing structures (39,277 square feet) and on-site surface parking and construction of a mixed-use development (approximately 532,700 square feet residential gross floor area) consisting of residential, commercial, retail, and shopkeepers units in a "wrap design." The project would range in height from one story to five stories and would have a total of 267 residential units, 10 shopkeeper units, 6,000 square feet of retail space and 3,600 square feet of commercial space. A total of 448 parking spaces would be provided in a five-story, above ground parking structure, in addition to 52 surface parking spaces, for a total of 500 parking spaces.

The City of San Diego has requested that we provide information relative to the ability for existing utilities and public services to serve the project. This information will be used in the project's the environmental documentation.

In order to adequately assess the project's potential impacts on school services, we would like to request the following information from your office:

1. Which schools would serve the project site? Please provide addresses, design capacity, and present and projected enrollments at these schools.

2. How many portable/relocatable classrooms are utilized at these schools? Are there any identified deficiencies in school services and facilities?

3. Has the District implemented reduced class sizes? If so, what has been the effect on the District in terms of providing classroom space, teachers, and other components necessary for the District to provide adequate educational facilities and service to the community?

4. According to the District's generation rates, how many students would the project generate? What are the generation rates?

5. Based on the District's calculation of the project's student generation, would the project result in a need for additional school facilities?

6. Please describe any developer fee assessment program, which has been implemented by the District. Who is responsible, how is the amount determined, and what is the payment method?

7. Please describe any agreements the District has with the City regarding use of school fields and game courts by the public?

8. Does the District anticipate or expect any long-term (10-year, 20-year, 30-year, or longer) impacts associated with school services due to anticipated development within Mira Mesa? If so, please describe the nature of these impacts and how this project may contribute to those impacts. If impact would occur, what suggestions do you have to minimize their effects?

Please include any other information concerning your services and other issues that may be relevant to the proposed project. We would appreciate receiving this information prior to *August 21, 2017*. If you prefer to e-mail information, my e-mail address is jennifer@klrplanning.com. If you need additional information about the project, or if there are fees associated with this request, please call me at 908.391.9889. Thank you for your assistance.

Sincerely,

KLR Planning

Jennifer Clemente, Planner

San Diego Unified
SCHOOL DISTRICT

Instructional Facilities Planning Department
Sarah Hudson/Demographer
TEL.: (619) 725-7369
FAX: (619) 725-7382
shudson@sandi.net

August 16, 2017

Ms. Jennifer Clemente
KLR Planning
P.O. Box 882676
San Diego, CA 92168
Submitted via email to: Jennifer@klrplanning.com

Subject: WITT MISSION VALLEY PROJECT
5.13 acre site currently occupied by Witt Lincoln car dealership
588 Camino Del Rio North, San Diego, CA 92108
267 residential units, 10 shopkeeper units, 6000 sqft retail space, 3600 sqft commercial space

Dear Ms. Clemente:

We are in receipt of your August 7, 2017 letter requesting school information for the above referenced development. In this letter we address your questions and provide requested information.

1. *The following schools currently serve the project site:*

School	Address	Estimated Capacity	2016-17 Enrollment	2017-18 Projected Enrollment
Jones Elementary	2751 Greyling Drive San Diego, CA 92123	450	312	311
Taft Middle	9191 Gramercy Drive San Diego, CA 92123	625	507	484
Kearny High Complex	7651 Wellington Street San Diego, CA 92111	1,719	1,480	1,539

Capacities are approximate and are calculated using current class size ratios; if class sizes ratios change, additional or less capacity may be available. Attendance boundaries are reviewed annually and subject to change.

2. *How many portables/relocatable classrooms are utilized at these schools? Are there any identified deficiencies in school services and facilities?*

Jones Elementary has 9 portable and 14permanent classrooms. Taft Middle has 2 portable and 25 permanent classrooms. Kearny High Complex has 8 portable and 64 permanent classrooms. There are no identified deficiencies at these schools.

3. *Has the district implemented reduced class sizes?*

Not at the schools listed in the table shown above.

4. *According to the district's generation rates, how many students would the project generate? What are the generation rates?*

Student generation rates vary based on the type of project, number of units, bedroom mix, neighborhood, and other factors. There are not district standard rates. **The information available indicates this project, Witt Mission Valley, will be 267 residential units**; information on the bedroom mix is not available. Once this information is available, we may update generation rates and estimates.

In order to estimate the number of students generated by this project, we reference existing similar developments in the vicinity. Table 1 below lists nearby developments and the number of students generated by each. The Civita development is ongoing; many more units are expected to be built over the next several years, likely resulting in an ongoing increase in students attending district schools.

TABLE 1. Existing Similar Developments

Existing Development	Address	Number of Units	2016-17 students (K-5, 6-8, 9-12, and K-12 total)	Student Generation Rate
Presidio View apartments	1440 Hotel Circle North San Diego, CA 92108	350	K-5: 4 6-8: 1 9-12: 2 **K-12: 7**	K-5: 0.011 6-8: 0.003 9-12: 0.006 **K-12: 0.020**
River Scene condos	510-580 Camino de la Reina San Diego, CA 92108	108	K-5: 3 6-8: 1 9-12: 1 **K-12: 5**	K-5: 0.028 6-8: 0.009 9-12: 0.009 **K-12: 0.046**
Rio Del Oro condos	640-680 Camino de la Reina San Diego, CA 92108	103	K-5: 5 6-8: 1 9-12: 1 **K-12: 7**	K-5: 0.049 6-8: 0.010 9-12: 0.010 **K-12: 0.068**
River Front apartments	710-790 Camino de la Reina San Diego, CA 92108	229	K-5: 9 6-8: 1 9-12: 0 **K-12: 10**	K-5: 0.039 6-8: 0.004 9-12: 0 **K-12: 0.044**
Mission Gate condos	910-978 Camino de la Reina San Diego, CA 92108	98	K-5: 8 6-8: 1 9-12: 2 **K-12: 11**	K-5: 0.082 6-8: 0.010 9-12: 0.020 **K-12: 0.112**
Civita apartments, multifamily, and single-family	North of Friars Road, west of 805 freeway, and east of Mission Center Road	Approximately 1,500; construction ongoing	K-5: 23 6-8: 5 9-12: 6 **K-12: 34**	K-5: 0.015 6-8: 0.003 9-12: 0.004 **K-12: 0.023**

In addition, over the past several years this office has been asked to prepare school information letters for four proposed projects in the immediate vicinity of the Witt Mission Valley project.

- **Union Tribune mixed use project**, 200 multi-family units, located 0.2 mile west of Witt Mission Valley (October 2014 letter to BRG Consulting). The Union Tribune project is served by different elementary and middle schools than Witt Mission Valley, but the same high school (Kearny).

- **Camino Del Rio mixed use project**, 291 residential units, located at 730 Camino Del Rio North, immediately east of Witt Mission Valley (November 2013 letter to KLR Planning). The Camino Del Rio project is served by the same schools at all levels as Witt Mission Valley. **The Camino Del Rio Mixed Use project is under construction as of the date of this letter and has been renamed Millennium Mission Valley.**
- **Town & Country Hotel master plan project**, 840 multi-family residential units, located 0.3 mile west of Witt Mission Valley (September 2015 letter to AECOM). The Town & Country project is served by different elementary and middle schools than Witt Mission Valley, but the same high school (Kearny).
- **Alexan Fashion Valley project,** 284 residential units, located 0.1 mile west of Witt Mission Valley (September 2016 letter to KLR Planning). The Alexan Fashion Valley project is served by different elementary and middle schools than Witt Mission Valley, but the same high school (Kearny).

Estimated student generation rates for the four nearby proposed developments are shown in Table 2.

TABLE 2. Nearby Proposed Developments

Nearby Proposed Development	Address	Number of Units	Estimated Student Generation Rates provided in letters	Estimated number of students
Union Tribune mixed use project (pending)	350 Camino de la Reina San Diego, CA 92108	200	K-5: 0.023-0.045 6-8: 0.004-0.007 9-12: 0.011-0.022 **K-12: 0.037-0.073**	K-5: 5-9 6-8: 1-2 9-12: 2-4 **K-12: 8-15**
Camino Del Rio mixed use project (under construction)	730 Camino Del Rio North San Diego, CA 92108	291	K-5: 0.027-0.054 6-8: 0.007-0.014 9-12: 0.008-0.016 **K-12: 0.042-0.084**	K-5: 8-16 6-8: 2-4 9-12: 3-5 **K-12: 13-25**
Town & Country Hotel master plan project (pending)	500 Hotel Circle North San Diego, CA 92108	840	K-5: 0.026-0.052 6-8: 0.004-0.008 9-12: 0.011-0.021 **K-12: 0.040-0.080**	K-5: 22-44 6-8: 3-6 9-12: 9-18 **K-12: 34-68**
Alexan Fashion Valley (pending)	123 Camino de la Reina San Diego, CA 92108	284	K-5: 0.036-0.073 6-8: 0.003-0.006 9-12: 0.012-0.024 **K-12: 0.051-0.103**	K-5: 10-20 6-8: 1-2 9-12: 3-7 **K-12: 14-29**

Based on the above information in Tables 1 and 2, proposed student generation rates for the project that is the subject of this letter, Witt Mission Valley, are shown in Table 3. The student generation rates are the average from the existing developments and proposed developments, with a low and high range.

TABLE 3. Estimated Generation Rates for Witt Mission Valley Project

Proposed Development	Address	Number of Units	Estimated Student Generation Rate	Estimated Number of Students
Witt Mission Valley	588 Camino del Rio North San Diego, CA 92108	267	K-5: 0.034-0.068 6-8: 0.006-0.012 9-12: 0.009-0.018 **K-12: 0.048-0.096**	K-5: 9-18 6-8: 2-3 9-12: 2-5 **K-12: 13-26**

5. *Based on the district's calculation of the project's student generation, would the project result in a need for additional school facilities?*

   Based on the above information, the number of students generated by the proposed project, Witt Mission Valley, is not specifically expected to have an adverse impact upon district schools. However, when this project is considered in combination with ongoing development at Civita, as well as the four other proposed projects in the immediate vicinity, the cumulative potential increase in students could impact district schools to the point of reaching capacity. This scenario would require additional planning for sufficient facilities.

6. *Please describe any developer fee assessment program which has been implemented by the district. Who is responsible, how is the amount determined, and what is the payment method?*

   For information on developer fees please contact Frank Webb at (619) 725-7529 or developer-fees@sandi.net.

7. *Please describe any agreements the district has with the city regarding use of school fields and game courts by the public.*

   For information on Joint Use please contact Debbie Beaver at (619) 725-7281 or dbeaver@sandi.net.

8. *Does the district anticipate or expect any long term (10 year, 20 year, 30 year or longer)impacts associated with school services due to anticipated development within Mission Valley? If so, please describe the nature of these impacts and how this project may contribute to those impacts.*

   As noted in the response to question 5, this project in particular is not expected to generate a large number of students. However, in combination with the ongoing Civita development (which will have about 4,700 units by the time it is completed over the next ten years), as well as the other four proposed projects, the cumulative potential increase in students could impact district schools to the point of reaching capacity. This scenario would require additional planning for sufficient facilities.

Please keep this office appraised of revisions to the development plan as new information may result in changes to the information stated in this letter. Thank you.

Sincerely,

Sarah Hudson
Demographer

KLR planning

P.O. Box 882676
San Diego, CA 92168-2676
karen@klrplanning.com
619.578.9505

August 4, 2017

Hilary Haskell
Environmental Specialist
San Diego Gas & Electric
8315 Century Park Court
San Diego, CA 92123

SUBJECT: ELECTRIC POWER AND GAS SERVICES TO A PROJECT PROPOSED IN THE MISSION VALLEY COMMUNITY OF THE CITY OF SAN DIEGO

Dear Ms. Haskell,

Din/Cal 4, Inc., (applicant) is proposing the *Witt Mission Valley* project on an approximate 5.13-acre site in the Mission Valley community. KLR Planning will be preparing an Environmental Impact Report (EIR) for the project based on specific issues identified by the City of San Diego, as Lead Agency, including public services and utilities.

The Witt Mission Valley project involves a Mission Valley Development Permit in the form of a Site Development Permit and a Planned Development Permit for the development of the 5.13-acre site located in the MV-CR Zone. The proposed project involves demolition of existing structures (39,277 square feet) and on-site surface parking and construction of a mixed-use development (approximately 532,700 square feet residential gross floor area) consisting of residential, commercial, retail, and shopkeepers units in a "wrap design." The project would range in height from one story to five stories and would have a total of 267 residential units, 10 shopkeeper units, 6,000 square feet of retail space and 3,600 square feet of commercial space. A total of 448 parking spaces would be provided in a five-story, above ground parking structure, in addition to 52 surface parking spaces, for a total of 500 parking spaces.

The City of San Diego has requested that we provide information relative to the ability for existing utilities and public services to serve the project. This information will be used in the environmental documentation.

In order to adequately assess the project's potential impacts on electrical power and gas services, we would like to request the following information from your office:

1. What are SDG&E's sources of electric power? What are SDG&E's sources of natural gas? Are there adequate resources and facility capacities to serve the region?

2. Where are the nearest SDG&E electric substations to the project site? Transmission lines? Other existing facilities?

3. What kind of new energy facilities or improvements are required to provide electrical power and natural gas service to the project?

4. What energy conservation measures or features would you recommend for the project?

5. Does your agency anticipate or expect any long-term (10-year, 20-year, 30-year, or longer) impacts associated with the provision of power and/or gas services due to anticipated development within the City of San Diego or the region? If so, please describe the nature of these impacts and how this project may contribute to those impacts. If impacts would occur what suggestions do you have to minimize their effects.

Please include any other information concerning your services and other issues that may be relevant to the proposed project. We would appreciate receiving this information prior to *August 21, 2017*. If you prefer to e-mail information, my e-mail address is jennifer@klrplanning.com. If you need additional information about the project, or if there are fees associated with this request, please call me at 908.391.9889. Thank you for your assistance.

Sincerely,

KLR Planning

Jennifer Clemente, Planner

SDGE
A Sempra Energy utility™

FILE NO. PLA 580

August 8, 2017

Karen Ruggles
KLR Planning
P.O. Box 882676
San Diego, CA 92168-2676

Dear Ms. Ruggles:

Subject: **Witt Mission Valley**

In accordance with our "RULES FOR THE SALE OF ELECTRIC ENERGY" and "RULES FOR THE SALE OF GAS", filed with and approved by the California Public Utilities Commission, gas and electric facilities can be made available to 588 Camino de la Reina, SD, CA 92108.

If purchaser is to pay any cost for the installation and/or extension of utility service, the costs will be calculated in conformance with our extension and service rules.

Evidence of financial arrangements for the installation of gas and electricity can be obtained from the developer and/or owner based on correspondence from SDG&E on this project.

Our ability to serve future projects in our service territory will depend on the supply of fuel and other essential materials available to us and on our obtaining government authorization to construct the facilities required.

For additional general information, please visit our website at http://sdge.com/index.html.

Sincerely,

Brian Lawless/mrz

Brian Lawless
Sr. Customer Project Planner
Telephone: (858) 636-6856

From: **Shearer-Nguyen, Elizabeth** EShearer@sandiego.gov
Subject: Witt Mission Valley - 1st Internal Draft EIR Screencheck (SDPD Comments)
Date: June 7, 2018 at 4:12 PM
To: KLR Planning Karen@klrplanning.com
Cc: Zounes, WilliamJ. WZounes@sandiego.gov

LS

FYI

Elizabeth Shearer-Nguyen
Senior Planner
City of San Diego
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Please Note: Work hours are M-F 6am to 230pm

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From: Wallin, Eddie [mailto:EWallin@pd.sandiego.gov]
Sent: Wednesday, April 18, 2018 12:29 PM
To: Zounes, WilliamJ. <WZounes@sandiego.gov>
Subject: RE: EIR Responses

Hello Mr. Zounes,
I apologize for not adding the EIR/Project info, it is for the Witt Mission Valley SDP/PDP. Below are the proper response time for beat 315.

E = 7.8
1 = 16.9
2 = 44.8
3 = 112.0
4 = 152.2

All other information contained in the report is true and accurate. Hope this information can be of use to you, thank you.

Respectfully,

Eddie Wallin
Police Officer - I.D. #6018
San Diego Police Department
Operational Support MS #776
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ewallin@pd.sandiego.gov

EXTERIOR NOISE ANALYSIS REPORT

WITT MISSION VALLEY
SAN DIEGO, CA

PTS No. 562674

April 3, 2018

Prepared for:

KLR Planning
P.O. Box 882676
San Diego, CA 92168

Prepared by:

dBF Associates, Inc.
3129 Tiger Run Court, Suite 202
Carlsbad, CA 92010
619-609-0712

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Tables

Figures

Appendices

1.0 INTRODUCTION AND SUMMARY

This report estimates the noise environment at the Witt Mission Valley project. The project site is located north of Interstate 8 and east of State Route 163, along the north side of Camino del Rio North, the east side of Camino de la Siesta, and the south side of Camino de la Reina, in the Mission Valley East neighborhood of the City of San Diego, CA (Figure 1). The project would entail the demolition of the existing structures and on-site surface parking, and the construction of a mixed-use development consisting of 267 residential units, 10 shopkeeper units, 6,000 square feet of retail space, and 3,400 square feet of commercial space. The primary noise source in the project vicinity is roadway traffic on Interstate 8.

Future exterior roadway traffic noise levels at the project site would range from less than 65 dBA CNEL in the site interior to approximately 78 dBA CNEL at the south building façade. Future exterior roadway traffic noise levels at all required outdoor usable areas in the project would be 70 dBA CNEL or lower, and would be considered "acceptable" by the City. Future exterior roadway traffic noise levels would be 75 dBA CNEL or lower at all commercial outdoor usable areas, and considered "acceptable" by the City. Exterior traffic noise impacts to the project would be less than significant.

Future exterior traffic noise levels would exceed 60 dBA CNEL at some project residential building façades. Therefore, interior noise levels in occupied areas could exceed the City of San Diego General Plan Noise Compatibility Guidelines and CBC Section 1207.4 requirement of 45 dBA CNEL in residences.

Future exterior noise levels would exceed 65 dBA CNEL at some project commercial building façades. Therefore, interior noise levels in occupied areas could exceed the City of San Diego General Plan Noise Compatibility Guidelines requirement of 50 dBA CNEL in commercial spaces.

Future exterior noise levels would exceed 65 dBA Leq at some project commercial building façades. Therefore, interior noise levels in occupied areas could exceed the Green Code Section 5.507.4.2 requirement of 50 dBA Leq in commercial spaces.

To avoid a potential land use impact, as a condition of project approval, an interior noise analysis would be required. This interior noise analysis must identify the sound transmission loss requirements for building façade elements (windows, walls, doors, and exterior wall assemblies) necessary to limit interior noise to 45 dBA CNEL in habitable residential rooms and 50 dBA CNEL / Leq in occupied commercial areas.

Upgraded windows and/or doors with Sound Transmission Class (STC) ratings of 35 or higher may be necessary. If the interior noise limit can be achieved only with the windows closed, the building design must include mechanical ventilation that meets CBC requirements.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 45 dBA CNEL or below in residences, and the project would comply with the City of San Diego General Plan Noise Compatibility Guidelines and CBC Section 1207.4 requirement.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 50 dBA CNEL or below in commercial spaces, and the project would comply with the City of San Diego General Plan Noise Compatibility Guidelines requirement.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 50 dBA Leq or below in commercial spaces, and the project would comply with the Green Code Section 5.507.4.2 requirement.

The project would result in a less than significant interior noise impact with project features incorporated in accordance with the interior noise analysis.

The project site is outside the projected future 60 dBA CNEL noise contours of SDIA and Montgomery Field. Airport noise impacts to the project would be less than significant.

Construction activity would occur during allowable times and generate sound levels below 75 dBA Leq (12 hours) at residential zones, in compliance with Section 59.5.404 of the City of San Diego Municipal Code. The project would result in no construction noise impact.

The project could generate groundborne construction vibration levels as high as 0.12 in/sec PPV at the closest structures, which are the buildings in the Millennium Mission Valley development on the property adjacent to the east. Project construction vibration could be “strongly perceptible” but not “disturbing” to occupants, and would not damage the structure. Temporary vibration impacts associated with construction would be less than significant.

The project would produce noise levels less than 52.5 dBA Leq at adjacent residential uses (off-site and on-site) and less than 60 dBA Leq at adjacent commercial land uses, and would comply with City of San Diego Municipal Code noise limits. Refuse vehicles or parking lot sweepers would operate on the project site between 7:00 a.m. and 7:00 p.m. The impact of project-generated operational noise would be less than significant.

Witt Mission Valley
Exterior Noise Analysis

dBF Associates, Inc.

FIGURE 1
Vicinity Map

1.1 PROJECT DESCRIPTION

The Witt Mission Valley project site is located at 588 Camino del Rio North and is situated with Camino del Rio North on the south, Camino de la Siesta on the west, and Camino de la Reina on the north. Office development occurs to the west of the project site, multi-family residential (apartments and condominiums) to the north, the Millennium Mission Valley mixed-use development under construction to the east, and the Interstate 8 (I-8) freeway to the south. The project site is developed with commercial auto sales and offices (Witt Lincoln), service bays, and exterior auto sales areas with surface parking lots.

Regional access to the site is provided by I-8, located immediately south of the project site; State Route 163 (SR 163), located approximately one-half mile west of the project site; and I-805, located less than two miles east of the project site.

The site is in the Mission Valley Community Plan area and the Mission Valley Planned District. Zoned MV-CR (Mission Valley – Commercial Retail), development is regulated by the Mission Valley Planned District Ordinance (MVPDO). The project site is within Development Intensity District G and is designated Commercial Retail in the Mission Valley Community Plan.

The proposed project involves demolition of existing structures (approximately 38,070 square feet) and on-site surface parking and construction of a mixed-use development (approximately 533,100 square feet gross floor area, including parking garage) consisting of residential, retail, and shopkeeper units in a "wrap design." The project would range in height from one to five stories and would have a total of 267 residential units, 10 shopkeeper units, 6,000 square feet of retail space, and 3,400 square feet of commercial space. A total of 450 parking spaces would be provided in a five-story, above ground parking structure, in addition to 52 surface parking spaces, for a total of 502 parking spaces.

Direct access to the project site currently occurs from two driveways, located on Camino de la Siesta and Camino del Rio North. Primary vehicular access to the project would occur via a new driveway off Camino de la Siesta in the northwest portion of the project, an internal drive paralleling Camino de la Reina, which provides access to surface parking for leasing, retail, and guests and the parking structure, and an additional driveway off Camino de la Reina in the northeast corner of the project site. Direct entry to the parking structure would be provided from Camino del Rio North. A fire lane would be provided along the eastern boundary of the project site.

1.2 NOISE BACKGROUND

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and that interferes with or disrupts normal activities. The human environment is characterized by a certain consistent noise level that varies by location and is termed ambient noise. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, perceived importance of the noise and its appropriateness in the setting, time of day and type of activity during which the noise occurs, and sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and intensity. Frequency describes the sound's pitch and is measured in cycles per second, or hertz (Hz), whereas intensity describes the sound's loudness and is measured in decibels (dB). Decibels are measured using a logarithmic scale. A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually as pain at still higher levels. The minimum change in the sound level of individual events that an average human ear can detect is about 3 dB. The average person perceives a change in sound level of about 10 dB as a doubling (or halving) of the sound's loudness; this relation holds true for sounds of any loudness. Sound levels of typical noise sources and environments are provided in Table 1.

Because of the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. A simple rule is useful, however, in dealing with sound levels. If a sound's intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. Thus, for example, 60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB.

The normal human ear can detect sounds that range in frequency from about 20 Hz to 20,000 Hz. However, all sounds in this wide range of frequencies are not heard equally well by the human ear, which is most sensitive to frequencies in the range of 1,000 Hz to 4,000 Hz. This frequency dependence can be taken into account by applying a correction to each frequency range to approximate the human ear's sensitivity within each range. This is called A-weighting and is commonly used in measurements of community environmental noise. The A-weighted sound pressure level (abbreviated as dBA) is the sound level with the "A-weighting" frequency correction. In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Table 1. Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at Given Distance)	Noise Environment	A-Weighted Sound Level	Human Judgment of Noise Loudness (Relative to Reference Loudness of 70 Decibels*)
Military Jet Takeoff with Afterburner (50 ft)	Carrier Flight Deck	140 Decibels	128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)		120	32 times as loud **Threshold of Pain**
Pile Driver (50 ft)	Rock Music Concert Inside Subway Station (New York)	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Gas Lawn Mower (3 ft)		100	8 times as loud **Very Loud**
Food Blender (3 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck (150 ft)	Boiler Room Printing Press Plant	90	4 times as loud
Garbage Disposal (3 ft)	Noisy Urban Daytime	80	2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (10 ft)	Commercial Areas	70	Reference Loudness **Moderately Loud**
Normal Speech (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	1/2 as loud
Light Traffic (100 ft)	Large Business Office Quiet Urban Daytime	50	1/4 as loud
Bird Calls (distant)	Quiet Urban Nighttime	40	1/8 as loud **Quiet**
Soft Whisper (5 ft)	Library and Bedroom at Night Quiet Rural Nighttime	30	1/16 as loud
	Broadcast and Recording Studio	20	1/32 as loud **Just Audible**
		0	1/64 as loud **Threshold of Hearing**

Source: Compiled by dBF Associates, Inc.

Another metric known as the Community Noise Equivalent Level (CNEL) adds a 5-dB adjustment to sound levels during evening hours (7:00 p.m. to 10:00 p.m.) in addition to a 10-dB adjustment to sound levels during nighttime hours (10:00 p.m. to 7:00 a.m.). CNEL is used by the State of California to evaluate land-use compatibility with regard to noise.

Sound Transmission Class (STC) is a single-number rating of the effectiveness of a material or construction assembly to impede the transmission of airborne sound.

The sound power level is a distance-independent measure of a noise source's energy.

1.3 VIBRATION BACKGROUND

Vibration is defined as any oscillatory motion induced in a structure or mechanical device as a direct result of some type of input excitation. Input excitation, generally in the form of an applied force or displacement, is the mechanism required to start some type of vibratory response. Sources of earthborne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or manmade (explosions, machinery, traffic, construction equipment, etc.). Vibration sources may be transient, steady-state or continuous, or pseudo steady-state. Examples of transient construction vibrations are those that occur from blasting with explosives, impact pile driving, demolition, and wrecking balls. Steady-state vibrations may be generated by vibratory pile drivers. Pseudo steady-state vibrations are of a random nature, but at short enough intervals to approach a steady-state condition. These include jackhammers, pavement breakers, trucks, bulldozers, cranes, and scrapers.

Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be comprised of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hz. Most environmental vibrations consist of a composite, or "spectrum" of many frequencies, and are generally classified as broadband or random vibrations. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Vibration data in this study is expressed in terms of the peak particle velocity (PPV) in inches per second (in/sec). The PPV is the velocity of the soil particles resulting from a disturbance. Agencies such as the State of California Department of Transportation (Caltrans) use the PPV descriptor to evaluate the potential for building damage and human annoyance.

2.0 APPLICABLE STANDARDS

2.1 CITY OF SAN DIEGO

2.1.1 General Plan

The City of San Diego requires new projects to meet noise level standards as established in the Noise Element of the General Plan [City of San Diego 2008, Amended 2015: Policy NE-A.4]. These standards are shown in Table NE-3: Land Use – Noise Compatibility Guidelines (Figure 2 of this report).

In the Residential – Multiple Units land use category, noise levels up to 60 dBA CNEL are considered Compatible with outdoor use areas. Noise levels up to 70 dBA CNEL are considered Conditionally Compatible; the building structure must attenuate exterior noise in occupied areas to 45 dBA CNEL or below.

In the Retail Sales and Commercial Services (excluding Visitor Accommodations) land use categories, noise levels up to 65 dBA CNEL are considered Compatible with outdoor use areas. Noise levels up to 75 dBA CNEL are considered Conditionally Compatible; the building structure must attenuate exterior noise in occupied areas to 50 dBA CNEL or below.

Figure 2. City of San Diego Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dBA CNEL) 60	65	70	75
Parks and Recreational				
Parks, Active and Passive Recreation				
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities				
Agricultural				
Crop Raising & Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables				
Residential				
Single Dwelling Units; Mobile Homes		45		
Multiple Dwelling Units **For uses affected by aircraft noise, refer to Policies NE-D.2. & NE-D.3.*		45	45*	
Institutional				
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12Educational Facilities; Libraries; Museums; Child Care Facilities		45		
Other Educational Facilities including Vocational/Trade Schools and Colleges and Universities		45	45	
Cemeteries				
Retail Sales				
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories			50	50
Commercial Services				
Building Services; Business Support; Eating & Drinking; Financial Institutions; Maintenance & Repair; Personal Services; Assembly & Entertainment (includes public and religious assembly); Radio & Television Studios; Golf Course Support			50	50
Visitor Accommodations		45	45	45
Offices				
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50
Vehicle and Vehicular Equipment Sales and Services Use				
Commercial or Personal Vehicle Repair & Maintenance; Commercial or Personal Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking				
Wholesale, Distribution, Storage Use Category				
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution				
Industrial				
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking & Transportation Terminals; Mining & Extractive Industries				
Research & Development				50

	Compatible	**Indoor Uses**	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level. Refer to Section I.
		Outdoor Uses	Activities associated with the land use may be carried out.
45, 50	**Conditionally Compatible**	**Indoor Uses**	Building structure must attenuate exterior noise to the indoor noise level indicated by the number (45 or 50) for occupied areas. Refer to Section I.
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated t make the outdoor activities acceptable. Refer to Section I.
	Incompatible	**Indoor Uses**	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

2.1.2 CEQA Significance Thresholds

The Development Services Department (DSD) California Environmental Quality Act (CEQA) Significance Determination Thresholds (SDTs) [City of San Diego 2011] address noise. Relevant portions are reproduced below.

Interior and Exterior Noise from Traffic Generated Noise

DSD CEQA SDTs Table K-2 provides general thresholds of significance for uses affected by traffic noise.

City of San Diego DSD CEQA SDTs Table K-2
Traffic Noise Significance Thresholds (dBA CNEL)

Structure or Proposed Use that would be impacted by Traffic Noise	Interior Space	Exterior Useable Space†
Single-family detached	45 dB	65 dB
Multi-family, schools, libraries, hospitals, day care, hotels, motels, parks, convalescent homes	Development Services Department (DSD) ensures 45 dB pursuant to Title 24	65 dB
Offices, Churches, Business, Professional Uses	n/a	70 dB
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses	n/a	75 dB

† If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3 dB increase, then the impact is not considered significant.

Airport Noise Impacts

If the project is proposed within the Airport Environs Overlay Zone (AEOZ) as defined in Chapter 13, Article 2, Division 3 of the San Diego Municipal Code, the potential exterior noise impacts from aircraft noise would not constitute a significant environmental impact.

However, interior noise impacts will be regulated by the requirement for residential development within the AEOZ to reduce interior noise levels attributable to airport noise to 45 dB Community Noise Equivalent Level (CNEL). Interior noise levels for new construction of multi-family units are addressed by the Building Development Review Division (BDR) of the City's Development Services Department (DSD) and do not need to be mitigated through conditions in the environment report, but the BDR requirements should be noted. BDR requires additional insulation and upgraded building materials so that interior noise levels do not exceed 45 dB(A) CNEL. The requirements for an acoustical testing are defined in the City of San Diego Municipal

Code, Chapter 13, Article 2, Division 3, §132.0308, "Acoustical Testing of Interior Noise Levels."

Requirements for noise studies are found in the Municipal Code at Chapter 13, Article 2, Division 3, §132.0308. This section of the municipal code applies to "development" as defined at §113.0103 to include "constructing, reconstructing, converting, establishing, altering, maintaining, relocating, demolishing, using, or enlarging any building, structure, improvement, lot, or premises."

Remodels and additions to single-family and multi-family residences subject to airport noise levels above 65 dB (A) CNEL ordinarily would not be considered a significant issue and a noise study would not be required for the purposes of CEQA analysis. However, new construction of hospitals, schools, day care centers, or other sensitive uses subject to airport noise levels in excess of 65 dB(A) CNEL would be considered a significant issue and a noise study would be required that could recommend measures to mitigate potential noise impacts to a level below significance. Table K-3 below addresses the general impacts from airport noise thresholds.

City of San Diego DSD CEQA SDTs Table K-3
Impacts from Airport Noise

Structure or Proposed Use that would be impacted by Airport Noise	Regulation
Structure within an AEOZ	Exterior noise is one factor in determining land use compatibility. See Table K-4 and the applicable Comprehensive Land Use Plan (CLUP).
New Single Family and Multi-Family	Building Development Review Division (BDR) of Development Services Department (DSD) ensures 45 dB interior noise levels. Discuss Airport noise impact & BDR requirements (insulation and upgraded building materials to ensure 45 dB(A) CNEL) in environmental document. See also §132.0309 Requirement for Avigation Easement.
Remodels and additions to existing single and multi-family	Noise study & mitigation not required for airport noise > 65 dB(A) CNEL. See also §132.0309 Requirement for Avigation Easement. For development within the 60 dB CNEL contour of Lindbergh Field the applicant must demonstrate that indoor noise levels that are attributable to airport operations shall not exceed 45 dB. Refer to §132.0306 of the Municipal Code.
New construction of hospitals, schools, day care centers or other sensitive uses	Noise study and mitigation required for airport noise > 65 dB(A) CNEL. See also §132.0309 Requirement for Avigation Easement.

Noise from Adjacent Stationary Uses (Noise Generators)

A project which would generate noise levels at the property line which exceed the City's Noise Ordinance Standards is considered potentially significant (such as potentially a carwash or projects operating generators or noisy equipment).

If a non-residential use, such as a commercial, industrial or school use, is proposed to abut an existing residential use, the decibel level at the property line should be the arithmetic mean of the decibel levels allowed for each use as set forth in Section 59.5.0401 of the Municipal Code. Although the noise level above could be consistent with the City's Noise Ordinance Standards, a noise level above 65 dB (A) CNEL at the residential property line could be considered a significant environmental impact.

Temporary Construction Noise

Temporary construction noise which exceeds 75 dB (A) Leq at a sensitive receptor would be considered significant. Construction noise levels measured at or beyond the property lines of any property zoned residential shall not exceed an average sound level greater than 75-decibles [sic] (dB) during the 12-hour period from 7:00 a.m. to 7:00 p.m. In addition, construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, that would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404.

Additionally, where temporary construction noise would substantially interfere with normal business communication, or affect sensitive receptors, such as day care facilities, a significant noise impact may be identified.

Noise / Land Use Compatibility

Noise is one factor to be considered in determining whether a land use is compatible. Land use compatibility noise factors are presented in Table K-4. Compatible land uses are shaded. Incompatible land uses are unshaded. The transition zone between compatible and incompatible should be evaluated by the environmental planner to determine whether the use would be acceptable based on all available information and the extent to which the noise from the proposed project would affect the surrounding uses.

Table K-4 indicates: In the residential land use category, noise levels up to 65 dBA CNEL are considered compatible. In the commercial-retail land use category, noise levels up to 75 dBA CNEL are considered compatible.

2.1.3 Municipal Code

2.1.3.1 Operational Noise

Operational noise within the City is governed by Municipal Code Section 59.5.401: Sound Level Limits.

> It shall be unlawful for any person to cause noise by any means to the extent that the one–hour average sound level exceeds the applicable limit given in the following table, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.
>
> **TABLE OF APPLICABLE LIMITS**

Land Use	Time of Day	One-Hour Average Sound Level (decibels)
1. Single Family Residential	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45 40
2. Multi-Family Residential (up to a maximum density of 1/2000)	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50 45
3. All other Residential	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55 50
4. Commercial	7 a.m. to 7 p.m. 7 p.m. to 10 p.m. 10 p.m. to 7 a.m.	65 60 60
5. Industrial or Agricultural	any time	75

> The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. Permissible construction noise level limits shall be governed by Section 59.5.0404 of this article.
> …
> *(Amended 9-11-1989 by O-17337 N.S.)*
> *(Amended 11-28-2005 by O-19446 N.S.; effective 2-9-2006.)*

The project site would include multi-family residences and commercial spaces. Surrounding land uses include multi-family residences and commercial spaces.

At boundary lines between commercial land uses, the operational sound level limits are:

- 65 dBA Leq during daytime hours (7:00 a.m. to 7:00 p.m.),
- 60 dBA Leq during evening and nighttime hours (7:00 p.m. to 7:00 a.m.).

At boundary lines between multi-family residential and commercial land uses, the operational sound level limits are:

- 60 dBA Leq during daytime hours (7:00 a.m. to 7:00 p.m.),
- 55 dBA Leq during evening hours (7:00 p.m. to 10:00 p.m.), and
- 52.5 dBA Leq during nighttime hours (10:00 p.m. to 7:00 a.m.).

At boundary lines between multi-family residential land uses, the operational sound level limits are:

- 55 dBA Leq during daytime hours (7:00 a.m. to 7:00 p.m.),
- 50 dBA Leq during evening hours (7:00 p.m. to 10:00 p.m.), and
- 45 dBA Leq during nighttime hours (10:00 p.m. to 7:00 a.m.).

2.1.3.2 Construction Noise

Construction noise within the City is governed by Municipal Code Section 59.5.0404: Construction Noise.

> It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the

neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

Except as provided in subsection C. hereof, it shall be unlawful for any person, including The City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

The provisions of subsection B. of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

(Amended 1-3-1984 by O-16100 N.S.)

2.1.3.3 Refuse Vehicles and Parking Lot Sweepers

Refuse vehicle and parking lot sweeper noise within the City is governed by Municipal Code Section 59.5.0406: Refuse Vehicles and Parking Lot Sweepers.

No person shall operate or permit to be operated a refuse compacting, processing, or collection vehicle between the hours of 7:00 p.m. to 6:00 a.m. or a parking lot sweeper between the hours of 7:00 p.m. to 7:00 a.m. in any residential area unless a permit has been applied for and granted by the Administrator.

("Refuse Vehicles" added 9-18-1973 by O-11122 N.S.;
amended 9-22-1976 by O-11916 N.S.)
(Amended 6-9-2010 by O-19960 N.S.; effective 7-9-2010.)

2.2 STATE OF CALIFORNIA

2.2.1 Multi-Family Residential

California Building Code (CBC), Chapter 12: Interior Environment, Section 1207: Sound Transmission regulates noise levels in buildings with multiple habitable units [State of California 2015]. Relevant portions are reproduced below.

> 1207.4 Allowable interior noise levels. Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

2.2.2 Non-Residential

The California Green Building Standards Code ("Green Code") [State of California 2016] limits noise within non-residential buildings. Relevant portions are reproduced below.

> 5.507.4.2 Performance method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1 (exposed to a noise level of 65 dB Leq-1-hr during any hour of operation), wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

2.3 VIBRATION

The City of San Diego does not regulate vibration. In the absence of local regulations, Caltrans guidance was consulted.

3.0 EXISTING NOISE ENVIRONMENT

The project site is located north of I-8 and east of SR 163, along the north side of Camino del Rio North, the east side of Camino de la Siesta, and the south side of Camino de la Reina, in the Mission Valley East neighborhood of the City of San Diego. Office development occurs to the west of the project site, multi-family residential (apartments and condominiums) to the north, the Millennium Mission Valley mixed-use development under construction to the east, and I-8 to the south. The project site is currently developed with commercial auto sales and offices (Witt Lincoln), service bays, and exterior auto sales areas with surface parking lots.

The primary noise source affecting the project site is roadway traffic on I-8. Roadway traffic on SR 163, the interchange ramps between I-8 and SR 163, and surface streets also contribute to the onsite noise environment.

The project site is within the Airport Influence Area (AIA) (Review Area 2) but outside the existing 60 dBA CNEL noise contour of San Diego International Airport (SDIA) [SDCRAA 2009, 2014]. The project site is within the AIA (Review Area 2) but outside the existing 60 dBA CNEL noise contour of Montgomery Field [SDCRAA 2010].

Existing structures partially shield the project site from portions of the nearby roadways: the 12-story "TD Ameritrade" building at 591 Camino de la Reina and its 3-story parking garage, the 4-story "Corinthian Title" building at 5030 Camino de la Siesta, and the 5-story Millennium Mission Valley development buildings at 730 Camino del Rio North.

I-8 is a two-way eight-lane Freeway roadway divided by K-rail, with a speed limit of 65 miles per hour (mph). The centerline of I-8 is approximately 195 feet south of the southern project property line. I-8 carries an existing (year 2015) Average Daily Traffic (ADT) volume of 210,000 vehicles between SR 163 and Mission Center Road [Caltrans 2016a]. The year 1983 vehicle mix on I-8 east of SR 163 was approximately 2.2% medium trucks and 0.6% heavy trucks [Caltrans 2016b]; the current existing vehicle mix of 98% cars, 1% medium trucks, 0.5% heavy trucks, and 0.5% motorcycles was estimated based on vehicular classification counts conducted during the sound level measurements. I-8 is approximately six feet above the project site.

SR 163 is a two-way six-lane Freeway roadway divided by K-rail, with a speed limit of 65 mph. The centerline of SR 163 is approximately 640 feet west of the northwest project property line corner. SR 163 carries an existing (year 2015) ADT volume of 153,000 vehicles between I-8 and Friars Road [Caltrans 2016a]. The year 1986 vehicle mix on I-8 east of SR 163 was approximately 96.3% cars, 2.4% medium trucks and 1.3% heavy trucks [Caltrans 2016b]; the current existing vehicle mix was not counted. SR 163 is approximately 20 feet above the project site.

The project site is near the interchange between I-8 and SR 163, which includes several ramps. Between I-8 and the project site, there is a westbound I-8 ramp to northbound SR 163 / exit to Hotel Circle North. Between SR 163 and the project site, there is an eastbound I-8 ramp to northbound SR 163, a northbound SR 163 ramp to eastbound I-8, and a northbound SR 163 bypass ramp to Friars Road. South of I-8, there is an eastbound I-8 exit to Mission Center Road and a northbound SR 163 ramp to eastbound I-8. Existing traffic volumes on these ramps are presented in Table 2.

Table 2. Existing Interchange Ramp Traffic Volumes

Ramp	Existing ADT	Count Year
I-8 WB on from NB 163	6,700	2009
I-8 EB off to NB 163	27,000	2009
I-8 WB off to SB 163	26,000	2009
I-8 WB off to NB 163 & Hotel Circle North	21,200	2009
I-8 EB on from SR 163 / off to Auto Circle	30,500	2009
I-8 WB on from Mission Center Road	13,000	2015

Source: Caltrans 2016c

Camino del Rio North is a two-way two-lane undivided Collector roadway with a speed limit of 25 mph and parallel parking along both sides. The centerline of Camino del Rio North is approximately 25 feet from the south project property line. Camino del Rio North carries an existing (year 2017) ADT volume of 4,970 vehicles between Camino de la Siesta and Camino del Arroyo [USAI 2017]. The existing vehicle mix of approximately 96% cars and 4% medium trucks was estimated based on vehicular classification counts conducted during the sound level measurements. Camino del Rio North is approximately on grade with the project site.

Camino del Rio North becomes Camino de la Siesta as it turns north at the project's southwest corner. Camino de la Siesta is a two-way two-lane undivided Collector roadway with a speed limit of 25 mph and parallel parking along both sides. The centerline of Camino de la Siesta is approximately 25 feet from the west project property line. Camino de la Siesta carries an existing (year 2017) ADT of 5,214 vehicles between Camino de la Reina and Camino del Rio North [USAI 2017]. The existing vehicle mix of approximately 96% cars and 4% medium trucks was estimated based on vehicular classification counts conducted during the sound level measurements. Camino de la Siesta is approximately on grade with the project site.

Camino de la Reina is a two-way four-lane Major roadway divided by a landscaped median, with a speed limit of 35 mph and parallel parking along both sides. The centerline of Camino de la Reina is approximately 50 feet from the north project property line. Camino de la Reina carries an existing (year 2017) ADT volume of 12,430 vehicles between Camino de la Siesta and

Camino del Arroyo [USAI 2017]. The existing vehicle mix of approximately 97% cars, 1% medium trucks, 1% heavy trucks, and 1% buses was estimated based on vehicular classification counts conducted during the sound level measurements. Camino de la Reina is approximately on grade with the project site.

3.1 SOUND LEVEL MEASUREMENTS

Four short-term (10-minute) sound level measurements were conducted during the afternoon of Wednesday, September 13, 2017 to quantify the existing onsite acoustical environment due to vehicle traffic. Agencies such as the U.S. Department of Housing and Urban Development (HUD) and the City of San Diego consider the peak-hour Leq to be reasonably equivalent to the CNEL / DNL for vehicular traffic.

A RION Model NA-28 American National Standards Institute (ANSI) Type 1 Integrating Sound Level Meter was used as the data-collection device. Except where noted, the meter was mounted to a tripod roughly five feet above ground to simulate the average height of the human ear. The sound level meter was calibrated before and after the measurement periods.

The measurement results are summarized in Table 3 and correspond to the locations depicted on Figure 3. A review of the table shows that the measured sound levels ranged from approximately 63 dBA Leq to 75 dBA Leq. The primary noise source observed during the site visit was vehicular roadway traffic.

Table 3. Sound Level Measurements (dBA)

Measurement Location		Date / Time	Leq	Lmin	Lmax	L10	L50	L90	Traffic
ML1	Southeast project property line corner, approximately 60 feet above ground level.	9/13/2017 14:10 – 14:20	74.8	72.0	78.6	75.8	74.6	73.4	I-8 & ramps: 2,486 cars, 24 medium trucks, 8 heavy trucks, 2 buses, and 14 motorcycles.
ML2	Southeast project property line corner, five feet above ground level.	9/13/2017 14:30 – 14:40	68.7	65.0	74.2	70.4	68.1	66.2	Camino del Rio North: 48 cars and 2 medium trucks.
ML3	Northeast corner of 591 Camino de la Reina parking garage, approximately 35 feet above ground level.	9/13/2017 14:55 – 15:05	66.0	63.3	68.8	67.0	65.8	64.8	Not counted
ML4	North project property line, five feet above ground level.	9/13/2017 15:10 – 15:20	63.2	56.6	71.5	66.4	61.4	58.5	Camino de la Reina: 138 cars, 1 medium truck, 1 heavy truck, and 1 bus.

dBF Associates, Inc.

* ML1 conducted at ~60' above ground level
† ML3 conducted at ~35' above ground level.

FIGURE 3
Sound Level Measurement Locations

3.1.1 Existing Noise Levels

The geometry of the project site and adjacent roadways is complex, and the distance from some roadways to some portions the project site is more than 500 feet. Because of these factors, noise levels on the project site were estimated based on adjustments to measured levels, as detailed in Table 4.

Agencies such as the U.S. Department of Housing and Urban Development (HUD) and the City of San Diego consider the peak-hour Leq to be reasonably equivalent to the CNEL for vehicular traffic. It was assumed that the peak hour traffic volume is 10% of the ADT.

To estimate existing noise levels on the project site, measured noise levels were increased according to the difference between the observed traffic volumes and the peak-hour traffic volumes. A review of Table 5 shows that existing noise levels at the boundaries of the project site range from approximately 65 dBA CNEL at the north boundary to approximately 76 dBA CNEL at the south boundary.

