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June 14, 2022

VIA ELECTRONIC MAIL

Hon. Nury Martinez, President
Los Angeles City Council
c/o City Clerk
200 North Spring Street
Los Angeles, CA 90012
(holly.wolcott@lacity.org)

Hon. Marqueece Harris-Dawson, Chair
Planning and Land Use Committee
200 North Spring Street
Los Angeles, CA 90012
(luigi.verano@lacity.org)
(clerk.plumcommittee@lacity.org)

Re: Agenda Item 1 – Special Meeting of the Planning and Land Use Committee – Council File 21-0829-S1: (1) Corrected Resolution and Findings for a General Plan Amendment to the Venice Community Plan and the Certified Venice Local Coastal Program Land Use Plan (LUP) and (2) Report for the City Attorney and draft Ordinance Amending the Venice Coastal Zone Specific Plan to create a new Subarea A and establish new land use and development regulations by amending Section 10 of the Specific Plan, amending the Existing Zoning Map from OS-1XL and RD1.5 to (T)(Q)C2-1L-O, and amending the Existing Zoning Map to remove the proposed Alberta Avenue right-of-way between North Venice Boulevard and South Venice Boulevard, and replacing it with (T)(Q)C2-1LO; 2102-2120 S. Pacific Avenue, 116-128 E. Venice Blvd, 204-208 E. Venice Blvd, 214 E. Venice Blvd, 302 Venice Blvd, 301-319 E. Venice Blvd, 2106 S. Canal St, 200 E. Venice Blvd, 2106 S. Canal St, 210-212 E. Venice Blvd, 125 E. Venice Blvd. (VTT-82288; ENV-2018-6667-SE; CPC-2018-7344-GPAJ-VZCJ-HD-SP-SPP-CDP-MEL-SPR-PHP-1A; Related Council File Nos. 21-0829 and 22-0496)

Dear Council President Martinez, Chair Harris-Dawson, Members of the Planning and Land Use Management Committee, and City Clerk:

INTRODUCTION.

This firm represents the Coalition for Safe Coastal Development (“Coalition”) and its supporting organizations and individuals. **The Coalition strongly urges the City Council to continue today’s item. Documents the City failed to release to the public (only recently**

obtained by the Coalition) and a geotechnical review report obtained at the request of the Coalition, establishes that the Project's nearly 5 year-old Soils Report and the City's almost 4 year-old Soils Report Approval Letter are seriously out-of-date. The 2017 Soils Report, to the best of our knowledge, has never been revisited to address significant health and safety standards that were not used to evaluate the feasibility of either the "Exhibit A" May 12, 2021 project plans (approved by City Council on December 1, 2021), or more recent partial plans (October 2021 & February 2022) related to the City's \$19 million public parking garage proposed in the center of the east site. The City's proposed parking garage is at risk of abandonment in about 20 years to 40 years if Sea Level Rise occurs as predicted by the latest available models.

Our consultant team identified failures of the 2017 Geocon West, Inc. Soils Report to fully evaluate all health and safety building code risks or to propose all required mitigation to protect lives from building collapse due to liquefaction. Moreover, the most up-to-date Sea Level Rise studies, models, FEMA flood maps, and predicted emergent groundwater for the years 2040 and beyond (a mere 18 years from now), demonstrate that a 2020 study by Geo Soils, Inc., relied upon by the City during its December 1, 2021 approvals, is also out-of-date and must be reconsidered in the context of trying to make all the required findings for the new entitlement actions proposed for PLUM Committee consideration.

Perhaps most significant and basic is this failure: The 2017 Soils Report includes a disclaimer by the City and developer's consultant that the report "should not be relied upon" after three years, yet on December 1, 2021, more than 4 years after the date of that report, City Council relied on that report to approve the Project, and now after rescinding some of the Project entitlements, the City Council is asked to again rely upon the 2017 Soil Report without further examination. Thus, absent reconsideration of the significant issues identified in the June 13, 2022 Geodynamics Review Report at Attachment A hereto, **the City lacks substantial evidence that the Project, significantly different from the project description in the 2017 Soils Report, is feasible physically on the ground and economically out of taxpayer pockets.**

For a project where there is substantial evidence of potential infeasibility, it would not be in the interest of the City's general welfare or good zoning practice to approve the Project entitlements at this time, or perhaps ever, given the magnitude of concern surrounding the piecemeal way this Project had unfolded, including its current unfinished design.

As detailed in this letter, the proposed Project and thus the associated General Plan Amendment (GPA) and Zone Change are not in substantial conformance with the purposes, intent and provisions of the General Plan. In addition, the proposed ordinance and resolution **are not** in conformity with public necessity, convenience, general welfare and good zoning practice and should therefore not be approved.

REQUESTED ACTION

The PLUM Committee is being asked to take the following actions:¹

¹ https://ens.lacity.org/clk/committeeagend/clkcommitteeagend26162525_06142022.htm
https://clkrep.lacity.org/online/docs/2021/21-0829-S1_misc_06-10-22.pdf

- 1) Corrected Resolution and Findings for a General Plan Amendment to the Venice Community Plan and the certified Venice Local Coastal Program Land Use Plan (LUP) to:
 - a. Correct the Resolution map exhibits, pursuant to Los Angeles Municipal Code Section 11.5.6, removing Exhibits 11b Height and 15 Buffer/Setback and including the correct set of exhibits to:
 - i. the Venice LUP, specifically Exhibits 2a - Venice Coastal Zone, 2b - Venice Coastal Zone, 5b - Subarea North Venice and Venice Canals, 10b LUP (Map) - North Venice and Venice Canals, 14b - Height Subarea North Venice and Venice Canals, and 17a - Coastal Access Map;
 - b. Redesignate Open Space and Low Medium II Residential land to Neighborhood Commercial use, as part of the approval of a Permanent Supportive Housing Project that will construct 140 residential units.
- 2) Approve report(s) from the City Attorney and draft Ordinance(s)
 - a. amending the Venice Coastal Zone Specific Plan to:
 - i. create a new Subarea A, and
 - ii. establish new land use and development regulations by amending Section 10 of the Specific Plan,
 - b. amending the Existing Zoning Map from OS-1XL and RD1.5 to (T)(Q)C2-1L-O, and
 - c. amending the Existing Zoning Map to remove the proposed Alberta Avenue right-of-way between North Venice Boulevard and South Venice Boulevard, and replacing it with (T)(Q)C2-1LO.