Table 4. Existing Noise Levels (dBA CNEL)

Location / Area		Measured Noise Level	Observed Hourly Equivalent Traffic	Existing Peak-Hour Traffic Volume	Observed-to-Existing Traffic Noise Increase	Existing Noise Level
ML1	South project boundary, upper floors	74.8	15,204	21,000	+ 1.4	76.2
ML2	South project boundary, first floor	68.7	15,204	21,000	+ 1.4	70.1
ML3	West project boundary, third floor	66.0	N/A	15,300	+ 1.4 *	67.4
ML4	North project boundary, first floor	63.2	846	1,234	+ 1.6	64.8

* Note: because SR 163 traffic was not able to be counted, the I-8 noise increase was assumed to be applicable.

3.2 PROJECT-GENERATED TRAFFIC NOISE

The highest relative traffic increase generated by the project would be the addition of 310 vehicles to the existing 5,124 vehicles carried by Camino de la Siesta between Camino de la Reina and Camino del Rio North [USAI 2017]. Vehicular traffic generated by the project would increase the noise level at offsite receptors by less than 0.5 dBA CNEL. Noise level variations of less than 3 dBA are not detectable by the typical human ear. Therefore, the proposed project would not generate noise levels that would result in a significant increase in the existing ambient noise levels.

4.0 FUTURE NOISE ENVIRONMENT

The future noise environment would also be a result of roadway traffic. Future traffic volume projections are presented in Table 5. Existing speed limits and vehicle mixes on all roadways are expected to remain constant.

Table 5. Future Traffic Volume Projections

Roadway	Future ADT	Projection Year	Source
I-8 between SR 163 and Mission Center Road	241,100	2050	SANDAG 2017
SR 163 between I-8 and Friars Road	207,200	2050	SANDAG 2017
I-8 WB on from NB 163	9,100	2050	SANDAG 2017
I-8 EB off to NB 163	49,500	2050	SANDAG 2017
I-8 WB off to SB 163	30,100	2050	SANDAG 2017
I-8 WB off to NB 163 & Hotel Circle North	25,700	2050	SANDAG 2017
I-8 EB on from SR 163 / off to Auto Circle	30,400	2050	SANDAG 2017
I-8 WB on from Mission Center Road	16,100	2050	SANDAG 2017
Camino del Rio North between Camino de la Siesta and Camino del Arroyo	12,640	2035 (with Project)	USAI 2017
Camino de la Siesta between Camino de la Reina and Camino del Rio North	5,434	2035 (with Project)	USAI 2017
Camino de la Reina between Camino de la Siesta and Camino del Arroyo	6,774	2035 (with Project)	USAI 2017

Future exterior roadway noise levels on the project site were estimated based on adjustments to existing levels. Existing noise levels were increased according to the difference between the existing and future ADT volumes, as shown in Table 6. Note that the existing-to-future interchange ramp volume increases were generally similar in relative magnitude to those on the main lines of I-8 and SR 163; therefore, the main lines were used as the basis of the noise increases. Future exterior roadway noise levels on the project site would range from less than 65 dBA CNEL at the interior of the site to approximately 78 dBA CNEL at the southwest corner, as shown on Figure 4.

Table 6. Future Exterior Roadway Noise Levels (dBA CNEL)

Location		Existing Noise Level	Existing ADT	Future ADT	Existing-to-Future Traffic Noise Increase	Future Noise Level
ML1	South project boundary, upper floors	76.2	210,000	241,100	+ 0.6	76.8
ML2	South project boundary, first floor	70.1	210,000	241,100	+ 0.6	70.7
ML3	West project boundary, third floor	67.4	12,340	12,640	+ 0.1	67.5
ML4	North project boundary, first floor	64.8	153,000	207,200	+ 1.3	66.1

The project includes two required common outdoor usable areas: the "passive courtyard" facing west between two building wings on near in the southwest area of the project site; and the "pool courtyard" in the west area of the project site. Noise limits at outdoor usable areas are applicable only at required spaces.

Future exterior roadway traffic noise levels on the project site were estimated based on the projections detailed above, propagation as a function of distance (3 dBA per doubling of distance from roadways), and considered shielding from offsite and project structures.

Future exterior roadway traffic noise levels would be 68 dBA CNEL at the passive courtyard and 67 dBA CNEL at the pool courtyard. As designed, future exterior roadway traffic noise levels at all required outdoor usable areas in the project would be 70 dBA CNEL or lower, and considered "acceptable" by the City. Future exterior roadway traffic noise levels would be 75 dBA CNEL or lower at all commercial outdoor usable areas, and considered "acceptable" by the City. Exterior traffic noise impacts to the project would be less than significant.

4.1 AIRPORT NOISE

The project site is outside the projected future 60 dBA CNEL noise contour of SDIA [SDCRAA 2009]. The project site is outside the projected future 60 dBA CNEL noise contour of Montgomery Field [SDCRAA 2010]. Airport noise impacts to the project would be less than significant. However, noise associated with aircraft operations may be periodically audible on the project site or within the project buildings.

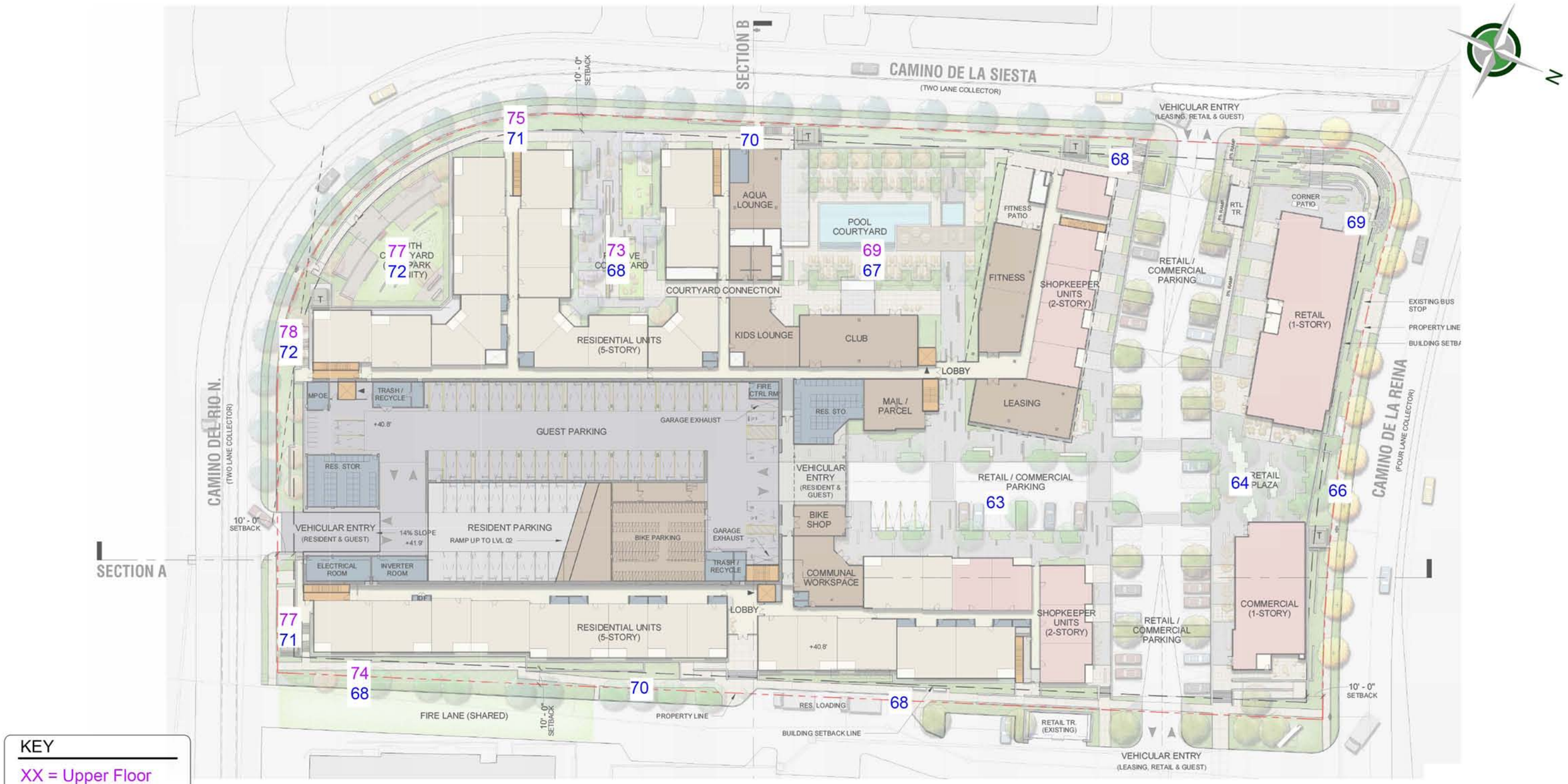

FIGURE 4
Future Exterior Noise Levels (CNEL)

5.0 CONSTRUCTION

5.1 CONSTRUCTION NOISE

Construction of the project would generate a temporary increase in noise in the project area. The increase in noise level would be primarily experienced close to the noise source. The magnitude of the impact would depend on the type of construction activity, noise level generated by various pieces of construction equipment, duration of the construction phase, and distance between the noise source and receiver.

Construction activity and delivery of construction materials and equipment would be limited to between 7:00 a.m. and 7:00 p.m. This project would implement conventional construction techniques and equipment. Standard equipment such as scrapers, graders, backhoes, rollers, loaders, tractors, cranes, and miscellaneous trucks would be used for construction of most project facilities. Sound levels of typical construction equipment range from approximately 65 dBA to 95 dBA at 50 feet from the source [U.S. Environmental Protection Agency (U.S. EPA) 1971].

Worst-case noise levels are typically associated with grading. Noise sources associated with grading of the proposed project, and associated noise levels are shown in Table 7. Project construction would not require pile driving or on-site rock crushing.

Table 7. Grading Noise Source Levels

Noise Source	Noise Level	Number
Bulldozer	85 dBA at 50 feet	1
Scraper	85 dBA at 50 feet	1
Backhoe	85 dBA at 50 feet	1
Water Truck	85 dBA at 50 feet	1
Roller	75 dBA at 50 feet	1

The Datakustik Cadna/A industrial noise prediction model was used to estimate noise levels from construction activity on the project site. The closest noise-sensitive land uses are multi-family residences (currently under construction) located in the Millennium Mission Valley development, approximately 200 feet east of the centroid of construction activity on the project site. It was assumed that one bulldozer, one scraper, one backhoe, one water truck and one roller would operate continuously throughout the site. It was assumed that the construction equipment would operate in the central 50% of the site for half of any given day, and that the equipment would be operational for no more than 8 total hours per day. No noise reduction related to ground effects, atmospheric absorption, or intervening topography was included in the model.

Without noise abatement, under the assumptions detailed above, project construction activity would generate up to approximately 75 dBA Leq (12 hours) at residences. Construction activity would occur during allowable times and generate sound levels of 75 dBA Leq (12 hours) or less at residential land uses, in compliance with Section 59.5.404 of the City of San Diego Municipal Code. The project would result in no construction noise impact.

5.2 CONSTRUCTION VIBRATION

Construction of the project would involve the use of equipment as described in Section 4.1. Vibration associated with standard (non-vibratory) construction equipment is generally considered to be not perceptible, and therefore negligible, at distances over 50 feet.

In order to mitigate liquefaction-induced settlement, the site may require ground improvement using Vibro-replacement. Vibro-replacement is a deep vibratory compaction technique whereby loose or soft soil is improved for building purposes by means of special depth vibrators. Groundborne vibration would occur as a result of this process. Vibro-replacement could occur as close as 40 feet from an existing structure (the Millennium Mission Valley project on the property adjacent to the east).

An estimate of groundborne vibration levels for this process and soils similar to that found on the project site were provided by Haywood Baker, Inc. (see Appendix A). Based on these estimates, groundborne vibration could be as high as approximately 3 mm/sec (0.12 in/sec) PPV at the nearest structure. A vibration level of 0.12 in/sec PPV would be “strongly perceptible” but not “disturbing” to humans within the structure, and would not cause damage to “historic” or newer buildings [Caltrans 2013]. Temporary vibration impacts associated with construction would be less than significant.

6.0 OPERATIONAL (NON-CONSTRUCTION) NOISE

The project is expected to include the following noise sources: heating / ventilation / air conditioning (HVAC) units, truck deliveries, and maintenance activities such as parking lot sweepers and trash collection trucks. The project would not include any trash compactors, refrigeration units, or generators.

A mechanical equipment plan had not been developed at the time of this analysis. Residential, commercial, and retail HVAC units would be roof-mounted, behind parapets exceeding equipment heights. No equipment would be ground-mounted.

It was assumed that the commercial and retail buildings would each be served by five 10-ton HVAC units each producing a sound power level of approximately 91 dBA. All HVAC units were treated as stationary point sources, 5 feet in height above rooftop level, and assumed to be constantly operational.

It was assumed that each residential and shopkeepers unit would be served by one 3-ton HVAC unit producing a sound power level of approximately 76 dBA. All HVAC units were treated as stationary point sources, 5 feet in height above rooftop level, and assumed to be constantly operational.

Deliveries include trucks approaching and maneuvering into position; moving merchandise within the vehicle; rolling of a dolly on a ramp, sidewalk, or road; and/or a truck-mounted refrigeration unit. These activities produce average noise levels of approximately 75 dBA (10 minutes) at 25 feet, based on measurements conducted by dBFA staff. The project would not include a commercial loading area or loading dock. Anticipated deliveries to the commercial and retail spaces would arrive via panel trucks parked temporarily in the drive aisle. The project site would not accept deliveries from tractor-trailers. It was assumed that the project site could receive up to three deliveries per hour.

The Datakustik Cadna/A industrial noise prediction model was used to estimate noise levels from noise sources on the project site. The locations of the project buildings and loading areas were imported from the site plan.

The project would produce noise levels less than 52.5 dBA Leq at adjacent residential uses (off-site and on-site) and less than 60 dBA Leq at adjacent commercial land uses, and would comply with City of San Diego Municipal Code noise limits. Refuse vehicles or parking lot sweepers would operate on the project site between 7:00 a.m. and 7:00 p.m. The impact of project-generated operational noise would be less than significant.

7.0 FINDINGS AND MITIGATION

7.1 EXTERIOR NOISE

No impacts were identified. No mitigation is necessary.

7.2 INTERIOR NOISE

Because future exterior roadway traffic noise levels would exceed 60 dBA CNEL at some project residential building façades, interior noise levels in occupied areas could exceed the City of San Diego General Plan Noise Compatibility Guidelines and CBC Section 1207.4 requirement of 45 dBA CNEL in residences.

Because future exterior noise levels would exceed 65 dBA CNEL at some project commercial building façades, interior noise levels in occupied areas could exceed the City of San Diego General Plan Noise Compatibility Guidelines requirement of 50 dBA CNEL in commercial spaces.

Because future exterior noise levels would exceed 65 dBA Leq at some project commercial building façades, interior noise levels in occupied areas could exceed the Green Code Section 5.507.4.2 requirement of 50 dBA Leq in commercial spaces.

To avoid a potential land use impact, as a condition of project approval, an interior noise analysis would be required. This interior noise analysis must identify the sound transmission loss requirements for building façade elements (windows, walls, doors, and exterior wall assemblies) necessary to limit interior noise to 45 dBA CNEL in habitable residential rooms and 50 dBA CNEL / 50 dBA Leq in occupied commercial areas.

Upgraded windows and/or doors with Sound Transmission Class (STC) ratings of 35 or higher may be necessary. If the interior noise limit can be achieved only with the windows closed, the building design must include mechanical ventilation that meets CBC requirements.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 45 dBA CNEL or below in residences, and the project would comply with the City of San Diego General Plan Noise Compatibility Guidelines and CBC Section 1207.4 interior noise requirement.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 50 dBA CNEL or below in commercial spaces, and the project would comply with the City of San Diego General Plan Noise Compatibility Guidelines requirement.

With the implementation of the findings of the interior noise analysis, interior noise levels would be 50 dBA Leq or below in commercial spaces, and the project would comply with the Green Code Section 5.507.4.2 requirement.

The project would result in a less than significant interior noise impact with project features incorporated in accordance with the interior noise analysis.

7.3 CONSTRUCTION

No impacts were identified. No mitigation is necessary.

7.4 OPERATIONAL

No impacts were identified. No mitigation is necessary.

8.0 REFERENCES

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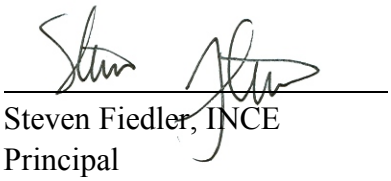
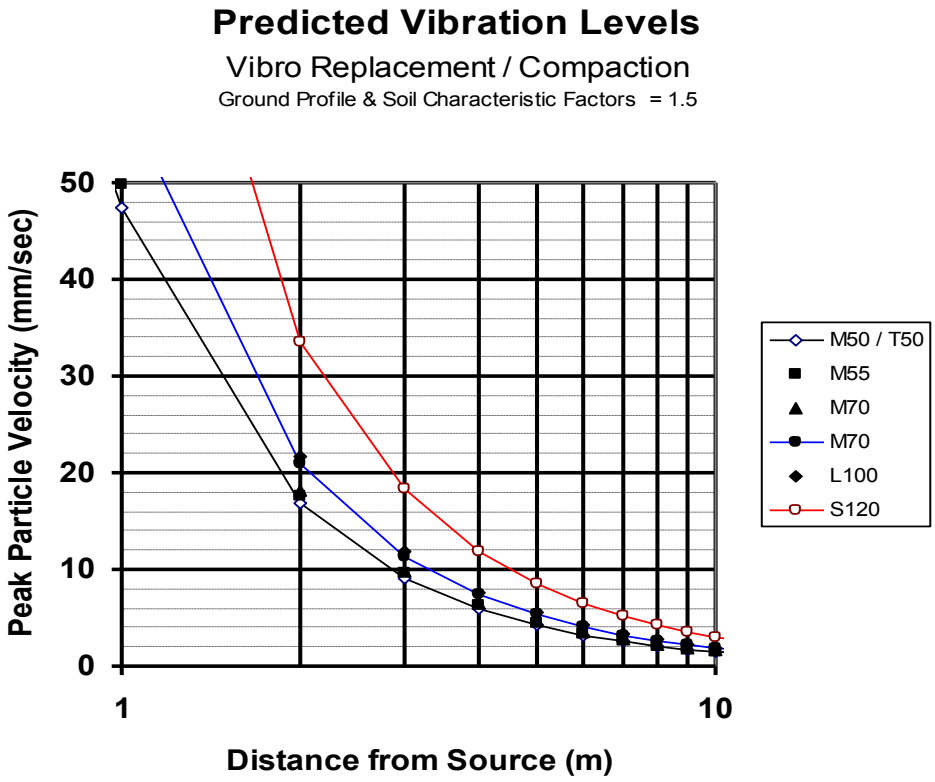
9.0 LIST OF PREPARERS



Steven Fiedler, INCE
Principal

APPENDICES



Source: Haywood Baker 2013

CHRISTIAN WHEELER
ENGINEERING

September 8, 2017

Din/Cal 4, Inc. CWE 2170347.03
3411 Richmond Avenue, Suite 200
Houston, Texas 77046
Attention: Josh Vasbinder

Subject: Response to LDR-Geology Cycle 3 Preliminary Review Comments
Proposed Witt Mission Valley Mixed-Use Project
588 Camino Del Rio North, San Diego, California

Reference: Report of Preliminary Geotechnical Investigation, Proposed Witt Mission Valley Mixed-Use Project, 588 Camino Del Rio North, San Diego, California, by Christian Wheeler Engineering, dated July 13, 2017, Report No. 2170347.01.

Ladies and Gentlemen:

In accordance with your request, we have prepared this report to provide additional information as requested by the City of San Diego in its LDR-Geology Cycle 3 comments dated August 17, 2017. Each City comment pertaining to our discipline and our corresponding response are presented below.

Issue Number 3: For the purposes of environmental review, the project's geotechnical consultant should circumscribe the area(s) of recommended remedial grading on the geologic/geotechnical map.

CWE Response: The geotechnical map (see Plate No. 1) has been revised to show the anticipated limits of remedial grading, which essentially include the entire site.

Issue Number 4: Provide representative geologic/geotechnical cross sections that show the existing and proposed grades, distribution of fill and geologic units, and the groundwater conditions.

CWE Response: Two representative cross-sections have been prepared and are included with this report as Plate Nos. 2 and 3.

Issue Number 5: Indicate if the proposed development will destabilize or result in settlement of adjacent property or the Right of Way.

CWE Response: Provided the recommended ground improvement is performed below the planned buildings, it is our opinion that the proposed development will not destabilize or result in settlement of adjacent property or the Right of Way.

If you have any questions after reviewing this report, please do not hesitate to contact our office. This opportunity to be of professional service is sincerely appreciated.

Respectfully submitted,

CHRISTIAN WHEELER ENGINEERING

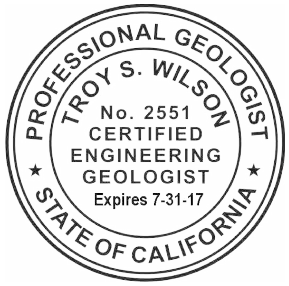
Shawn C. Caya, R.G.E #2748

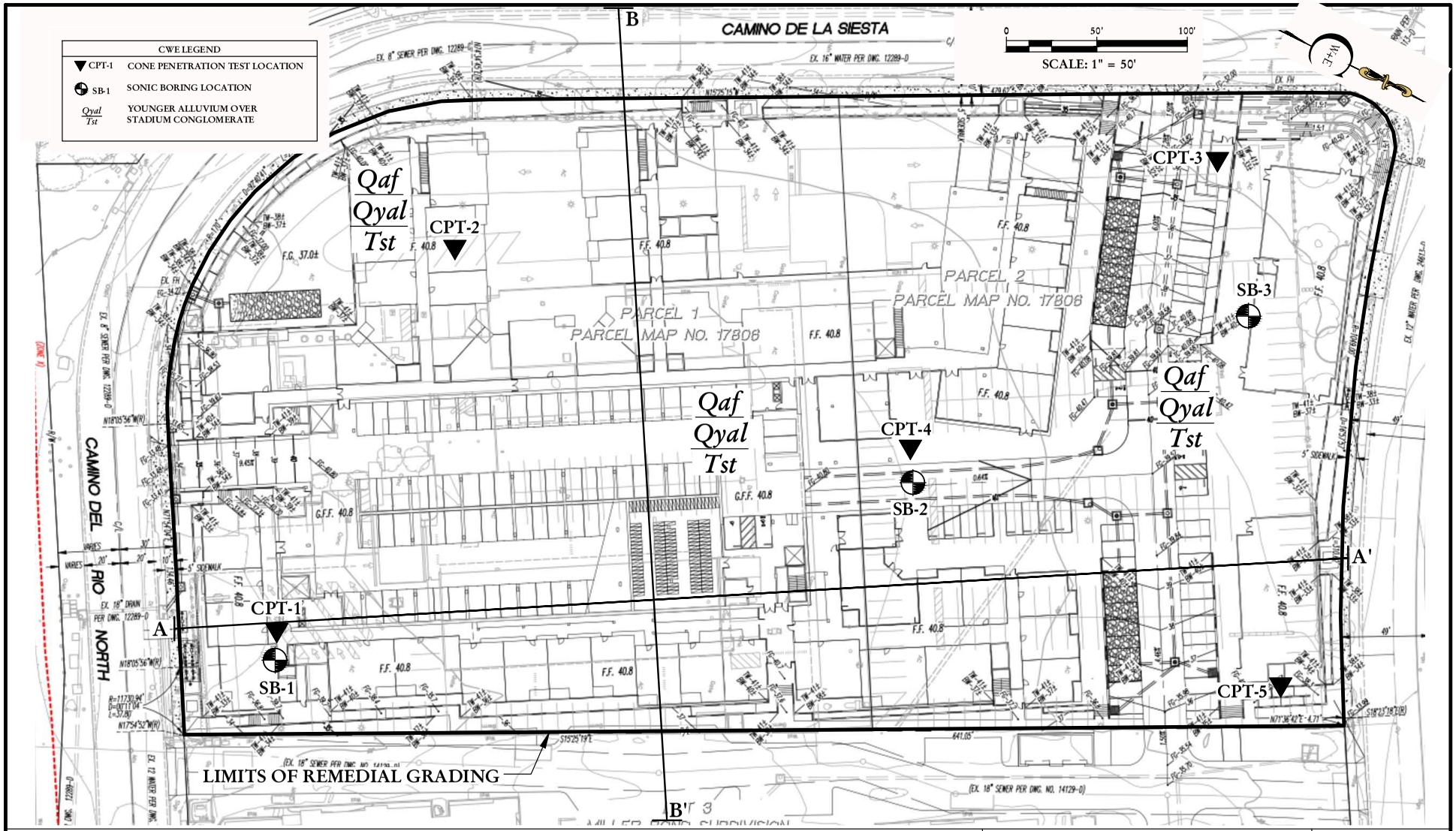
Troy S. Wilson, C.E.G. #2551

SCC:tsw

Attachments: Plate No. 1 – Site Plan and Geotechnical Map
Plate No. 2 – Cross-Section A-A'
Plate No. 3 – Cross-Section B-B'

Distribution: Josh Vasbinder via email
Karen Ruggels via email





PRELIMINARY GRADING PLAN AND GEOTECHNICAL MAP

WITT MISSION VALLEY 588 CAMINO DEL RIO NORTH SAN DIEGO, CALIFORNIA	
DATE: SEPTEMBER 2017	JOB NO.: 2170347.03
BY: SRD	PLATE NO.: 1

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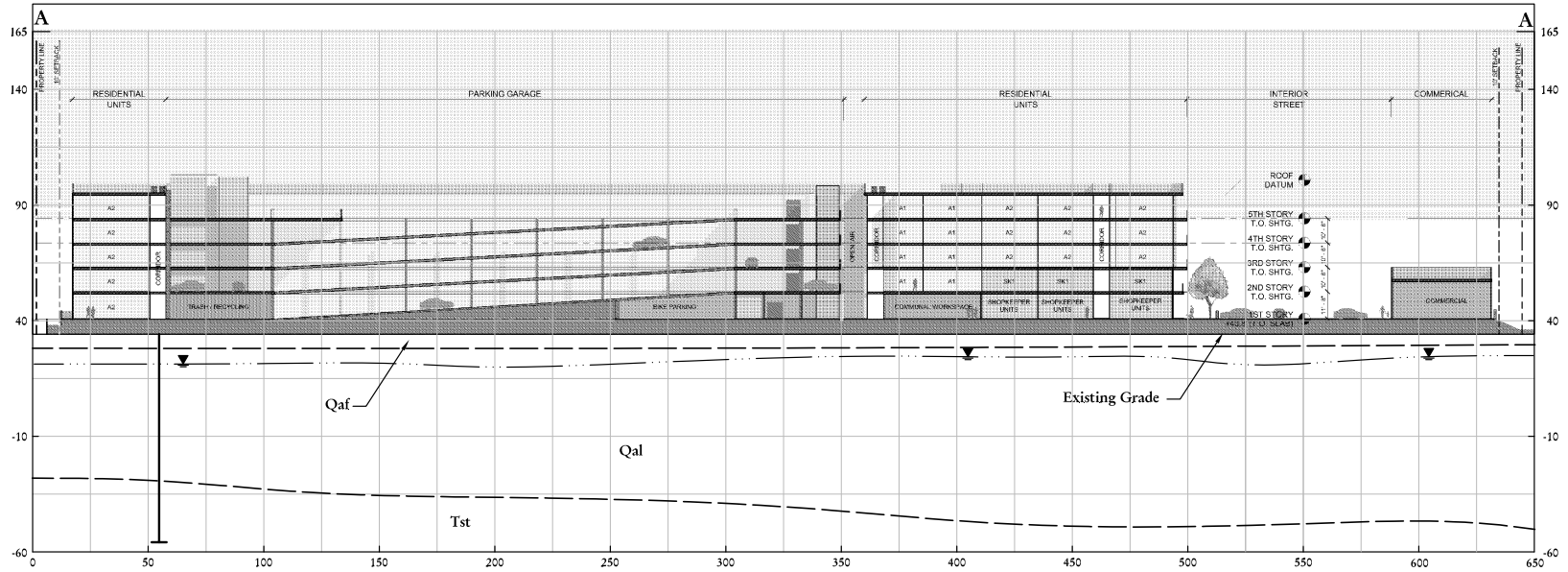

CWE LEGEND	
Qaf	ARTIFICIAL FILL
Qal	ALLUVIUM
Tst	STADIUM CONGLOMERATE
— —	GEOLOGIC CONTACT
▼	WATER TABLE

0 50' 100'

SCALE: 1" = 50'

GEOLOGIC CROSS SECTION A-A'

WJTT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	SEPTEMBER 2017	JOB NO.:	2170347.03
BY:	SD	PLATE NO.:	2

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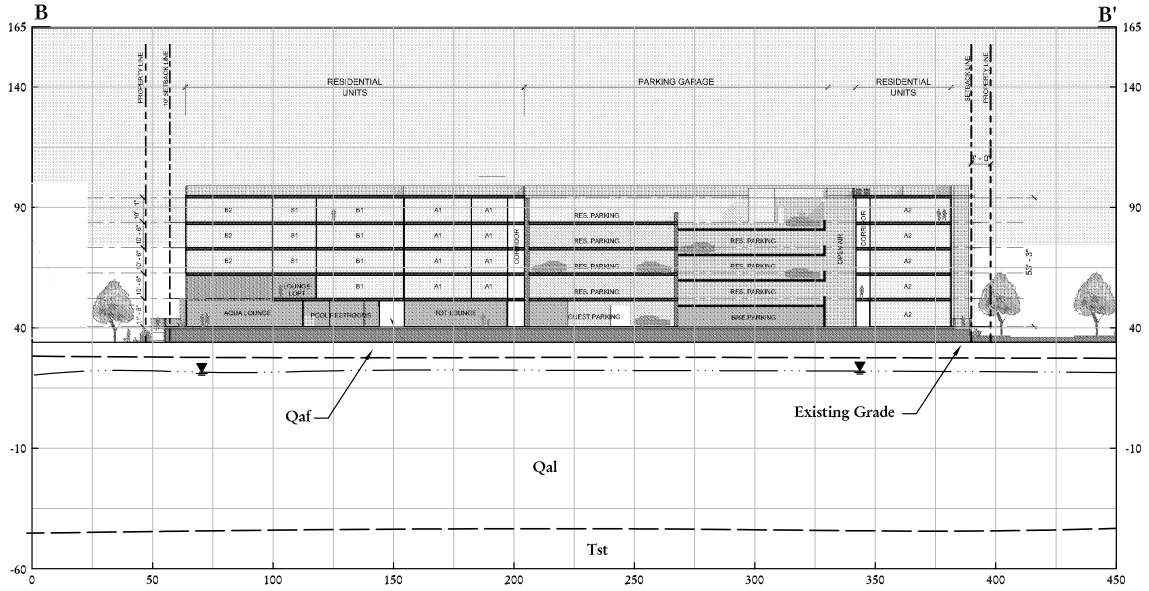

CWE LEGEND	
Qaf	ARTIFICIAL FILL
Qal	ALLUVIUM
Tst	STADIUM CONGLOMERATE
— —	GEOLOGIC CONTACT
▼	WATER TABLE

0 50' 100'

SCALE: 1" = 50'

GEOLOGIC CROSS SECTION B-B'

WJTT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	SEPTEMBER 2017	JOB NO.:	2170347.03
BY:	SD	PLATE NO.:	3

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ENGINEERING

REPORT OF PRELIMINARY GEOTECHNICAL INVESTIGATION

PROPOSED WITT MISSION VALLEY MIXED-USE PROJECT
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

PREPARED FOR

DIN/CAL 4, INC.
344 RICHMOND AVEUE, SUITE 200
HOUSTON, TEXAS 77046

PREPARED BY

CHRISTIAN WHEELER ENGINEERING
3980 HOME AVENUE
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CHRISTIAN WHEELER
ENGINEERING

July 13, 2017

Din/Cal 4, Inc.
344 Richmond Avenue, Suite 200
Houston, Texas 77046
Attention: Curtis Burnett

CWE 2170347.01

Subject: **Report of Preliminary Geotechnical Investigation**
Proposed Witt Mission Valley Mixed-Use Project
588 Camino Del Rio North, San Diego, California

Ladies and Gentlemen:

In accordance with our Proposal dated May 24, 2017, we have completed a preliminary geotechnical investigation for the subject project. We are presenting herein our findings and recommendations.

In general, we found the subject property suitable for the proposed construction, provided the recommendations provided herein are followed. Based on the results of our investigation, the most significant geotechnical conditions to affect the proposed construction are the presence of deep alluvial soils that are potentially liquefiable under earthquake loads and undocumented fill soils that are potential compressible under static additional loads. The liquefaction potential will require the planned buildings to be supported on deep foundations while the undocumented fills will require overexcavation and recompaction.

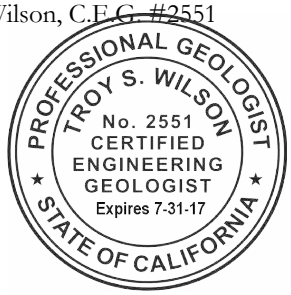
If you have any questions after reviewing this report, please do not hesitate to contact our office. This opportunity to be of professional service is sincerely appreciated.

Respectfully submitted,
CHRISTIAN WHEELER ENGINEERING

Shawn Caya, R.G.E. #2748

Troy S. Wilson, C.E.G. #2551

Distribution: (1) Curtis Burnett via email



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CHRISTIAN WHEELER
ENGINEERING

REPORT OF PRELIMINARY GEOTECHNICAL INVESTIGATION

PROPOSED MIXED-USE PROJECT
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

INTRODUCTION AND PROJECT DESCRIPTION

This report presents the results of a preliminary geotechnical investigation performed for a proposed mixed-use development to be constructed at 588 Camino Del Rio North in the Mission Valley area of the city of San Diego, California. The following Figure Number 1 presents a vicinity map showing the location of the project.

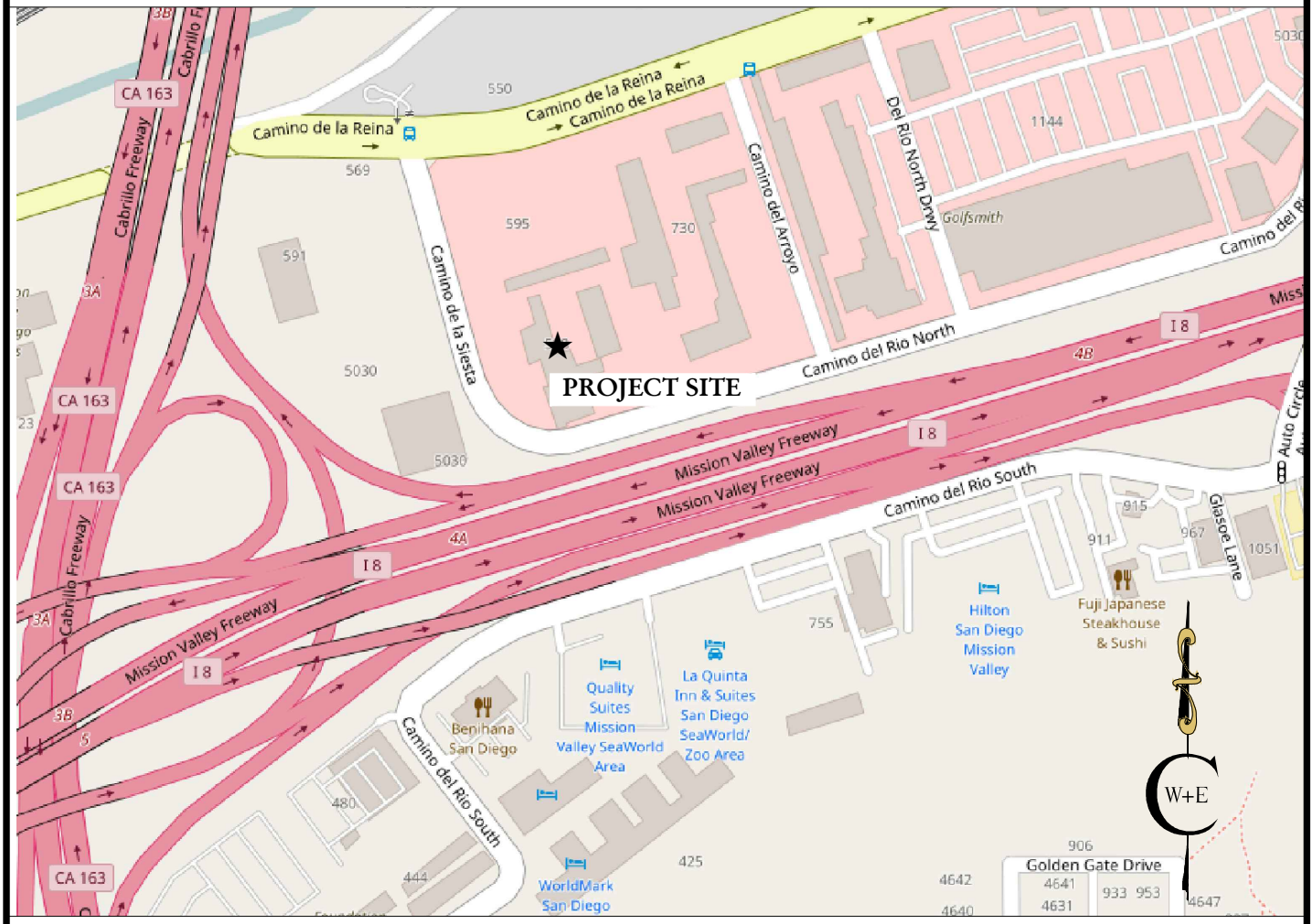
To assist in the preparation of this report, our firm has been given preliminary architectural plans prepared by TCA Architects (dated June 1, 2017) and a preliminary grading plan by Leppert Engineering. The grading plan has been used as the base for our geotechnical mapping, which is included herewith as Plate Number 1.

We understand that it is proposed to raze the existing improvements and redevelop the site with a mixed-use facility that will include residential, retail, and live/work uses. The structures are expected to range from 2 to 5 levels and will likely consist of wood-frame construction with concrete slab-on-grade floors. Additionally, a 4-level, reinforced concrete parking structure is planned in the south-central portion of the property. Grading might consist of raising the current site grades by about 2 to 8 feet based on flood plain concerns.
Based on our previous findings, we expect that the site is underlain by artificial fill material and relatively deep alluvial deposits that are in turn underlain by Tertiary-age sedimentary deposits referred to as the Stadium Conglomerate.

This report has been prepared for the exclusive use of Din/Cal 4, Inc. and its consultants for specific application to the project described herein. Should the project be modified, the conclusions and recommendations presented in this report should be reviewed by Christian Wheeler Engineering for conformance with our recommendations and to determine whether any additional subsurface investigation, laboratory testing and/or recommendations are necessary. Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, expressed or implied.

SITE VICINITY

© OpenStreetMap contributors



WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	1

CHRISTIAN WHEELER
ENGINEERING

PROJECT SCOPE

Our preliminary geotechnical investigation consisted of surface reconnaissance, subsurface exploration, obtaining representative soil samples, laboratory testing, analysis of the field and laboratory data and review of relevant geologic literature. More specifically, our intent was to provide the services listed below.

- Obtain the necessary permits from the County of San Diego Department of Environmental Health to perform the proposed subsurface explorations.
- Perform Cone Penetration Tests (CPTs) and drill sonic borings at multiple locations on-site to explore the existing subsurface conditions.
- Drill approximately four, 5-foot-deep test holes and measure the percolation rate in accordance with County Department of Environmental Health Standards. As allowed in Appendix D of the City BMP Design Manual, the measured percolation rates were be converted to infiltration rates using the Porchet Method.
- Backfill the boring holes using a grout or a grout/bentonite mix as required by the County of San Diego Department of Environmental Health.
- Evaluate, by laboratory tests and our past experience with similar soil types, the engineering properties of the various soil strata that may influence the proposed construction, including bearing capacities, expansive characteristics and settlement potential.
- Describe the general geology at the site, including possible geologic hazards that could have an effect on the proposed construction, and provide the seismic design parameters as required by the 2016 edition of the California Building Code.
- Address potential construction difficulties that may be encountered due to soil conditions, groundwater or geologic hazards, and provide geotechnical recommendations to deal with these difficulties.
- Quantitatively address the potential for soil liquefaction and dynamic settlement at the site in the event of a design level seismic event.
- Provide preliminary infiltration rates and discuss the feasibility of storm water infiltration at the site from a geotechnical perspective.
- Provide site preparation and grading recommendations for the anticipated work.
- Provide foundation recommendations for the type of construction anticipated and develop soil engineering design criteria for the recommended foundation designs.
- Provide design parameters for restrained and unrestrained retaining walls.
- Provide preliminary section recommendations for asphalt concrete and concrete pavements.

- Prepare this report, which includes, in addition to our conclusions and recommendations, a plot plan showing the areal extent of the geological units and the locations of our exploratory borings, exploration logs, and a summary of the laboratory test results.

Although a test for the presence of soluble sulfates within the soils that may be in contact with reinforced concrete was performed as part of the scope of our services, it should be understood Christian Wheeler Engineering does not practice corrosion engineering. If such an analysis is considered necessary, we recommend that the client retain an engineering firm that specializes in this field to consult with them on this matter. The results of these tests should only be used as a guideline to determine if additional testing and analysis is necessary.

FINDINGS

SITE DESCRIPTION

The subject site is a nearly-rectangular parcel of land bounded by Camino Del Rio North on the south, a mixed-use project currently under construction on the east, Camino De La Reina on the north, and Camino De La Siesta on the west. The site currently houses the Witt Lincoln car dealership and supports several buildings, mostly in the southern half, as well as asphalt paved parking lots. Topographically, the site is relatively flat-lying with elevations roughly ranging from 33 to 36 feet (NAVD88).

GENERAL GEOLOGY AND SUBSURFACE CONDITIONS

GEOLOGIC SETTING AND SOIL DESCRIPTION: The subject site is located in the Coastal Plains Physiographic Province of San Diego County in relatively close proximity to the San Diego River. Based on the results of our subsurface explorations, our experience in the vicinity of the site, and analysis of readily available, pertinent geologic and geotechnical literature, it was determined that the site is underlain by man-placed fill materials over a relatively thick layer of Quaternary-age alluvium and Tertiary-age sedimentary deposits locally referred to as the Stadium Conglomerate. The encountered subsurface materials are described below in order of increasing age:

ARTIFICIAL FILL (Qaf): Observed in each of our exploratory borings, man-placed fill materials were noted to extend to approximately 4 feet to 5 feet below the existing site grades. In general, the fill was noted to consist of medium grayish-brown, silty sands (SM) and poorly graded sands-silty sands (SP-SM), which were generally moist and medium dense to dense in consistency. Based on our

review experience with the neighboring site, it appears that the existing fill was placed around the year 1966.

ALLUVIUM (Qal): Underlying the fill materials on-site, Quaternary-age alluvium was encountered within each of our subsurface explorations. The alluvium, which is associated with the San Diego River basin, was encountered in our borings at depths of 4 feet to 5 feet below existing site grades and extended to depths of 64 feet to 82 feet below grade. In general, the alluvium was observed to consist of interbedded gray to grayish-brown, silty sands (SM), poorly graded sands (SP), and poorly graded sands-silty sands (SP-SM) with slightly lesser amounts of sandy silts (ML), sandy silts/silty sands (ML/SM) and sandy silts/sandy clays (ML/CL). Typically, the sandy portions of the alluvium were noted to be loose to medium dense while the silty and clayey portions were medium stiff in consistency. Layers of well graded gravels (GW) with cobble were also encountered below a depth of about 50 to 60 feet below the existing grades. The alluvial materials were generally moist above the water table and saturated below.

STADIUM CONGLOMERATE (Tst): Tertiary-age sedimentary deposits, locally referred to as the Stadium Conglomerate, were encountered below the alluvium at approximate depths of 64, 79, and 82 feet in our borings B-1, B-2, and B-3, respectively. In general, the encountered Stadium Conglomerate was observed to consist of greenish-gray, damp, very dense, clayey gravel (GC). Within boring B-1 from roughly 64 to 73 feet below grade, the encountered material consisted of light yellowish-brown, damp, very dense, silty gravel (GM) and clayey gravel (GC).

GROUNDWATER: Groundwater was measured within our Cone Penetration Tests at approximate depths ranging from 9 to 13 feet below the existing grade. Based on the topographic plan provided by Leppert Engineering, these depths correspond to approximate elevations between 21 and 25 feet. Monitoring well data provided on the GeoTracker website for wells located near the subject property indicate groundwater elevations of approximately 25 to 26 feet. It should be noted that variations in subsurface water (including perched water zones and seepage) may result from fluctuations in the ground surface topography, subsurface stratification, precipitation, irrigation, and other factors that may not have been evident at the time of the investigation. It should also be recognized that minor groundwater seepage problems might occur after development of a site even where none were present before development. These are usually minor phenomena and are often the result of an alteration in drainage patterns and/or an increase in irrigation water. It is further our opinion that these problems can be most effectively corrected on an individual basis if and when they occur.

TECTONIC SETTING: No faults are known to traverse the subject site. However, it should be noted that much of Southern California, including the San Diego County area, is characterized by a series of Quaternary-age fault zones that consist of several individual, en echelon faults that generally strike in a northerly to northwesterly direction. Some of these fault zones (and the individual faults within the zone) are classified as "active" according to the criteria of the California Division of Mines and Geology. Active fault zones are those that have shown conclusive evidence of faulting during the Holocene Epoch (the most recent 11,000 years).

The Division of Mines and Geology used the term "potentially active" on Earthquake Fault Zone maps until 1988 to refer to all Quaternary-age (last 1.6 million years) faults for the purpose of evaluation for possible zonation in accordance with the Alquist-Priolo Earthquake Fault Zoning Act and identified all Quaternary-age faults as "potentially active" except for certain faults that were presumed to be inactive based on direct geologic evidence of inactivity during all of Holocene time or longer. Some faults considered to be "potentially active" would be considered to be "active" but lack specific criteria used by the State Geologist, such as *sufficiently active* and *well-defined*. Faults older than Quaternary-age are not specifically defined in Special Publication 42, Fault Rupture Hazard Zones in California, published by the California Division of Mines and Geology. However, it is generally accepted that faults showing no movement during the Quaternary period may be considered to be "inactive". The City of San Diego guidelines indicate that since the beginning of the Pleistocene Epoch marks the boundary between "potentially active" and "inactive" faults, unfaulted Pleistocene-age deposits are accepted as evidence that a fault may be considered to be "inactive".

A review of available geologic maps indicates that the active Rose Canyon Fault Zone is located approximately 2.1 kilometers to the west of the subject site. Other active fault zones in the region that could possibly affect the site include the Coronado Bank Fault Zone to the west, the Newport-Inglewood and Palos Verdes Fault Zones to the northwest, and the Elsinore and Earthquake Valley Fault Zones to the northeast. The following Table I presents those proximal, active faults, which are anticipated to most significantly contribute to the ground-motion hazard at the site.

TABLE I: PROXIMAL FAULT ZONES

Fault Zone	Distance	Max. Magnitude Earthquake
Rose Canyon	2.1 km	7.2 Magnitude
Coronado Bank	23 km	7.6 Magnitude
Newport-Inglewood	50 km	7.1 Magnitude
Elsinore (Julian)	62 km	7.1 Magnitude
Earthquake Valley	71 km	6.5 Magnitude
Palos Verdes	93 km	7.3 Magnitude
San Andreas	144 km	8.0 Magnitude

GEOLOGIC HAZARDS

SEISMIC SAFETY STUDY: The subject site is located within Geologic Hazard Category 31 of the City of San Diego Seismic Safety Study. Geologic Hazard Category 31 refers to areas which possess a high potential for soil liquefaction due to such factors as shallow groundwater, location within major drainages, and the presence of hydraulic fills. A discussion of the results of our detailed analyses of the liquefaction potential at the site is presented below in the "Liquefaction" section of this report.

SEISMIC HAZARD: A likely geologic hazard to affect the site is ground shaking as a result of movement along one of the major active fault zones mentioned in the "Tectonic Setting" section of this report. Per Chapter 16 of the 2016 California Building Code (CBC), the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground acceleration is that which results in the largest maximum response to horizontal ground motions with adjustments for a targeted risk of structural collapse equal to one percent in 50 years. Figures 1613.3.1(1) and 1613.3.1(2) of the CBC present MCE_R accelerations for short (0.2 sec.) and long (1.0 sec.) periods, respectively, based on a soil Site Class B (CBC 1613.3.2) and a structural damping of five percent. For the subject site, correlation with the known properties of the underlying bedrock indicates that the upper 100 feet of geologic subgrade can be characterized as Site Class D. In this case, the mapped MCE_R accelerations are modified using the Site Coefficients presented in Tables 1613.3.3(1) and (2). The modified MCE spectral accelerations are then multiplied by two-thirds in order to obtain the design spectral accelerations. These seismic design parameters for the subject site (32.7656°, -117.1597°), based on Chapter 16 of the CBC, are presented in Table II below.

TABLE II: CBC 2016 EDITION – SEISMIC DESIGN PARAMETERS

CBC – Chapter 16 Section	Seismic Design Parameter	Recommended Value
Section 1613.3.2	Soil Site Class	D
Figure 1613.3.1 (1)	MCE_R Acceleration for Short Periods (0.2 sec), S_s	1.160 g
Figure 1613.3.1 (2)	MCE_R Acceleration for 1.0 Sec Periods (1.0 sec), S_1	0.446 g
Table 1613.3.3 (1)	Site Coefficient, F_a	1.036
Table 1613.3.3 (2)	Site Coefficient, F_v	1.554
Section 1613.3.3	S_{MS} = MCE_R Spectral Response at 0.2 sec. = $(S_s)(F_a)$	1.202 g
Section 1613.3.3	S_{M1} = MCE_R Spectral Response at 1.0 sec. = $(S_1)(F_v)$	0.693 g
Section 1613.3.4	S_{DS} = Design Spectral Response at 0.2 sec. = $2/3(S_{MS})$	0.801 g
Section 1613.3.4	S_{D1} = Design Spectral Response at 1.0 sec. = $2/3(S_{M1})$	0.462 g
Section 1803.2.12	PGA_M per Section 11.8.3 of ASCE 7	0.51 g

It can be noted that also per Table 1613.5.2, sites underlain by liquefaction-susceptible soils should be designated as site class F, requiring a dynamic site response analysis. However, as discussed in Section 20.3.1 of ASCE Standard 7 "Minimum Design Loads for Buildings and Other Structures", for structures having fundamental periods of vibration equal to or less than 0.5 second, it is not required to perform a dynamic site response

analysis. We expect that the proposed structure will have a fundamental period less than 0.5 second and can therefore be designed using soil Site Class D as described previously.

LANDSLIDE POTENTIAL AND SLOPE STABILITY: As part of this investigation we reviewed the publication, "Landslide Hazards in the Southern Part of the San Diego Metropolitan Area" by Tan, 1995. This reference is a comprehensive study that classifies San Diego County into areas of relative landslide susceptibility. The site is located in Area 1, which is considered to be the least susceptible to slope failures.

FLOODING: As delineated on the Flood Insurance Rate Map (Panel 1618F) prepared by the Federal Emergency Management Agency, the site is located within Zone AE, which has a one percent annual chance of flood (100 year flood).

TSUNAMIS: Tsunamis are great sea waves produced by submarine earthquakes or volcanic eruptions. According to the San Diego County Multi-Jurisdictional Hazard Mitigation Plan, the project site is located outside the limits of the maximum projected tsunami runup.

SEICHES: Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays or reservoirs. The risk potential for damage to the subject site caused by seiches is relatively low.

LIQUEFACTION

GENERAL: The subject site is in an area considered susceptible to liquefaction. In order to be subject to liquefaction, three conditions must be present: loose sandy or cohesionless silty deposits, shallow groundwater, and earthquake shaking of sufficient magnitude and duration. Based on our site-specific study, it appears that shallow groundwater is present at the site and strong earthquake shaking may affect the site. Additionally, as described in the Geologic Setting and Soil Description section of this report above, the materials below the shallow water table in the project area consist of Holocene-age alluvial deposits that contain layers of sand, silty sand, and low to medium plasticity silts (ML) that are expected to have soil properties conducive to liquefaction.

It should be noted that the following discussion is in no way a guarantee that the analysis will accurately predict the liquefaction potential at the site. The analysis provides general information only on the site liquefaction potential. It should be noted that many of the parameters used in liquefaction evaluations are subjective and open to interpretation, and that much is yet unknown about both the seismicity of the San Diego area and the phenomenon of liquefaction.

DESCRIPTION OF ANALYSIS: Our analysis was performed using the Cliq (version 2.1) software developed by Geologismiki, in which the results of our CPT soundings were input and evaluated in accordance with the procedure recommended by the National Center For Earthquake Engineering Research (NCEER, 1998). An algorithm was applied within the software to make corrections for thin stiff layers embedded within softer zones (Robertson, 2009). Our analyses were limited to the upper 50 feet of the existing soils as liquefaction below that depth is not considered to have a significant effect on surface improvements. Additionally, the gravel/cobble layer that mantles the Stadium Conglomerate is not considered to be susceptible to liquefaction based on its density, grain size distribution, age, and depth.

EARTHQUAKE PARAMETERS: As permitted in Section 1803.5.12 of the California Building Code, our calculations were performed using a peak ground acceleration (PGA_M = 0.51g) as determined using the procedures set forth in Section 11.8.3 of ASCE 7-10. We have also performed a seismic hazard deaggregation using the interactive program available on the U. S. Geological Survey website. Within the USGS program, the site coordinates were entered and a deaggregation was performed based on the peak ground acceleration with two percent probability of exceedance in 50 years (0.47g) for soil with Vs^{30} = 200 m/s (Soil Site Class D). For the subject site, this yielded a modal earthquake magnitude of 6.6. Based on this result and the proximity of the site to the Rose Canyon and Coronado Bank Fault Zone, we have used an earthquake magnitude of 6.9 in our liquefaction evaluation.

POTENTIAL FOR LIQUEFACTION: Using the parameters described above, the results of our liquefaction analyses indicate that much of the saturated sandy and silty portions of the alluvium below the water table possess factors-of-safety against soil liquefaction of less than 1.0 and are therefore considered liquefiable.

POST LIQUEFACTION RECONSOLIDATION SETTLEMENT: The potential amount of total vertical settlement due to reconsolidation of the liquefied soils was estimated within the Cliq software using the methods presented by Zhang et al, 2002. The estimated settlements for the four CPT soundings performed on-site ranged from approximately 3½ to 6½ inches. It can be noted that, for sites with relatively small lateral displacement (i.e. less than one foot), predicted settlements are typically within a factor of two relative to those observed (Seed et al, 2003).

In terms of differential settlement, CGS Special Publication 117 notes that considerable difficulty exists in trying to "reliably estimate" the amount of differential settlement at a site caused by soil liquefaction. As such, a conservative estimate of differential settlement at any given site can be assumed to be two-thirds of the total liquefaction-induced settlement (CGS, 2008). Using this criterion, without any deep ground modification

procedures, the subject project area may be assumed to be subject to approximately 4 inches of liquefaction-induced, differential settlement.

LATERAL SPREADING: Lateral ground spreading can occur when viscous liquefied soils flow downslope, usually towards a river channel or shoreline. Such factors as the gently sloping nature of the site and surrounding areas and the relatively gentle hydraulic gradient of the water table across the area are considered favorable with regards to limiting potential lateral spreading.

Furthermore, it should be recognized that, as presented in the referenced Conetec literature (2002), which was based on the work of Robertson and Wride (1998) and Zhang, Robertson and Brachman (2002) and which describes the use of the CPT method to estimate cyclic resistance ratios and liquefaction-induced soil deformation:

> "The equivalent clean sand normalized tip resistance $(q_{c1n})_{cs}$ can also be used as an estimate for possible flow liquefaction (Yoshimine et al., 1999). Based on the soil behavior index, the normalized tip resistance can be adjusted to account for the influence of fines (Robertson and Wride, 1998). The resulting value is the clean sand equivalent normalized tip resistance $(q_{c1n})_{cs}$. Yoshimine et al., (1999) showed that soils with a minimum undrained shear strength less than 0.1 had a tendency to be very brittle. They also showed that soils with an equivalent clean sand normalized CPT tip resistance of 50 had an undrained shear strength ratio in simple shear loading of around 0.1. Hence, Yoshimine et al. (1999) suggested that soils with an equivalent clean sand normalized CPT tip resistance less than 50 could be strain softening in simple shear loading and could also be very brittle. For flow liquefaction failure (i.e. flow slide) to occur requires a trigger event and a sufficient volume of strain softening soils where the resulting minimum undrained shear strength is less than the insitu static shear stress. The profiles of $(q_{c1n})_{cs}$ should be reviewed carefully to identify either large volumes or continuous layers of soils with values less than 50."

Based on this criteria for identifying potentially strain softening soil layers, we have reviewed the clean sand equivalent normalized tip resistance values ($Q_{tn,cs}$)of the soil layers encountered in each of the five CPT soundings advanced on-site (see Appendix D). As presented on the plots of each CPT sounding, no significant volumes or continuous layers of such potentially strain softening soils were encountered in our subsurface explorations. In fact, although much of the alluvium near or below the water table demonstrates relatively loose consistencies and low levels of cohesion, not a single layer of soil was noted in our CPT soundings and subsequent analysis that demonstrates equivalent clean sand normalized tip resistance values ($Q_{tn,cs}$)of less than 50.

As such, although the site is both underlain by soils considered to be subject to liquefaction and is within relatively close proximity to the San Diego River channel, due to the absence of potentially stain softening ($(q_{c1n})_{cs}$<50), liquefiable soils beneath the site it is our professional opinion and judgment that the likelihood of downslope lateral spread displacements is low.

CONCLUSIONS

In general, we found that the subject site is suitable to support the proposed development provided the foundation and site preparation recommendations presented herein are followed. The main geotechnical and geologic conditions that will impact the proposed construction are the presence of deep, relatively loose alluvial soils that are subject to liquefaction during a major seismic event and undocumented fill soils that are potentially compressible under additional loads.

Based on the CPT data, we have determined that the site is subject to 3½ to 6½ inches of post-liquefaction reconsolidation settlement under the design earthquake loading. This equates to a rough differential settlement estimate of 5 inches. Good engineering practice requires that where the evaluation indicates that liquefaction is likely (or reasonably possible), the hazards that might reasonably be caused by liquefaction, that could result in the collapse of a structure and/or loss of life be mitigated. In our opinion, this level of life safety can be achieved by reducing the estimated post-liquefaction reconsolidation settlement to 4 inches or less. We understand that it is the intent of the developer to support the buildings on augercast piles such that the estimated total post-liquefaction settlement is reduced to 2 inches or less.

In addition to the deep foundations for liquefaction mitigation, it will also be necessary to perform remedial grading for areas to support new fill and/or settlement-sensitive improvements. In general, this will include overexcavating the existing soils to depths ranging from 3 to 5 feet below the existing grade and replacing the material as properly compacted, structural fill.

RECOMMENDATIONS

GRADING AND EARTHWORK

GENERAL: All grading should conform to the guidelines presented in Appendix J of the California Building Code, the minimum requirements of the City of San Diego, and the recommended Grading Specifications and Special Provisions attached hereto, except where specifically superseded in the text of this report. Prior to grading, a representative of Christian Wheeler Engineering should be present at the pre-construction meeting to provide additional grading guidelines, if necessary, and to review the earthwork schedule.

OBSERVATION OF GRADING: Continuous observation by the Geotechnical Consultant is essential during the grading operation to confirm conditions anticipated by our investigation, to allow adjustments in design criteria to reflect actual field conditions exposed, and to determine that the grading proceeds in general accordance with the recommendations contained herein.

CLEARING AND GRUBBING: Site preparation should begin with the removal of the existing improvements that are designated for demolition. The removals should include all abandoned utilities, foundations, slabs, vegetation, construction debris and other deleterious materials from the site. This should include all significant root material. The resulting materials should be disposed of off-site in a legal dumpsite.

SITE PREPARATION: The following recommendations are based on the assumption that all existing site materials are suitable for reuse on the site and are not considered contaminated or otherwise are unsuitable. We recommend that the site preparation consist of overexcavating the existing fill soils and replacing them as properly compacted, structural fill. Based on the results of our subsurface explorations, we expect that the required overexcavation depth will typically be about 5 feet below the existing ground surface. Horizontally, we recommend that the overexcavation extend at least five feet outside areas to receive fill and/or settlement-sensitive improvements or to the property line, whichever distance is less.

The Geotechnical Consultant should observe the overexcavation operations and the base of removal areas prior to either filling or the construction of improvements. If soft or otherwise unsuitable soils are exposed at the removal bottom, it might be necessary to perform additional excavation or to stabilize the bottom. Specific recommendations will need to be made on a case-by-case basis.

EXCAVATION CHRACTERISTICS: Based on our exploratory excavations, the subsurface materials at the site appear to be excavatable to the anticipated excavation depths with conventional heavy-duty earthmoving equipment in good operating condition. Significant caving of the exploratory excavations was not encountered at the time of our subsurface explorations. However, due to the locally loose condition of the existing shallow materials encountered in our exploratory excavations, it should be expected that excavations in the alluvial materials could experience localized caving and sloughing. Additionally, soft or spongy soils may be encountered that will necessitate lightweight equipment and/or top-loading with an excavator. It should also be noted that there may be some concrete footings and/or other debris that are associated with the previous uses of the site.

IMPORTED FILL MATERIAL: Soils to be imported to the site should be evaluated and approved by the Geotechnical Consultant prior to being imported. At least five working days' notice of a potential import source should be given to the Geotechnical Consultant so that appropriate testing can be accomplished. The

type of material considered most desirable for import is granular material containing some silt or clay binder, which has an expansion index of less than 50. At least 75 percent of the material should pass through the Standard #4 sieve and 15 to 35 percent of the material should pass through the Standard # 200 sieve. Soils not meeting there criteria should not be used for structural fill or backfill.

PROCESSING FILL AREAS: Prior to placing any new fill soils or constructing any new improvements in areas that have been cleaned out to receive fill, the exposed soils should be scarified to a depth of about 12 inches, moisture-conditioned, and compacted to at least 90 percent relative compaction.

COMPACTION AND METHOD OF FILLING: All structural fill and backfill material placed at the site should be compacted to a relative compaction of at least 90 percent of maximum dry density as determined by ASTM Laboratory Test D1557. Fills should be placed at a moisture content one to three percent above the optimum moisture content, in lifts six to eight inches thick, with each lift compacted by mechanical means. Fills should consist of approved earth material, free of trash or debris, roots, vegetation, or other materials determined to be unsuitable by our soil technicians or project geologist. Fill material should be free of rocks or lumps of soil in excess of six inches in maximum dimension. Chunks of asphalt concrete and concrete may be incorporated into the fills provided they are broken into pieces less than 6 inches in maximum dimension and are mixed with soil fill materials.

All utility trench backfill should be compacted to a minimum of 90 percent of its maximum dry density. The upper twelve inches of subgrade beneath paved areas should be compacted to 95 percent of the materials maximum dry density. This compaction should be obtained by the paving contractor just prior to placing the aggregate base material and should not be part of the mass grading requirements or operation.

TEMPORARY CUT SLOPES: The contractor is solely responsible for designing and constructing stable, temporary excavations and will need to shore, slope, or bench the sides of trench excavations as required to maintain the stability of the excavation sides. The contractor's "competent person", as defined in the OSHA Construction Standards for Excavations, 29 CFR, Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety process. We anticipate that the existing on-site soils will consist of Type C material. Our firm should be contacted to observe all temporary cut slopes during grading to ascertain that no unforeseen adverse conditions exist. No surcharge loads such as foundation loads, or soil or equipment stockpiles, vehicles, etc. should be allowed within a distance from the top of temporary slopes equal to half the slope height.

SURFACE DRAINAGE: The ground around the proposed structure should be graded so that surface water flows rapidly away from the structure without ponding. In general, we recommend that the ground adjacent to

structure slope away at a gradient of at least 5 percent for a minimum distance of 10 feet. If the minimum distance of 10 feet cannot be achieved, an alternative method of drainage runoff away from the building at the termination of the 5 percent slope will need to be used. Swales and impervious surfaces that are located within 10 feet of the building should have a minimum slope of 2 percent. Rain gutters with downspouts that discharge runoff away from the structure into controlled drainage devices are also recommended.

GRADING PLAN REVIEW: The final grading plans should be submitted to this office for review in order to ascertain that the geotechnical recommendations remain applicable to the final plan and that no additional recommendations are needed due to changes in the anticipated development. Our firm should be notified of changes to the proposed project that could necessitate revisions of or additions to the information contained herein.

CONVENTIONAL SHALLOW FOUNDATIONS

GENERAL: Site retaining walls and other exterior structures can be supported by conventional footings that are founded in compacted fill soil as discussed in the "Grading and Earthwork" section of this report. The following recommendations are considered the minimum based on the anticipated soil conditions and are not intended to be in lieu of structural considerations. All foundations should be designed by a qualified structural engineer.

DIMENSIONS: New spread footings supporting site retaining walls should be embedded at least 18 inches below the finish pad grade and should have a minimum width of 24 inches. New spread footings supporting other miscellaneous structures should be embedded at least 12 inches below the finish pad grade and should have minimum widths of 12 and 24 inches for continuous and isolated footings, respectively.

Based on the existing soil conditions, the allowable bearing capacity for foundations with an embedment of 12 inches below finish pad grade and a width of 12 inches is 2,400 pounds per square foot (psf). The allowable bearing capacity can by increase by 500 psf and 200 psf for each additional foot of embedment or width, respectively, up to a maximum of 3,000 psf. The allowable bearing capacity may be increased by one-third for combinations of temporary loads, such as those due to wind or seismic loads.

FOOTING REINFORCING: Reinforcement requirements for foundations should be provided by a structural engineer. However, based on the anticipated soil conditions, we recommend that the minimum reinforcing for light miscellaneous structures supported by continuous footings consist of at least two No. 5 bars positioned near the bottom of the footing and at least two No. 5 bars positioned near the top of the footing.

LATERAL LOAD RESISTANCE: Lateral loads against foundations may be resisted by friction between the bottom of the footing and the supporting soil, and by the passive pressure against the footing. The coefficient of friction between concrete and soil may be considered to be 0.35. The passive resistance may be considered to be equal to an equivalent fluid weight of 350 pounds per cubic foot. This assumes the footings are poured tight against undisturbed soil. If a combination of the passive pressure and friction is used, the friction value should be reduced by one-third.

SETTLEMENT CHARACTERISTICS: As discussed previously, we expect that stone columns will be installed below the planned buildings and parking structure such that the potential total settlement due to liquefaction is mitigated to two inches or less. With the inclusion of stone columns, we estimate that the differential settlement due to liquefaction will be approximately one-half of the total, which equates to about one inch. This differential settlement can be assumed to occur between two adjacent, independently supported columns. For static conditions, the anticipated total and differential foundation settlement is expected to be less than about 1 inch and ¾ inch over 40 feet, respectively. It should be recognized that minor cracks normally occur in concrete slabs and foundations due to shrinkage during curing or redistribution of stresses, therefore some cracks should be anticipated. Such cracks are not necessarily an indication of excessive vertical movements.

EXPANSIVE CHARACTERISTICS: The anticipated foundation soils are expected to have a low expansion potential (E.I. less than 50). The recommendations presented in this report reflect this condition.

FOUNDATION PLAN REVIEW: The final foundation plan and accompanying details and notes should be submitted to this office for review. The intent of our review will be to verify that the plans used for construction reflect the minimum dimensioning and reinforcing criteria presented in this section and that no additional criteria are required due to changes in the foundation type or layout. It is not our intent to review structural plans, notes, details, or calculations to verify that the design engineer has correctly applied the geotechnical design values. It is the responsibility of the design engineer to properly design/specify the foundations and other structural elements based on the requirements of the structure and considering the information presented in this report.

FOUNDATION EXCAVATION OBSERVATION: Footing excavations should be observed by the Geotechnical Consultant prior to placing reinforcing steel to verify that a suitable bearing stratum has been reached and that the dimensions of the excavations meet the minimums required above. All footing excavations should be excavated neat, level and square. All loose or unsuitable material should be removed from shallow and deep foundation excavations prior to the placement of concrete.

AUGERCAST PILES

GENERAL: Based on the potential for liquefaction of the upper alluvial soils, we recommend that augercast piles extend through the alluvium and be embedded in the underlying Stadium Conglomerate in order to provide adequate end bearing capacity during liquefaction from a design seismic event. Based on the boring results, we anticipate that the pile depths required to achieve minimal embedment into the Stadium Conglomerate will vary from about 70 feet below the existing grade in the southern portion of the site to 85 feet in the northern portion. We understand that 24-inch diameter augercast piles are being considered for the parking structure while 18-inch diameter augercast piles are being considered for the remaining structures. The project structural engineer should design all pile locations, dimensions, and reinforcing using the recommendations and design parameters presented below.

AXIAL CAPACITY: The ultimate axial capacities were estimated using the results of our Cone Penetration Tests in conjunction with the LCPC CPT method (Bustamante and Gianeselli, 1983). Table III presents a summary of the estimated allowable capacities for dead plus live load conditions based on a combination of the end bearing and side friction resistance of a single pile. The ultimate capacities were determined based on a static settlement of one inch or less. The allowable capacities include a safety factor of three for end bearing and two for side friction. Embedment depth is based on the current site elevations. Provided the pile center-to-center spacing is at least three pile diameters, group effects can be neglected.

TABLE III: AUGERCAST PILE DESIGN CAPACITIES

Pile Diameter (in)	Embedment Depth (ft)	Allowable Downward Capacity (kips)	Allowable Uplift Capacity (kips)
18	70	382	216
	75	403	232
	80	424	247
	85	444	263
24	70	552	289
	75	579	309
	80	606	330
	85	634	350

LIQUEFACTION/DOWNDRAG: As discussed above, the subject site is located in an area that is considered susceptible to soil liquefaction during the design seismic event. We understand that the design goal is to limit the total building settlement due to liquefaction to 2 inches. We have evaluated the liquefaction

settlement effects on the piles using the neutral plane approach as described by Fellenius (2004). The neutral plane defines the location along the pile where the resisting force and loading forces are in equilibrium and no relative movement occurs between the shaft and the soil (e.g. the soil and pile settle equally). To determine the maximum allowable dead load based on the limiting liquefaction settlement of 2 inches, we have taken the neutral plane to be at 10 feet above the Stadium Conglomerate with a maximum depth of 70 feet below the existing grade. We have presumed that during the design liquefaction event, resistance will be provided entirely by end bearing of the pile within the underlying Stadium Conglomerate. The resulting design values are provided in Table IV.

For structural design, the maximum pile load can be taken at the neutral plane and equals the downdrag load plus the dead load. The neutral plane depth (see Table IV) should be taken from the finish pad grade. The structural capacity of the pile should exceed the maximum load by an appropriate factor of safety determined by the structural engineer.

TABLE IV: AUGERCAST PILE LIQUEFACTION DESIGN CAPACITIES

Pile Diameter (in)	Embedment Depth (ft)	Neutral Plane Depth (ft)	Downdrag Load (kips)	Max Allowable Dead Load (kips)
18	70	50	412	300
	75	50	412	225
	80+	50	412	150
24	70	50	550	650
	75	50	550	538
	80+	50	550	425

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LPILE SOIL PARAMETERS: We understand that the project structural engineer will evaluate the lateral capacity of the augercast piles using the computer program LPILE. Table V provides a summary of the recommended soil parameters to be used in the evaluation. The soil depths are taken from the proposed finish floor elevation of 40.0 feet. The lateral resistance should be neglected for any portion of the pile above a 1:1 projection extended upward from the bottom of an adjacent retaining wall.

Group effects can be neglected for piles with a center-to-center spacing equal to 7 pile diameters or greater. For pile groups with center-to-center spacing closer than 7 piles diameters, a p-multiplier should be applied in the direction of loading to the p-y curves as shown in Table VI below.

TABLE V: LPILE SOIL PARAMETERS

Depth (ft)	Soil Type (For p-y curve model in LPILE)	Unit Weight (pci)	Friction (degrees)	k Value (pci)
0 – 15	Sand	0.066	35	90
15 – 50	Liquefiable Sand	0.038	--	--
50 – 90	Sand	0.075	42	225

TABLE VI: LPILE P-MULTIPLIER FOR GROUP EFFECTS

Center-to-Center Spacing in Pile Diameters	p-multiplier		
	First (Leading) Row	Second Row	Third Row
6	0.90	0.90	0.80
5	0.85	0.80	0.70
4	0.80	0.70	0.60
3	0.75	0.55	0.40

AUGER-CAST PILE CONSTRUCTION CONSIDERATIONS: The performance of auger-cast piles is dependent to a great extent on proper installation technique. We recommend that a contractor familiar and experienced with the installation of augercast piles be retained on the project. The following items should be considered during the construction of auger-cast piles:

- The rate of drilling penetration and rotation should be maintained at a level such that the auger is advanced without excessive mining of the soil along the pile sides.
- Once the required tip elevation is reached, grouting should begin immediately. The initial lift to blow the plug should limited to six inches (150 mm) in order to minimize potential stress relief at the bearing surface.
- After the initial lift, the grout should be pumped with sufficient pressure and the auger withdrawn slowly enough to maintain the hole and allow lateral penetration of the grout into soft or porous zones of surrounding soil. For the lowest 3 to 6 feet (0.9 to 1.8 meters) of the hole, the delivered grout volume should be approximately 200 percent of the theoretical volume required to fill the pile for that length. For the remainder of the pile, the delivered grout volume should be at least 120 percent of the theoretical volume.
- The grout pressure and auger withdrawal rate should be maintained at steady levels in order to construct a pile of uniform diameter without "necking".
- The grout should include additives that control setting and shrinkage, and must be fluid enough to be pumped easily without excessive pressure losses.

- All reinforcement should be inserted before the grout sets up, normally within ten minutes after the augers are withdrawn. The reinforcement should be placed in the center of the pile, extend the full length of the pile, and be plumb to avoid having it protrude from the grout into the soil.

MONITORING: The project geotechnical engineer should provide full-time observation and testing of the pile installation. Observations will include review of drill rates and injection pressures as well as the grout volumes placed, all of which should be included in the contractor's logs in terms of units per depth (maximum of 3-foot intervals). Tests will include those to quantify the pertinent physical properties of the grout placed, such as flow and compressive strength.

Prior to construction of the test pile (see below), we recommend that the piling contractor prepare and submit a pile installation plan that provides the items listed below.

- The proposed equipment (including sizes) to be used.
- A step-by-step description of the installation procedure.
- Target drilling and grouting parameters for pile installation, including auger rotation speed, drilling penetration rates, torque, applied crowd pressures, grout pressures, and grout volume factors.
- Details of methods of reinforcement placement.
- Mix designs for all grout to be used.
- Equipment and procedures for monitoring and recording auger rotation speed, auger penetration rates, auger depths, crowd pressure, grout pressure, and grout volumes during installation.

TESTING PROGRAM: We recommend that at least one test pile for each pile type be installed with monitoring by the Geotechnical Consultant to evaluate the suitability of the contractor's installation procedures and equipment, as well as our design assumptions. We recommend the maximum test load be two times the design load. Based on the subsurface conditions encountered, we recommend using the "Quick Load Test Method" referenced in ASTM D1143. We recommend the 100 percent test load application be held and monitored for a period of four hours. If reaction piles are used for applying the test loads, a portion of the reaction piles installed should be similar to the test pile (i.e. augercast piles) to aid in the installation evaluation. The test pile can be used as a production pile as long as the net "set" experienced during the load tests is in acceptable ranges.

PLAN REVIEW: The final foundation plan and accompanying details and notes should be submitted to this office for review. The intent of our review will be to verify that the plans used for construction reflect the minimum dimensioning criteria presented in this section and that no additional criteria are required due to

changes in the foundation type or layout. It is not our intent to review structural plans, notes, details, or calculations to verify that the design engineer has correctly applied the geotechnical design values. It is the responsibility of the design engineer to properly design/specify the foundations and other structural elements based on the requirements of the structure and considering the information presented in this report.

ON-GRADE SLABS

GENERAL: It is our understanding that the floor systems of the proposed structures will consist of concrete slabs-on-grade. The following recommendations are considered the minimum slab requirements based on the soil conditions and are not intended to be in lieu of structural considerations.

INTERIOR SLAB: We recommend that the interior slab-on-grade floors for the building be at least four inches thick and that the floor slab for the parking structure be at least five inches thick. Interior slabs should be reinforced with at least No. 3 bars spaced at least 18 inches on center each way. The reinforcing bars should extend at least 6 inches into the foundations and should be supported by chairs and be positioned in the center of the slab. The owner and the project structural engineer should determine if the on-grade slabs need to be designed for special loading conditions. For such cases, a subgrade modulus of 150 pounds per cubic inch can be assumed for the subgrade provided it is prepared as recommended in this report.

UNDER-SLAB VAPOR RETARDERS: Where floor coverings are installed, steps should be taken to minimize the transmission of moisture vapor from the subsoil through the interior slabs where it can potentially damage the interior floor coverings. We recommend that the owner/contractor follow national standards for the installation of vapor retarders below interior slabs as presented in currently published standards including ACI 302, "Guide to Concrete Floor and Slab Construction" and ASTM E1643, "Standard Practice for Installation of Water Vapor Retarder Used in Contact with Earth or Granular Fill Under Concrete Slabs". If sand is placed above or below the vapor retarding material, it should have a sand equivalent of at least 30 and contain less than 20% passing the Number 100 sieve and less than 10% passing the Number 200 sieve.

We recommend that the flooring installer perform standard moisture vapor emission tests prior to the installation of all moisture-sensitive floor coverings in accordance with ASTM F1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride".

EXTERIOR CONCRETE FLATWORK: Exterior concrete on-grade slabs should have a minimum thickness of four inches. Exterior slabs abutting perimeter foundations should be doweled into the footings. All slabs should be provided with weakened plane joints in accordance with the American Concrete Institute (ACI) guidelines. Alternative patterns consistent with ACI guidelines can also be used. A concrete mix with a

1-inch maximum aggregate size and a water/cement ratio of less than 0.6 is recommended for exterior slabs. Lower water content will decrease the potential for shrinkage cracks. Both coarse and fine aggregate should conform to the latest edition of the "Standard Specifications for Public Works Construction" ("Greenbook").

Special attention should be paid to the method of concrete curing to reduce the potential for excessive shrinkage and resultant random cracking. It should be recognized that minor cracks occur normally in concrete slabs due to shrinkage. Some shrinkage cracks should be expected and are not necessarily an indication of excessive movement or structural distress.

EARTH RETAINING WALLS

FOUNDATIONS: Foundations for retaining walls can be designed in accordance with the foundation recommendations previously presented.

EQUIVALENT FLUID PRESSURES: The active soil pressure for the design of unrestrained and restrained earth retaining structures with level backfill surface may be assumed to be equivalent to the pressure of a fluid weighing 35 and 55 pounds per cubic foot, respectively. An additional 15 pounds per cubic foot should be added to the equivalent fluid pressure for 2:1 (H:V) sloping backfill. Thirty percent of any area surcharge placed adjacent to the retaining wall may be assumed to act as a uniform horizontal pressure against the wall. Where vehicles will be allowed within ten feet of the retaining wall, a uniform horizontal pressure of 100 pounds per square foot should be added to the upper 10 feet of the retaining wall to account for the effects of adjacent traffic. If any other loads are anticipated, the Geotechnical Consultant should be contacted for the necessary increase in soil pressure. All values are based on a drained backfill condition.

If it is necessary to consider seismic pressure, it may be assumed to be equivalent to the pressure of a fluid weighing 10 pounds per cubic foot, but the pressure distribution should be inverted so that the highest value is at the top of the wall. This corresponds to an approximate pseudo-static acceleration (Kh) of 0.12 g.

PASSIVE PRESSURES: The passive pressure for the prevailing soil conditions may be considered to be 350 pounds per square foot per foot of depth for foundations in fill soil. This pressure may be increased one-third for seismic loading. The coefficient of friction for concrete to soil may be assumed to be 0.35 for the resistance to lateral movement. When combining frictional and passive resistance, the friction should be reduced by one-third.

WATERPROOFING AND SUBDRAINS: The project architect should provide (or coordinate) waterproofing details for the retaining walls. The design values presented above are based on a drained backfill condition and do not consider hydrostatic pressures. Unless hydrostatic pressures are incorporated into the

design, the retaining wall designer should provide a subdrain detail. A typical retaining wall subdrain detail is presented as Plate No. 2 of this report. Additionally, outlets points for the retaining wall subdrains should be coordinated by the project civil engineer. For subterranean walls, it may be necessary to collect the subdrain water in sumps and then pump it to an appropriate outlet.

BACKFILL: All retaining wall backfill should be compacted to at least 90 percent relative compaction. It is anticipated that the on-site soils are suitable for use as backfill material provided the design parameters given herein are used in the wall design. Retaining walls should not be backfilled until the masonry/concrete has reached an adequate strength.

PRELIMINARY PAVEMENT SECTIONS

GENERAL: We expect that new pavement will be installed as part of the project. The following presents preliminary sections for asphalt concrete (AC) or Portland Cement Concrete (PCC) construction. The pavement sections provided in Table VII and Table IX should be considered preliminary and should be used for planning purposes only. Final pavement designs should be determined after R-value tests have been performed in the actual subgrade material in place after grading. Presuming the grading recommendations presented previously are followed, we estimate that the subgrade soils will have an R-Value of approximately 15. The Traffic Index and Traffic Categories shown below are assumed. The project client and/or civil engineer should determine whether these assumed values are appropriate for the traffic conditions.

ASPHALT CONCRETE PAVEMENTS: We expect that the drive aisles and parking stalls will primarily support passenger vehicles with only occasional heavily loaded vehicles. The asphalt concrete pavement section was calculated using the Caltrans design method using an assumed Traffic Index of 5.5 for drive aisles and 4.5 for parking stalls.

TABLE VII: ASPHALT CONCRETE PAVEMENT SECTION

Pavement Type	Traffic Index	Pavement Thickness	Base Thickness	Base Material	Subgrade Compaction
Asphalt Concrete					
Drive Aisles	5.5	3.0 in.	10.0 in.	CAB or Class II	95% in upper 12”
Parking Stalls	4.5	3.0 in.	7.0 in.	CAB or Class II	95% in upper 12”

Prior to placing the base material beneath asphalt concrete pavements, the subgrade soil should be scarified to a depth of 12 inches and compacted to at least 95 percent of its maximum dry density at a moisture content one to three percent above optimum.

The base material could consist of Crushed Aggregate Base (CAB) or Class II Aggregate Base. The Crushed Aggregate Base should conform to the requirements set forth in Section 200-2.2 of the Standard Specifications for Public Works Construction. The Class II Aggregate Base should conform to requirements set forth in Section 26-1.02A of the Standard Specifications for California Department of Transportation. Asphalt concrete should be placed in accordance with 'Standard Specifications for Public Works Construction (Greenbook), Section 302-5. Asphalt concrete pavement should be compacted to at least 95 % of Hveem density.

CONCRETE PAVEMENTS: Portland cement concrete (PCC) pavement thickness can be determined from Table V. The PCC pavement section was determined in general accordance with the procedure recommended within the American Concrete Institute report ACI-330R-08 Guide for Design and Construction of Concrete Parking Lots using the parameters listed in Table VIII.

TABLE VIII: CONCRETE PAVEMENT DESIGN PARAMETERS

Design Parameter	Design Value
Modulus of Subgrade Reaction, k	50 pci
Modulus of Rupture for Concrete, M_R	500 psi
Traffic Category (Main Driveways)	A (ADTT = 10)

ADTT = Average Daily Truck Traffic. Trucks defined as vehicles with at least six wheels.

Based on the above design parameters, the PCC pavements should have the minimum thicknesses shown in Table IX.

TABLE IX: MINIMUM CONCRETE PAVEMENT THICKNESS

Pavement Use	Thickness
Main Driveways/Aisles/Trash Enclosures	6.0 in
Parking Stalls	5.5 in

Prior to placing concrete pavement, the subgrade soils should be scarified to a depth of 12 inches and compacted to at least 95 percent of their maximum dry density at a moisture content one to three percent above optimum. Concrete pavement construction should comply with the requirements set forth in Sections 201-1.1.2 and 302-6 of the Standard Specifications for Public Works Construction (concrete Class 560-C-3250).

LIMITATIONS

REVIEW, OBSERVATION AND TESTING

The recommendations presented in this report are contingent upon our review of final plans and specifications. Such plans and specifications should be made available to the geotechnical engineer and engineering geologist so that they may review and verify their compliance with this report and with the California Building Code.

It is recommended that Christian Wheeler Engineering be retained to provide continuous soil engineering services during the earthwork operations. This is to verify compliance with the design concepts, specifications or recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to start of construction.

UNIFORMITY OF CONDITIONS

The recommendations and opinions expressed in this report reflect our best estimate of the project requirements based on an evaluation of the subsurface soil conditions encountered at the subsurface exploration locations and on the assumption that the soil conditions do not deviate appreciably from those encountered. It should be recognized that the performance of the foundations and/or cut and fill slopes may be influenced by undisclosed or unforeseen variations in the soil conditions that may occur in the intermediate and unexplored areas. Any unusual conditions not covered in this report that may be encountered during site development should be brought to the attention of the geotechnical engineer so that he may make modifications if necessary.

CHANGE IN SCOPE

This office should be advised of any changes in the project scope or proposed site grading so that we may determine if the recommendations contained herein are appropriate. This should be verified in writing or modified by a written addendum.

TIME LIMITATIONS

The findings of this report are valid as of this date. Changes in the condition of a property can, however, occur with the passage of time, whether they be due to natural processes or the work of man on this or adjacent properties. In addition, changes in the Standards-of-Practice and/or Government Codes may occur. Due to such changes, the findings of this report may be invalidated wholly or in part by changes beyond our control.

Therefore, this report should not be relied upon after a period of two years without a review by us verifying the suitability of the conclusions and recommendations.

PROFESSIONAL STANDARD

In the performance of our professional services, we comply with that level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions and in the same locality. The client recognizes that subsurface conditions may vary from those encountered at the locations where our test pits, surveys, and explorations are made, and that our data, interpretations, and recommendations be based solely on the information obtained by us. We will be responsible for those data, interpretations, and recommendations, but shall not be responsible for the interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty of any kind whatsoever, express or implied, is made or intended in connection with the work performed or to be performed by us, or by our proposal for consulting or other services, or by our furnishing of oral or written reports or findings.

CLIENT'S RESPONSIBILITY

It is the client's responsibility, or its representatives, to ensure that the information and recommendations contained herein are brought to the attention of the structural engineer and architect for the project and incorporated into the project's plans and specifications. It is further their responsibility to take the necessary measures to insure that the contractor and his subcontractors carry out such recommendations during construction.

FIELD EXPLORATIONS

Eight subsurface explorations were made during this investigation at the locations indicated on the Site Plan included herewith as Plate Number 1 on May 21, 2013. These explorations consisted of five Cone Penetration Test soundings and three sonic borings. The fieldwork was conducted under the observation and direction of our engineering geology personnel.

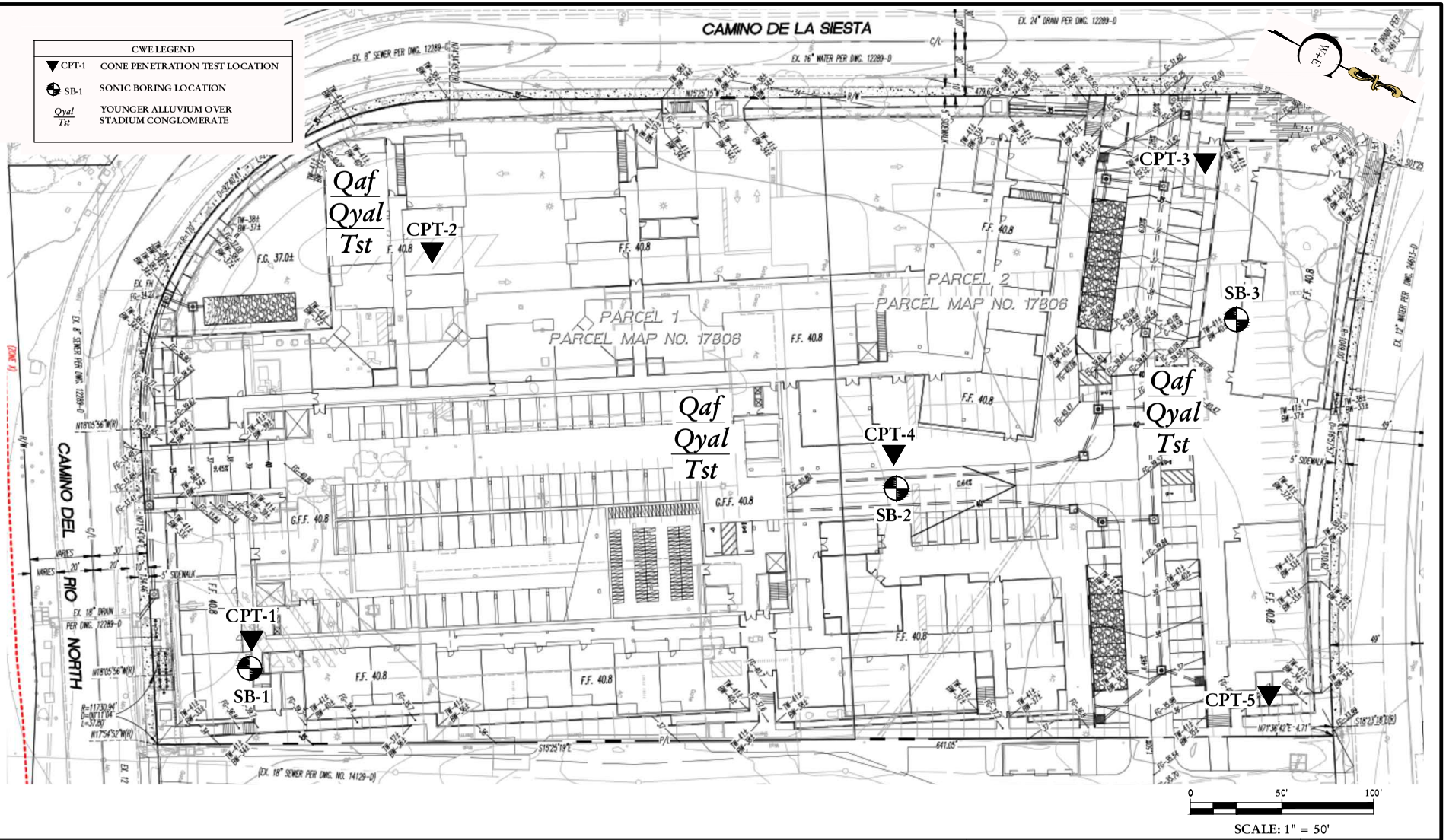
The CPT probes were performed by Kehoe Testing and Engineering, using an integrated electronic cone system. The results are presented in Appendix A. The CPT soundings were performed in accordance with ASTM Standard D5778. A 30-ton capacity cone was used for all of the soundings. This cone had a tip area equal to 15 square centimeters and friction sleeve area of 225 square centimeters. The cone was designed with an equal end area friction sleeve and a tip end area ratio of 0.85. The fieldwork was conducted under the observation and direction of our engineering geology personnel. On the logs of the CPT soundings, the soils

are described in terms of the Soil Behavior Type (SBT). The stratigraphic expression of the soil types, SBT, is based on the relationships between the measured cone bearing, sleeve friction, and penetration pore pressures measured almost continuously within each sounding.

The borings were drilled by Cascade Drilling. The borings were carefully logged when made. The boring logs are presented in the attached Appendix A. The soils are described in accordance with the Unified Soils Classification. In addition, a verbal textural description, the wet color, the apparent moisture and the density or consistency are provided. The density of granular soils is given as either very loose, loose, medium dense, dense or very dense. The consistency of silts or clays is given as either very soft, soft, medium stiff, stiff, very stiff, or hard. Bulk samples of disturbed soil were collected and transported to the laboratory for testing.

LABORATORY TESTING

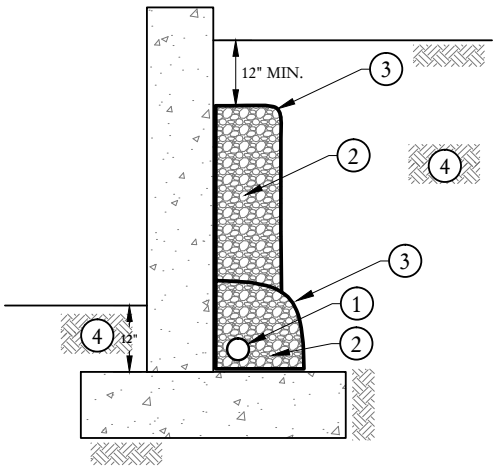
Laboratory tests were performed in accordance with the generally accepted American Society for Testing and Materials (ASTM) test methods or suggested procedures. A brief description of the tests performed and the subsequent results are presented in Appendix B.



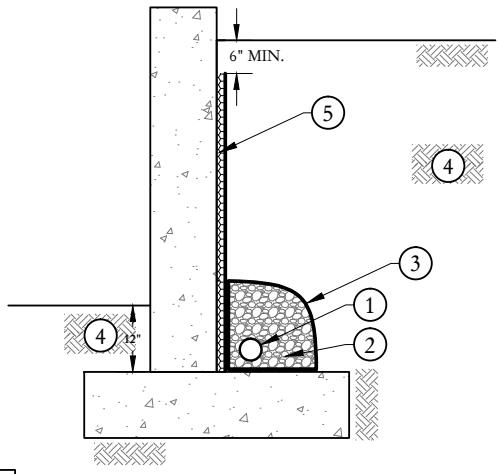
PRELIMINARY GRADING PLAN AND GEOTECHNICAL MAP

WITT MISSION VALLEY 588 CAMINO DEL RIO NORTH SAN DIEGO, CALIFORNIA			
DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	PLATE NO.:	1

CHRISTIAN WHEELER ENGINEERING



1 DETAIL



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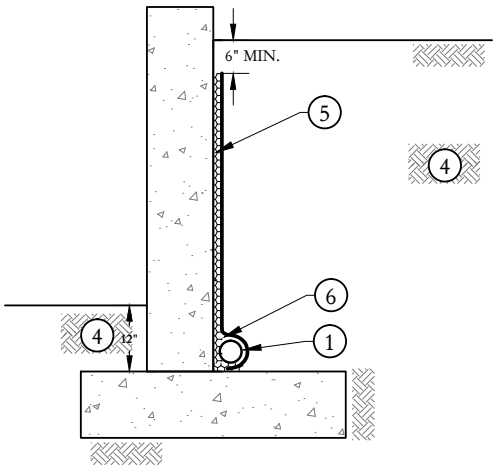

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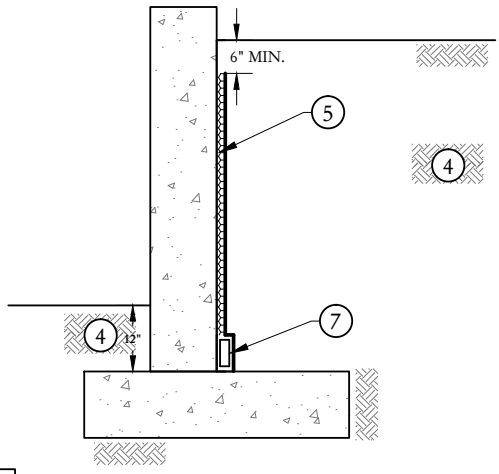


4 DETAIL

NOTES AND DETAILS

GENERAL NOTES:

1) THE NEED FOR WATERPROOFING SHOULD BE EVALUATED BY OTHERS.
2) WATERPROOFING TO BE DESIGNED BY OTHERS (CWE CAN PROVIDE A DESIGN IF REQUESTED).
3) EXTEND DRAIN TO SUITABLE DISCHARGE POINT PER CIVIL ENGINEER.
4) DO NOT CONNECT SURFACE DRAINS TO SUBDRAIN SYSTEM.