PROCEDURAL HISTORY OF THE PROPOSED LAND USE ENTITLEMENTS.

The requested action on the PLUM Committee’s meeting agenda is inconsistent with the history of the land use entitlements established in the record of this case.

On February 2, 2022, the City Council rescinded the City Council’s former actions on December 1, 2021 to adopt resolutions in the Council File for General Plan Amendment of the Venice Community Plan and related Coastal Venice Land Use Plan. On February 2, 2022, the City Council **did not rescind** the former actions the City Council took on December 1, 2021 to (1) approve an ordinance to implement a zone change from OS-1XL and RD1.5 to (T)(Q)C2-1L-O, or (2) approve an ordinance to amend the Venice Coastal Zone Specific Plan (“VCZSP”). The Project currently has no General Plan Amendment land use entitlements.

Additionally, the PLUM Committee meeting agenda incorrectly states that a City Attorney’s Report and attached ordinance should be adopted to amend “the Existing Zoning Map from OS-1XL and RD1.5 to (T)(Q)C2-1L-O”. This proposed action is factually incorrect because the “Existing Zoning Map” was already amended on December 1, 2021 from OS-1XL and RD1.5 to (T)(Q)C2-1L-O. Ordinance No. 187294 in the Council File proves this fact.

The PLUM Committee meeting agenda also incorrect states that a City Attorney’s Report and attached ordinance should be adopted to amend “the Venice Coastal Zone Specific Plan to create a new Subarea A and establish new land use and development regulations by amending

Section 10 of the Specific Plan”. That is not correct. This was also done on December 1, 2021 as a proposed VCZSP ordinance was attached to the City Planning Commission’s July 13, 2021 Letter of Determination in the Council File and the City’s Official Action lists it as part of the December 1, 2021 action of the City Council.

The PLUM Committee meeting agenda also incorrectly states that a City Attorney’s Report and attached ordinance should be adopted to amend “the Existing Zoning Map to remove the proposed Alberta Avenue right-of-way between North Venice Boulevard and South Venice Boulevard”. This proposed ordinance action has not been proposed or adopted by any previous action of the City to the best of our knowledge. This is a proposed new action.

A close comparison of the amendment of the VCZSP on December 1, 2021, and a proposed ordinance attached to a City Attorney report dated February 1, 2022 reveals they are different. Thus, the actual proposed action should be to rescind the ordinance adopted on December 1, 2021, and to initiate an ordinance amendment process under City Charter Section 558. To date, this has not been done.

As of the evening before the PLUM Committee meeting, there is no City Attorney Report or attached ordinance showing the proposed zone change or the removal of the Alberta Avenue right of way. The first action would also require a rescission of the December 1, 2021 zone change ordinance that is published as Ordinance No. 187294, and initiation of a revised zone change that addresses the City’s perceived deficiencies of Ordinance No. 187294. The second action would require a proper initiation of a new amendment of the zoning map regarding the Alberta Avenue right of way.

The February 1, 2022 City Attorney Report and attached ordinance related only to the proposed further amendment of the VCZSP **seems to assume that such a further ordinance amendment could be initiated by simply filing a City Attorney report and draft ordinance.** That is incorrect. Under Charter Section 558, the City Attorney is not authorized to initiate such amending ordinances or an initial ordinance. Thus, the entire second half of the agenda description for Item No. 1 for the PLUM Committee meeting seems to propose an action by the City Attorney not authorized by the City Charter. In any event, to the best of our knowledge, there is no City Attorney Report and attached ordinance for two of the three items proposed on the agenda description. Failure to timely post this report and draft Ordinance has deprived the Committee and members of the public with adequate opportunity to review the report and draft ordinance. The proposed action should therefore not be taken at this time.

REQUIRED FINDINGS CANNOT BE MADE

As noted in the agenda item description, the resolution which Council is being asked to adopt, includes a General Plan Amendment as well as a Zoning Change from OS-1XL-O to (T)(Q)C2-1L-O. Pursuant to Los Angeles Charter Sections 556 and 558, Council must find that:

- “the action is in substantial conformance with the purposes, intent and provisions of the General Plan.”

- “and, in the case of proposed zoning regulations, whether adoption of the proposed ordinance, order or resolution will be in conformity with public necessity, convenience, general welfare and good zoning practice.”

However, the required findings cannot be made as detailed herein, and in prior Channel Law letters contained in Council Files 21-0829-S1, 21-0829 and 22-0496. All prior Channel Law letters regarding this project are incorporated herein by reference, including but not limited to letters dated: June 7, 2022; May 25, 2022; May 24, 2022; November 30, 2021; May 25, 2021; February 16, 2021; January 12, 2020; and October 21, 2020.

Not In Conformity With General Welfare

As detailed in the report by GeoDynamics, Inc. dated June 13, 2022, included in **Attachment A** and signed by two State registered geotechnical engineers and a State certified engineering geologist, the Project site is located in several hazard zones, as designated by federal, state and local hazard zone maps: flooding (FEMA, 2021), liquefaction (CGS, 1999), tsunami (CGS, 2021), and methane (GWI, 2017). According to GeoDynamics, “(g)eology, hydrology, and geotechnical-related hazard zones impacting the site are coastal flooding, sea level rise, tsunami, methane, shallow groundwater, strong seismic earthquake shaking, liquefaction potential and related hazards (example: lateral spreading, seismic settlement and surface manifestation in the form of sand boils, fissures and loss of bearing).”² Location of the Project, which is designed to serve at-risk formerly homeless individuals, on a site subject to numerous hazards is, in and of itself, not in conformity with general welfare.

Furthermore, these hazard issues have not been adequately addressed by the City through the Soils Reports for the Project,³ the Project design, or other measures. The analysis of these hazards and how they should be addressed through Project design and mitigation has been inadequate, due in part to both the lack of environmental analysis conducted for the Project, and the City’s rush to approve the entitlements for the Project without adequate review.

The Los Angeles Department of Building and Safety (LADBS) has not reviewed the current version of the Project plans to ensure that these hazards have been mitigated or addressed in the Project design, or required updated reports to enable such a review. The Soils Reports reviewed by LADBS [Geocon West, Inc. (GWI) 10/11/2017 and 7/31/2018] predate the current Project plans and FEMA’s update of the flood hazard map for the Project area, which now shows that portions of the Project site and surrounding access streets are in flood Zone AE. The approved geotechnical reports are based on plans that do not include subterranean parking, as it

² GeoDynamics, Inc. Report dated June 13, 2022 at page 2. See Attachment A.

³ Technical review of the Project site began August 28 and 29, 2017 with drilled borings and obtaining soil samples at five locations on the Project Site. On October 11, 2017, a soils report prepared by GWI was submitted to the City for review. On July 17, 2018, the Grading Division of the Los Angeles Department of Building and Safety (LADBS) issued a Soils Report Review letter for the Project. On July 31, 2018, GWI filed with the City its Response to the Soils Report Review letter and made minor changes to the report. On August 12, 2018, LADBS issued a City Soils Report Approval Letter for the Project. To the best of our knowledge, August 2018 was the last time an engineer of the City reviewed the project conceptual designs based upon critical health and safety standards.

was not included in the project description in the GWI report, although the current May 12, 2021 plans include a subterranean parking component. This apparent discrepancy remains unresolved.

The LADBS Soils Report Approval Letter for the Project is dated August 12, 2018 and is based on outdated reports. Since the approval of the 2017 and 2018 GWI reports, the City of Los Angeles adopted the 2019 edition of the California Building Code (CBC). The 2019 edition of the CBC updated and revised the seismic design parameters relative to corresponding 2016 edition values used by GWI (GWI 2017, page 6). Both the Soils Approval Letter and a report by GeoSoils, Inc (GSI, 2020) that examines the effects of sea level rise and coastal flooding on the project site, also predate the current Project Plans dated May 12, 2021.

It does not appear that the GWI Soils Report (11/2017 and 7/31/18) has been updated, despite the fact that it is now 4.5 years old and predates the current Project plans. It also does not appear that the GeoSoils, Inc. report (2020) has been reviewed/approved in accordance with the City's Flood Hazard Management Ordinance and LADBS Bulletin P/BC 2020-064 (2020), and Public Records Act requests have yielded no demonstration of compliance with the requirements of Los Angeles Building Code Division 71 – Methane Seepage Regulations.⁴ In the professional opinion of GeoDynamics, as detailed in **Attachment A**, the geotechnical report needs to be updated, to address the enumerated issues in the GeoDynamics letter and additional mitigation measures recommended as appropriate for conformance with applicable codes and guidelines. The conclusions in the Soils Reports are no longer valid given the passage of time,⁵ changes in the Project, and new information regarding site hazards. There is thus a lack of substantial evidence that the Project is in conformity with the general welfare given its location in multiple hazards zones.

The GeoDynamics report included in **Attachment A**, does however provide substantial evidence that the Project is not in conformity with the general welfare, and is subject to hazards which have not been adequately analyzed or addressed. The GeoDynamic letter report includes the following findings (as quoted or paraphrased below):

- **As currently proposed subterranean parking will likely require construction dewatering and excavation/shoring recommendations, and possibly permanent dewatering.** If a subterranean level is proposed and six feet of overexcavation below the foundations is required as recommended by the GWI, then about 15 feet of excavation and remedial grading will be required.

⁴ https://up.codes/viewer/los_angeles/ca-building-code-2016/chapter/new_71/methane-seepage-regulations#new_71

https://www.ladbs.org/docs/default-source/publications/information-bulletins/building-code/site-testing-standards-for-methane-ib-p-bc2014-101.pdf?sfvrsn=e898eb53_20

https://www.ladbs.org/docs/default-source/forms/plan-check-2017/supplemental-correction-sheet-for-methane-seepage-regulation-pc-str-corr1st55-2020.pdf?sfvrsn=60f4eb53_27

[https://www.ladbs.org/docs/default-source/forms/plan-check-2017/supplemental-correction-sheet-for-methane-mitigation-systems-\(for-2017-codes\).pdf?sfvrsn=a414fe53_6](https://www.ladbs.org/docs/default-source/forms/plan-check-2017/supplemental-correction-sheet-for-methane-mitigation-systems-(for-2017-codes).pdf?sfvrsn=a414fe53_6)

⁵ The GWI report specifically states that it cannot be relied on *after a period of three years*. GeoDynamics letter at page 4.

This will likely require extensive dewatering and shoring, which can be costly and require logistical considerations as well.