DETAILS:

1. 4-INCH PERFORATED PVC PIPE ON TOP OF FOOTING, HOLES POSITIONED DOWNWARD (SDR 35, SCHEDULE 40, OR EQUIVALENT).
2. ¾ INCH OPEN-GRADED CRUSHED AGGREGATE.
3. GEOFARBRIC WRAPPED COMPLETELY AROUND ROCK.
4. PROPERLY COMPACTED BACKFILL SOIL.
5. WALL DRAINAGE PANELS (MIRADRAIN OR EQUIVALENT) PLACED PER MANUFACTURER'S REC'S.
6. UNDERLAY SUBDRAIN WITH AND CUT FABRIC BACK FROM DRAINAGE PANELS AND WRAP FABRIC AROUND PIPE.
7. COLLECTION DRAIN (TOTAL DRAIN OR EQUIVALENT) LOCATED AT BASE OF WALL DRAINAGE PANEL PER MANUFACTURER'S RECOMMENDATIONS.

CANTILEVER RETAINING WALL DRAINAGE SYSTEMS

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	PLATE NO.:	2

CHRISTIAN WHEELER
ENGINEERING

Appendix A

Boring Logs

LOG OF TEST BORING B-1

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	34.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	SAMPLE TYPE
0		2" of AC.	
	SM	**Artificial Fill (Qaf):** Brown to dark brown, moist, loose, very fine- to medium-grained, SILTY SAND.	
	ML-SM	Dark grayish-brown, loose, SILTY SAND/SANDY SILT.	
	SM	Brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.	
5	ML	**Younger Alluvium (Qyal):** Dark grayish-brown, moist, medium stiff, SANDY SILT.	
	SM	Light brown, very moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.	
10		Dark brown, very moist, increase in fines.	
15	ML	Grayish-brown, saturated, soft to medium stiff, CLAYEY SILT.	CK
	SW-SM	Light brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND with silt.	
20	SM-ML	Grayish-brown, saturated, loose to medium stiff, very fine- to medium-grained, SILTY SAND, micaceous.	
25			
30			

PENETRATION (blows per foot) | SAMPLE TYPE | BULK | MOISTURE CONTENT (%) | DRY DENSITY (pcf) | RELATIVE COMPACTION (%) | LABORATORY TESTS

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-1

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-1 (30'-60')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	34.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	PENETRATION (blows per foot)	SAMPLE TYPE	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS
30			SM/ ML	**Younger Alluvium (Qyal):** Grayish-brown, saturated, loose to medium stiff, very fine- to medium-grained, SILTY SAND/SANDY SILT, micaceous.							
			SM	Brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND with sandy silt beds.							
35											
			SW-SM	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND with silt.							
40											
45											
50			SM	Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.		CK					
			SW-SM	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.							
55						CK					
			SW	Light grayish-brown, saturated, loose to medium dense, fine- to coarse-grained, WELL-GRADED SAND.							
60											

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-2

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-1 (60'-90')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	34.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	SAMPLE TYPE
60	SW	**Younger Alluvium (Qyal):** Light grayish-brown, saturated, loose to medium dense, fine- to coarse-grained, WELL-GRADED SAND.	
	GM	Light grayish-brown, saturated, loose to medium dense, SILTY GRAVELS.	
65	GM	**Stadium Conglomerate (Tst):** Greenish-gray, moist, dense to very dense, SILTY GRAVELS with sand, upper 12" moderately weathered.	
		Light yellowish-brown, damp, very dense.	CK
70			
	GC	Greenish-gray, damp, very dense, CLAYEY GRAVELS with sand.	CK
75			CK
80			
			CK
85	SM	Greenish-gray, moist, very dense, very fine- to medium-grained, SILTY SAND.	
	GC	Greenish-gray, damp, very dense, CLAYEY GRAVELS with sand.	
90		Boring terminated at 90 feet. No groundwater or seepage encountered.	

BULK; MOISTURE CONTENT (%); DRY DENSITY (pcf); RELATIVE COMPACTION (%); LABORATORY TESTS; PENETRATION (blows per foot); ELEVATION (ft); GRAPHIC LOG

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-3

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-2

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	36.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)
0		2" of AC.
	SM	**Artificial Fill (Qaf):** Light brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.
5	SM/ML	Brown, moist, loose to medium stiff, very fine- to medium-grained, SILTY SAND/SANDY SILT.
	SM	**Younger Alluvium (Qyal):** Brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.
	SM/ML	Dark grayish-brown, moist, loose to medium stiff, SILTY SAND/SANDY SILT.
10	SM	Brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.
	SW	Light brown, moist, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.
15	SM	Light brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.
	CL	Brown, moist, medium stiff, SILTY CLAY with sand.
	SM	Brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND.
20	ML/CL	Grayish-brown, moist, medium stiff, CLAYEY SILT-SILTY CLAY with sand.
	SW	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED SAND.
25		
	CL	Dark grayish-brown, saturated, medium stiff, SILTY CLAY.
30		

PENETRATION (blows per foot)	SAMPLE TYPE	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS
	CK					

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-4

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-2 (30'-60')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	36.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	SAMPLE TYPE
30	SM	**Younger Alluvium (Qyal):** Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.	
	SM	Brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND with sandy silt beds.	
35			
	ML	Light grayish-brown, saturated, medium stiff, SANDY SILT.	
40			
	SM	Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.	
45	SW	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.	
	SM	Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.	CK
50			
			CK
55			
	ML	Dark grayish-brown, saturated, medium stiff, SANDY SILT with clay.	
	SW	Light grayish-brown, saturated, loose to medium dense, fine- to coarse-grained, WELL-GRADED SAND.	
60			

ELEVATION (ft)	GRAPHIC LOG	PENETRATION (blows per foot)	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-5

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-2 (60'-90')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	36.0 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)
60	GW	**Younger Alluvium (Qyal):** Light grayish-brown, saturated, loose to medium dense, WELL-GRADED GRAVELS.
	SM	Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.
	ML	Dark grayish-brown, saturated, medium stiff, CLAYEY SILT with sand.
65	SM-SW	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND with silt.
	SW	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.
70		
	GW	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED GRAVELS.
75		
	GC	**Stadium Conglomerate (Tst):** Brown to greenish-gray, moist, dense, CLAYEY GRAVEL with sand, moderately weathered to 80 feet.
80		
85		
		Boring terminated at 89 feet. No groundwater or seepage encountered.
90		

PENETRATION (blows per foot) | SAMPLE TYPE | BULK | MOISTURE CONTENT (%) | DRY DENSITY (pcf) | RELATIVE COMPACTION (%) | LABORATORY TESTS

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-6

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-3

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	33.5 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	SAMPLE TYPE	BULK
0		2" of AC.		
	SM	**Artificial Fill (Qaf):** Light brown, moist, loose to medium dense, very fine- to medium-grained, SILTY SAND, micaceous, upper 12" disturbed.		
	ML	Dark grayish-brown, moist, medium stiff, SANDY SILT.		
5	SW	**Younger Alluvium (Qyal):** Light brown, moist, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.		
			CK	
10				
	ML	Brown, moist, medium stiff, SANDY SILT.		
15				
	SW-SM	Brown to orangish-brown, moist, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND, mottled to 21 feet.	CK	
20				
	SM	Light brown.		
25	SW	Light grayish-brown, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.		
	SW-SM	Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND with silt.		
30				

PENETRATION (blows per foot)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-7

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-3 (30'-60')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	33.5 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	PENETRATION (blows per foot)	SAMPLE TYPE	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS
30			SM	**Younger Alluvium (Qyal):** Light grayish-brown, saturated, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND with silt.							
35			SM	Light grayish-brown, loose to medium dense, fine- to medium-grained, WELL-GRADED SAND.							
40						CK					
45											
50			SW	Light grayish-brown, saturated, loose to medium dense, fine- to coarse-grained, WELL-GRADED SAND.							
			ML	Grayish-brown, saturated, medium stiff, SANDY SILT with clay.		CK					
55			SM	Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.							
			GW	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED GRAVELS.							
			SM	Light grayish-brown, very fine- to medium-grained, SILTY SAND.							
60											

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-8

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-3 (60'-90')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	33.5 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	PENETRATION (blows per foot)	SAMPLE TYPE	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS
60			SM	**Younger Alluvium (Qyal):** Light grayish-brown, saturated, loose to medium dense, very fine- to medium-grained, SILTY SAND.							
			GW	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED GRAVELS.							
65			SW-SM	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED SAND with silt.		CK					
70						CK					
75			GW	Light grayish-brown, saturated, loose to medium dense, WELL-GRADED GRAVELS.		CK					
			GM	Light grayish-brown to light brown, saturated, loose to medium dense, SILTY GRAVELS with sand.							
80			GC	**Stadium Conglomerate (Tst):** Greenish-gray to light brown, moist, dense, CLAYEY GRAVELS with sand. Damp, very dense.		CK					
85			SM	Greenish-gray, moist, dense, very fine- to medium-grained, SILTY SAND.							
			GC	Greenish-gray to light brown, damp, very dense, CLAYEY GRAVELS with sand.							
90											

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-9

CHRISTIAN WHEELER ENGINEERING

LOG OF TEST BORING B-3 (90'-120')

Date Logged:	6/12/2017	Equipment:	ProSonic 600T w/7" Casing
Logged By:	DJF	Bucket Type:	N/A
Existing Elevation:	33.5 feet	Drive Type:	N/A
Proposed Elevation:	Unknown	Depth to Water:	N/A

Sample Type and Laboratory Test Legend

Cal	Modified California Sampler	CK	Chunk
SPT	Standard Penetration Test	DR	Drive Ring
ST	Shelby Tube		
MD	Max Density	DS	Direct Shear
SO4	Soluble Sulfates	Con	Consolidation
SA	Sieve Analysis	EI	Expansion Index
HA	Hydrometer	R-Val	Resistance Value
SE	Sand Equivalent	Chl	Soluble Chlorides
PI	Plasticity Index	Res	pH & Resistivity
CP	Collapse Potential	SD	Sample Density

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	USCS SYMBOL	SUMMARY OF SUBSURFACE CONDITIONS (based on Unified Soil Classification System)	PENETRATION (blows per foot)	SAMPLE TYPE	BULK	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	RELATIVE COMPACTION (%)	LABORATORY TESTS
90			GC	**Stadium Conglomerate (Tst):** Greenish-gray to light brown, damp, very dense, CLAYEY GRAVELS with sand.							
95				Boring terminated at 94 feet. No groundwater or seepage encountered.							
100											
105											
110											
115											
120											

Notes:

Symbol Legend

- ▽ Groundwater Level During Drilling
- ▼ Groundwater Level After Drilling
- ⁘ Apparent Seepage
- * No Sample Recovery
- ** Non-Representative Blow Count (rocks present)

WITT MISSION VALLEY
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

DATE:	JULY 2017	JOB NO.:	2170347.01
BY:	SRD	FIGURE NO.:	A-10

CHRISTIAN WHEELER ENGINEERING

Appendix B

Laboratory Test Results

Laboratory tests were performed in accordance with the generally accepted American Society for Testing and Materials (ASTM) test methods or suggested procedures. Brief descriptions of the tests performed are presented below:

a) **CLASSIFICATION:** Field classifications were verified in the laboratory by visual examination. The final soil classifications are in accordance with the Unified Soil Classification System and are presented on the exploration logs in Appendix A.

b) **MOISTURE-DENSITY:** In-place moisture contents and dry densities were determined for representative soil samples. This information was an aid to classification and permitted recognition of variations in material consistency with depth. The dry unit weight is determined in pounds per cubic foot, and the in-place moisture content is determined as a percentage of the soil's dry weight. The results of these tests are summarized in the exploration logs presented in Appendix A.

c) **GRAIN SIZE DISTRIBUTION:** The grain size distributions of selected samples were determined in accordance with ASTM C136 and/or ASTM D422.

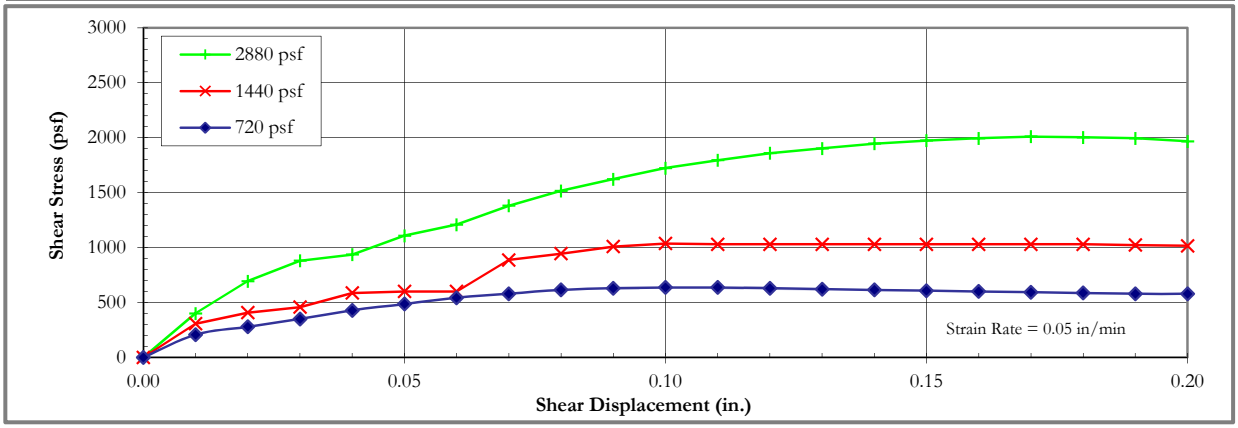
d) **PLASTICITY INDEX:** The Liquid Limit, Plastic Limit and Plastic Index were determined for representative soil samples in order to help classify the soils in accordance with the Unified Soil Classification System. These tests were performed in accordance with ASTM D424.

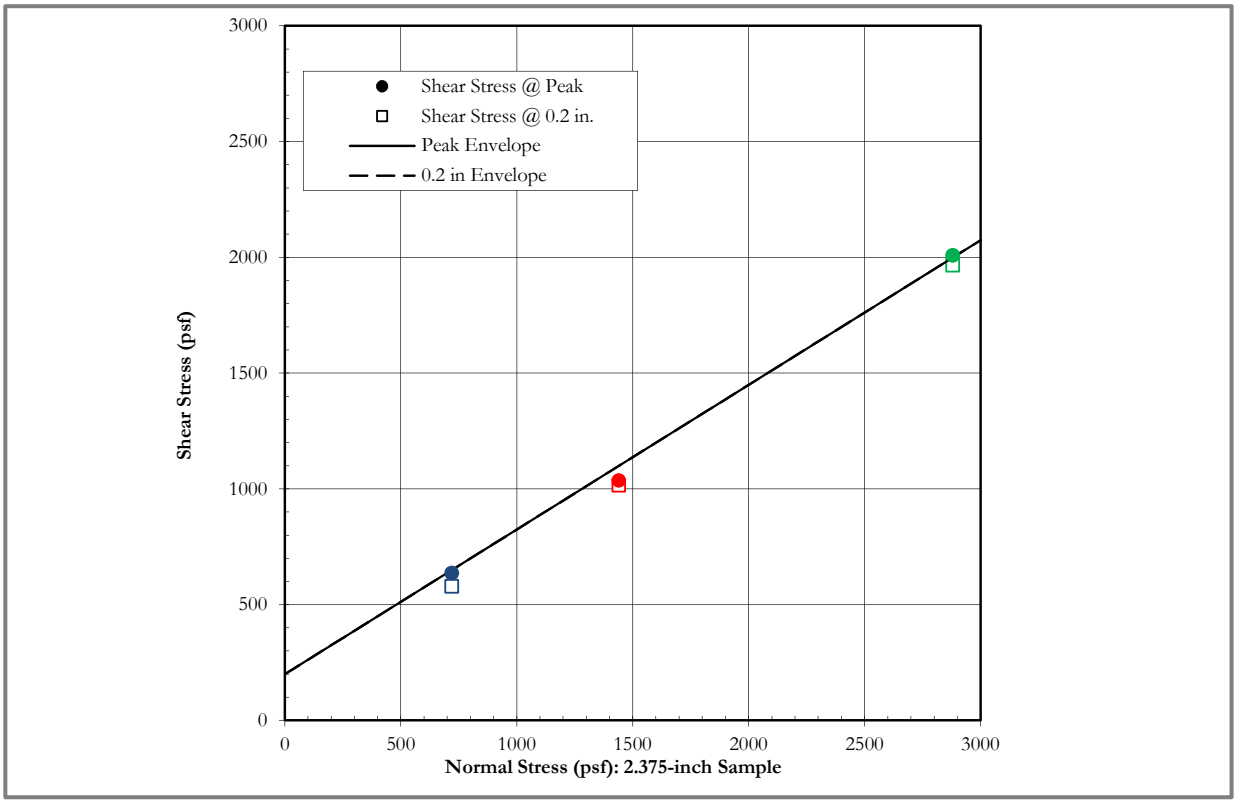
e) **MAXIMUM DENSITY & OPTIMUM MOISTURE CONTENT:** The maximum dry density and optimum moisture content of typical soils were determined in the laboratory in accordance with ASTM Standard Test D-1557, Method A.

f) **DIRECT SHEAR:** Direct shear tests were performed to determine the failure envelope of selected soils based on yield shear strength. The shear box was designed to accommodate a sample having a diameter of 2.375 inches or 2.50 inches and a height of 1.0 inch. Samples were tested at different vertical loads and a saturated moisture content. The shear stress was applied at a constant rate of strain of approximately 0.05 inch per minute.

g) **SOLUBLE SULFATES:** The soluble sulfate content was determined for samples of soil likely to be present at the foundation level. The soluble sulfate content was determined in accordance with California Test Method 417.

DIRECT SHEAR TEST (ASTM D3080)





Sample No. B-1 @ ½'-5' Sample Type: Remolded to 90%

Normal Stress (psf)	**720**	**1440**	**2880**
Peak Shear Stress (psf)	636	1037	2009
Shear Stress at 0.2 in (psf)	579	1015	1966
Initial Dry Density (pcf)	109.1	109.1	109.1
Initial Moisture Content (%)	12.2	12.2	12.2

	Peak	**at 0.2 in Displacement**
Friction Angle, ϕ (deg):	32	32
Cohesion Intercept, c (psf):	200	200

CHRISTIAN WHEELER ENGINEERING

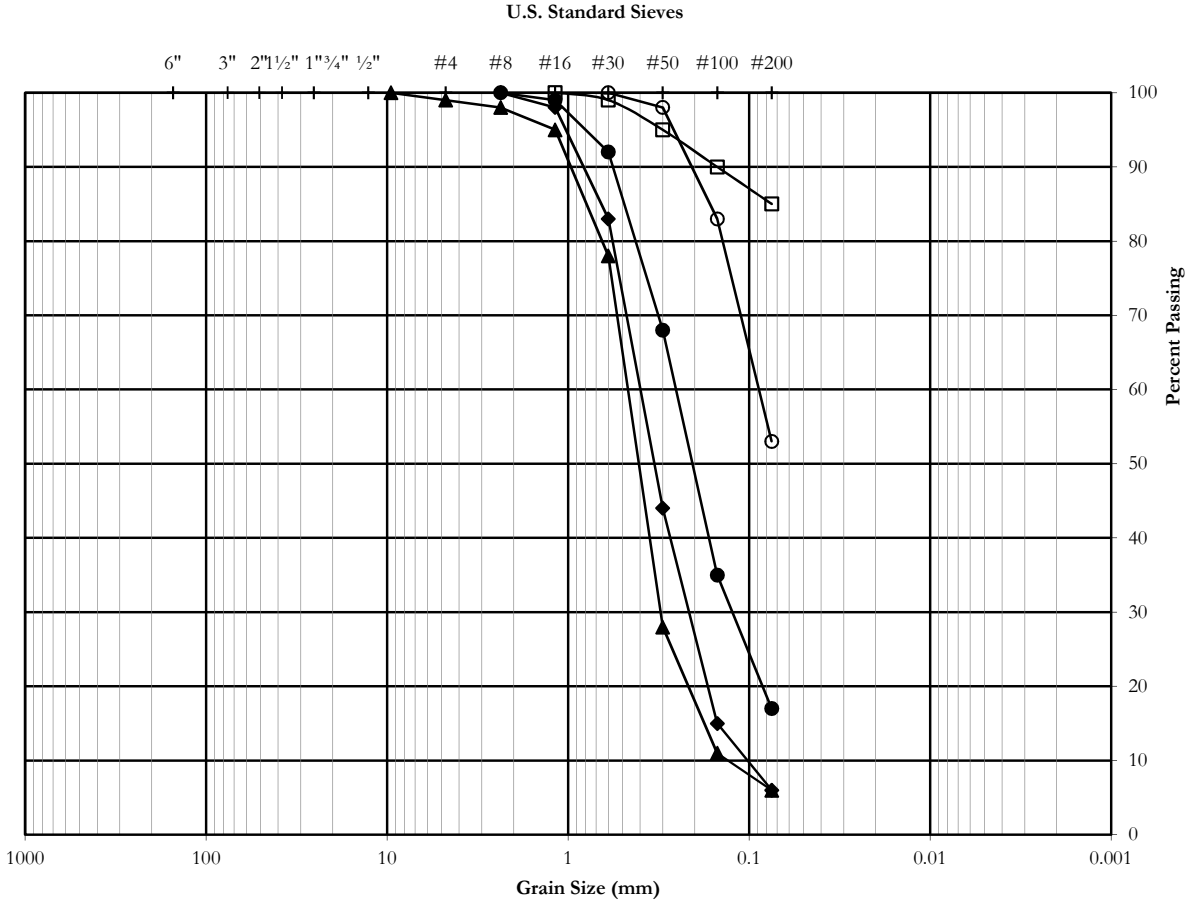
LABORATORY TEST RESULTS

WITT MISSION VALLEY MIXED-USE
588 CAMINO DEL RIO NORTH, SAN DIEGO, CA

PROJECT NO. 2170347
DATE 07/2017
FIGURE
B-2

GRAIN SIZE DISTRIBUTION (ASTM D422)

Cobble	Gravel		Sand			Silt and Clay
	Coarse	Fine	Coarse	Medium	Fine	



Symbol	Sample No.	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	USCS
□	**B-1 @ 15½'-17'**									ML
♦	**B-1 @ 17'-21'**									SP-SM
○	**B-1 @ 25'-28'**									ML
▲	**B-1 @ 43'-47'**									SP-SM
●	**B-1 @ 49'-51'**									SM

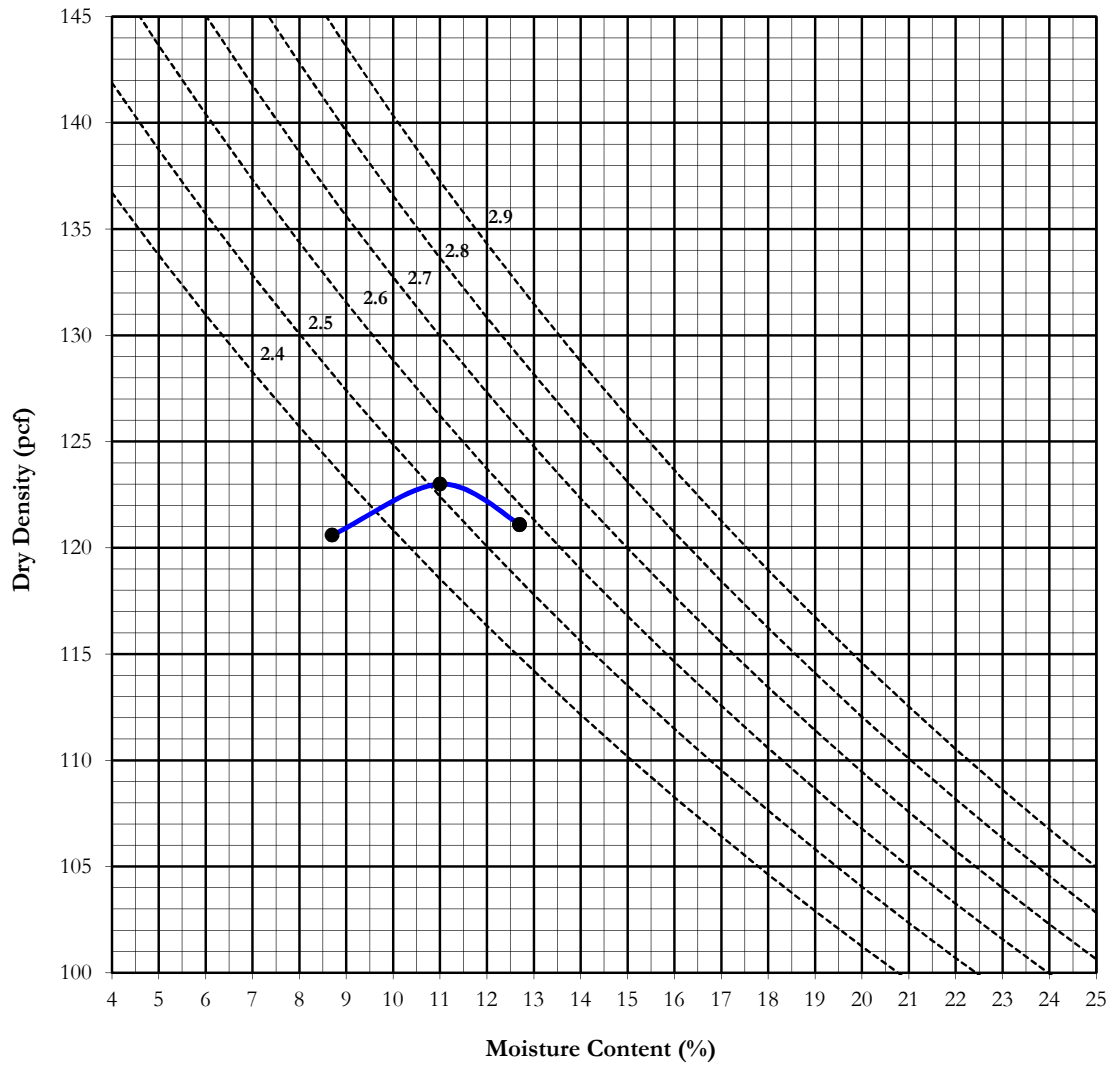
CHRISTIAN WHEELER ENGINEERING

LABORATORY TEST RESULTS

WITT MISSION VALLEY MIXED-USE
588 CAMINO DEL RIO NORTH, SAN DIEGO, CA

PROJECT NO. 2170347
DATE 07/2017
FIGURE
B-3

MAXIMUM DENSITY AND OPTIMUM MOISTURE CONTENT (ASTM D1557)



Sample No	Sample Description	Method	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
B-1 @ ½'-5'	Gray silty sand (SM)	A	123.0	11.0

CHRISTIAN WHEELER ENGINEERING

LABORATORY TEST RESULTS

WITT MISSION VALLEY MIXED-USE
588 CAMINO DEL RIO NORTH, SAN DIEGO, CA

PROJECT NO. 2170347
DATE 07/2017
FIGURE
B-4

CORROSIVITY TESTS

Sample No.	CALTEST 417	CALTEST 643		CALTEST 422
	Sulfate Content (% SO_4)	pH	Resistivity (ohm-cm)	Chloride Content (ppm)
B-1 @ ½'-5'	0.01	--	--	--

CHRISTIAN WHEELER ENGINEERING

LABORATORY TEST RESULTS

WITT MISSION VALLEY MIXED-USE
588 CAMINO DEL RIO NORTH, SAN DIEGO, CA

PROJECT NO. 2170347
DATE 07/2017
FIGURE
B-5

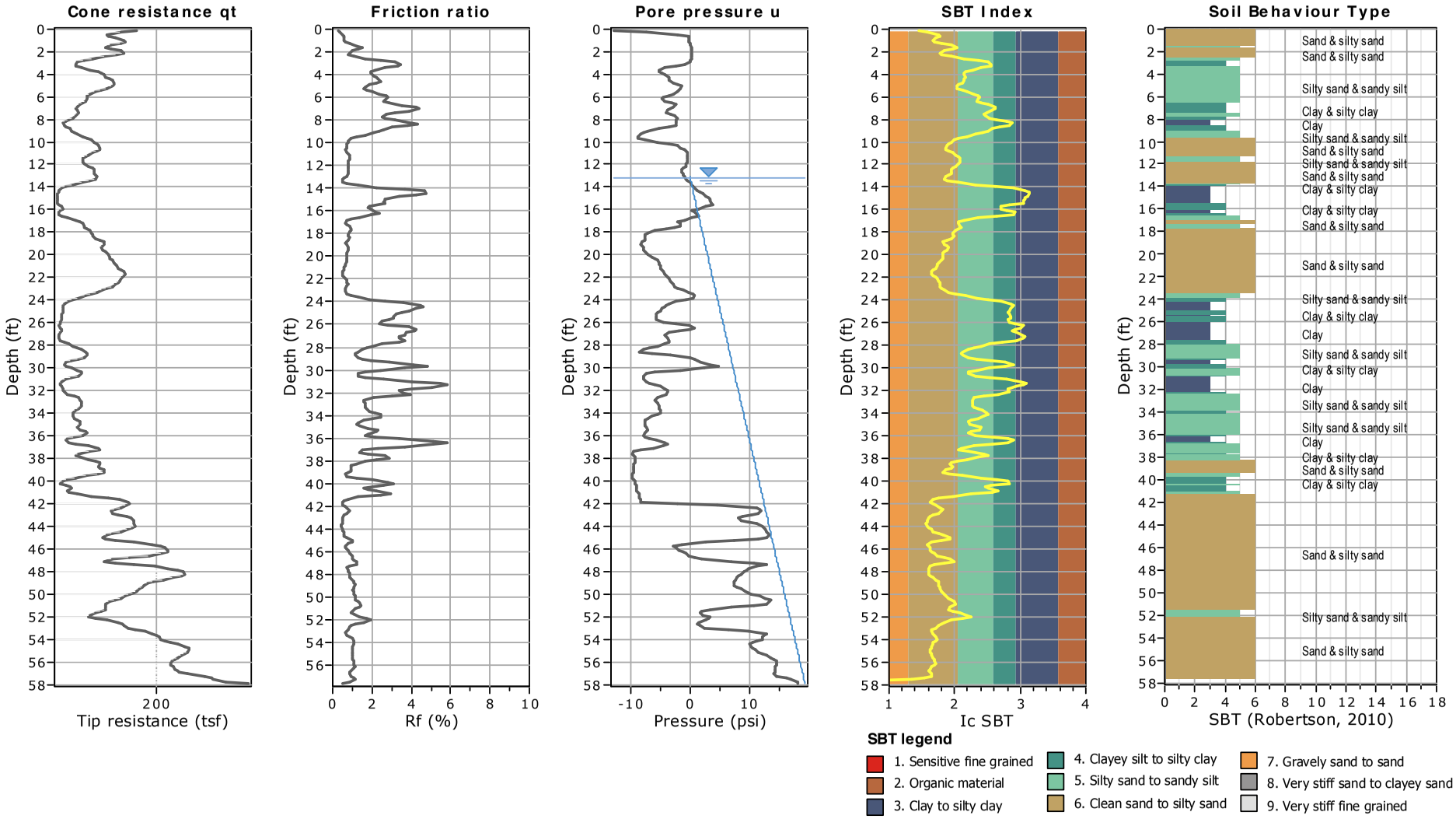
Appendix C

Cone Penetration Test Results

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-1
Total depth: 57.91 ft, Date: 6/7/2017
Surface Elevation: 34.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

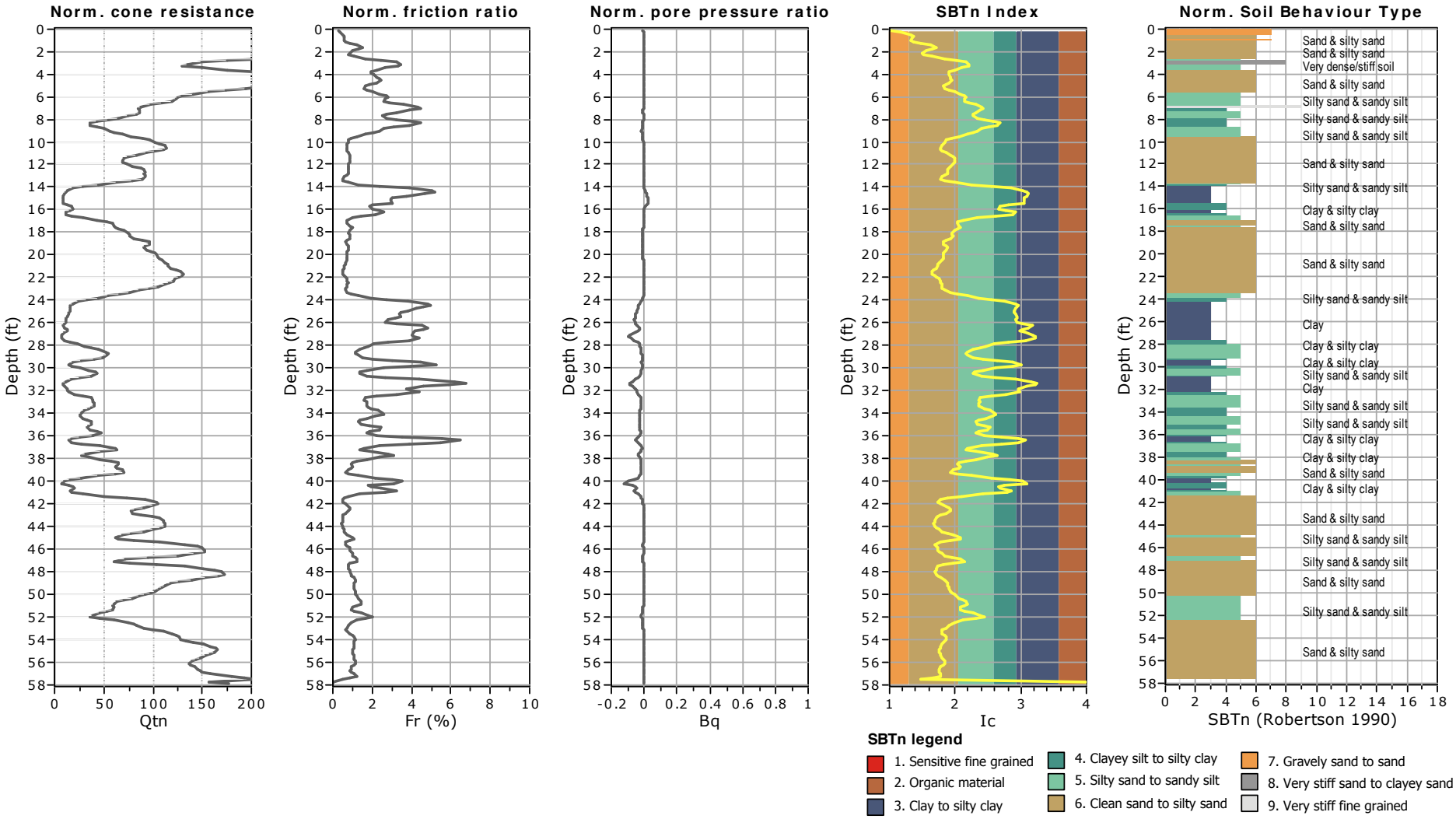
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-1
Total depth: 57.91 ft, Date: 6/7/2017
Surface Elevation: 34.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

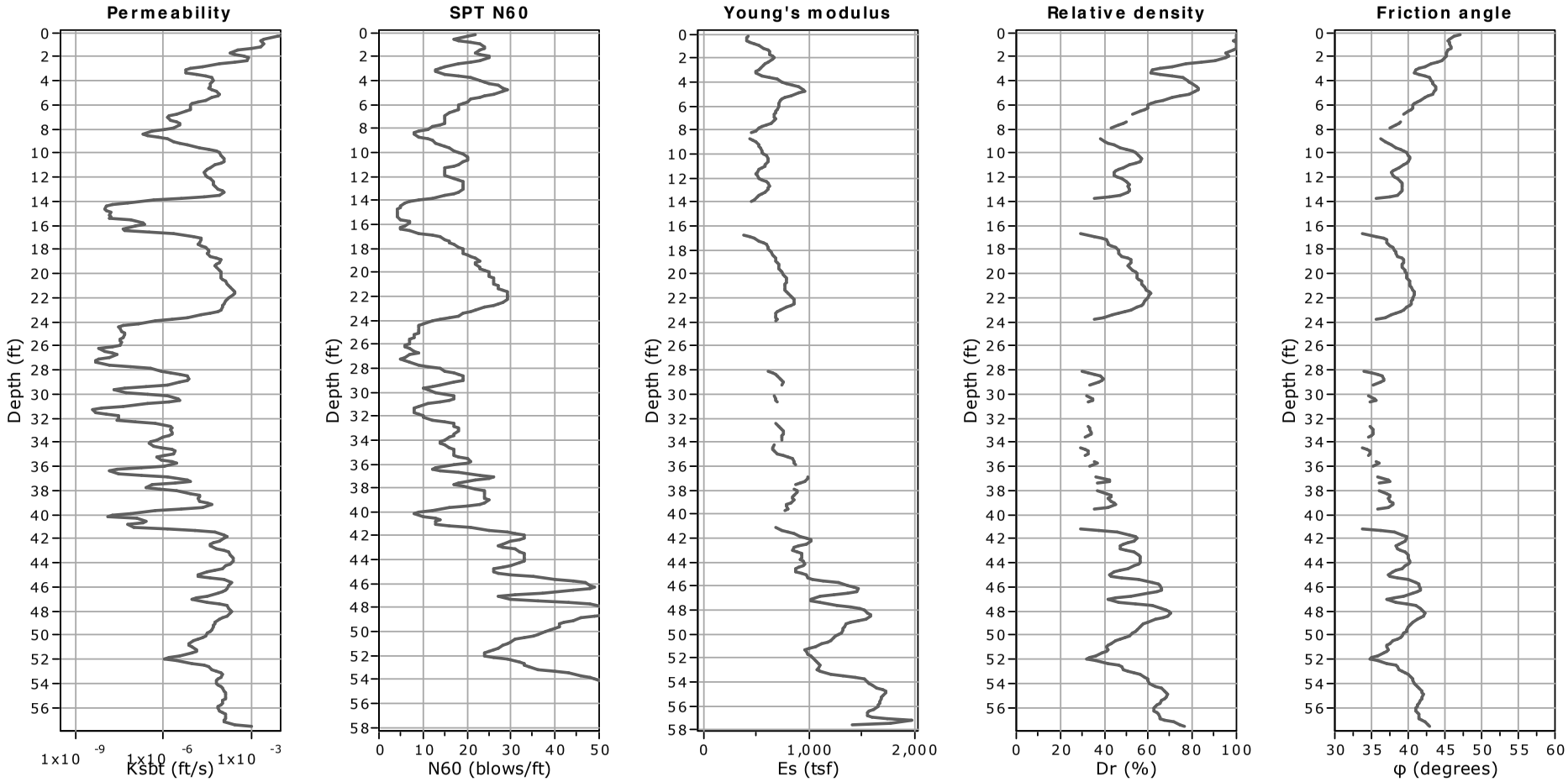
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-1
Total depth: 57.91 ft, Date: 6/7/2017
Surface Elevation: 34.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



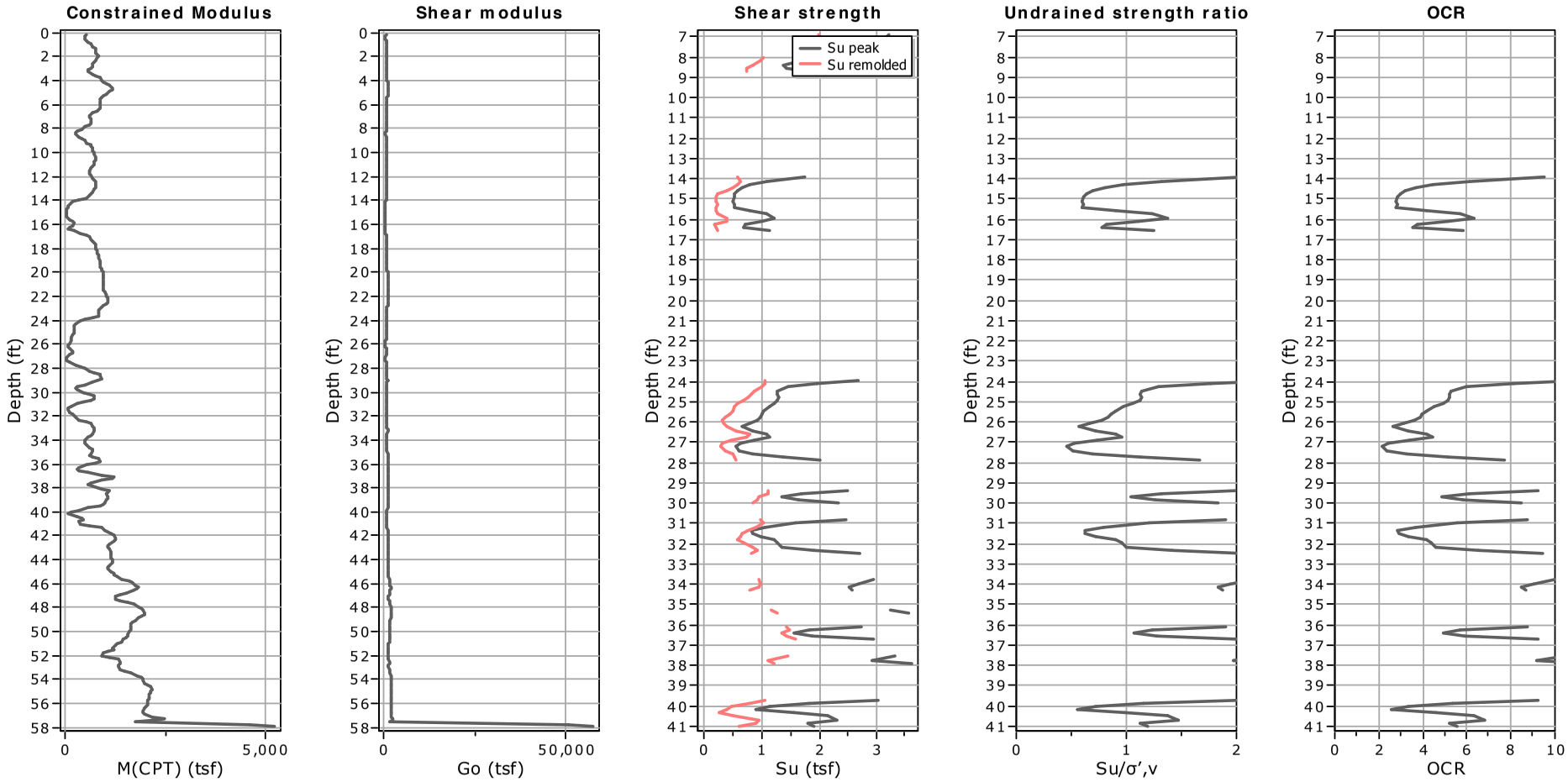
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative desnisty constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-1
Total depth: 57.91 ft, Date: 6/7/2017
Surface Elevation: 34.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



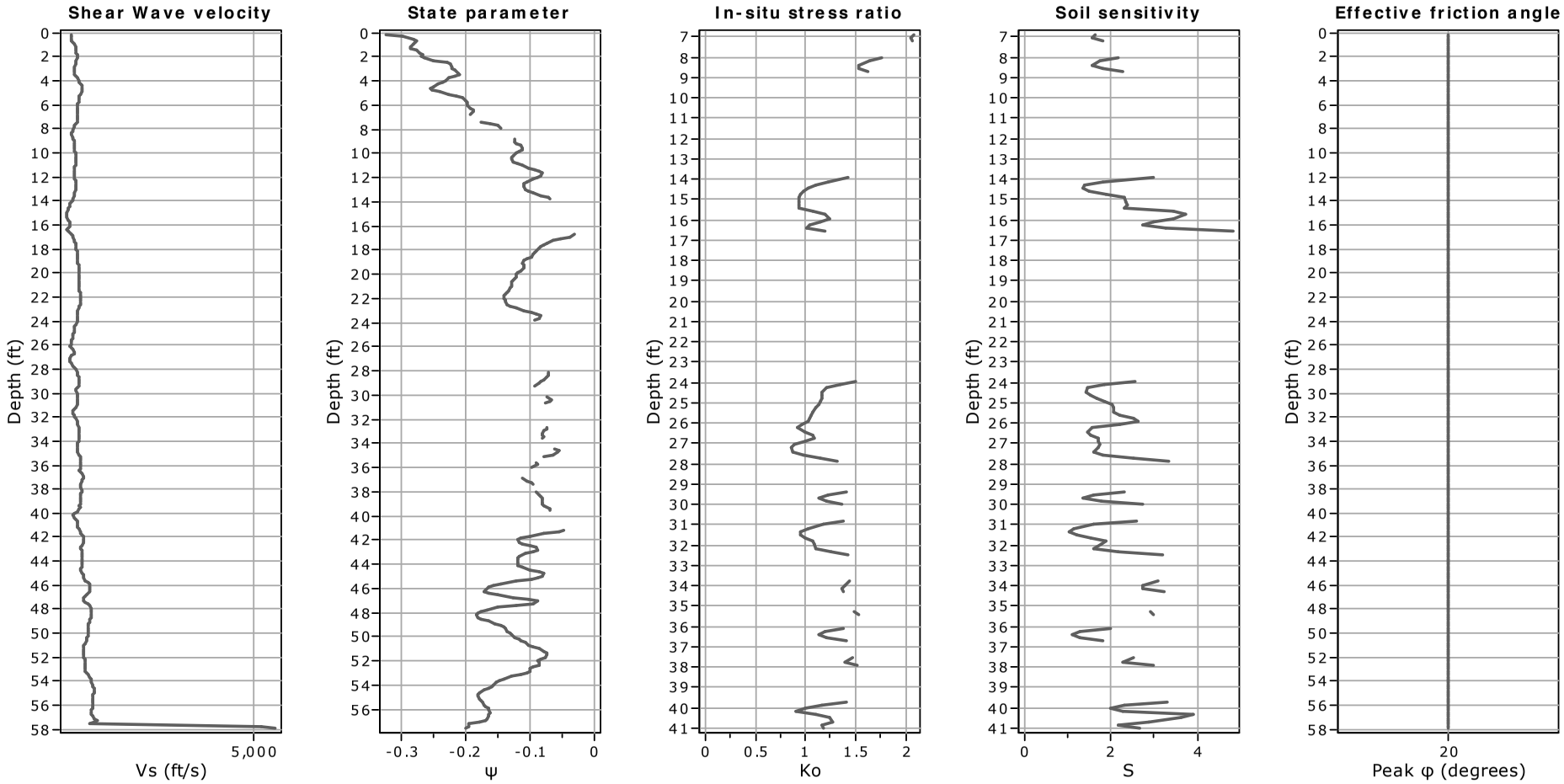
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-1
Total depth: 57.91 ft, Date: 6/7/2017
Surface Elevation: 34.00 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