- Based on available data from drilled borings, very loose and soft materials are expected to be encountered at the GWI's recommended depth of over-excavation of a minimum of 6 feet below grade, down to at least 14 feet below existing grade. This will require excavation below the anticipated groundwater table (between 7 to 12 feet below grade). Therefore, additional recommendations for dewatering and shoring design based on the proposed project plans and proposed subterranean parking garage are required.
- GWI's assertion that the static settlement should be rapid and take place shortly after the application of loads has not been verified with testing and analyses.
- Potentially liquefiable soils underlie the site. Whether subterranean parking or surface parking level is proposed, the **proposed mitigation measures are not likely to be adequate to reduce liquefaction related hazards at the site to an acceptable level as required by applicable codes. Specifically, the proposed mitigation measures do not address or mitigate the potential for surface manifestation and lateral spreading hazards. These hazards could impose significant instability and damage to the project and need to be evaluated and mitigated in conformance with codes and guidelines.**
- The site is in a city-designated Methane zone and there is potential for methane on the site. A methane study should have been performed in the planning stage, since the results of this study will likely require changes in project design that affect planning approval. If methane mitigation is required, this may affect the proposed depth of excavation and configuration of the foundation system as well as at graded facilities/space.
- Currently the proposed project parking and residential structures appear to be at 5 to 7 feet above MSL (mean sea level) based on the Venice CA USGS (1981) topographic map. Tsunami wave height predictions for Port of Long Beach are presented in the Port Complex model (Moffat & Nichol, 2007; Figure 4-1) suggest tsunami wave heights of up to 2.8 meters (~9.3 feet) for a large earthquake on the Catalina fault. **If the tsunami were coincident with a 5- to 7.5-foot high tide (an unlikely event) the tsunami elevation could reach more than 15 feet in elevation and would flood the project site.**
- When applying the Sea Level Rise (SLR) scenarios evaluated by the Venice SLR Study, SLR is modeled as affecting the groundwater table causing it to become "emergent" (i.e., at the ground surface) under all scenarios (i.e., at a SLR of 1.6 feet, potentially by 2040, groundwater will be close to the ground surface). Given that the actual groundwater table has been observed to be deeper than the OCOF Hazard model depicts, it may be that emergent groundwater will be delayed until a higher sea level rise occurs (higher than 1.6 feet). As the model shows, by 2040 to 2060, if sea level rise occurs as the scientific models adopted by the California Coastal Commission predict, the effects will likely cause groundwater to rise to the within 3 feet of the ground surface, if not to the

ground surface. **If at some point in the future groundwater is affected by SLR such that it becomes emergent, the site will be inundated, whether the tidal gates for Grand Canal prevent tidal inundation or not.**

- **The project site is in a FEMA identified flood zone (AE) and has been identified as subject to potential future flooding because of sea level rise. There has been no demonstration that mitigation measures have been incorporated into project design and approvals to conform to Coastal Act Policies (Sections 30235, 30253 and 30610(g)), i.e., to minimize risks to life and property in areas of high geologic, flood or fire hazards.**
- In general, the area is low-lying and flood prone, with little natural topographic gradient to provide adequate drainage. In addition, both the inflow and outflow of any surface waters are limited by the capacity of the canals, and operation of the tide gates. **This means that in times of heavy rainfall, flooding and high tides, drainage of the site may be slow and may need to be actively managed with respect to timing of flood water ejection from the site (by pumping or gravity) and coordinated with the operation of the tide gates.**
- The May 12, 2021 Project plans indicate that there is a subterranean garage as part of the project design, which is approximately 8-10 feet below grade (wall height unspecified). Given the location, shallow groundwater and potential existing and future flood characteristics of the site, **there is the potential for flooding. It appears that based on source of flooding (potentially affected and by tide gates controlled by the City of Los Angeles), that once flooded, there may be limited options for discharge of flood waters in the subterranean parking.**
- Minimizing risks in design should include avoidance, i.e. **finish floor elevations sufficiently high enough to avoid flooding now as well as in the future** due to predicted changes in site conditions, and to avoid construction vulnerable to flooding (i.e. the proposed underground parking 10 to 15 feet below mapped flood elevations, where flood waters can enter via subterranean ingress and egress).
- **To date potential impacts of Sea Level Rise (SLR) on the project have not been adequately addressed** in the Project design. Impacts from SLR include flooding of the lower floors of the project below FEMA Base Flood Elevation of 8.0 feet NAVD88, future potential flooding due to SLR, and impacts of the rise in groundwater table and documented corrosive soils on subsurface structures (including utilities), foundation, drainage facilities and pavements for the life of the project. **Based on the approved project plans, it appears that the project as designed does not conform to California Coastal Commission adopted Coastal Act Policies (Sections 30235, 30253 and 30610(g)), i.e., to minimize risks to life and property in areas of high geologic, flood or fire hazards as well as CBC2019 Supplement July 2021, Appendix G - Flood Resistant Construction.**

It is clear, given the information currently available, that the proposed Project and thus the required ordinances for zone change and specific plan amendment will result in, as yet, unaddressed methane, geotechnical, tsunami and flood hazards. The Project is not in conformity with the general welfare. The required finding can therefore not be made.

Not In Conformity With Good Zoning Practice

The proposed Project, associated entitlements, and the City's processing thereof is not in conformity with good zoning practice. First, the City's zoning amendment is a case of impermissible spot zoning and second, the zoning amendment is being carried out without first conducting the type of environmental review required by the California Environmental Quality Act (CEQA) for these types of discretionary approvals, particularly since substantial portions of the project are not required to develop supportive housing.

As detailed in prior Channel Law letters incorporated herein by reference and the current lawsuit against the City⁶ on this issue, the City's zoning amendment for the Project is a case of impermissible spot zoning. Spot zoning is an unlawful, arbitrary, abuse of zoning discretion by which a smaller area is singled out of a larger area or district and specifically zoned for a use classification totally different from and inconsistent with the classification of surrounding land, and not in accordance with the General Plan. It is settled law that an amendment to a zoning ordinance that singles out a small parcel of land for a use different from that of the surrounding properties and for the benefit of the owner of the small parcel and to the detriment of other owners is spot zoning. As clearly evident in the maps attached to the proposed Resolution, and the text of the GPA, that the requested GPA and Zone change would apply unique and Project-specific standards to a small, defined area, Area A on the maps. They are designed to allow for this one specific project. In this case, the City's preferential treatment to the Developer includes, but is not limited to, all of the general plan amendments, certified LUP amendments, rezoning, and creation of maps drawing a separate zone around just the parcels for this Project, and granting for special treatment to develop much more than is required to provide supportive and affordable housing, to the extreme detriment of critical beach access rights of the public, the ability to properly maintain the Venice Canal system, and neighborhood character.

Typically, both General Plan Amendments and zone amendments are subject to CEQA review as part of good zoning practice, thus allowing for understanding of the environmental consequences of any zone change. In this case CEQA review has not occurred because the City is making use of a Statutory Exemption from the California Environmental Quality Act (CEQA) pursuant to Public Resource Code Section 21080.27(b)(1) for Permanent Supportive Housing projects to exempt the Project and all of the associated entitlements from proper CEQA review.

⁶ See Coalition For Safe Coastal Development v. City of Los Angeles, Case No. 22STCP00162, filed March 1, 2022, included in Attachment A of the Channel Law letter dated 5/25/2022.

The lawsuit addresses the following issues: the fact the Project does not qualify for an exemption under CEQA; the City's violation of the Subdivision Map Act in its approval of the Project's Tentative Tract Map, including the City's failure to comply with Subdivision Map Act environmental review requirements; the City's improper spot zoning to benefit the Project; how the City has violated the Coastal Act and the Certified Land Use Plan when approving the Coastal Development Permit for the Project; violation of the Mello Act and other affordable housing requirements; and the City's violation of fair hearing constitutional due process requirements in its processing of the proposed Project.

As detailed in the Coalition’s lawsuit against the City,⁷ the Project as proposed is not eligible for this Statutory Exemption. The proposed Disposition and Development Agreement (DDA) for the Project does not require a Permanent Support Housing use for the Project site.⁸ Additionally, the Project contains a number of elements that are unnecessary to meeting the urgent needs of supportive housing and its target population as defined in State law. These uses include:

- 2,255 square feet of retail uses,
- 810 square feet of restaurant uses with 500 square feet of outdoor Service Floor area,
- 3,155 square feet of community arts center/art studio uses (philanthropic uses).
- Parking in excess of the 61 residential spaces, including: 42 commercial spaces, 196 public spaces (replacement), 23 Beach Impact Zone (BIZ) spaces and 38 non-required spaces; and 136 bicycle parking spaces (19 short-term and 117 long-term).

There are similarly associated components of the General Plan Amendment and zone change that are not required for supportive housing, such as the change to Neighborhood Commercial and associated uses, rather than to a Residential land use designation, and the inclusion of a Project-specific allowance for a campanile structure that exceeds the maximum allowable height of 35 feet in a Neighborhood Commercial area, and provides for a maximum height for the campanile of 67 feet, a special benefit only allowed in “Area A” - a clear example of spot zoning.

The City’s use of spot zoning and failure to conduct appropriate environmental review for the GPA and zone change are not consistent with good zoning practice. This required finding can therefore not be made.

Not In Conformity With Convenience

The proposed Project will result in a number of convenience impacts to the general public and to those charged with cleaning the canal system under existing Coastal Development Permits. Convenience impacts result from changes to the boat access for the Venice Canal system resulting from the Project, changes in pedestrian access which necessitate a longer and less safe walk for beach goers making use of the replaced public parking resulting from the Project, and convenience impacts resulting from the design of the proposed parking structure to replace on-site ground-level public parking on the Project site.

Boat Access

The boat launch ramp on the Project site currently provides the exclusive access to the canal system for recreational boaters and for the company hired to clean the canals of trash and algae. The current boat launch ramp access is very simple. As shown in **Figures 1 and 2**, it

⁷ See Coalition For Safe Coastal Development v. City of Los Angeles, Case No. 22STCP00162, filed March 1, 2022, included in Attachment A of the Channel Law letter dated 5/25/2022.

⁸ A copy of the DDA is available in Council File 22-0496 and is attached to the April 27 2022 HCD Report available at: https://clkrep.lacity.org/online/docs/2022/22-0496_rpt_HCI_04-27-22.pdf

includes parking for up to seven vehicles that is located immediately adjacent to the ramp providing access to the launch. Additionally, there is room to back a trailer up for off-loading, accessing the launch ramp does not require making any sharp turns with a boat, and parking is located in very close proximity to the launch ramp. There is no current need to park on the street and use the narrow sidewalks along the Canal, to access the boat launch ramp.