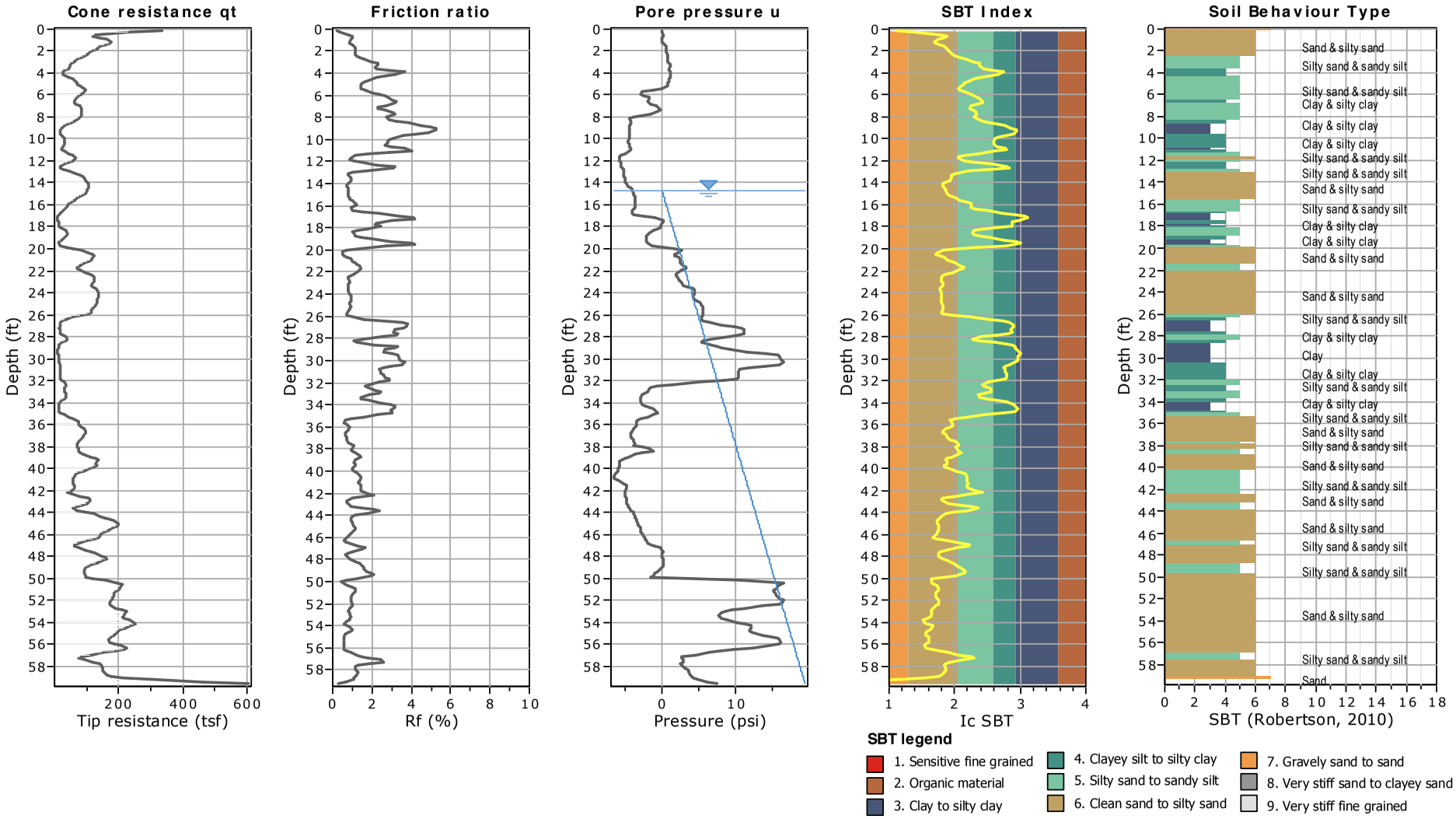
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-2
Total depth: 59.55 ft, Date: 6/7/2017
Surface Elevation: 35.50 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

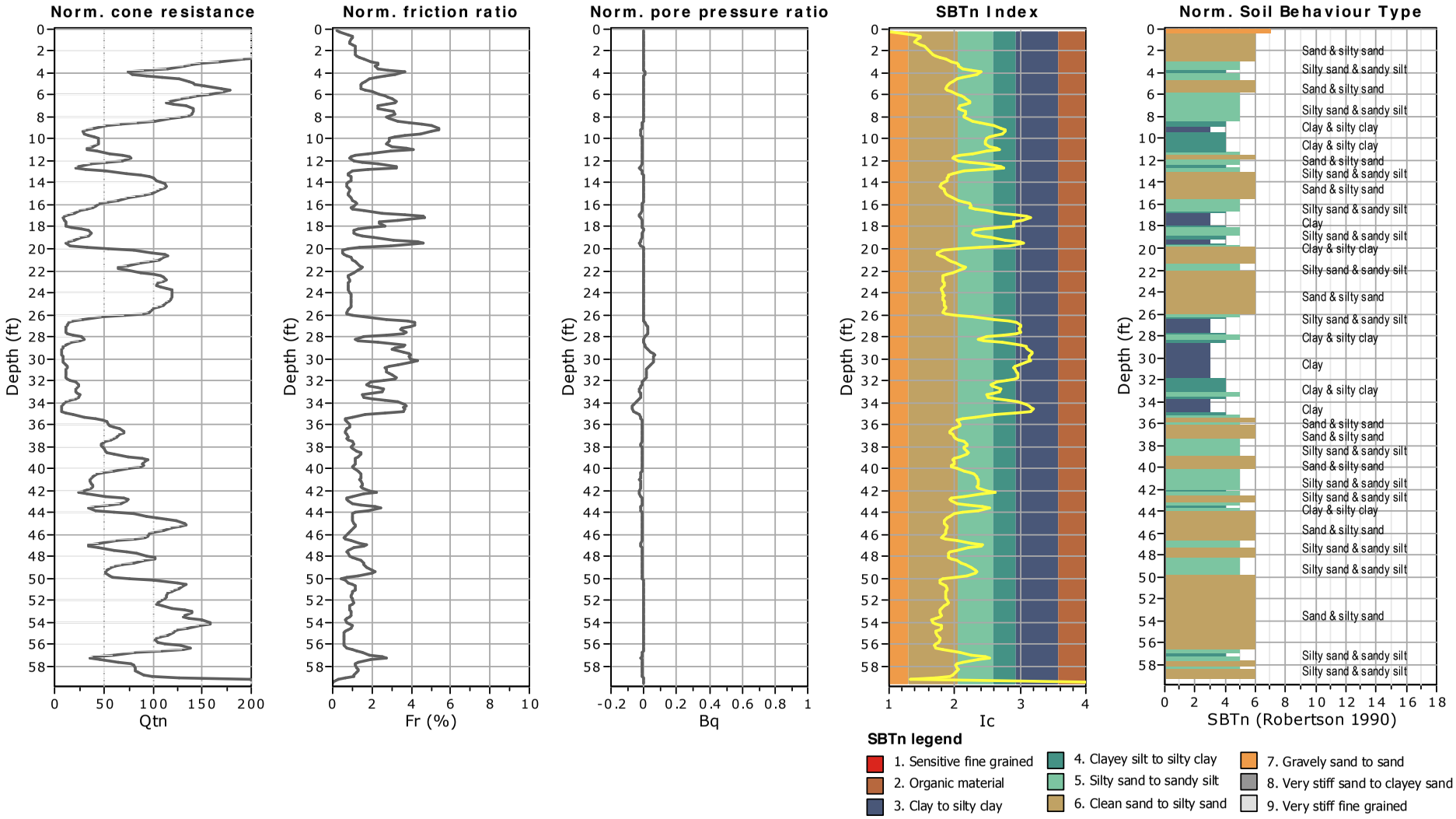
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-2
Total depth: 59.55 ft, Date: 6/7/2017
Surface Elevation: 35.50 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

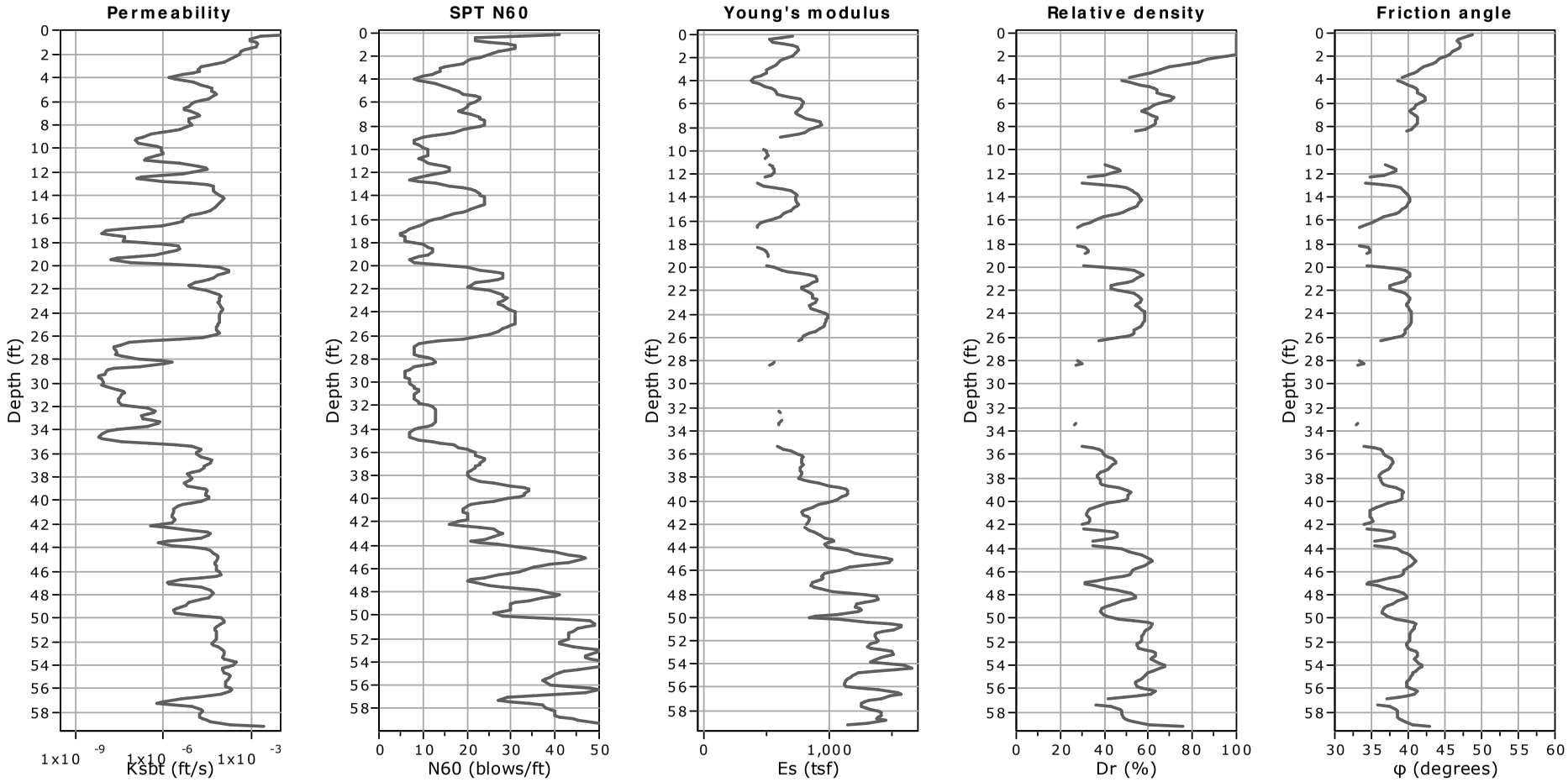
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-2
Total depth: 59.55 ft, Date: 6/7/2017
Surface Elevation: 35.50 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



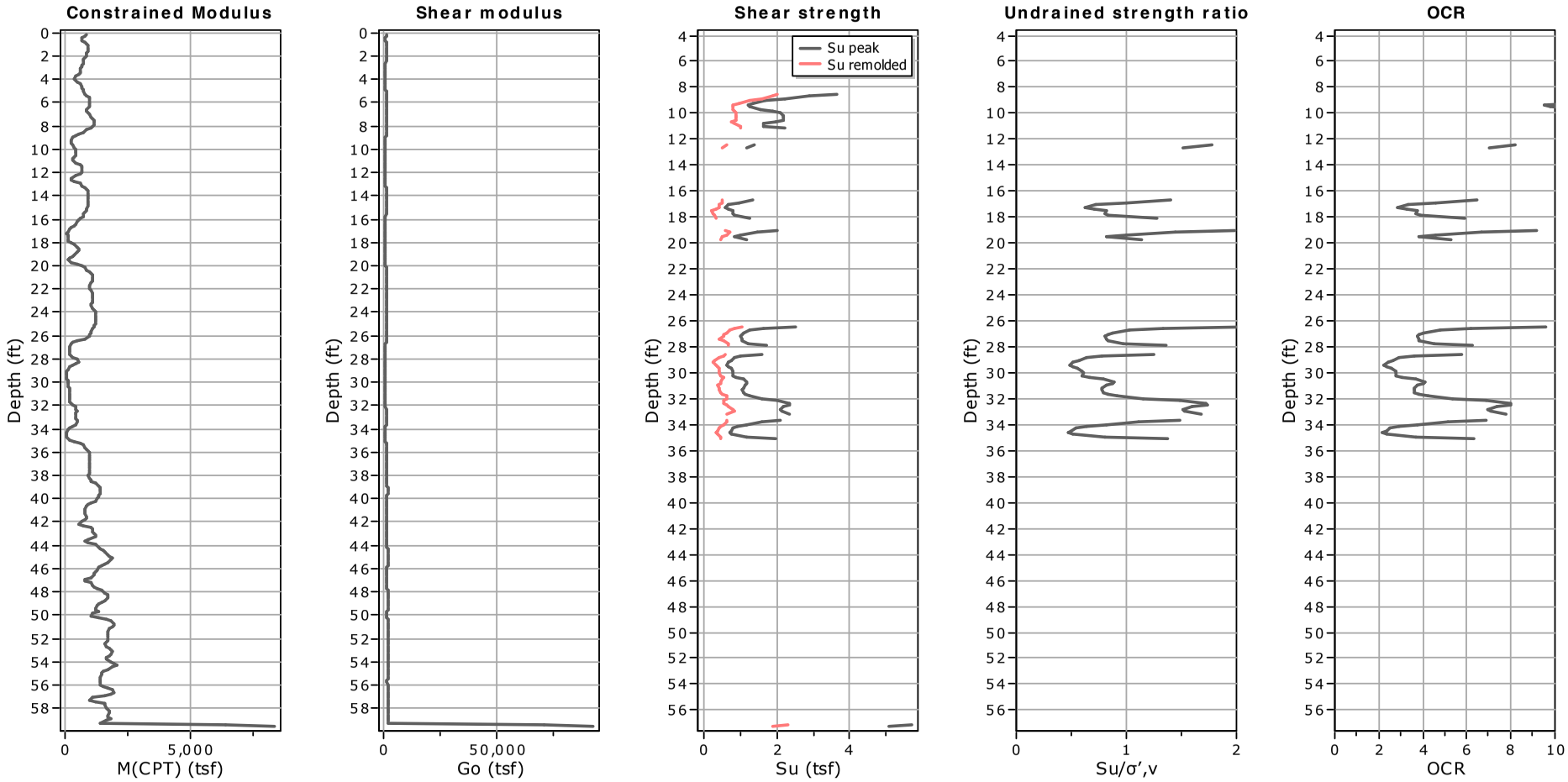
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative desnisty constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-2
Total depth: 59.55 ft, Date: 6/7/2017
Surface Elevation: 35.50 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



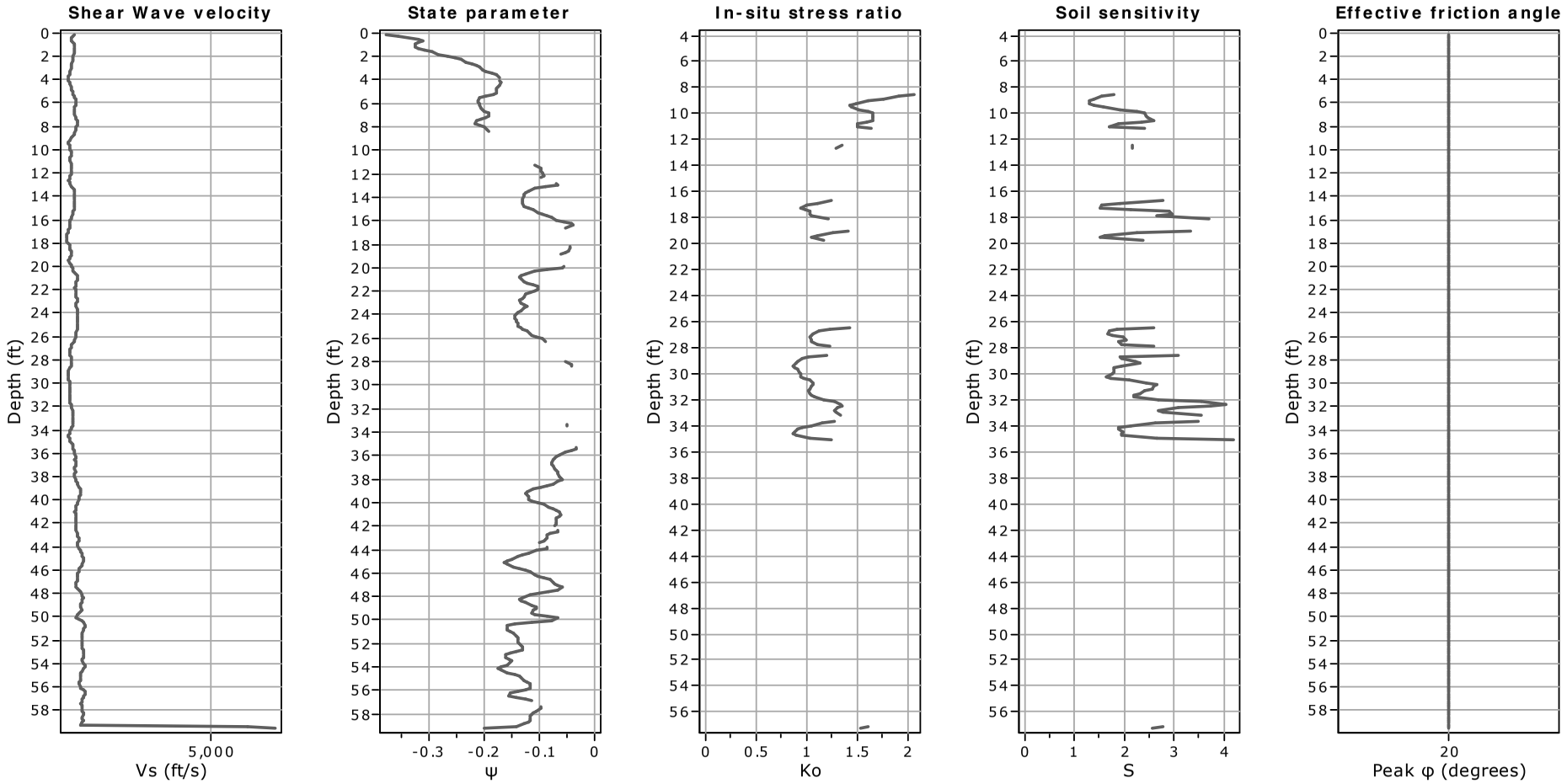
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-2
Total depth: 59.55 ft, Date: 6/7/2017
Surface Elevation: 35.50 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



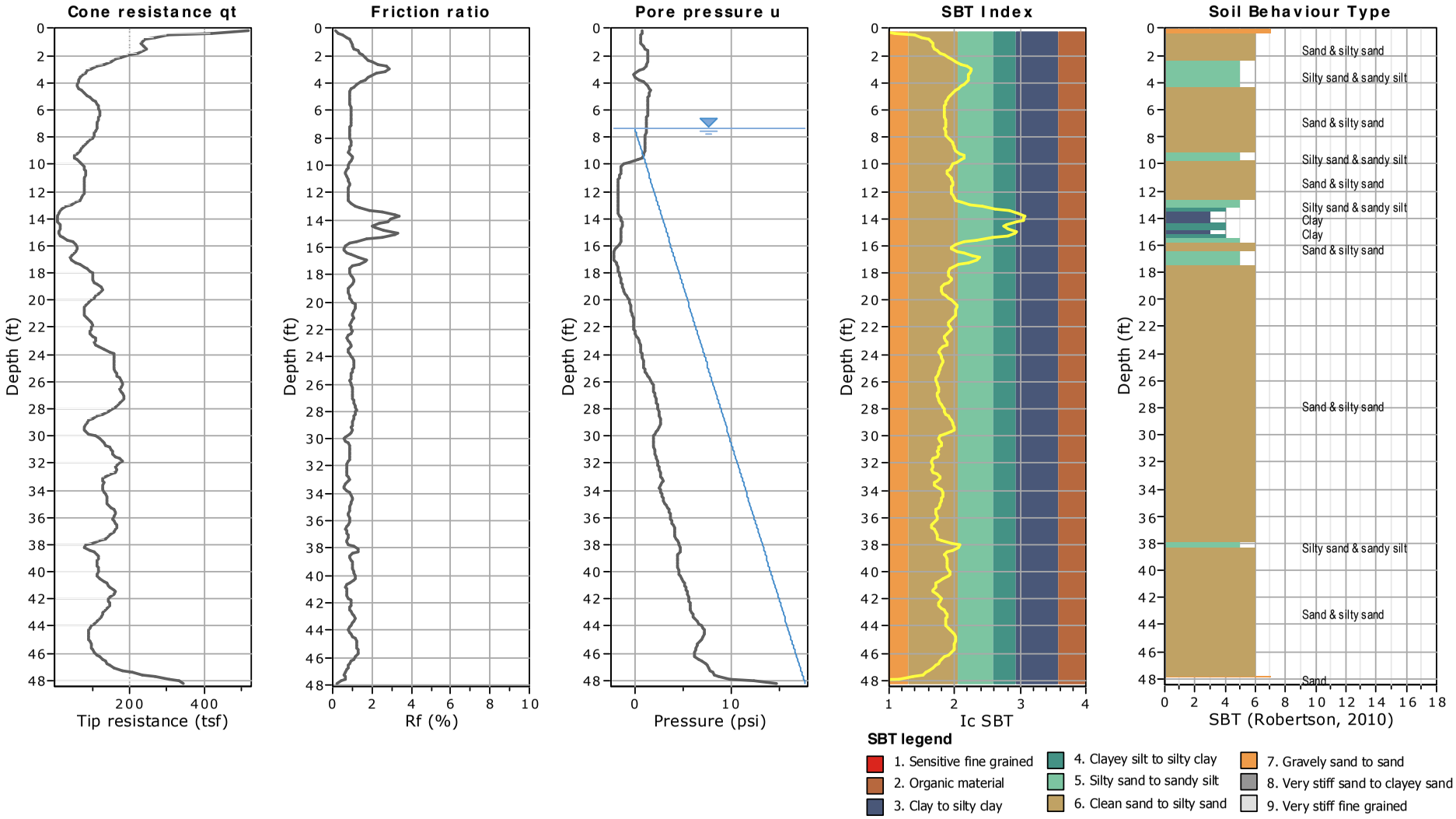
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-3
Total depth: 48.23 ft, Date: 6/7/2017
Surface Elevation: 32.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

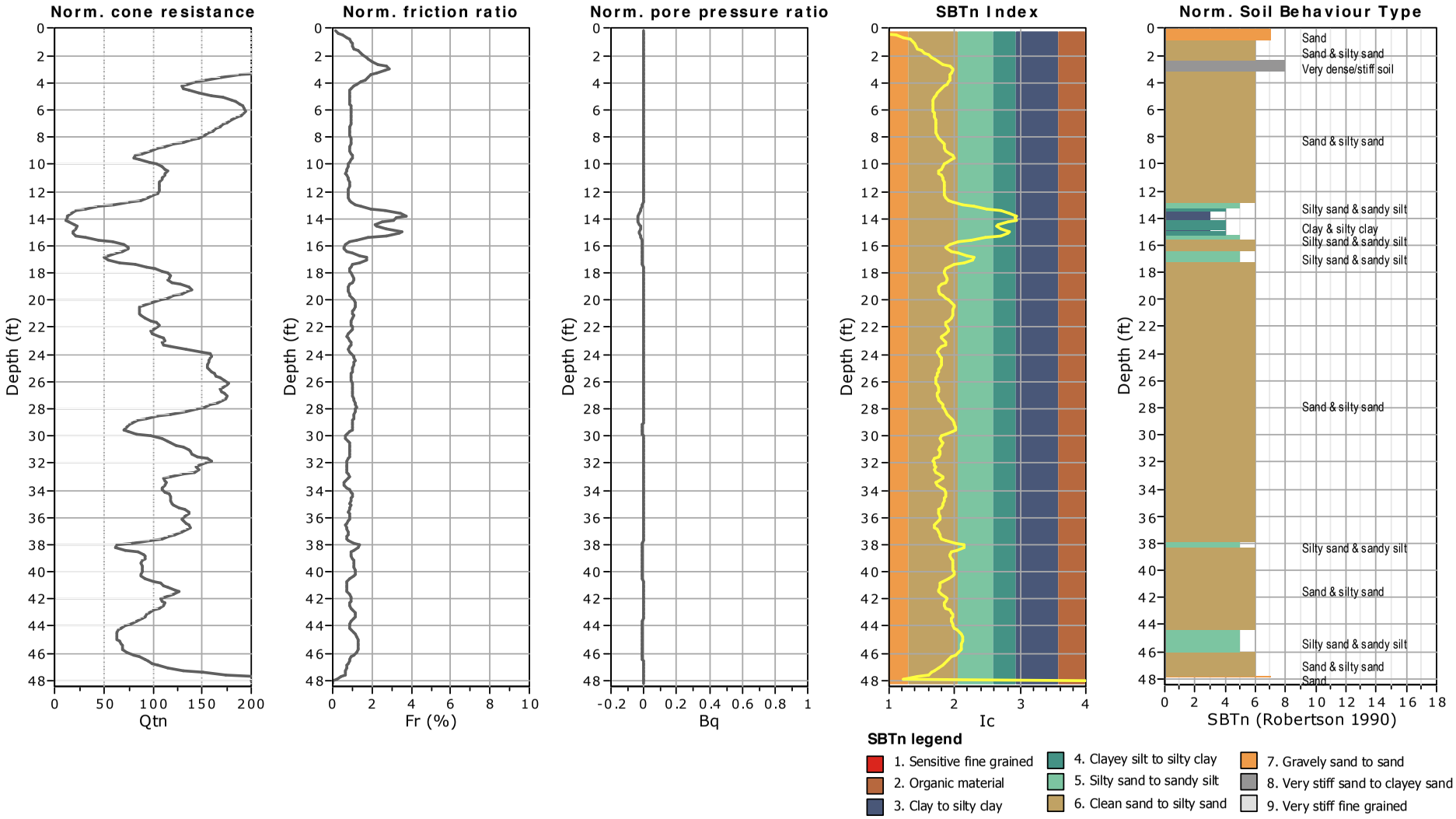
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-3
Total depth: 48.23 ft, Date: 6/7/2017
Surface Elevation: 32.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

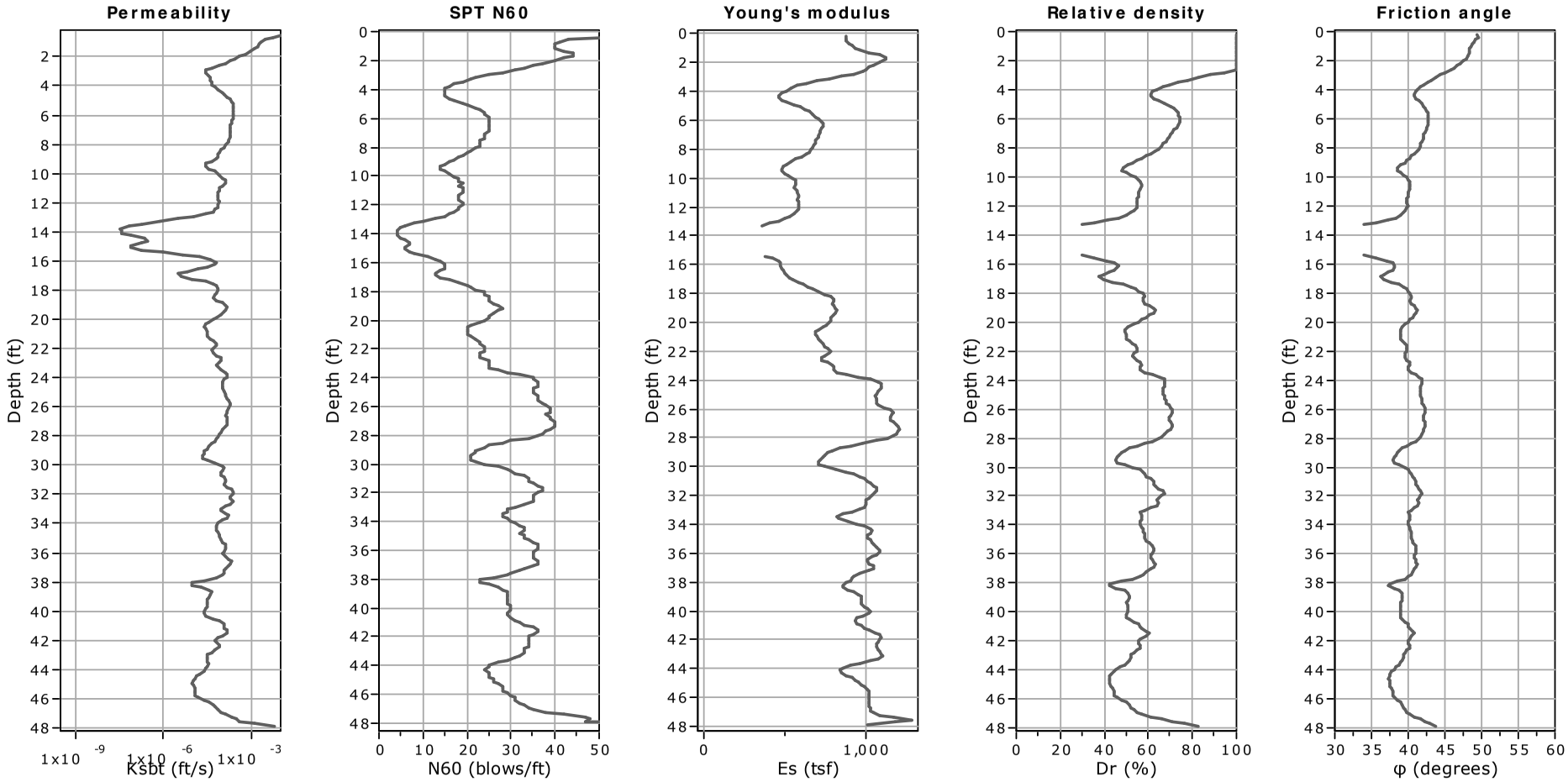
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-3
Total depth: 48.23 ft, Date: 6/7/2017
Surface Elevation: 32.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



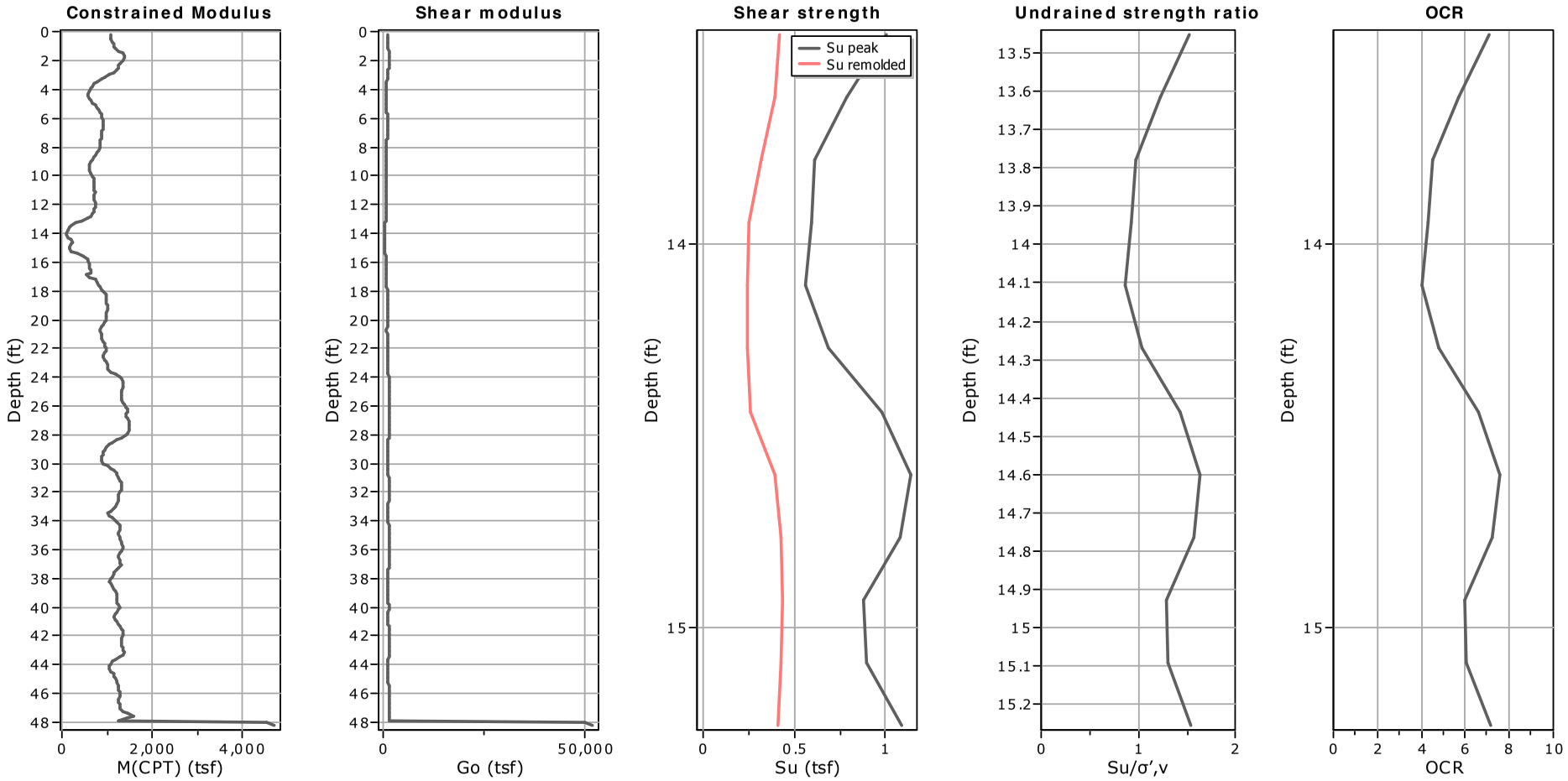
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative desnisty constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-3
Total depth: 48.23 ft, Date: 6/7/2017
Surface Elevation: 32.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



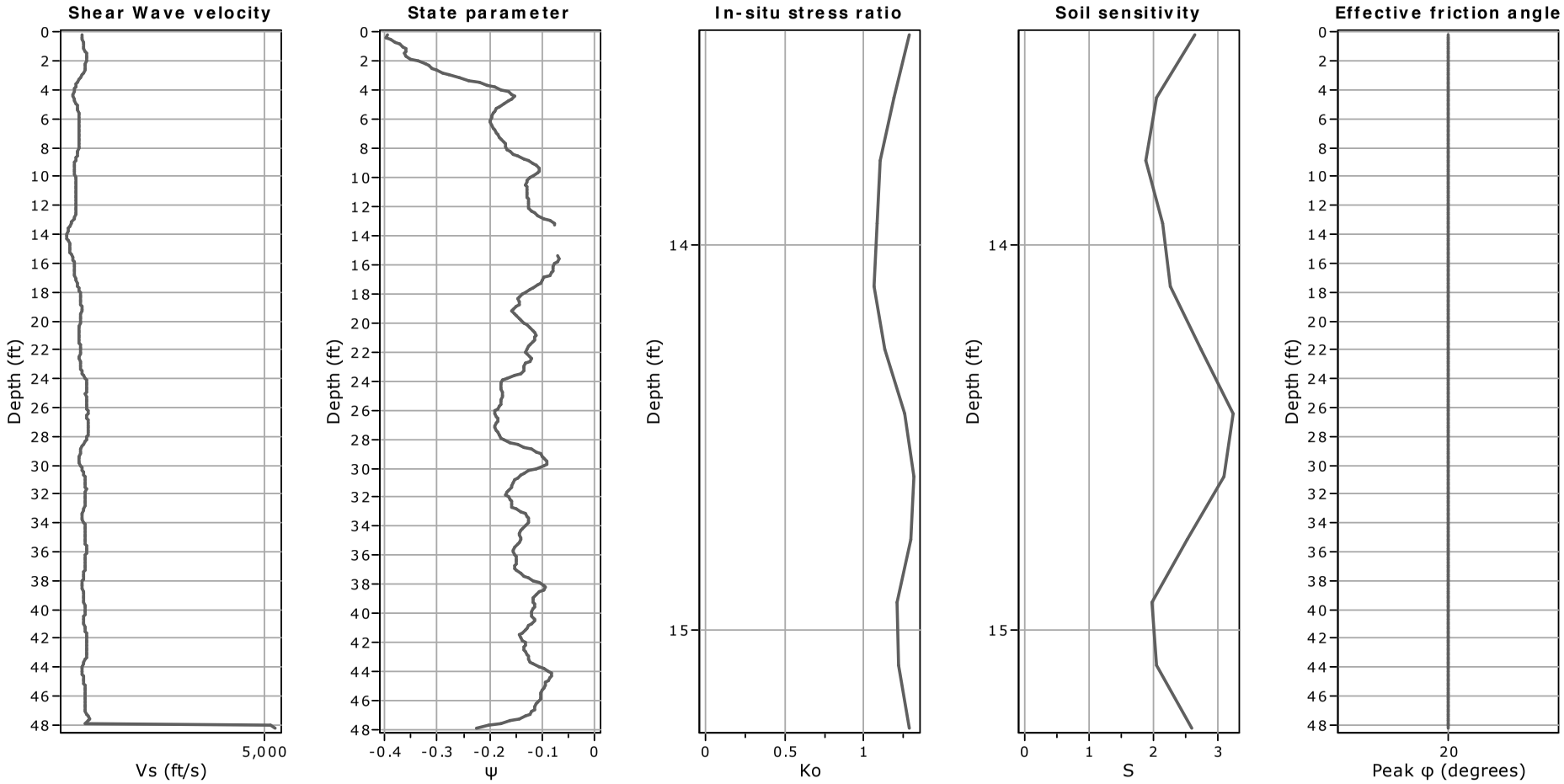
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-3
Total depth: 48.23 ft, Date: 6/7/2017
Surface Elevation: 32.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



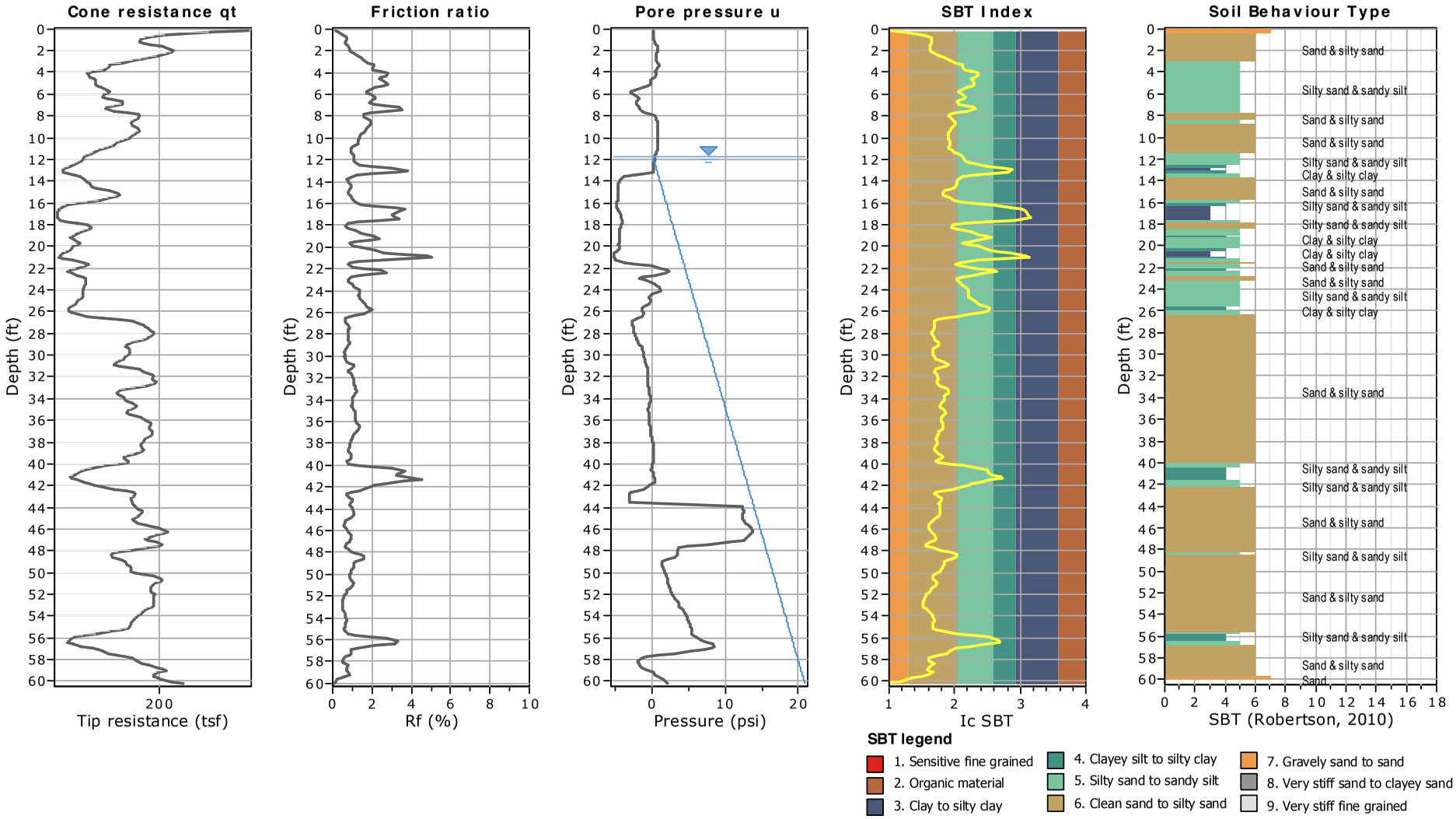
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-4
Total depth: 60.20 ft, Date: 6/7/2017
Surface Elevation: 35.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

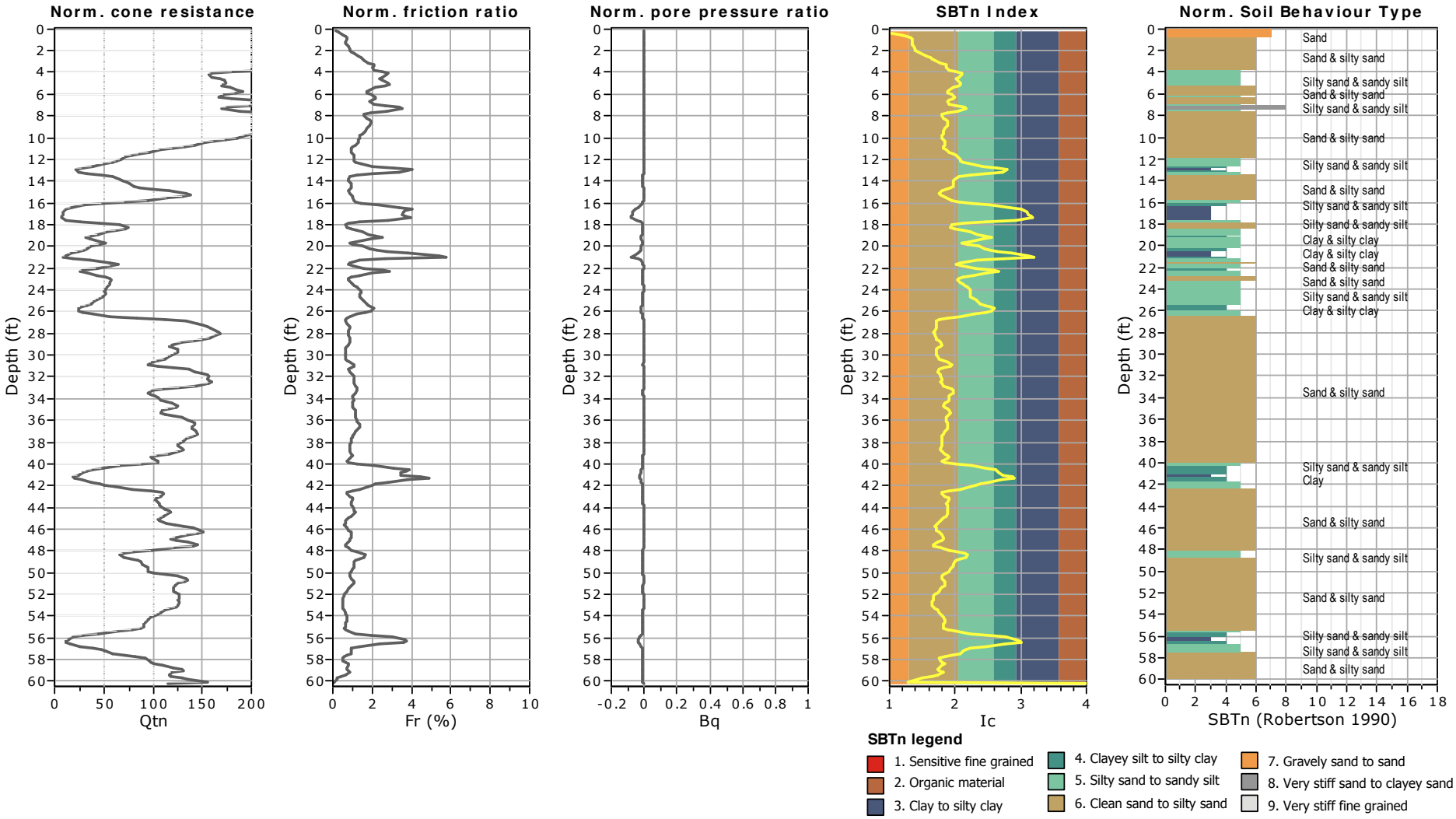
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-4
Total depth: 60.20 ft, Date: 6/7/2017
Surface Elevation: 35.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

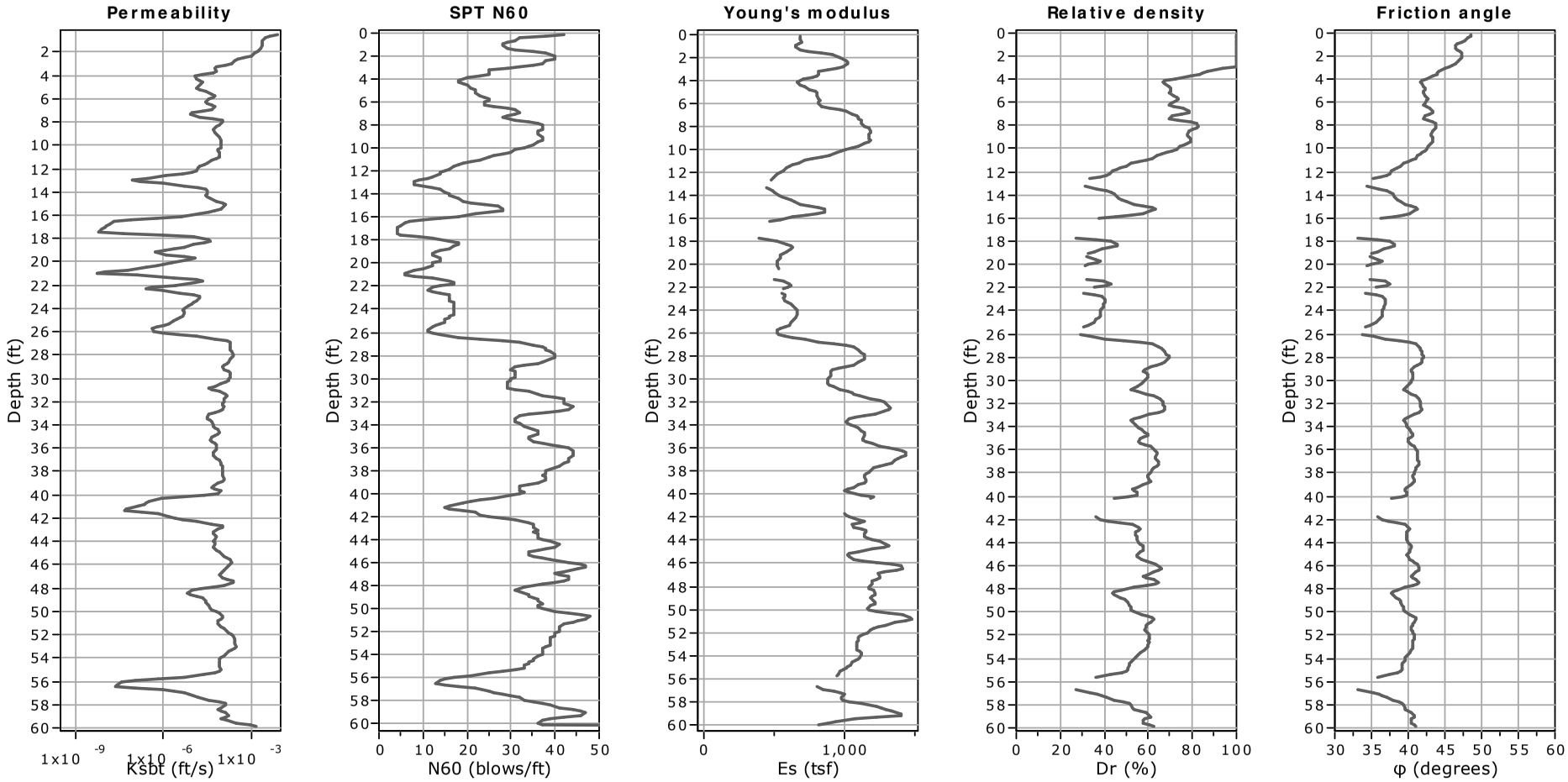
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-4
Total depth: 60.20 ft, Date: 6/7/2017
Surface Elevation: 35.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



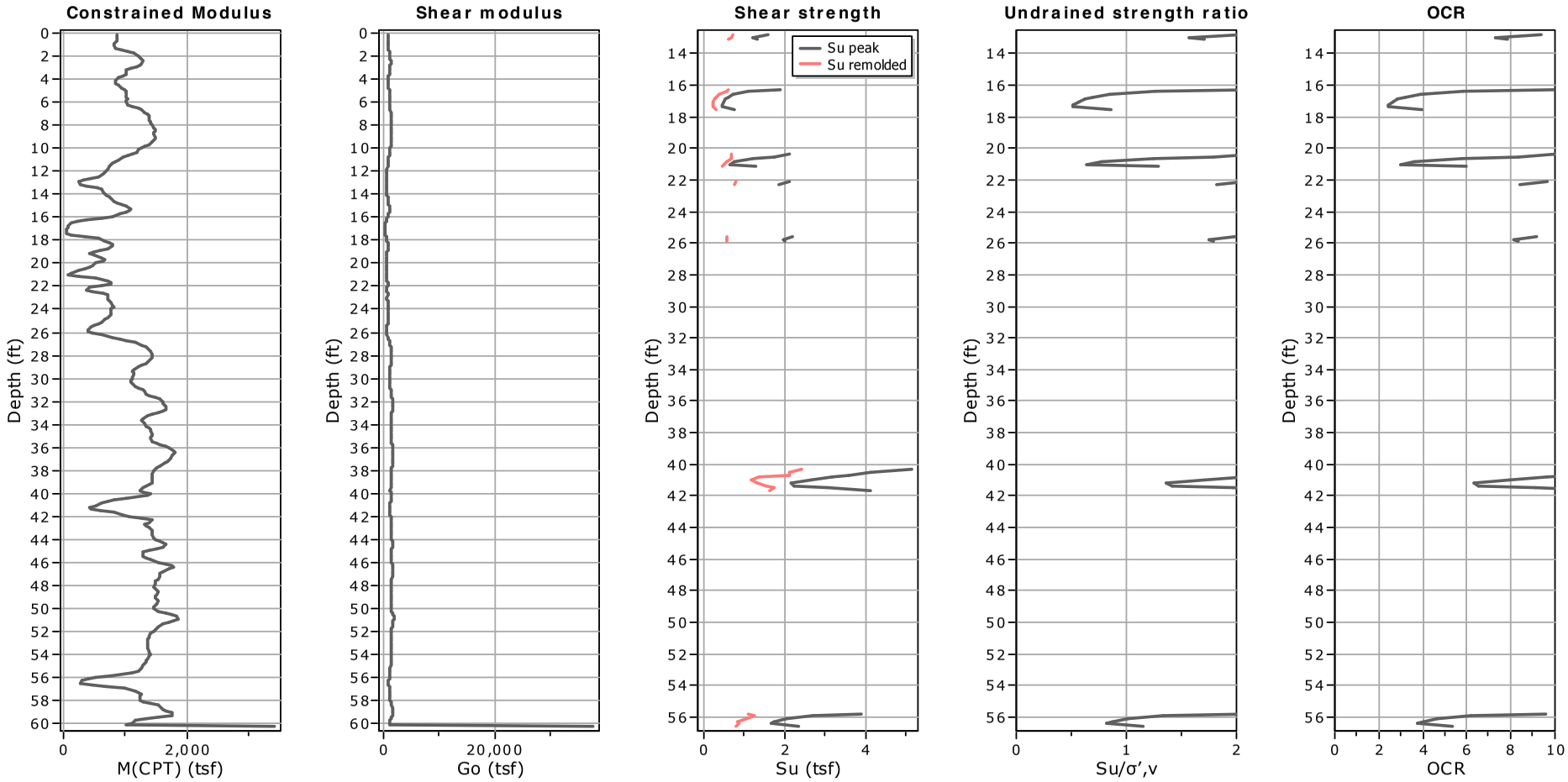
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative desnisty constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-4
Total depth: 60.20 ft, Date: 6/7/2017
Surface Elevation: 35.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



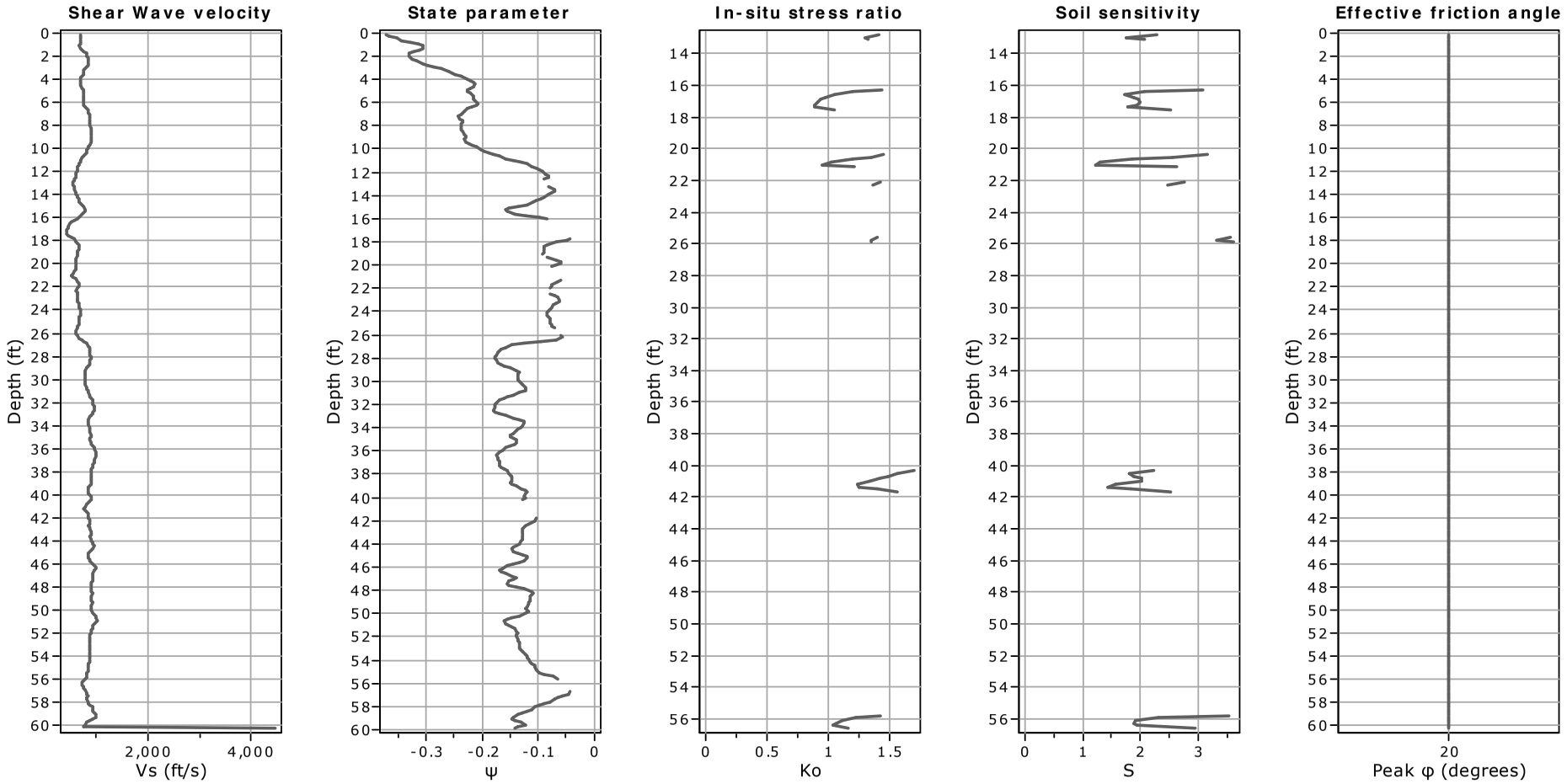
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-4
Total depth: 60.20 ft, Date: 6/7/2017
Surface Elevation: 35.70 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



Calculation parameters

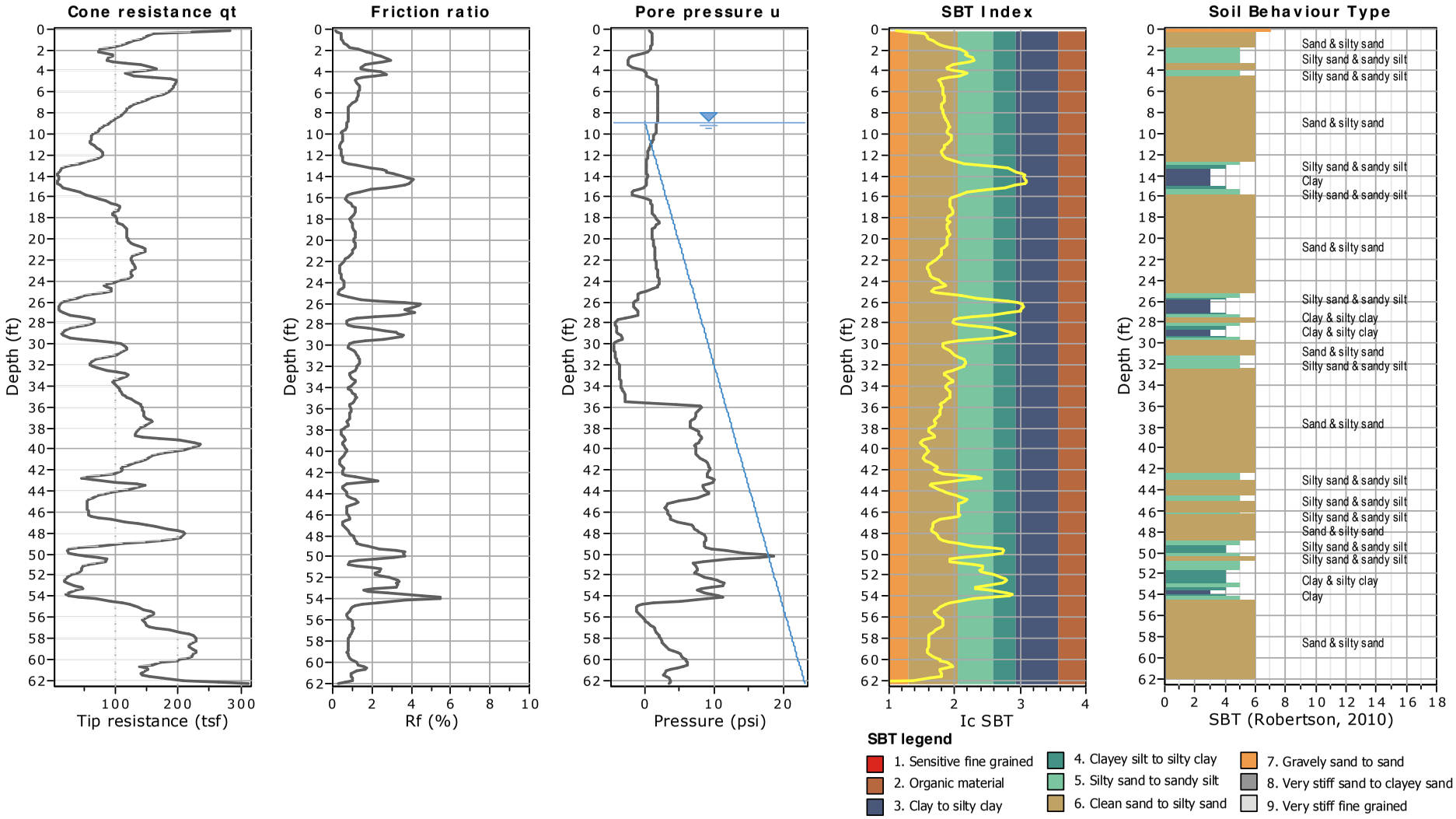
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-5
Total depth: 62.34 ft, Date: 6/7/2017
Surface Elevation: 34.20 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

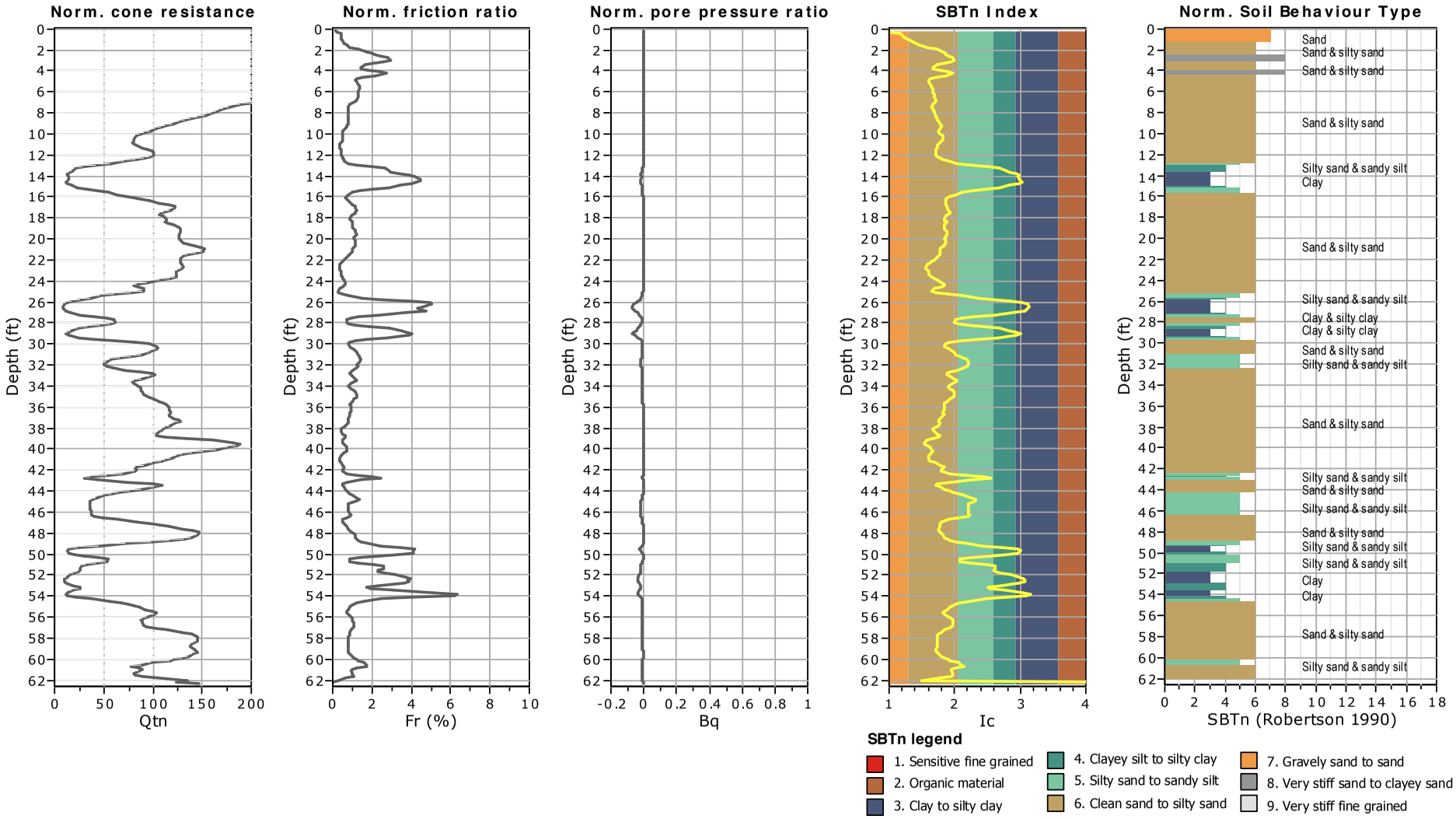
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-5
Total depth: 62.34 ft, Date: 6/7/2017
Surface Elevation: 34.20 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

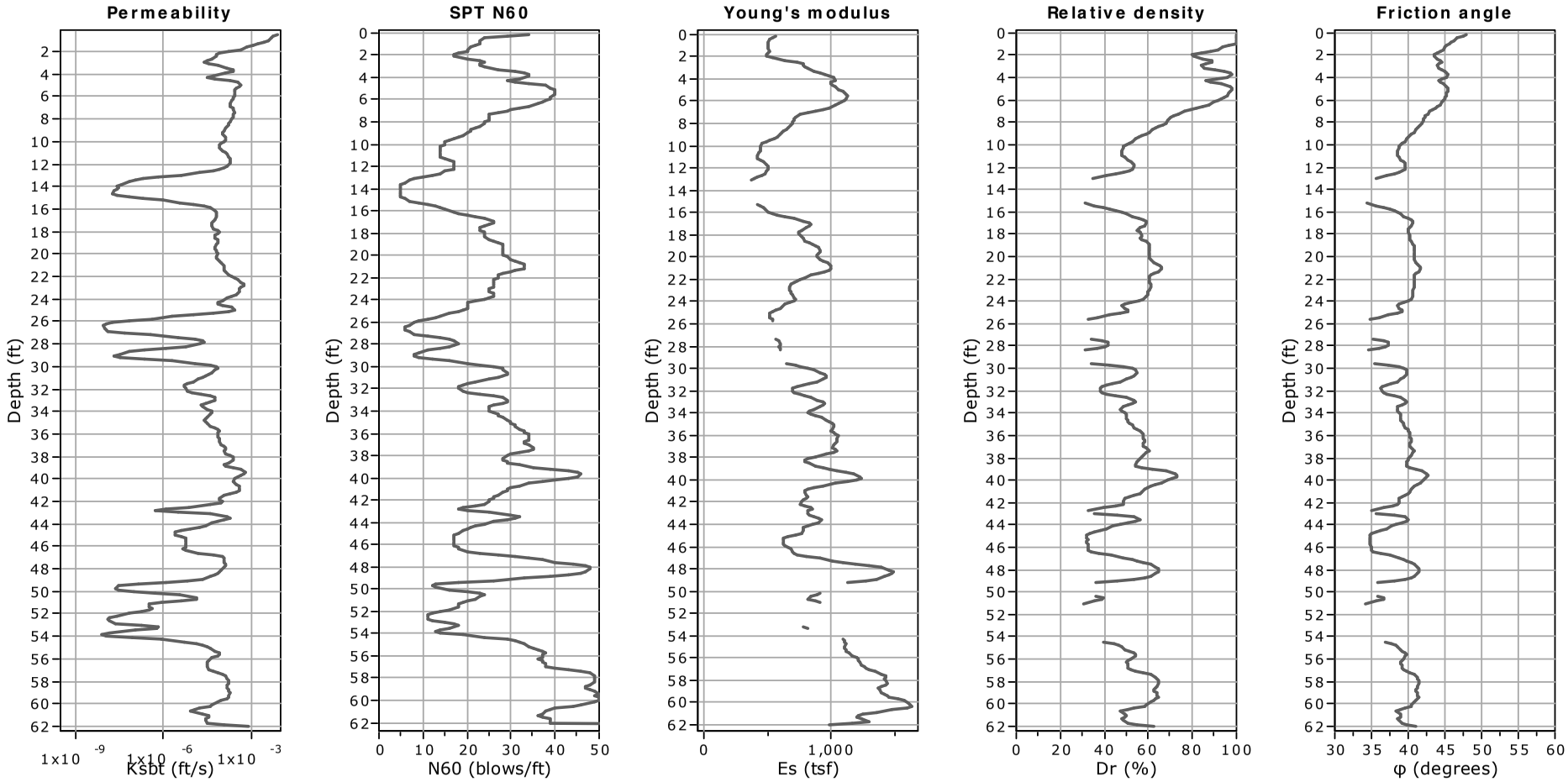
Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-5
Total depth: 62.34 ft, Date: 6/7/2017
Surface Elevation: 34.20 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



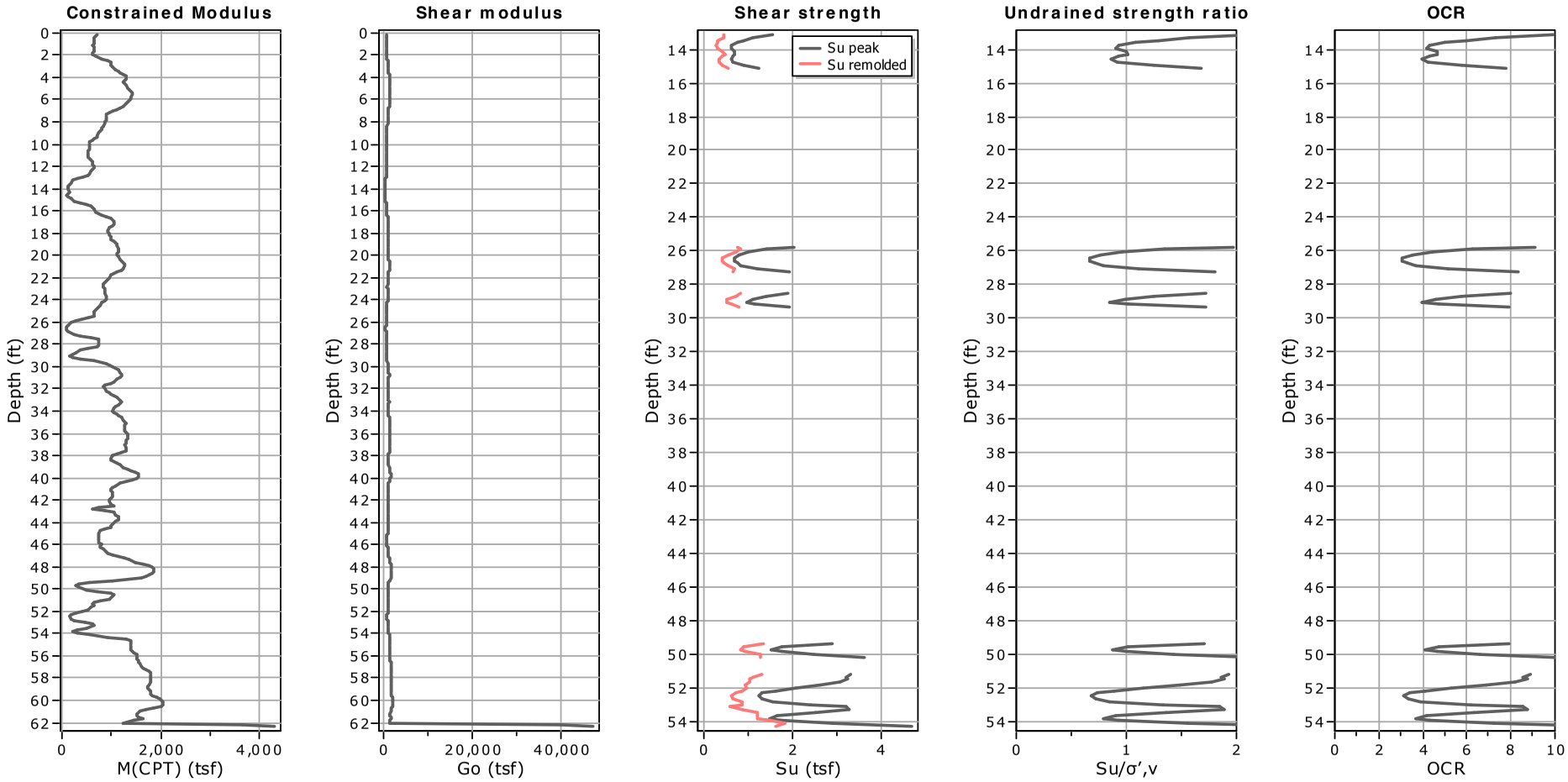
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative desnisty constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-5
Total depth: 62.34 ft, Date: 6/7/2017
Surface Elevation: 34.20 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: **Witt Mission Valley Mixed-Use Project**
Location: **588 Camino Del Rio North, San Diego, California**



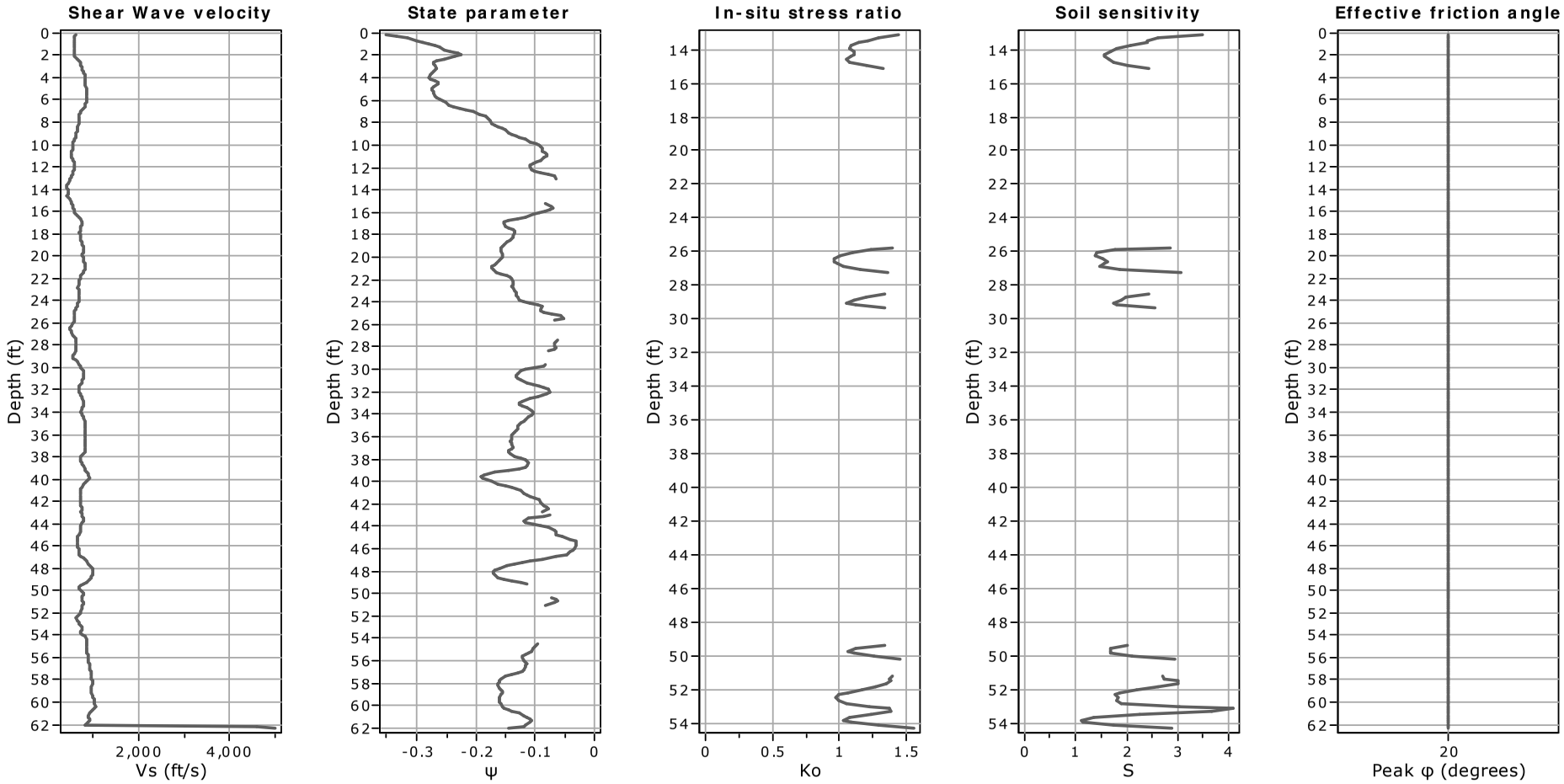
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 14
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California

CPT: CPT-5
Total depth: 62.34 ft, Date: 6/7/2017
Surface Elevation: 34.20 ft
Coords: X:0.00, Y:0.00
Cone Type:
Cone Operator: Kehoe Testing & Engineering

Project: Witt Mission Valley Mixed-Use Project
Location: 588 Camino Del Rio North, San Diego, California



Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Appendix D

Liquefaction Analyses

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California 92105

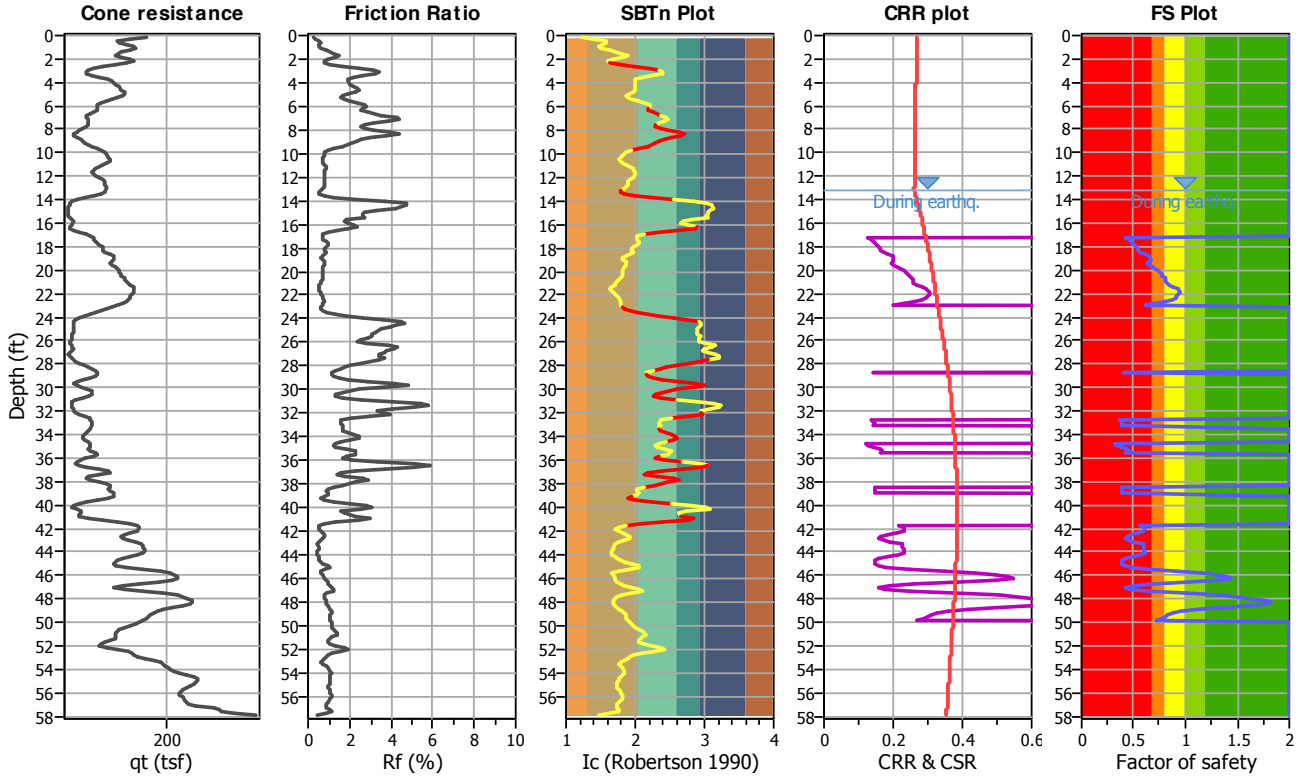
LIQUEFACTION ANALYSIS REPORT

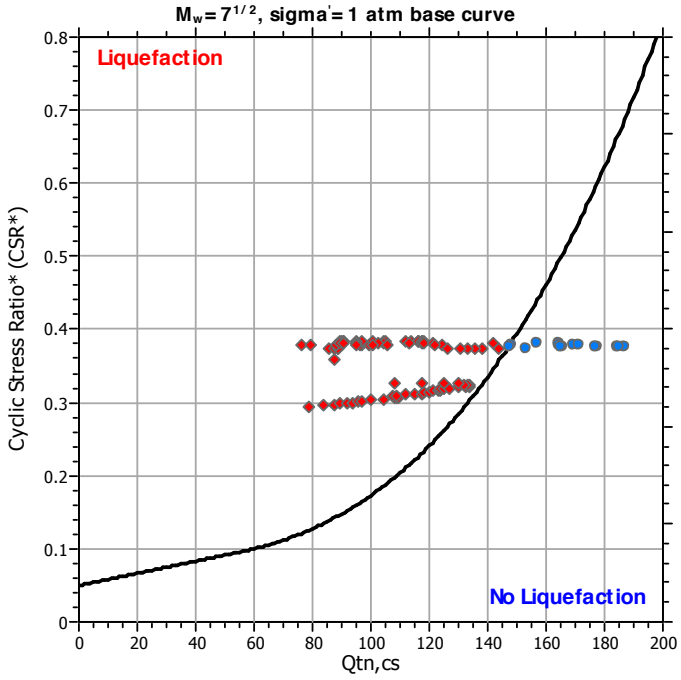
Project title : Witt Mission Valley Mixed-Use Project **Location : 588 Camino Del Rio North, San Diego, California**

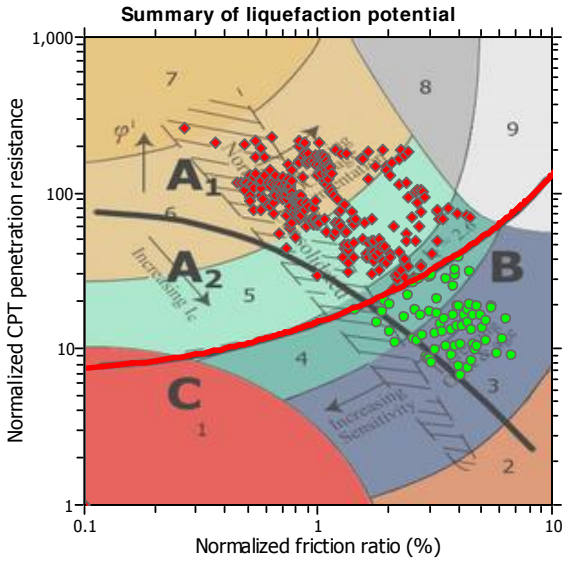
CPT file : CPT-1

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	13.20 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	13.20 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.90	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

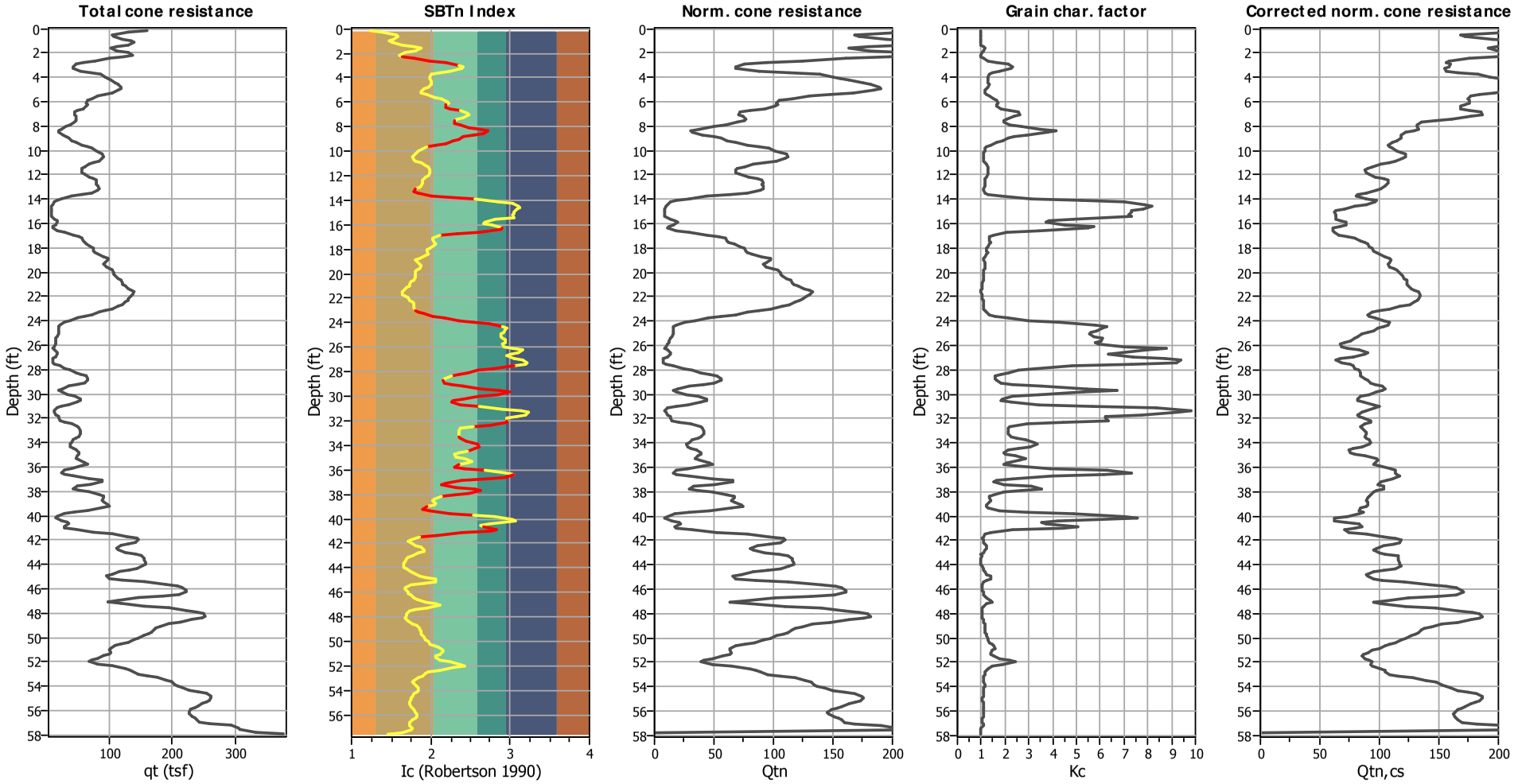






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

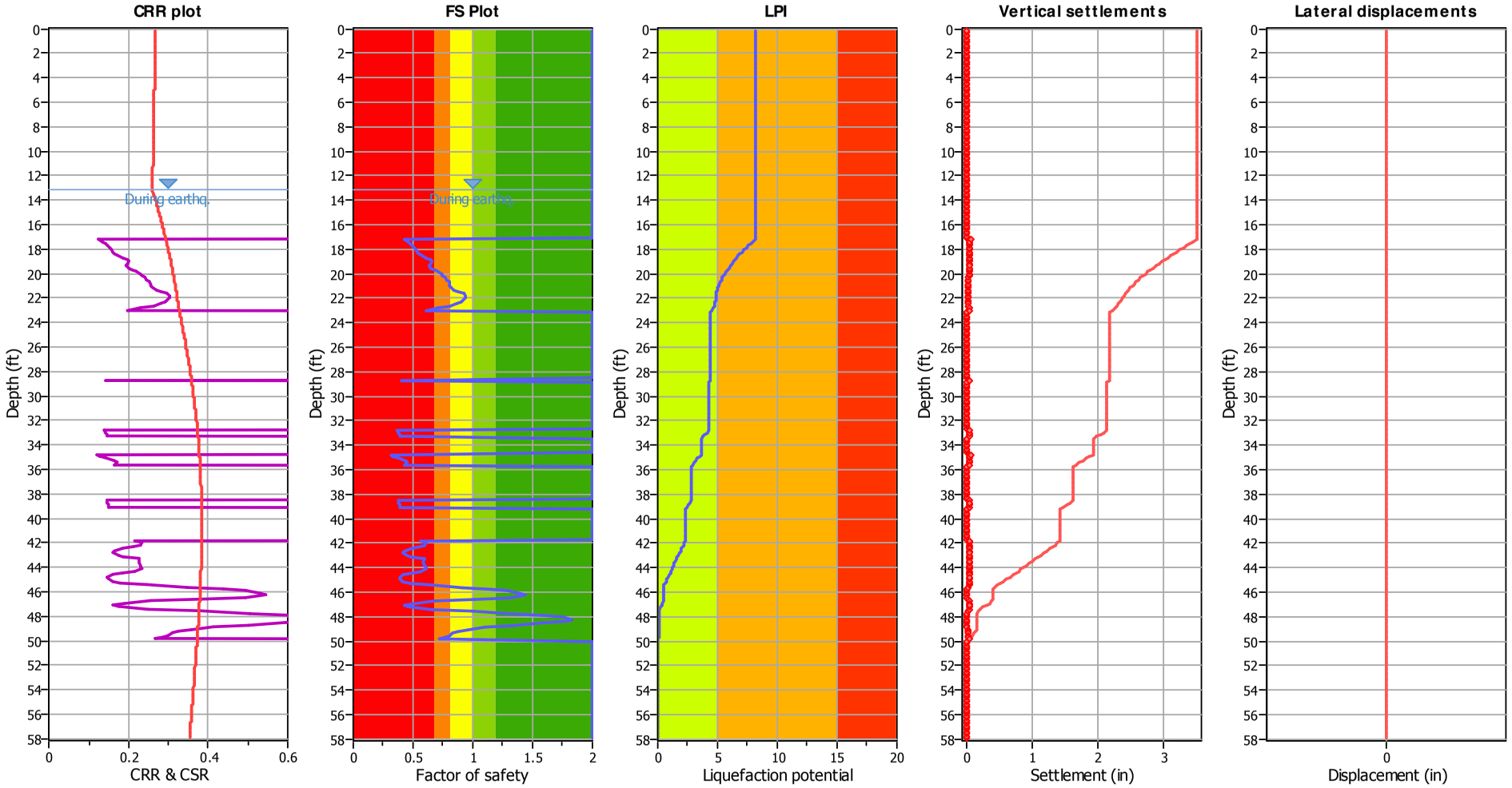
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	13.20 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	13.20 ft	Fill height:	N/A	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	13.20 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	13.20 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California 92105