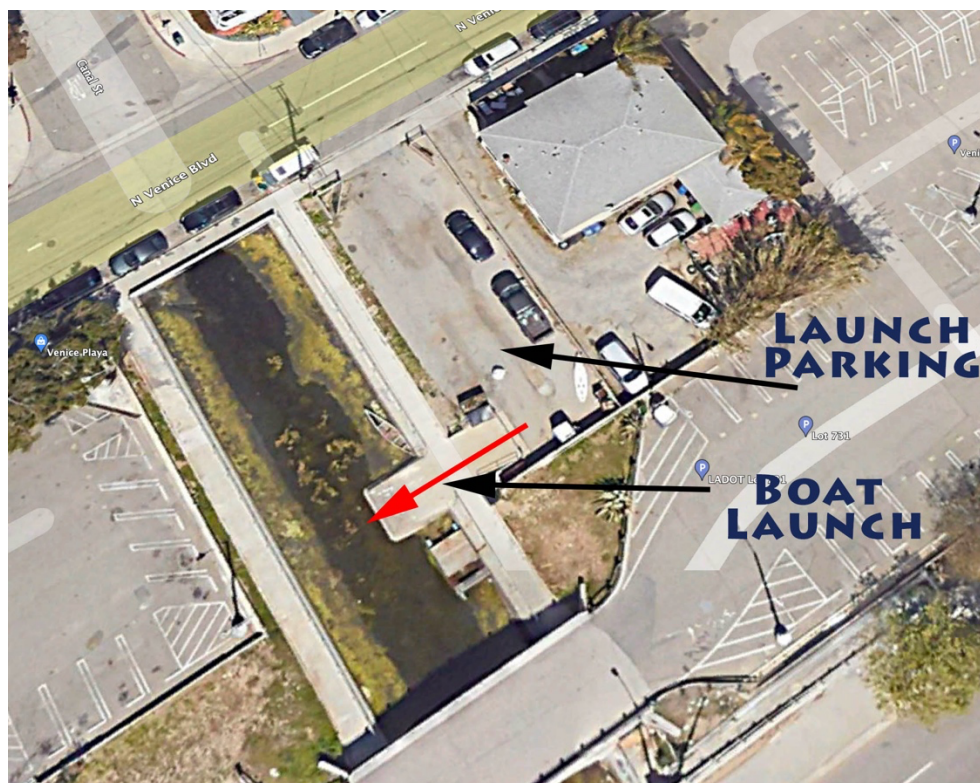


FIGURE 1 – Existing Access to the Boat Launch Ramp

Source: Google Earth



FIGURE 2 – EXISTING BOAT LAUNCH RAMP

In contrast, as shown in **Figure 3**, with the proposed Project, access to the boat launch will be difficult, and may be impossible for some watercraft. As shown in **Figure 3**, the Project provides inside the east public parking garage two spaces for vehicles bringing boats to the Canal. These spaces appear to be standard parking spaces and are only 18 feet in length. In order for persons using these spaces, the boats must be small so they can be carried through two building doors and through landscaped areas to reach the boat launch.

These parking spaces do not serve boats transported on trailers. Not shown in Figure 3, a single “long” space for a vehicle and boat trailer is shown on the Exhibit A approved project plans for the west parking garage. Because this single space is located just inside the parking gate for the west garage, there is already concern that the location of the space is impossible to negotiate. Linked with this single space is a temporary loading zone space in the south lane of North Venice Boulevard, for long boats while loading and unloading. This will block a lane of traffic while unloading, loading and hanging out in the zone.

Individuals, organizations or companies off-loading a boat in the parking structure will then be required to maneuver the boat through two sets of double doors that appear to be 5-6 feet in width, down an incline ramp, and make a sharp left turn onto the approximately 6-foot-wide sidewalk along the Canal, followed quickly by a sharp right turn onto the boat launch. For a long boat, the Project developers anticipate a large boat could be off-loaded from the public right-of-way, then maneuvered 85 feet down the incline from the North Venice Boulevard to the narrow approximately six-foot-wide sidewalk along the Grand Canal, followed by a sharp right to access the launch ramp. This assumes that parking on Venice Boulevard North is feasible, which is unlikely given expected turn movements into the western parking structure and roadway traffic volumes. The proposed boat launch access changes resulting from the Project thus represents a major inconvenience which is likely to impact boat access to the Canal system.

To the degree that the ability to clean the Canal and remove collected debris is affected, these changes may also impact the public welfare such as would make cleaning the canal

BOAT LAUNCH ACCESS

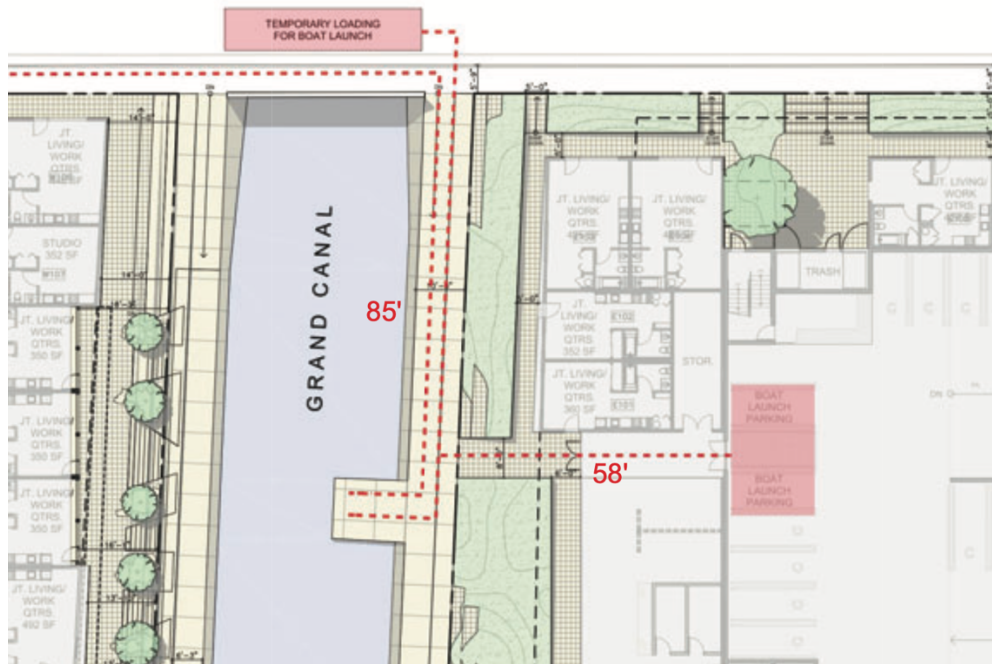


FIGURE 3 – Boat Launch Ramp Access with the Propose Project

Source: CAO Report 6/3/2022

Pedestrian Access

As shown in **Figure 4**, citizens currently making use of the beach surface parking lots on the west and eastern portions of the Project site have easy access westbound across the site and via the existing historic bridge, westbound along the existing sidewalks and through the parking lots to crosswalks on Pacific Avenue, and then ultimately the beach.