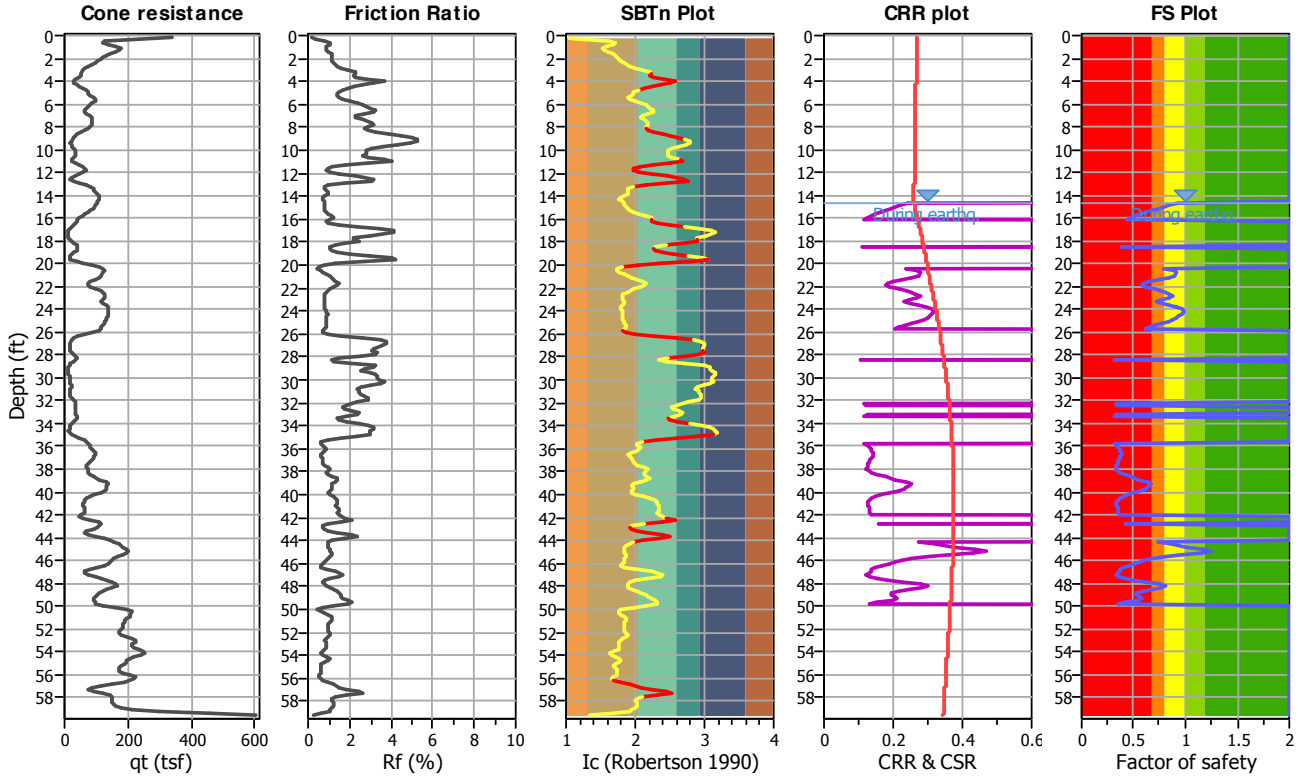
LIQUEFACTION ANALYSIS REPORT

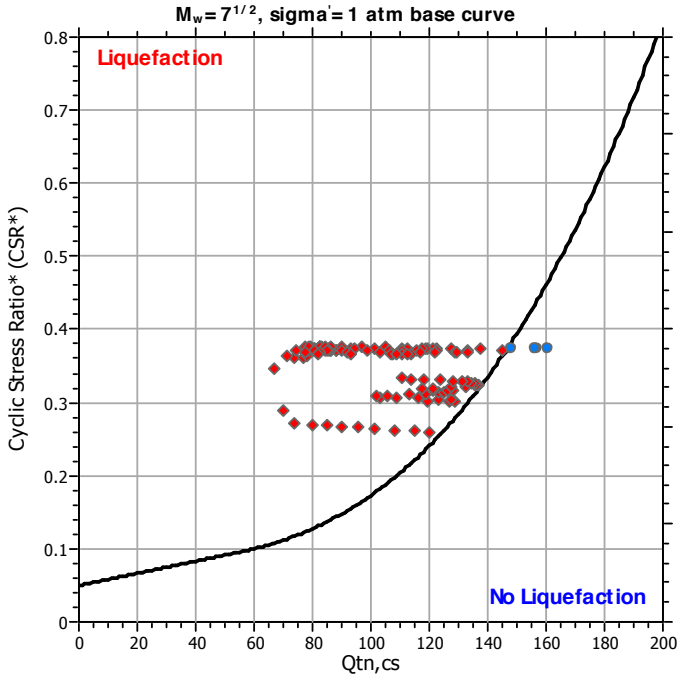
Project title : Witt Mission Valley Mixed-Use Project **Location : 588 Camino Del Rio North, San Diego, California**

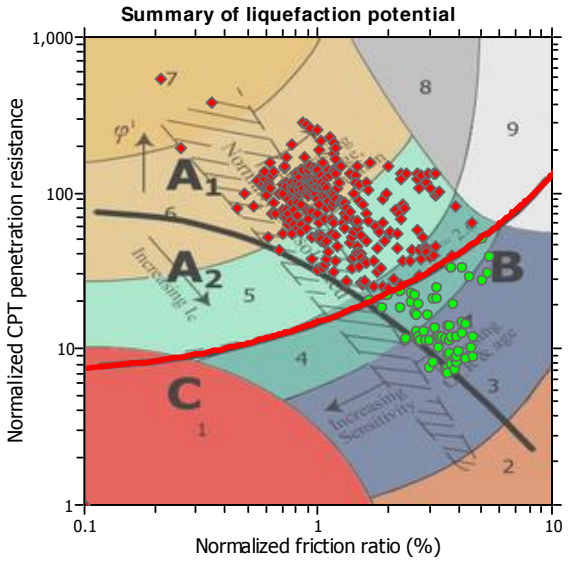
CPT file : CPT-2

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	14.70 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	14.70 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.90	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

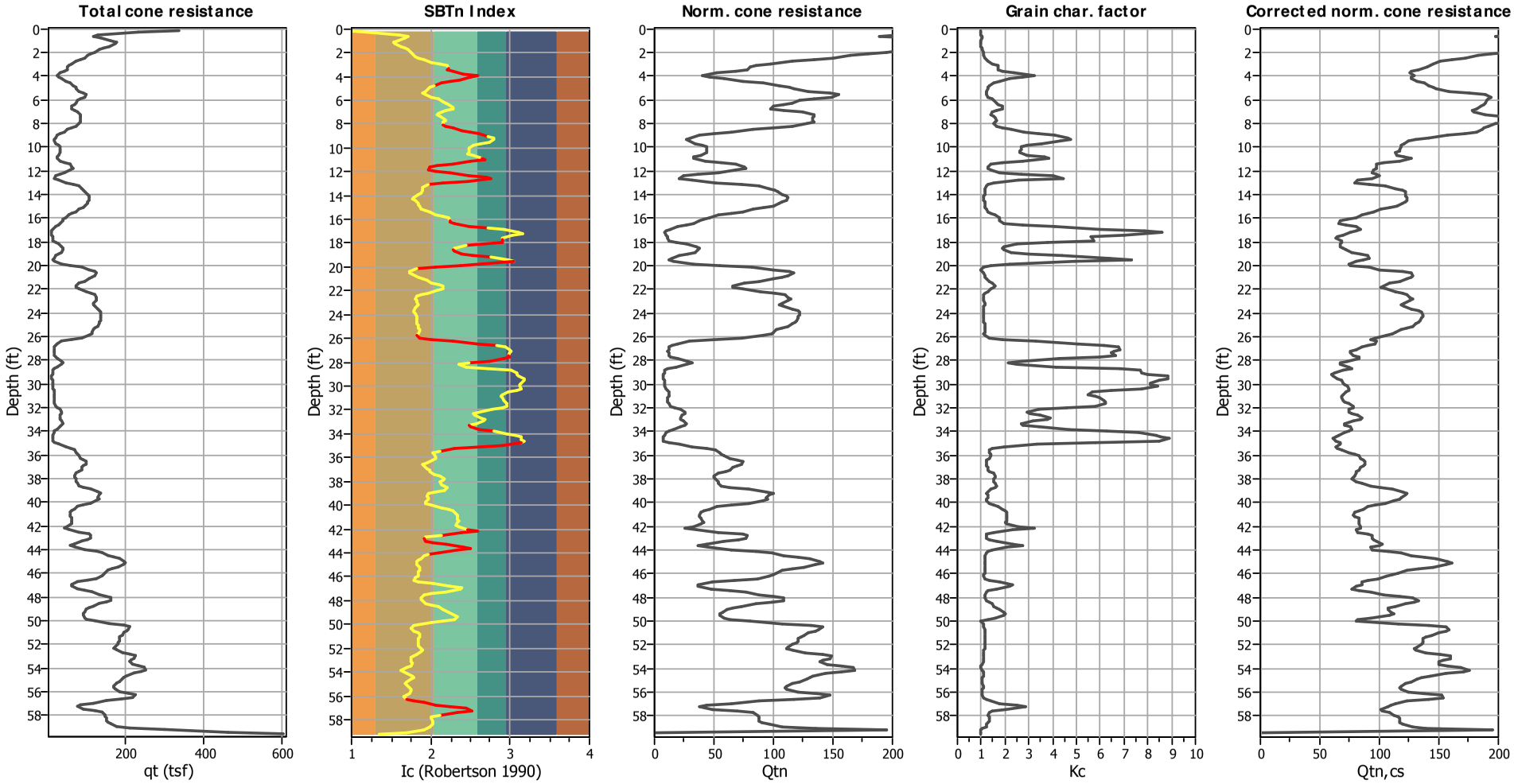






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

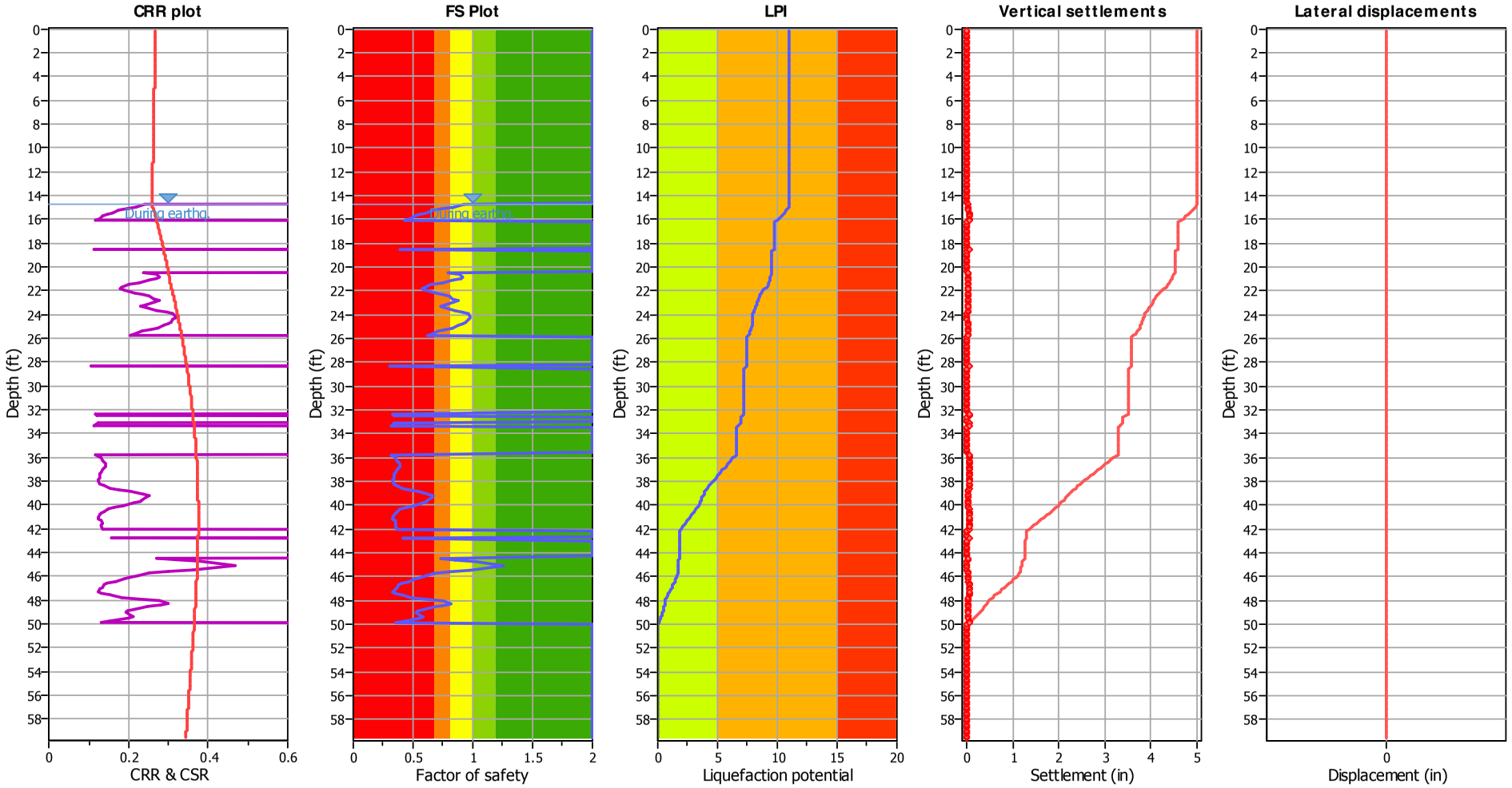
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.70 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.70 ft	Fill height:	N/A	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	14.70 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	14.70 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California 92105

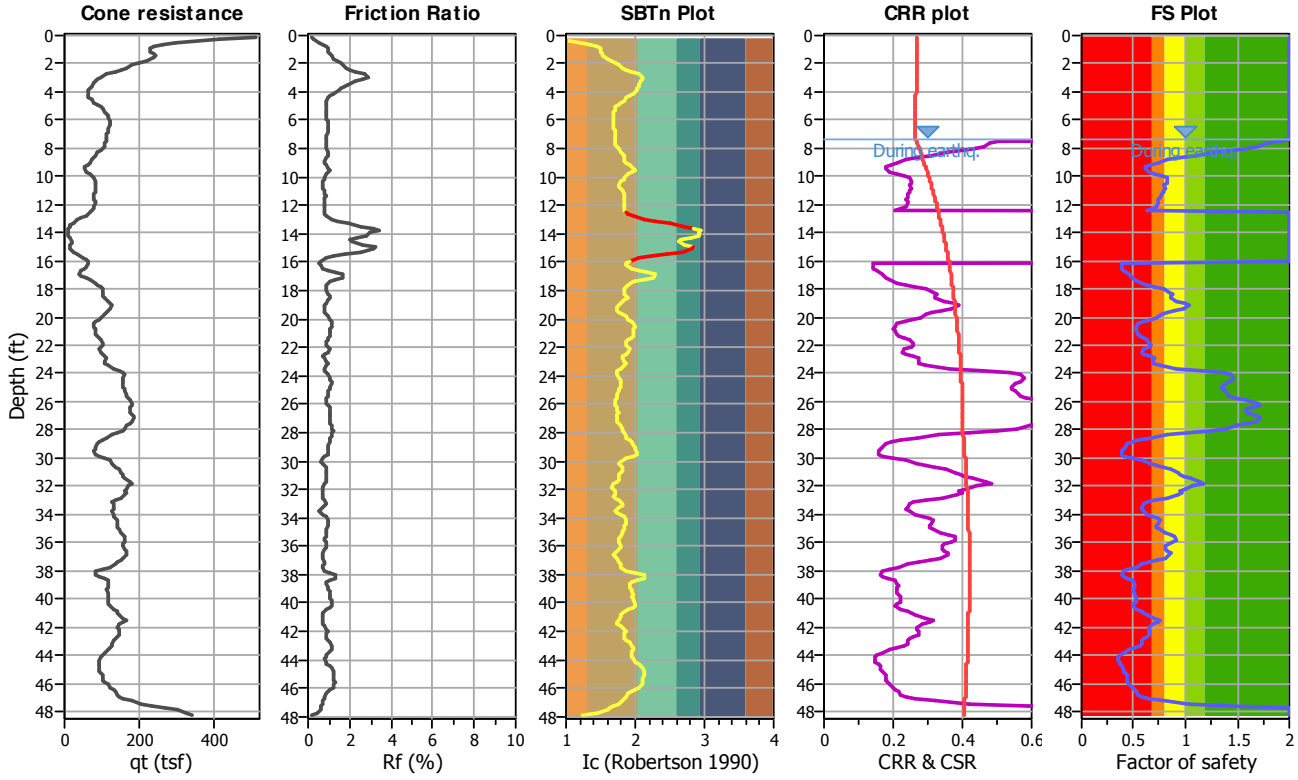
LIQUEFACTION ANALYSIS REPORT

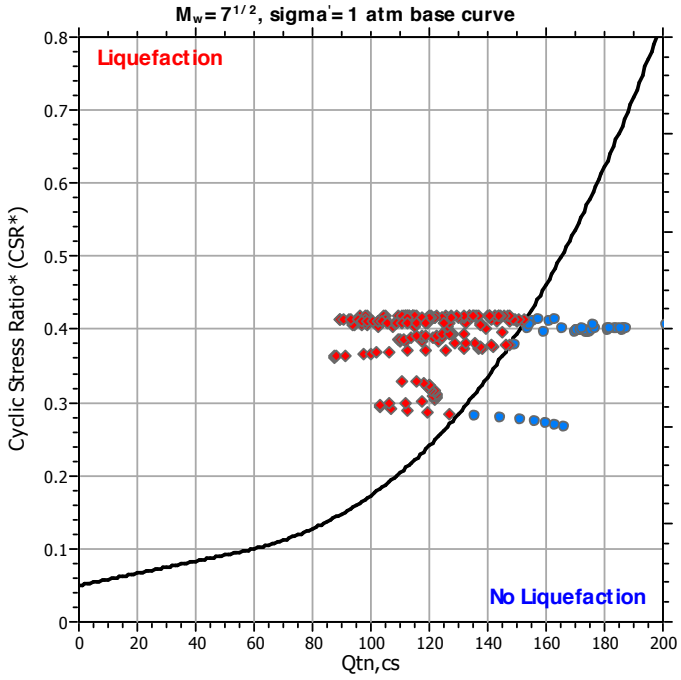
Project title : Witt Mission Valley Mixed-Use Project **Location : 588 Camino Del Rio North, San Diego, California**

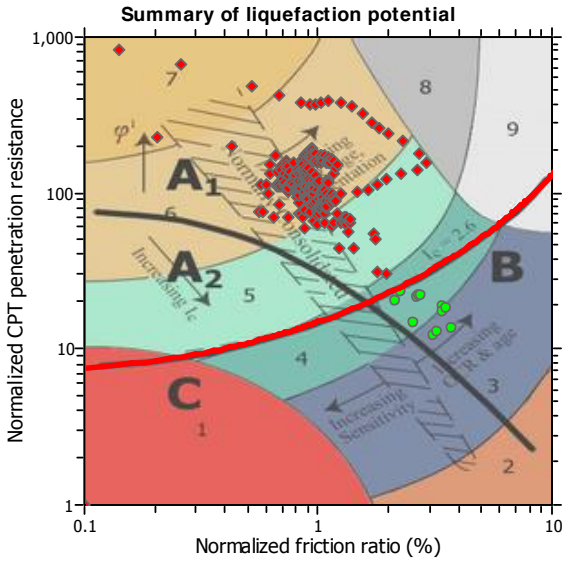
CPT file : CPT-3

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	7.40 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	7.40 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.90	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

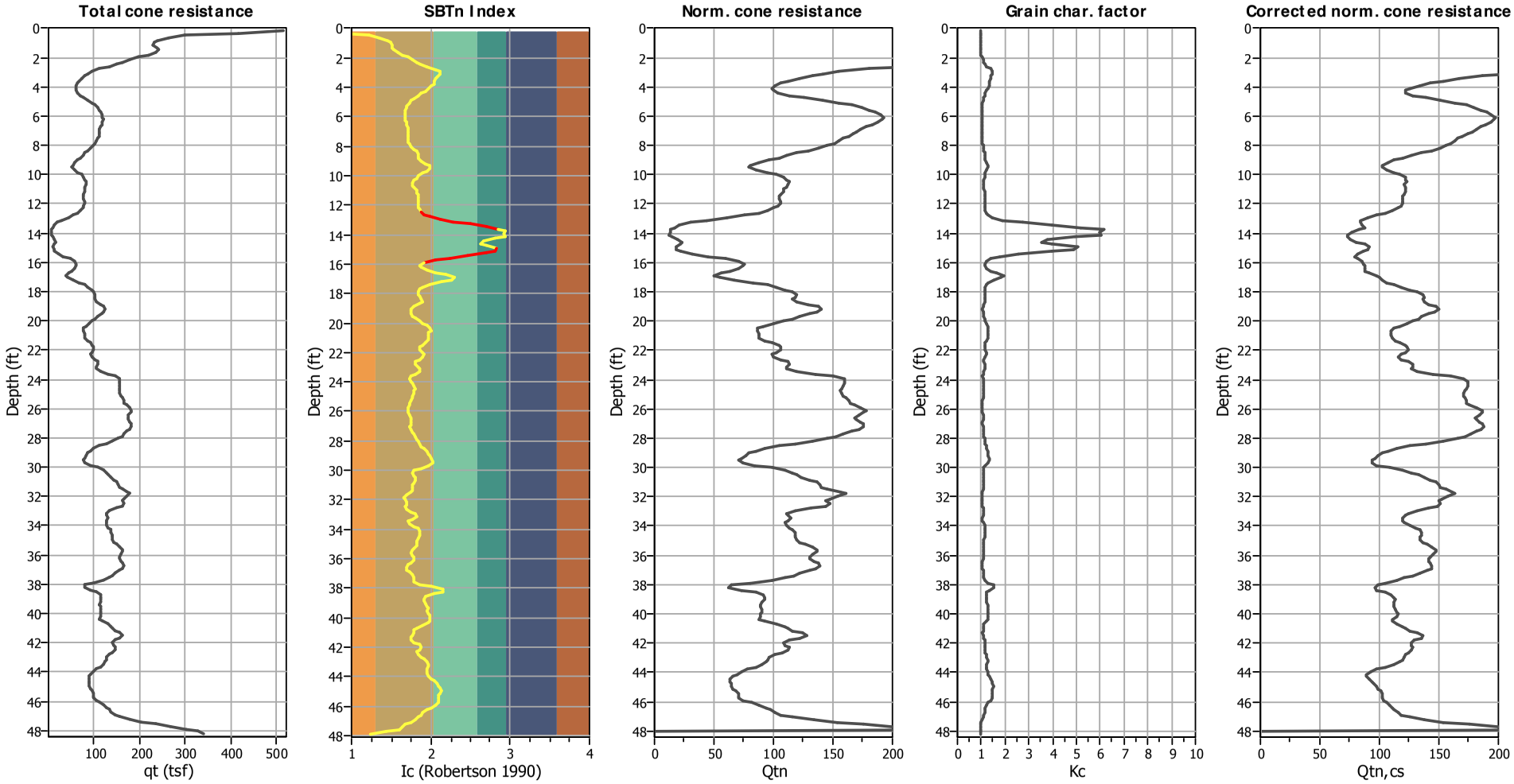






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

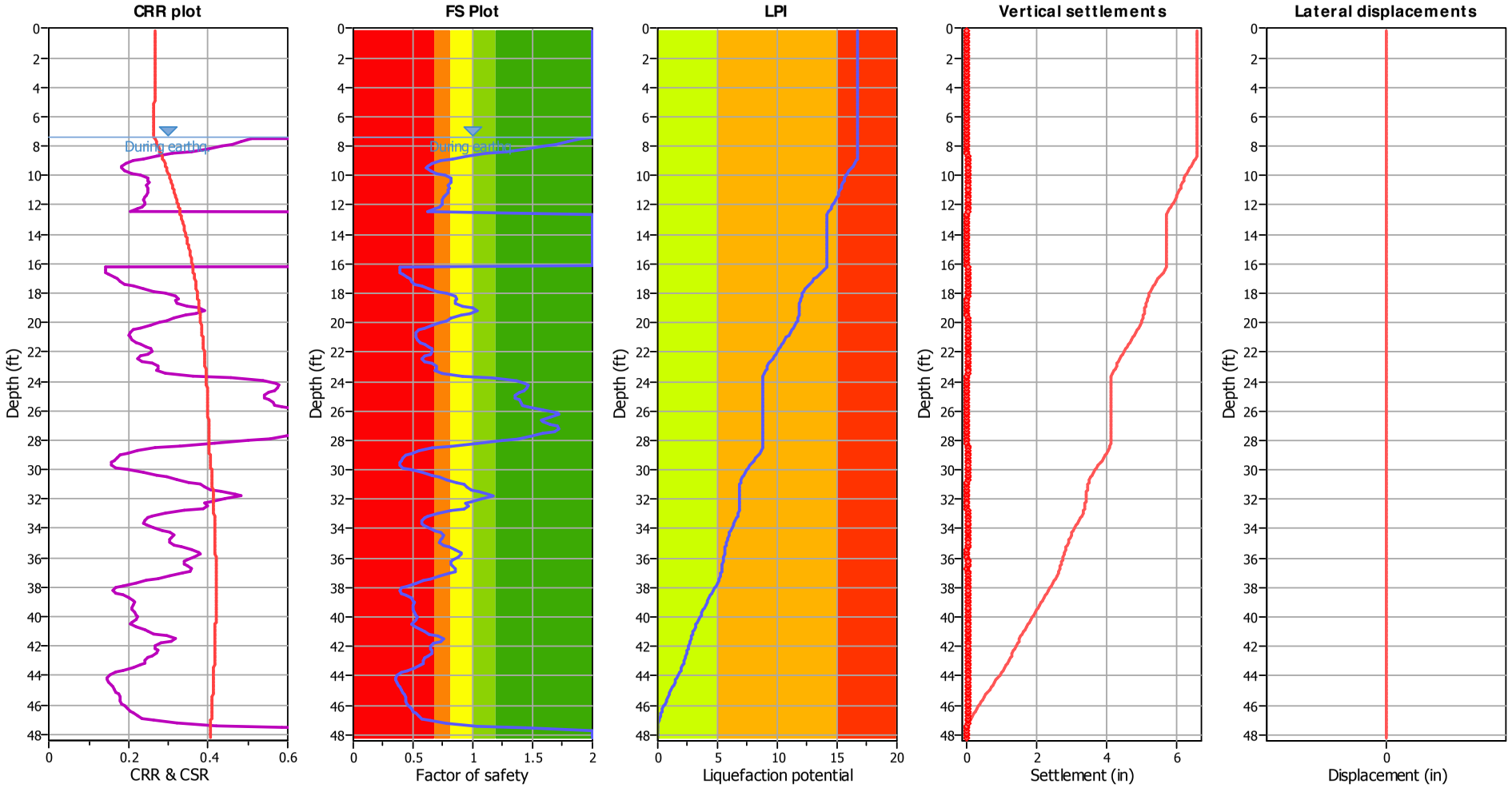
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	7.40 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	7.40 ft	Fill height:	N/A	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	7.40 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	7.40 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

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San Diego, California 92105

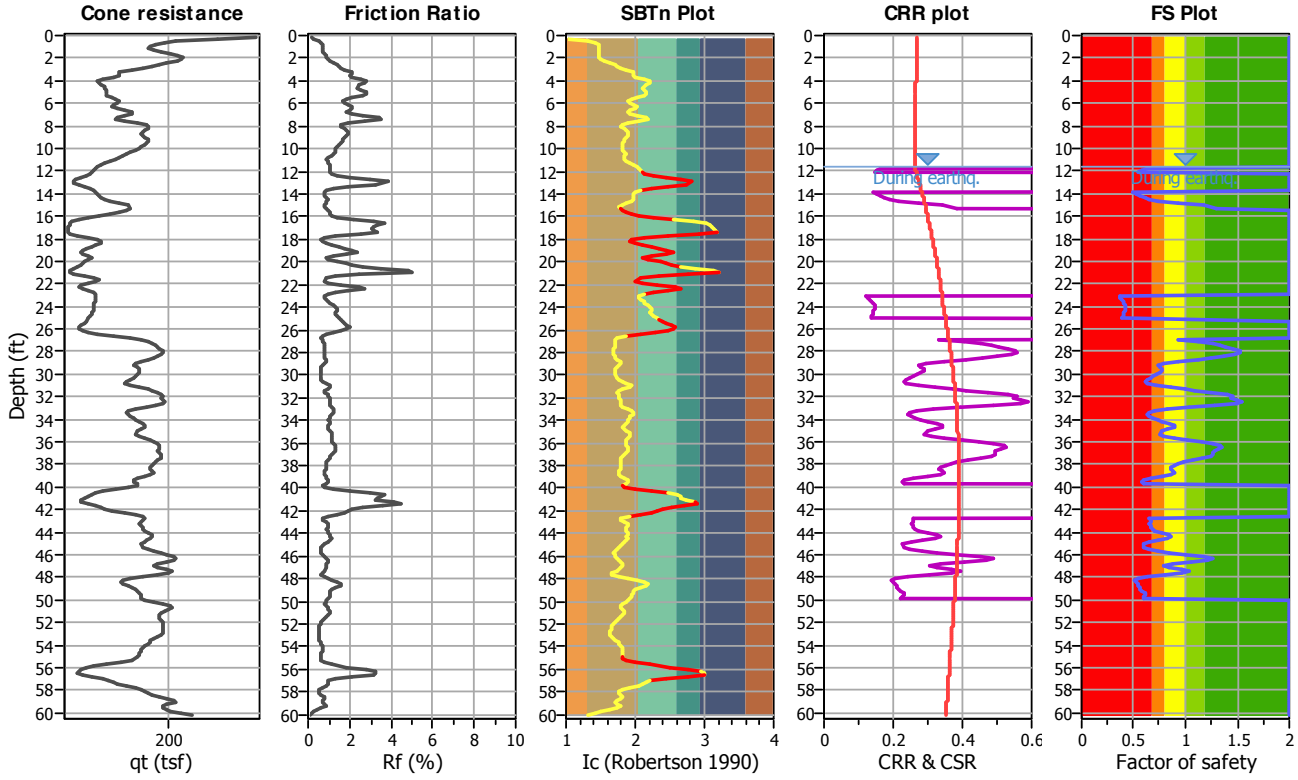
LIQUEFACTION ANALYSIS REPORT

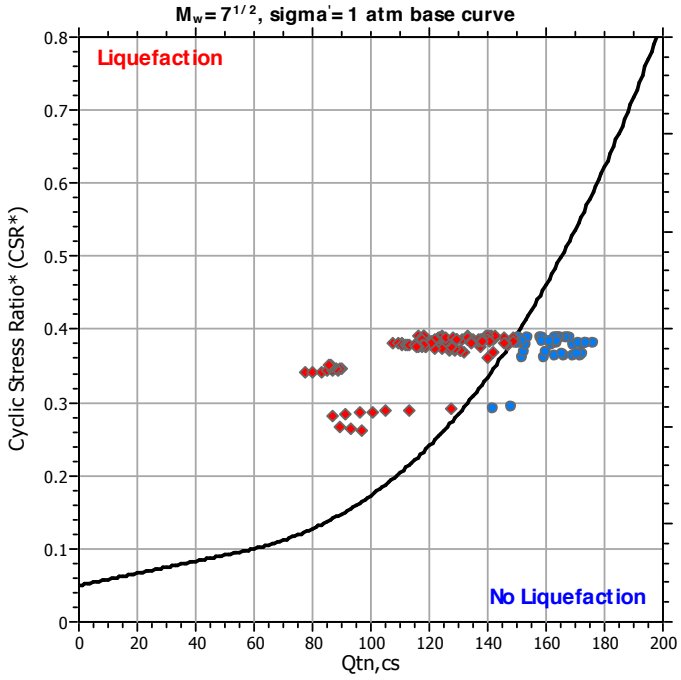
Project title : Witt Mission Valley Mixed-Use Project **Location : 588 Camino Del Rio North, San Diego, California**

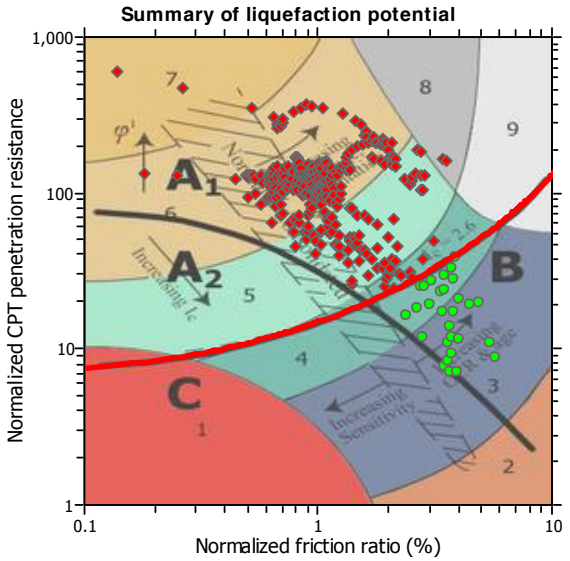
CPT file : CPT-4

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	11.70 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	11.70 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.90	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

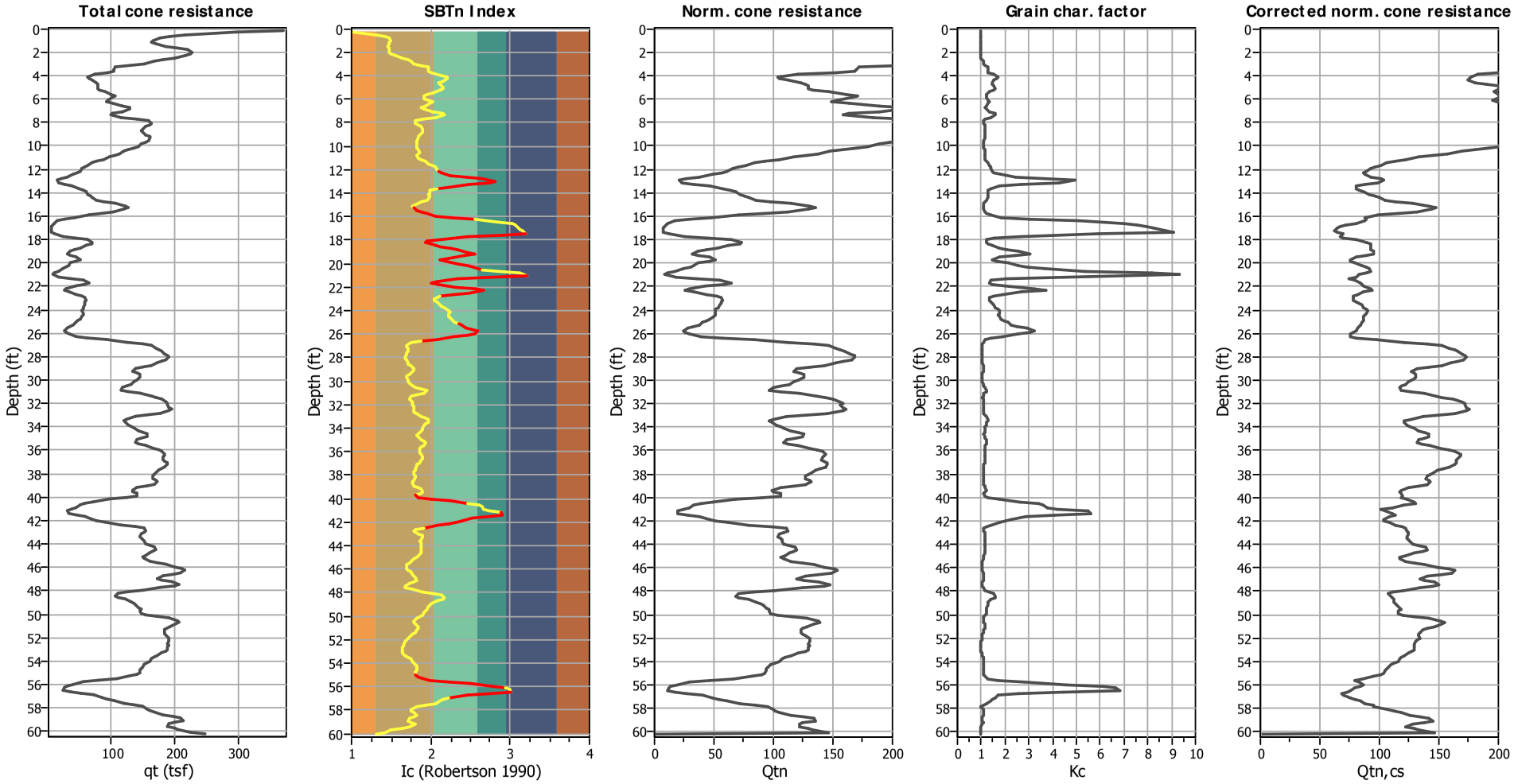






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

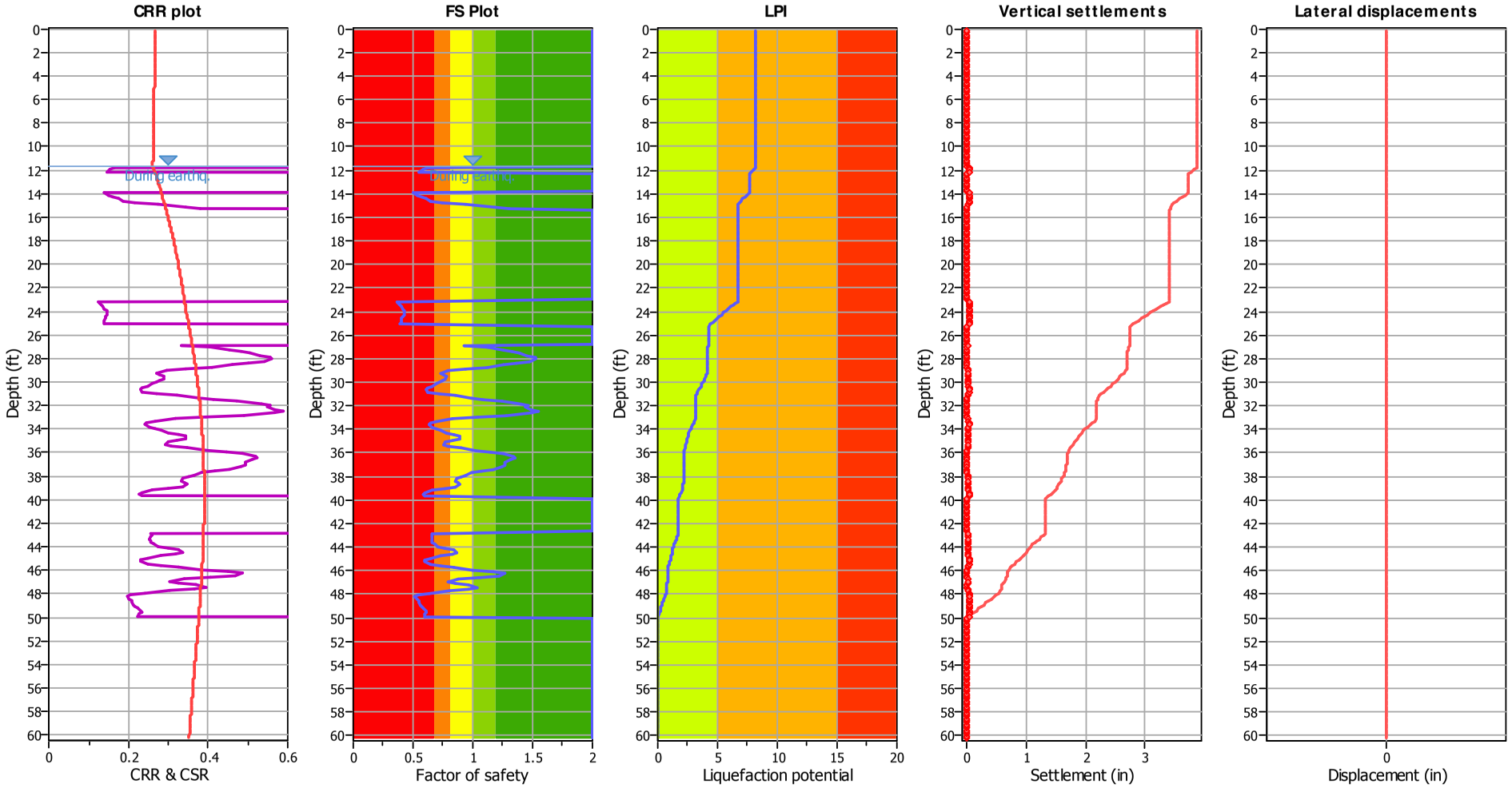
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	11.70 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	11.70 ft	Fill height:	N/A	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	11.70 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	11.70 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Christian Wheeler Engineering
3980 Home Avenue
San Diego, California 92105

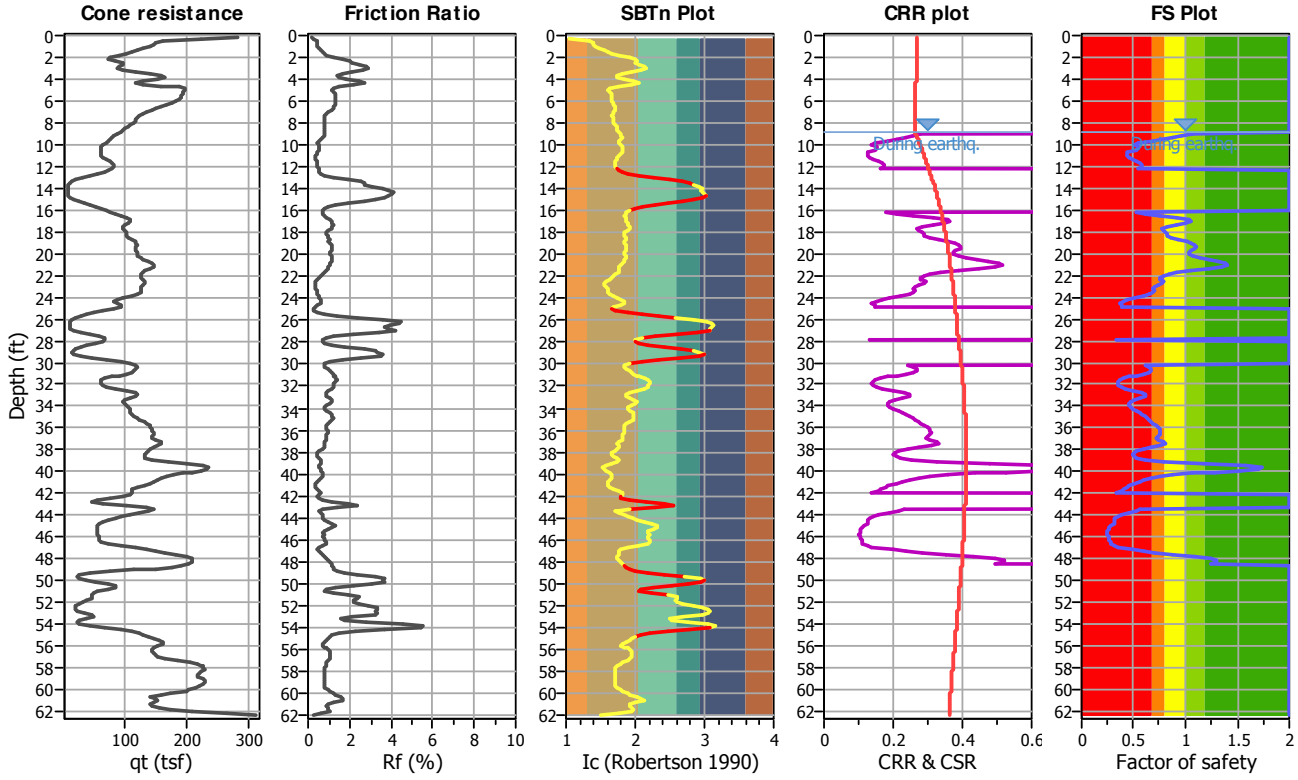
LIQUEFACTION ANALYSIS REPORT

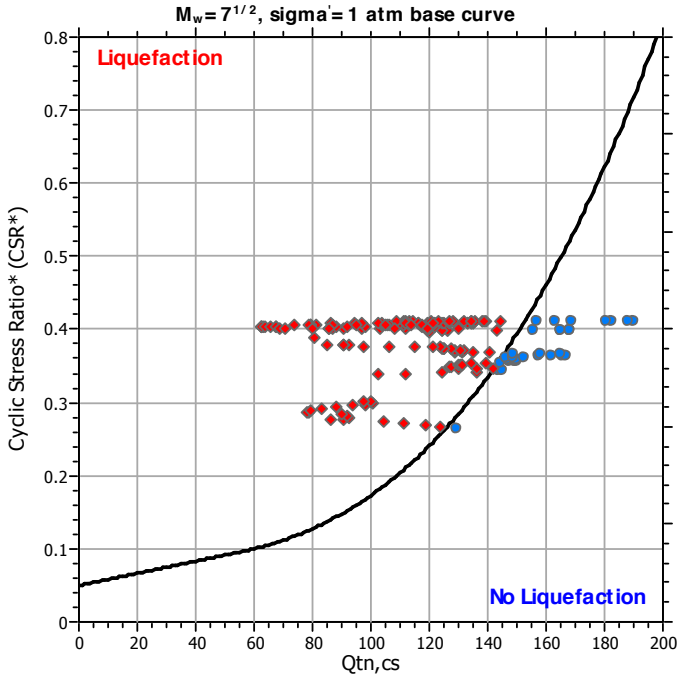
Project title : Witt Mission Valley Mixed-Use Project **Location : 588 Camino Del Rio North, San Diego, California**

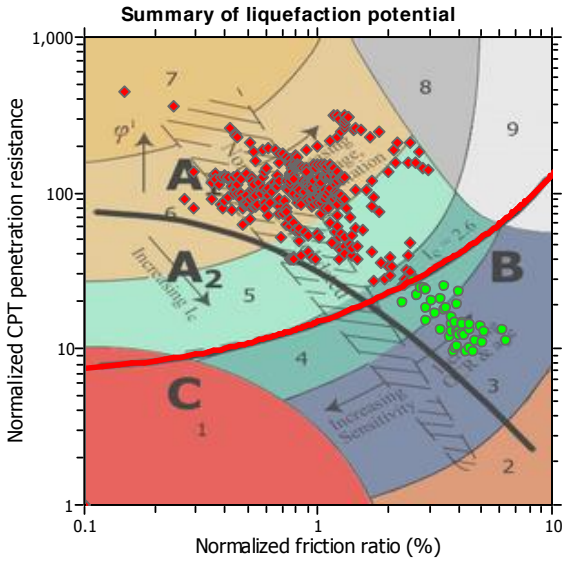
CPT file : CPT-5

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	8.90 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	8.90 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	50.00 ft
Earthquake magnitude M_w:	6.90	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.51	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

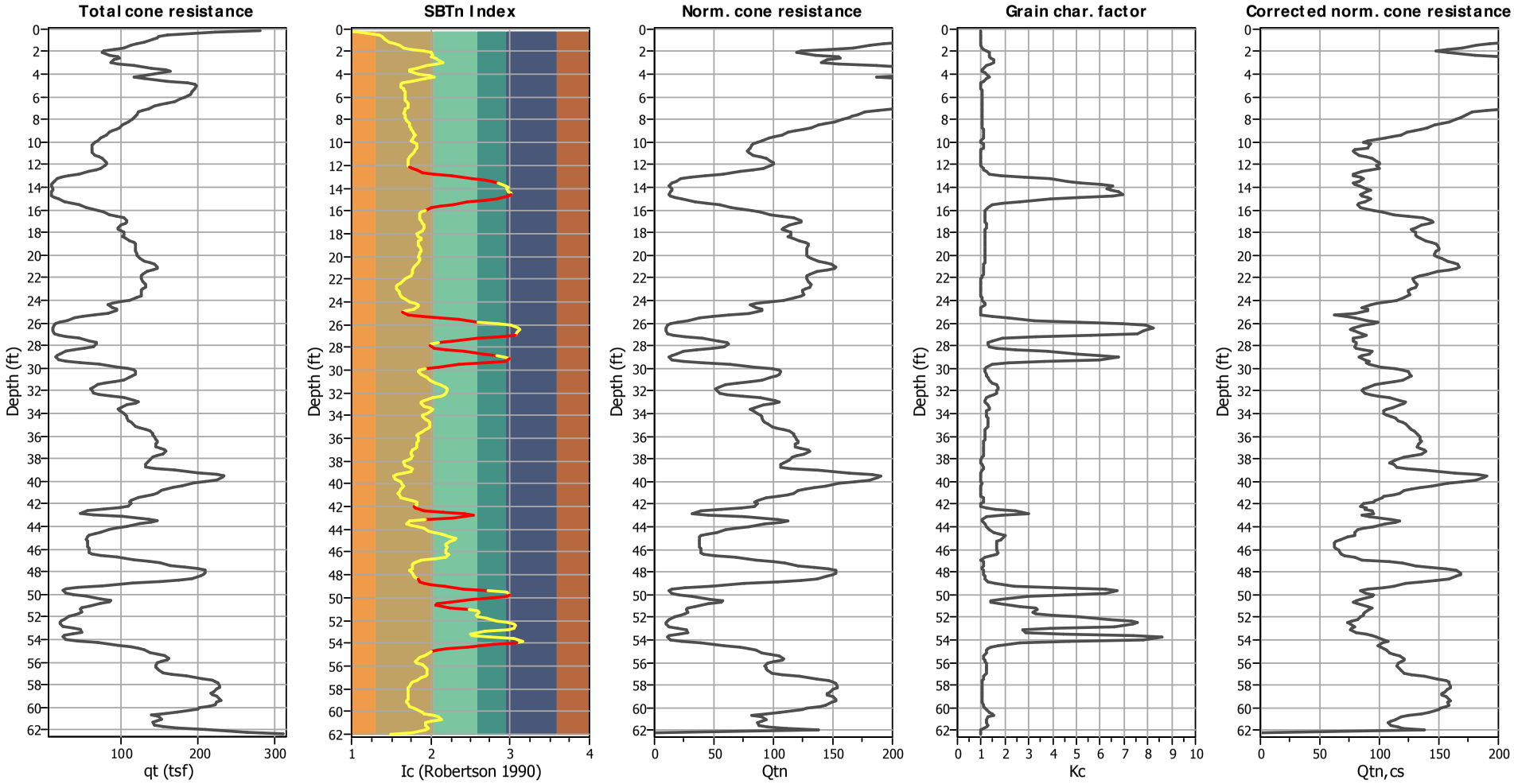






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

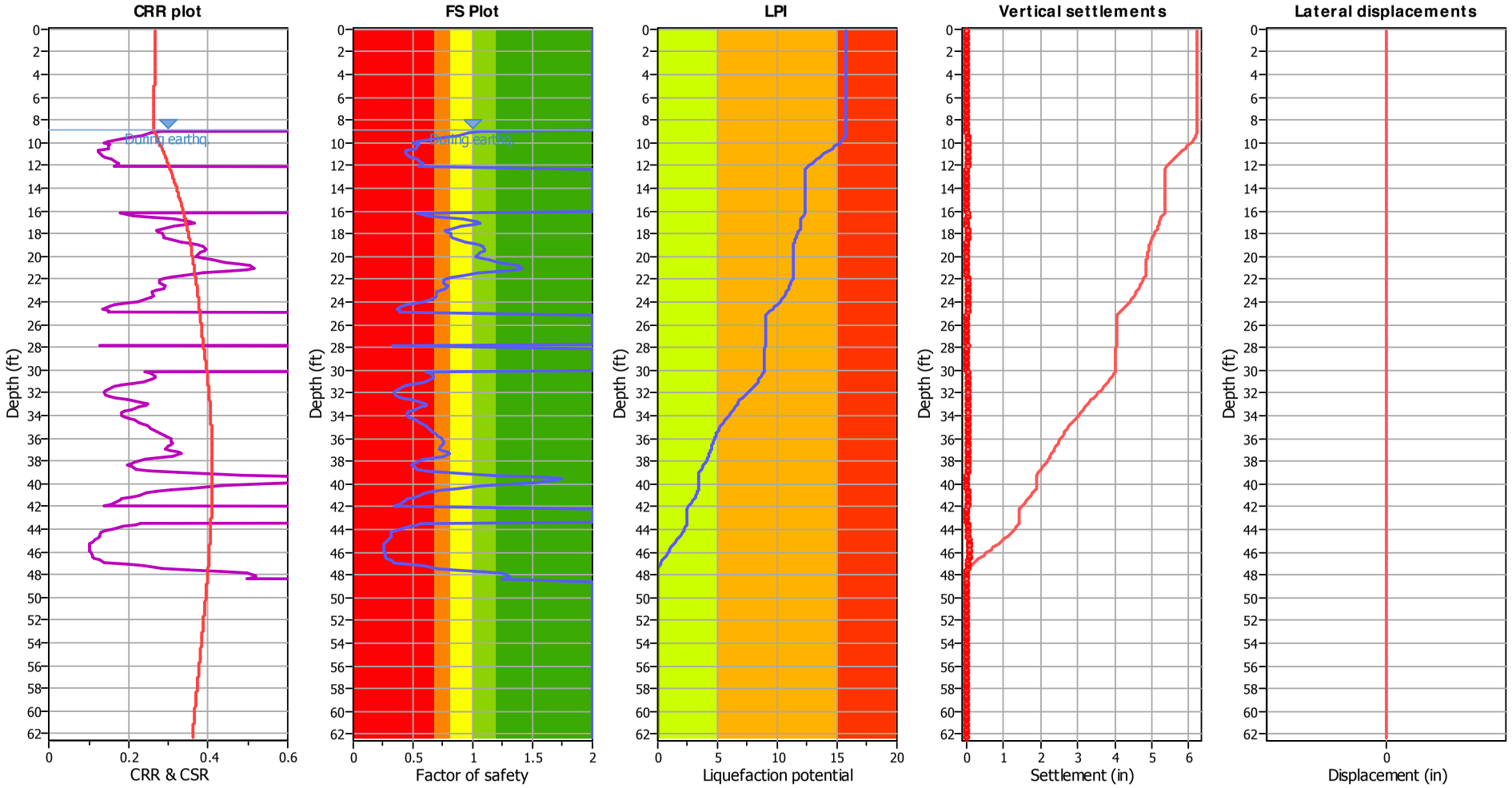
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	8.90 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	8.90 ft	Fill height:	N/A	Limit depth:	50.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	8.90 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.90	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.51	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	8.90 ft	Fill height:	N/A	Limit depth:	50.00 ft

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

Appendix E

References

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Appendix F

Recommended Grading Specifications – General Provisions

RECOMMENDED GRADING SPECIFICATIONS - GENERAL PROVISIONS

PROPOSED WITT MISSION VALLEY MIXED-USE PROJECT
588 CAMINO DEL RIO NORTH
SAN DIEGO, CALIFORNIA

GENERAL INTENT

The intent of these specifications is to establish procedures for clearing, compacting natural ground, preparing areas to be filled, and placing and compacting fill soils to the lines and grades shown on the accepted plans. The recommendations contained in the preliminary geotechnical investigation report and/or the attached Special Provisions are a part of the Recommended Grading Specifications and shall supersede the provisions contained hereinafter in the case of conflict. These specifications shall only be used in conjunction with the geotechnical report for which they are a part. No deviation from these specifications will be allowed, except where specified in the geotechnical report or in other written communication signed by the Geotechnical Engineer.