FIGURE 4 – Existing Public Access

Source: Google Earth

As shown in **Figure 5**, the proposed Project eliminates public parking on the western portion of the Project site thus moving 40% of beach parking 500 feet further from the beach, forces beachgoers to use the new eastern parking structure and to access crosswalks at Pacific Avenue by walking along the substandard (6-feet wide with obstructions) sidewalks on North and South Venice Boulevards, and to cross Project parking driveways. Changes resulting from the Project thus represents a beach access inconvenience and, to the degree that they decrease pedestrian safety, a public welfare impact.

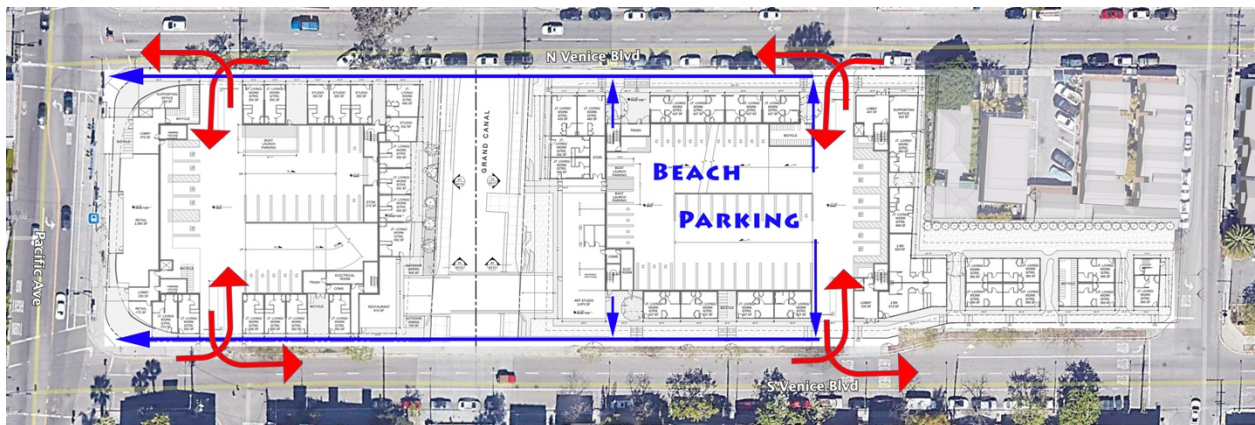


FIGURE 5 – Project Pedestrian Access for Beach Parking Users

Source: 5/12/21 Plan Set from CAO Report dated June 3, 2022

Public Parking Operations

Although the May 12, 2021 plan set is the approved version of the Project, a Public Records Act request revealed the existence of a February 7, 2021 set of plans for the Project's public parking structure. That plan set is attached to the June 7, 2022 Channel Law letter to the

Homeless and Poverty Committee and the letter and plan set are incorporated herein by reference.

Problems with the operation of the public parking structure are detailed in the FBV Video available at: <https://vimeo.com/717607593> and incorporated herein by reference. As clearly illustrated in the video, the overwhelming majority of Level 1 parking is tandem and mechanical lift stacked parking, mostly reserved for electric vehicles (52 out of 66 space); 54 of the 66 spaces on Level 1 are mechanical-lift, tandem or both. Tandem parking involves blocking someone in. This renders Level 1 essentially unusable for the typical beachgoer with their beach equipment and supplies. Level 2 is supposedly self-park, but it includes 18 tandem spaces, 30 of the 32 perimeter spaces are electric vehicle (23) or compact (7), and virtually all of the perimeter parking spaces – including the “accessible space” are blocked in by parallel parking spaces along the traffic lane. Level 3 is rooftop parking. It consists entirely of noisy 15-foot mechanical-lift stacking systems that will extend the building above applicable height limits. The northern access to the structure has one in lane and a second in/out lane. The southern access has one out lane and one in/out lane. It thus appears that the structure uses North Venice Boulevard as the one entrance and South Venice Boulevard as the one exit, except when there is lane reversal. This will likely cause confusion as users are likely to circle the block when there are long lines to enter the parking structure on the north side.

The existing surface parking design is clearly visible in **Figure 4**. It is clear from the Google Earth view of the existing surface parking lots that they do not include tandem parking and that the operation of the lots and the ability of users to exit and enter is simple and clear.

The changes in on-site public parking resulting for the Project thus represents a major inconvenience as compared to existing parking on the site. It is clear from the parking structure plans that achieving the necessary number of public parking spaces will require mechanical-lifts, tandem parking and blocking parking spaces with parallel parking spaces along the traffic lane. None of this makes for a convenient, user-friendly parking experience for beach-goers.

The proposed Project and the consequent zone change will result in convenience impacts from changes to the boat access for the Venice Canal system, changes in pedestrian access which necessitate a longer and less safe walk for beach goers making use of the new on-site parking structure, and convenience impacts resulting from the design of the proposed parking structure. The required finding can therefore not be made.

Not In Conformity With Public Necessity

The proposed Project is unduly expensive and constitutes a waste of public funds that could be better used to produce more and less expensive affordable and supportive housing. Given the magnitude of the housing problem, funds must be used in a cost-effective manner to maximize needed housing production.