OBSERVATION AND TESTING

Christian Wheeler Engineering shall be retained as the Geotechnical Engineer to observe and test the earthwork in accordance with these specifications. It will be necessary that the Geotechnical Engineer or his representative provide adequate observation so that he may provide his opinion as to whether or not the work was accomplished as specified. It shall be the responsibility of the contractor to assist the Geotechnical Engineer and to keep him appraised of work schedules, changes and new information and data so that he may provide these opinions. In the event that any unusual conditions not covered by the special provisions or preliminary geotechnical report are encountered during the grading operations, the Geotechnical Engineer shall be contacted for further recommendations.

If, in the opinion of the Geotechnical Engineer, substandard conditions are encountered, such as questionable or unsuitable soil, unacceptable moisture content, inadequate compaction, adverse weather, etc., construction should be stopped until the conditions are remedied or corrected or he shall recommend rejection of this work.

Tests used to determine the degree of compaction should be performed in accordance with the following American Society for Testing and Materials test methods:

Maximum Density & Optimum Moisture Content - ASTM D-1557-91
Density of Soil In-Place - ASTM D-1556-90 or ASTM D-2922

All densities shall be expressed in terms of Relative Compaction as determined by the foregoing ASTM testing procedures.

PREPARATION OF AREAS TO RECEIVE FILL

All vegetation, brush and debris derived from clearing operations shall be removed, and legally disposed of. All areas disturbed by site grading should be left in a neat and finished appearance, free from unsightly debris.

After clearing or benching the natural ground, the areas to be filled shall be scarified to a depth of 6 inches, brought to the proper moisture content, compacted and tested for the specified minimum degree of compaction. All loose soils in excess of 6 inches thick should be removed to firm natural ground which is defined as natural soil which possesses an in-situ density of at least 90 percent of its maximum dry density.

When the slope of the natural ground receiving fill exceeds 20 percent (5 horizontal units to 1 vertical unit), the original ground shall be stepped or benched. Benches shall be cut to a firm competent formational soil. The lower bench shall be at least 10 feet wide or 1-1/2 times the equipment width, whichever is greater, and shall be sloped back into the hillside at a gradient of not less than two (2) percent. All other benches should be at least 6 feet wide. The horizontal portion of each bench shall be compacted prior to receiving fill as specified herein for compacted natural ground. Ground slopes flatter than 20 percent shall be benched when considered necessary by the Geotechnical Engineer.

Any abandoned buried structures encountered during grading operations must be totally removed. All underground utilities to be abandoned beneath any proposed structure should be removed from within 10 feet of the structure and properly capped off. The resulting depressions from the above described procedure should be backfilled with acceptable soil that is compacted to the requirements of the Geotechnical Engineer. This includes, but is not limited to, septic tanks, fuel tanks, sewer lines or leach lines, storm drains and water lines. Any buried structures or utilities not to be abandoned should be brought to the attention of the Geotechnical Engineer so that he may determine if any special recommendation will be necessary.

All water wells which will be abandoned should be backfilled and capped in accordance to the requirements set forth by the Geotechnical Engineer. The top of the cap should be at least 4 feet below finish grade or 3 feet below the bottom of footing whichever is greater. The type of cap will depend on the diameter of the well and should be determined by the Geotechnical Engineer and/or a qualified Structural Engineer.

FILL MATERIAL

Materials to be placed in the fill shall be approved by the Geotechnical Engineer and shall be free of vegetable matter and other deleterious substances. Granular soil shall contain sufficient fine material to fill the voids. The definition and disposition of oversized rocks and expansive or detrimental soils are covered in the geotechnical report or Special Provisions. Expansive soils, soils of poor gradation, or soils with low strength characteristics may be thoroughly mixed with other soils to provide satisfactory fill material, but only with the explicit consent of the Geotechnical Engineer. Any import material shall be approved by the Geotechnical Engineer before being brought to the site.

PLACING AND COMPACTION OF FILL

Approved fill material shall be placed in areas prepared to receive fill in layers not to exceed 6 inches in compacted thickness. Each layer shall have a uniform moisture content in the range that will allow the compaction effort to be efficiently applied to achieve the specified degree of compaction. Each layer shall be uniformly compacted to the specified minimum degree of compaction with equipment of adequate size to economically compact the layer. Compaction equipment should either be specifically designed for soil compaction or of proven reliability. The minimum degree of compaction to be achieved is specified in either the Special Provisions or the recommendations contained in the preliminary geotechnical investigation report.

When the structural fill material includes rocks, no rocks will be allowed to nest and all voids must be carefully filled with soil such that the minimum degree of compaction recommended in the Special Provisions is achieved. The maximum size and spacing of rock permitted in structural fills and in non-structural fills is discussed in the geotechnical report, when applicable.

Field observation and compaction tests to estimate the degree of compaction of the fill will be taken by the Geotechnical Engineer or his representative. The location and frequency of the tests shall be at the Geotechnical Engineer's discretion. When the compaction test indicates that a particular layer is at less

than the required degree of compaction, the layer shall be reworked to the satisfaction of the Geotechnical Engineer and until the desired relative compaction has been obtained.

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compaction by sheepsfoot roller shall be at vertical intervals of not greater than four feet. In addition, fill slopes at a ratio of two horizontal to one vertical or flatter, should be trackrolled. Steeper fill slopes shall be over-built and cut-back to finish contours after the slope has been constructed. Slope compaction operations shall result in all fill material six or more inches inward from the finished face of the slope having a relative compaction of at least 90 percent of maximum dry density or the degree of compaction specified in the Special Provisions section of this specification. The compaction operation on the slopes shall be continued until the Geotechnical Engineer is of the opinion that the slopes will be surficially stable.

Density tests in the slopes will be made by the Geotechnical Engineer during construction of the slopes to determine if the required compaction is being achieved. Where failing tests occur or other field problems arise, the Contractor will be notified that day of such conditions by written communication from the Geotechnical Engineer or his representative in the form of a daily field report.

If the method of achieving the required slope compaction selected by the Contractor fails to produce the necessary results, the Contractor shall rework or rebuild such slopes until the required degree of compaction is obtained, at no cost to the Owner or Geotechnical Engineer.

CUT SLOPES

The Engineering Geologist shall inspect cut slopes excavated in rock or lithified formational material during the grading operations at intervals determined at his discretion. If any conditions not anticipated in the preliminary report such as perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints or fault planes are encountered during grading, these conditions shall be analyzed by the Engineering Geologist and Geotechnical Engineer to determine if mitigating measures are necessary.

Unless otherwise specified in the geotechnical report, no cut slopes shall be excavated higher or steeper than that allowed by the ordinances of the controlling governmental agency.

ENGINEERING OBSERVATION

Field observation by the Geotechnical Engineer or his representative shall be made during the filling and compaction operations so that he can express his opinion regarding the conformance of the grading with acceptable standards of practice. Neither the presence of the Geotechnical Engineer or his representative or the observation and testing shall release the Grading Contractor from his duty to compact all fill material to the specified degree of compaction.

SEASON LIMITS

Fill shall not be placed during unfavorable weather conditions. When work is interrupted by heavy rain, filling operations shall not be resumed until the proper moisture content and density of the fill materials can be achieved. Damaged site conditions resulting from weather or acts of God shall be repaired before acceptance of work.

RECOMMENDED GRADING SPECIFICATIONS - SPECIAL PROVISIONS

RELATIVE COMPACTION: The minimum degree of compaction to be obtained in compacted natural ground, compacted fill, and compacted backfill shall be at least 90 percent. For street and parking lot subgrade, the upper twelve inches should be compacted to at least 95 percent relative compaction.

EXPANSIVE SOILS: Detrimentally expansive soil is defined as clayey soil which has an expansion index of 50 or greater when tested in accordance with the American Society of Testing Materials (ASTM) Laboratory Test D4829-95.

OVERSIZED MATERIAL: Oversized fill material is generally defined herein as rocks or lumps of soil over six inches in diameter. Oversized materials should not be placed in fill unless recommendations of placement of such material is provided by the Geotechnical Engineer. At least 40 percent of the fill soils shall pass through a No. 4 U.S. Standard Sieve.

TRANSITION LOTS: Where transitions between cut and fill occur within the proposed building pad, the cut portion should be undercut a minimum of one foot below the base of the proposed footings and recompacted as structural backfill. In certain cases that would be addressed in the geotechnical report, special footing reinforcement or a combination of special footing reinforcement and undercutting may be required.

POTENTIAL HISTORICAL RESOURCE REVIEW
Witt Mission Valley Project
Affordable Housing/Infill Housing & Sustainable Buildings Expedite Project
SUPPLEMENTAL SUBMITTAL REQUIREMENTS

1. ***Commercial Building Record***

   See Attachment "A".

2. ***Photographic Survey***

   See Attachment "B".

3. ***Site Plan***

   See Attachment C.

ADDITIONAL DOCUMENTS – POTENTIAL HISTORICAL RESOURCE REVIEW
Witt Mission Valley Project
Affordable Housing/Infill Housing & Sustainable Buildings Expedite Project
SUPPLEMENTAL SUBMITTAL REQUIREMENTS

1. ***Written description of the property including architectural style, materials, features, setting, and related structures.***

   The 5.13-acre site for the Witt Mission Valley project is located at 588 Camino de la Reina. Camino de la Reina forms the project site's northern boundary; Camino de la Siesta is along the western project boundary; and Camino del Rio North forms the site's southern boundary, separating the project site from Interstate 8 (I-8). The project site is currently developed with commercial auto dealership sales and offices (Witt Lincoln), service bays, and auto sales areas with surface parking lots. Regional access to the project area is provided by I-8, located immediately south of the project; State Route 163 (SR-163), located approximately one-half-mile west of the project site; and I-805, located less than two miles east of the project site. Local access to the project site occurs at driveways off Camino del Rio North and Camino de La Siesta.

   Buildings on site are concrete structures with the minimum architectural detail on the sales building, and no ornamentation on the other vehicle maintenance buildings. The buildings, as well as the northern portion of the sales building, are open vehicle maintenance bays with maintenance equipment visible to the street. The remainder of the site is used as parking and vehicle storage.

2. ***Written description of any alterations including dates and the architect/builder associated with the alterations.***

   The following permit history is available for the project site:

1969	E-75638	Add service bay
1977	L-36052	Add office
	L-36853	Conference room and lounge
1980	N-33038	ACs

3. ***Notice of Completion.***

   Notice of Completion cannot be located.

4. ***Chain of Title.***

   See Attachment "D".

5. ***List of Occupants.***

   The San Diego Historical Society Archives only maintains addresses from 1984 and older. For the time period available with the Archives, the following occupants occupied the project site:

1968-1972	Townsend JR Co. Inc. Autos – New & Used
1972-1978	Townsend Lincoln Mercury

1984 Townsend JR Co. Auto Leasing

6. Historic photographs.

Historic photographs are provided for 1906, 1912, 1977, 1984, 1985, and 1988. See Attachment "E".

7. Sanborn Maps for all published years.

The property is not mapped in any published year of the Sanborn Maps.

Attachment "A"

COMMERCIAL BUILDING RECORD

COMMERCIAL-INDUSTRIAL BUILDING RECORD

Account No. ______ Parcel No. 438-020-~~75~~ 75

ASSESSOR, SAN DIEGO COUNTY

NAME USED CARS + ENTERPRISE CAR RENTAL ADDRESS ~~[illegible]~~ [illegible] CAMINO DE LA REINA, 1 75 1 SHEET 2 OF 2

CLASS & SHAPE	FRAME	TRUSSES	EXT. FINISH	ROOF	LIGHTING	FRONT
Auto Service	Wood	Light / Heavy	FLURB	X Flat	X Standard	Type
	Concrete Reinf.	Wood / Steel	Stucco	Shed	Below Standard	
Stories 1	Steel	* Span Spaced *	Metal	Arch		
Bsmt Mezz	No Frame	FLOORS	Veneer	Gable	FIXTURES	Glass in
USE / DESIGN	FLURB WALLS	X Concrete 5"	Wood	Wood	X Fluorescent	Metal / Wood
X Garage Sales X	Wood	Wood	Glass	Metal	X Incandescent	Glass Doors
Store	Brick	Sub-Floor	Unfinished	Concrete		Auto No.
Office	XXX Conc. Blk	Elevation	XXX PT		Quality A	Bulkhead
Factory	Metal		X Open	ROOF COVER	Quantity A	Back Trim
Warehouse	Tilt Up	FOUNDATION	WINDOWS	Composition	PLUMBING	Lighting
	Pilasters	X Concrete Reinf.	Metal	X Built-Up	Fixtures	Drop Ceiling
	Party	Masonry	Wood	Metal	Quality	Disp. Platform
	X Open				Sprinklers	Quality

INTERIOR CONSTRUCTION

Desc.	B	M	1	2	3	FLOORS	GD	WALLS	GD	CEILING
All			X			Conc	A	PT	A	Open-PT
Office										
Lobby										
Hall										
Bath										
Restroom										

SPECIAL FEATURES

ITEM	NO.-CAPACITY	MATERIAL OR TYPE	QUA
Air Cond.	S-III 11 Panel Heaters		
	S-III 15 Panel Heaters		
Doors			
Sky-Lites			
Elevator			

CONSTRUCTION RECORD

Permit No.	For	Amount	Date	EFFEC. YEAR	APPR. YEAR	Age	Rem. Life	Table	%	Cond.	Arch. Attr.	Func. Plan	Adequacy	Wkmship
See sht #1				1968	1968	0	40	CR40	100	G	A	A	A	A
E75138	ADD [illegible]	27000	10-28-69		1970									
L36852	OFF ADD	5200	9-15-77											

Appraiser and Date		C [illegible] 3/21/68		[illegible] 1-15-70		[illegible] 3/24/73		[illegible] 8-31-78		[illegible] 4/1/87					
UNIT	AREA/UNIT	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~			GONE							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~			TO NEW							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~			PCL (74)							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~			ON F							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~			97 CUT # 1807							
~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		~~[illegible]~~										
~~[illegible]~~			~~[illegible]~~		~~[illegible]~~		~~129497~~								
~~[illegible]~~	~~[illegible]~~				~~[illegible]~~										
SALES OFFICE	384					12.00	4608			47.93	18,893				
CLP	132					3.00	396			12.30	1,624				
OFFICE ADD	234							25.00	5850	53.75	12,578				
TOTAL			100,071		129497		134501		5850		33,095				
NORMAL % GOOD			100		100					.93 × 30.60? / .69 × 12.578	587				
R.C.L.N.D.			100,071		129497		134501				19,427				
CHECKED		ae		ae											
REVIEWED															

COMMERCIAL-INDUSTRIAL BUILDING RECORD (2)

Account No. ______ Parcel No. 438-020-74

ASSESSOR, SAN DIEGO COUNTY

NAME Townsend Lincoln Mercury ADDRESS 588 Camino Del Rio No. SHEET 1 OF 3

CLASS & SHAPE	FRAME	TRUSSES	EXT. FINISH	ROOF	LIGHTING	FRONT
Auto sales & service	Wood	Light / Heavy		X Flat	X Standard	Type
	Concrete Reinf.	Wood / Steel	XXX Stucco	Shed	Below Standard	
Stories 2	Steel	Span Spaced	Metal	Arch		X Rock
Bsmt / Mezz	No Frame	FLOORS	XX Veneer RK	Gable	FIXTURES	X Glass in
USE / DESIGN	WALLS	X Concrete	Wood	Wood	X Fluorescent	X Metal / Wood
Garage	XXX Wood	Wood	XX Glass	Metal	X Incandescent	X Glass Doors
Store	Brick	X Sub-Floor 2nd	Unfinished	Concrete		Auto No.
Office	XXX Conc. Blk 8"	Elevation			Quality A	Bulkhead
Factory	Metal			ROOF COVER	Quantity A	Back Trim
Warehouse	Tilt Up	FOUNDATION	WINDOWS	Composition	PLUMBING	Lighting
X Special X	Pilasters	X Concrete Reinf.	X Metal	X Built-Up	10 Fixtures	Drop Ceiling
	Party	Masonry	Wood	Metal	Quality A	Disp. Platform
					Sprinklers	Quality G

INTERIOR CONSTRUCTION

Desc.	B	M	1	2	3	FLOORS	GD	WALLS	GD	CEILING
All Show Rm			X			Carpet	G	Glass-RK	G	Acou PL
Show Rm			1			V.T.				
Corr			1							
Office			X			Carpet	G	PL Bd PT	G	Acou PL
Lobby										
Hall										
Bath										
Restroom										

SPECIAL FEATURES

ITEM	NO.-CAPACITY	MATERIAL OR TYPE	QUAL
Air Cond.	Office & Show Rm – Heating & Cooling		
	8 - Panel Heaters	S-II	
Doors			
Sky-Lites			
Elevator			

CONSTRUCTION RECORD

Permit No.	For	Amount	Date	EFFEC. YEAR	APPR. YEAR	Age	Rem. Life	Table	%	Cond.	Arch. Attr.	Func. Plan	Adequacy	Wkmship
A48893	Bldg I	148000	9/66	1969	1968	0	50	ORS0	100	G	G	G	A	A
A48395	Bldg II	8000	9/66		1970									
A48394	Bldg III	34000	9/66		1997	29	22	ORS0	63					
A48396	Bldg II	43000	9/66											
A48397	Walls	925	9/66											
L26853	Conv. Rm plowl	13100	4-15-78											
N33038	AC	—	6-1-80											

Appraiser and Date		C Ray 3/21/68		1-5-70		(93 RETT) 8-31-78		90 [illegible]							
UNIT	AREA/UNIT	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST
Show Rm Area	2817	17.00	47923					80.75	227,634						
Office Area	3969	15.00	59535					71.25	282,791						
Diagnostic Area	1260	10.00	12600					47.50	59,850						
Shop & Parts	7111	7.00	49777					33.25	236,440						
2nd Flr Parts	3339	6.50	21704					30.88	103,108						
C.U.P.	410	2.00	820					9.50	3,895						
A.C.			20000						95,000						
78 ADD	720					25.00	18000	50.00	36,000						
TOTAL			212,359				18000		1,044,718						
NORMAL % GOOD			100						63						
R.C.L.N.D.			212,359		212359				658,172						
CHECKED															
REVIEWED															

A-21 (1-58)

COMMERCIAL-INDUSTRIAL BUILDING RECORD

Account No. ____________ Parcel No. 438-020-40 74

ASSESSOR, SAN DIEGO COUNTY

NAME ____________ ADDRESS 588 Camino Del Rio No SHEET 2 OF 3

Section	Entries
CLASS & SHAPE	Auto Service; Stories 1; Bsmt; Mezz
USE / DESIGN	X Garage-Shop X; Store; Office; Factory; Warehouse
FRAME	Wood; Concrete Reinf.; Steel; No Frame
WALLS	Wood; Brick; XXX Conc. Blk; Metal; Tilt Up; Pilasters; Party; X Open
TRUSSES	Light; Heavy; Wood; Steel; Span Spaced
FLOORS	X Concrete 5"; Wood; Sub-Floor; Elevation
FOUNDATION	X Concrete Reinf.; Masonry
EXT. FINISH	Stucco; Metal; Veneer; Wood; Glass; Unfinished; XXX PT; Open
WINDOWS	Metal; Wood
ROOF	X Flat; Shed; Arch; Gable; Wood; Metal; Concrete
ROOF COVER	Composition; X Built-Up; Metal
LIGHTING	X Standard; Below Standard
FIXTURES	X Fluorescent; X Incandescent; Quality A; Quantity A
PLUMBING	Fixtures; Quality; Sprinklers
FRONT	Type; Glass in; Metal; Wood; Glass Doors; Auto No.; Bulkhead; Back Trim; Lighting; Drop Ceiling; Disp. Platform; Quality

INTERIOR CONSTRUCTION

NUMBER OF ROOMS Desc.	B	M	1	2	3	FLOORS	GD	WALLS	GD	CEILING
All			X			Conc	A	PT	A	Open-PT
Office										
Lobby										
Hall										
Bath										
Restroom										

SPECIAL FEATURES

ITEM	NO.-CAPACITY	MATERIAL OR TYPE	QUAL
Air Cond.	S-III 11 Panel Heaters		
	S-IV 15 Panel Heaters		
Doors			
Sky-Lites			
Elevator			

CONSTRUCTION RECORD

Permit No.	Permit For	Amount	Date	EFFEC. YEAR	APPR. YEAR	Age	Rem. Life	Table	%	Cond.	Arch. Attr.	Func. Plan	Adequacy	Wkmship
see sht #1				1968	1965	0	40	OR40	100	G	A	A	A	A
E75638	ADD SHOP	27000	10-28-69		1970									
L36852	OFF ADD	5200	4-15-77		1997	29	14	OR40	48					

Appraiser and Date		C. [illegible] 3/21/68		[illegible] 1-15-70		[illegible] 3/29/73		[illegible] 8-31-78		[illegible] 3/27/97					
UNIT	AREA/UNIT	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST
Shop III	4466	6.50	29029		29029					30.88	137,910				
Shop IV	7440	6.50	48360		48360					30.88	229,747				
Hoists	16 12	850.00	10200	850	13600					3,825	61,200				
Service office	144	13.00	1872		1872					61.75	8,892				
Car Port	640	4.00	2560		2560					19.00	12,160				
Panel Heaters	26	300.00	7800		7800					1350	35,100				
Board Fence			250		250		129497				1,125				
Shop III Add	4004			6.50	26026					28.28	113,233				
~~Sales office~~	~~384~~					~~12.00~~	~~4608~~			GONE TO NEW					
~~CP~~	~~132~~					~~3.00~~	~~396~~			PCL (75) ON					
~~OFFICE ADD~~	~~234~~							~~25.00~~	~~5850~~	97CUT #1807					
TOTAL			100,071		129497		134501		5850		599,367				
NORMAL % GOOD			100		100						48				
R.C.L.N.D.			100,071		129497		134501				287,696				
CHECKED		ce		ce											
REVIEWED									50						

A-21 (1-58)

Attachment "B"

PHOTOGRAPHIC SURVEY

Photographic Survey Key Map

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

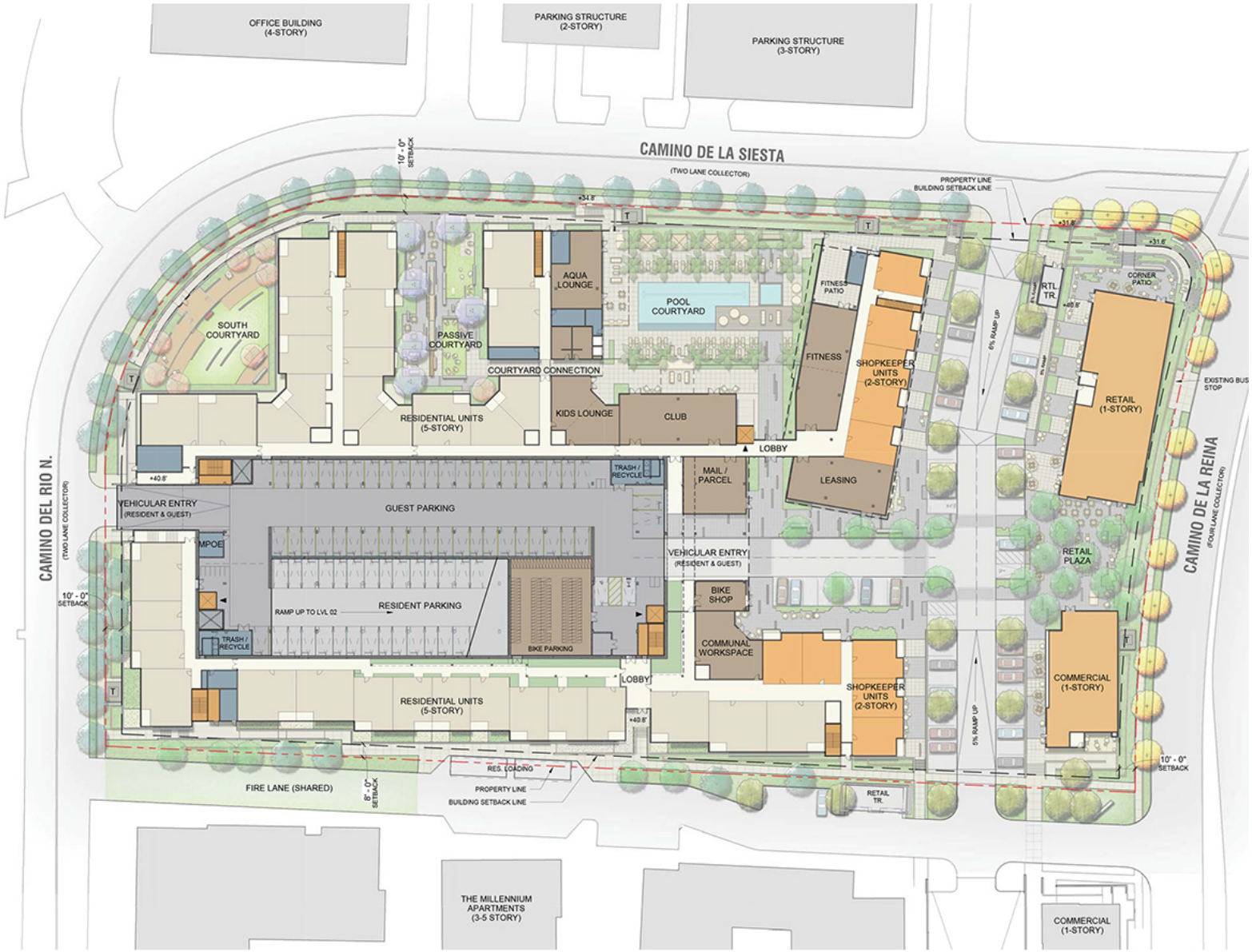
Photo 6

Photo 7

Photo 8

Attachment "C"

SITE PLAN


OFFICE BUILDING
(4-STORY)
PARKING STRUCTURE
(2-STORY)
PARKING STRUCTURE
(3-STORY)
CAMINO DE LA SIESTA
(TWO LANE COLLECTOR)
10' - 0"
SETBACK
PROPERTY LINE
BUILDING SETBACK LINE
CAMINO DEL RIO N.
(TWO LANE COLLECTOR)
CAMINO DE LA REINA
(FOUR LANE COLLECTOR)
SOUTH
COURTYARD
PASSIVE
COURTYARD
AQUA
LOUNGE
POOL
COURTYARD
COURTYARD CONNECTION
RESIDENTIAL UNITS
(5-STORY)
KIDS LOUNGE
CLUB
LOBBY
FITNESS
PATIO
FITNESS
SHOPKEEPER
UNITS
(2-STORY)
RTL
TR.
CORNER
PATIO
RETAIL
(1-STORY)
EXISTING BUS
STOP
6% RAMP UP
LEASING
MAIL /
PARCEL
TRASH /
RECYCLE
VEHICULAR ENTRY
(RESIDENT & GUEST)
GUEST PARKING
MPOE
RAMP UP TO LVL 02
RESIDENT PARKING
BIKE PARKING
VEHICULAR ENTRY
(RESIDENT & GUEST)
BIKE
SHOP
COMMUNAL
WORKSPACE
RETAIL
PLAZA
LOBBY
RESIDENTIAL UNITS
(5-STORY)
SHOPKEEPER
UNITS
(2-STORY)
COMMERCIAL
(1-STORY)
5% RAMP UP
RES. LOADING
FIRE LANE (SHARED)
8' - 0"
SETBACK
PROPERTY LINE
BUILDING SETBACK LINE
RETAIL
TR.
THE MILLENNIUM
APARTMENTS
(3-5 STORY)
COMMERCIAL
(1-STORY)

Attachment "D"

CHAIN OF TITLE

1. Grant Deed

   Grantor: Ford Leasing Development Company
   Grantee: Miller-Bond Land Company
   Recorded: October 25, 1966 as Instrument No. 170518 of Official Records

2. Grant Deed

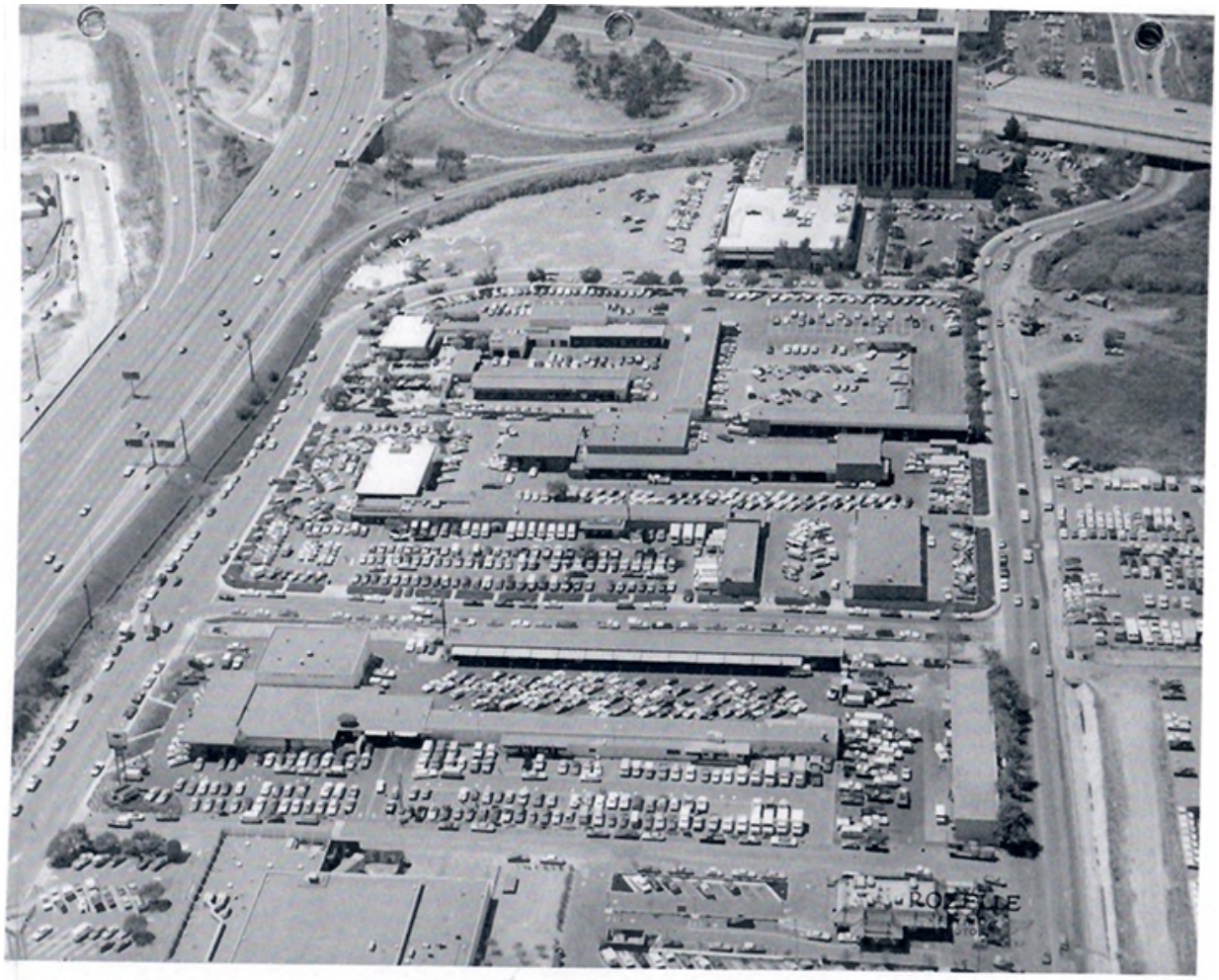
   Grantor: Miller-Bond Land Company
   Grantee: J.R. Townsend Co., Inc.
   Recorded: October 25, 1966 as Instrument No. 106349 of Official Records

3. Quitclaim Deed

   Grantor: Robert E. Townsend and Marilyn J. Townsend
   Grantee: Townsend Mission Valley Properties, L.P.
   Recorded: June 1, 2017 as Instrument No. 247717 of Official Records

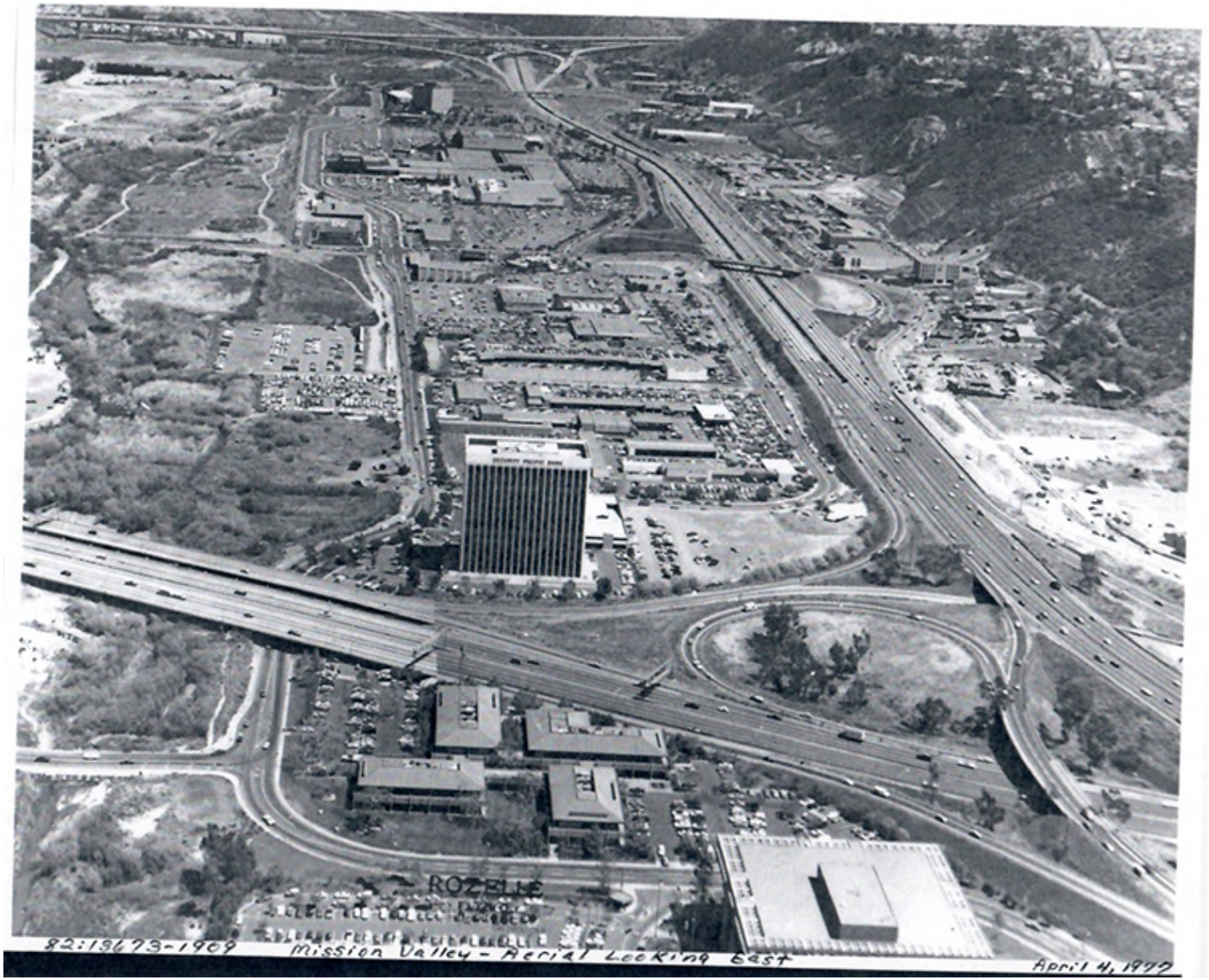
Attachment "E"

HISTORIC PHOTOGRAPHS

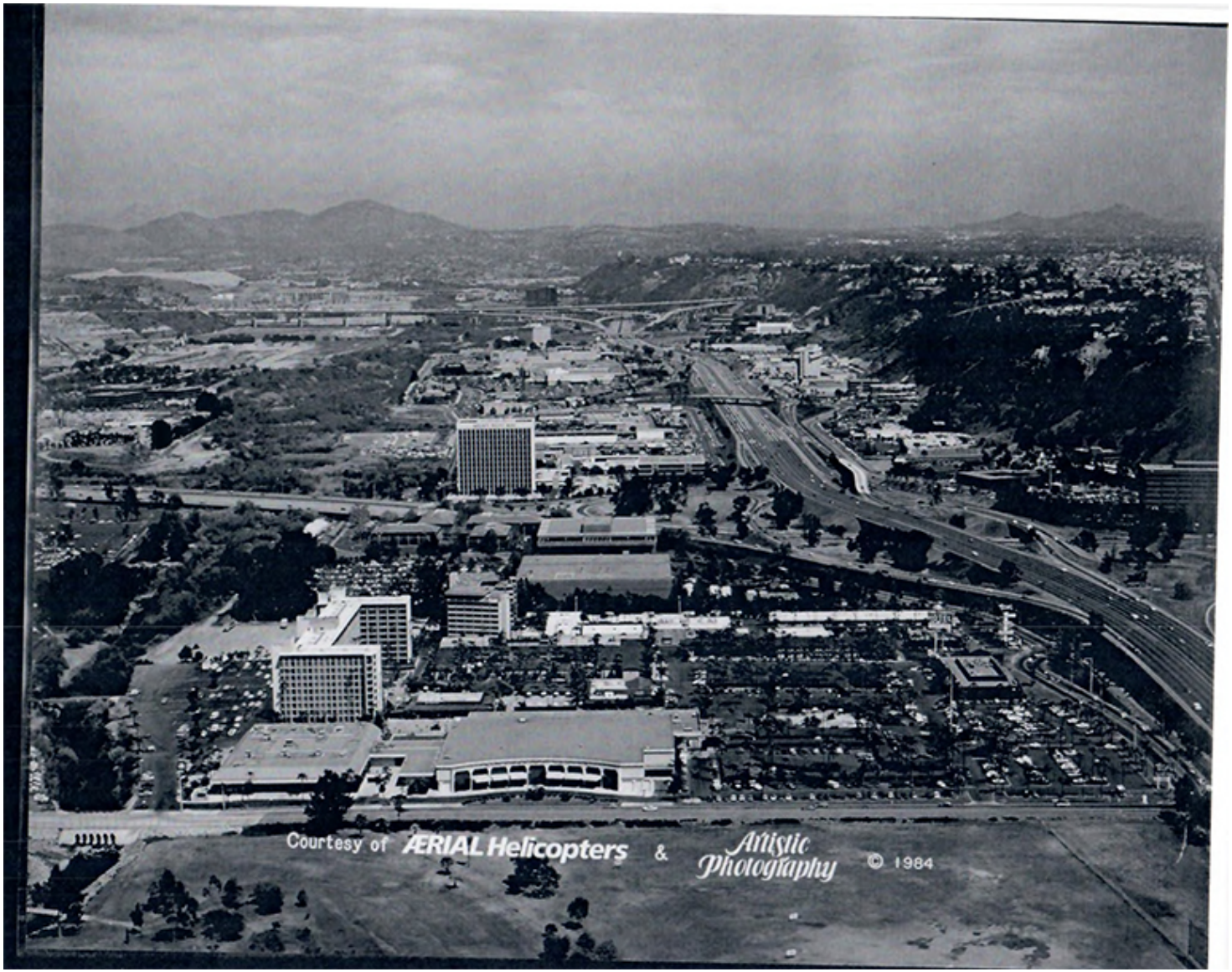


1906

1912


ROZELLE
82:1967 3-1969 Mission Valley - Aerial Looking East
April 4, 1977

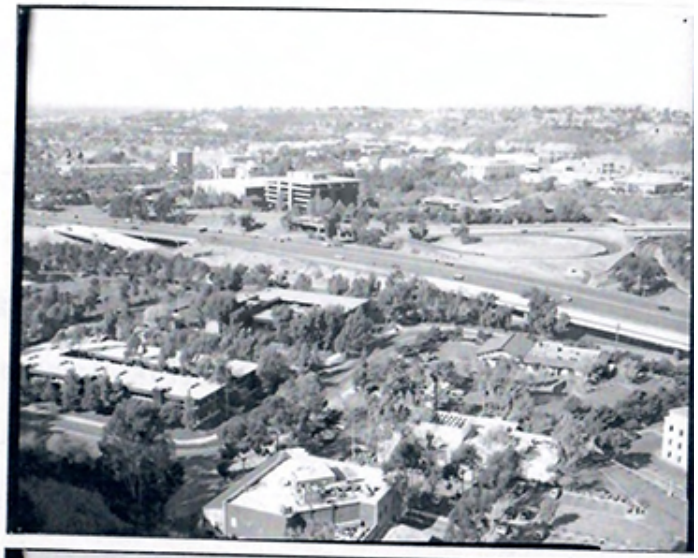
1977



1984

1985

89.17175-2
11/88



89.17175-3
11/88

1988

89.17175-4 11/88

89.17175-5 11/88

1988