Unlike many smaller and more sensitively placed affordable housing projects that Council members have supported in other districts, the Reese Davidson Project, according to its own pro forma in Council File No. 22-0496, now has an estimated cost per unit of \$620,497, exclusive of land value and the cost of the new replacement public parking structure. However, the actual cost to taxpayers includes the opportunity cost of the City land that will be leased to the

Project developer. In addition to the nearly \$100 million development cost is the value of taxpayer-owned land which would be leased at a dollar a year to the Project applicant for up to 99 years. Based upon true market value of lot sales nearby, the actual fair market value of the land is conservatively \$60 million. This \$60 million estimate by the Coalition is based upon recent sales of lots nearby for much more. For instance, in December 2021, a lot on Linnie Canal nearby sold for \$1,750,000 which pencils out to about \$70 million. (40 lots X \$1,750,000 = \$70 million.) Even more recently, three lots sold for \$6.4 million for an average lot cost of \$2.13 million. That would yield an approximate fair market value of the 40 Project lots of \$85.2 million. Thus, the \$60 million assumption is very conservative. This \$60 million dollars represents the equivalent of \$441,176 dollars per each of the 136 “affordable units,” raising the cost per unit to \$1,061,673. It should be noted that the units to be produced are very small units, as shown in the screenshot of Plan Sheet G0.01 provided as **Figure 6**.

RESIDENTIAL UNIT TYPES				
OCCUPANCY	SPEC. NEEDS	AFFORDABLE	MANAGER	TOTAL
Joint Living and Work Quarters	17	17	0	34
Studio	28	27	0	55
1 Bedroom	12	13	0	25
2 Bedroom	11	11	4	26
Total	68	68	4	140

RESIDENTIAL UNIT SIZES		
OCCUPANCY	SIZE RANGE (SQ.FT.)	AVG. SIZE (SQ.FT.)
Joint Living and Work Quarters	350-480	400
Studio	281-350	301
1 Bedroom	512-687	542
2 Bedroom	757-903	788

FIGURE 6 – Number and Size of Project Units

Source: Plan Sheet G0.01, 5/12/21

However, this is still not the full public cost of the Project. As detailed on page 3 the May 20, 2022 CAO Report for the Disposition and Development Agreement (DDA), approval of the Project and its associated GPA and Zone Change commits the City to a Project which necessitates the City replacing the existing public parking on the site. This is accomplished via the construction of a parking structure necessitating incurring debt service which CAO estimates at \$19,490,000, which includes interest of approximately \$7,844,000. This equates to the City spending \$143,309 for each of the 136 affordable units, **just in replacement parking costs alone**. This raises the per “affordable” unit cost to \$1,204,982.

The GPA and Zone Change thus obligates the City to replacing a revenue generating parking lot, with a parking structure the City does not have the funds to pay for, which

necessitates borrowing by the City in the form of bonded indebtedness, for a parking structure which is likely to be less attractive to users than the existing surface parking lot and thus have lower usage rates and thus lower revenue generation, and which is likely to result in increased long-term public access parking cost. The Project requires replacing an existing revenue generating surface parking lot with debt for a new parking structure.

The proposed Project and associated entitlement are not in conformity with public necessity, which dictates the need for much more cost-effective government approaches to meeting the Permanent Supportive Housing, affordable housing, and housing for the unhoused needs of the City. The required finding cannot be made.

Not in Substantial Conformance with the Purposes, Intent and Provisions of the General Plan

The proposed Project is not in conformance with a number of General Plan provisions as specified in goals, policies and objectives in several General Plan Elements.

Safety Element

The City's current Safety Element was adopted in 1996. The City has replaced it on the City's website with the draft Safety Element the City is in the process of adopting.⁹ As detailed on page 108 of the 2021 Safety Element, there have been limited changes made to the goals, objectives and policies in the 1996 Safety Element. The proposed Project and thus the GPA and Zone Change are not consistent with the following Safety Element goals, objectives and policies, given the information provided in this letter and **Attachment A**, given the existing site hazards and failure to fully analyze and mitigate associated impacts:

- **GOAL 1: Hazard Mitigations** - A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to hazards is minimized.
 - **Policy 1.1.2 Disruption Reduction.** Reduce potential disruption due to disaster, with an emphasis on critical facilities, governmental functions, infrastructure and information resources.
 - **Policy 1.1.4 Health/Environmental Protection.** Protect the public and workers from the release of hazardous materials and protect City water supplies and resources from contamination resulting from release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation.

⁹ https://planning.lacity.org/odocument/bf51ae04-1c7b-4931-9a29-d46209998b89/2021_SafetyElementBookFINAL.pdf

- **Policy 1.1.5 Risk Reduction.** Reduce potential risk hazards due to disaster with a focus on protecting the most vulnerable people, places and systems.
- **Policy 1.1.8 Land Use.** Consider hazard information and available mitigations when making decisions about future land use. Maintain existing low density and open space designations in Very High Fire Hazard Severity Zones. Ensure mitigations are incorporated for new development in hazard areas such as VHFHSZs, landslide areas, flood zones and in other areas with limited adaptive capacity.¹⁰
- **Policy 2.1.2 Health and Environmental Protection.** Develop and implement procedures to protect the environment, sensitive species and public from potential health and safety hazards associated with disaster events, hazard mitigation and disaster recovery efforts.

Venice Community Plan

The proposed Project is not consistent with the following goals, objectives and policies of the Venice Community Plan, based on information contained herein and prior Channel Law letters regarding the Project:

- **Goal 5:** A community with sufficient open space in balance with new development to serve the recreational, environmental, health and safety needs of the community and to protect environmental and aesthetic resources.
 - **Objective 5-1** To preserve existing open space resources and where possible develop new open space.
 - **Policy 5-1.1** Encourage the retention of passive and visual open space which provides a balance to the urban development of the community.
 - **Policy 5-1.4** Protect and maintain unique open space areas, including the Venice Canals, Grand Canal, Ballona Lagoon and beaches.
- **Goal 13:** A sufficient system of well-designed and convenient on-street parking and off- street parking facilities throughout the plan area.
 - **Objective 13-1:** To provide an adequate supply of parking at appropriate locations in accordance with Citywide standards and community needs.
 - **Policy 13-1.2** New parking lots and garages shall be developed in accordance with design standards.

¹⁰ Policy added to the 2021 version of the Safety Element.

Sewerage Facilities Element

As noted in the March 1, 2022 Letter of Determination of the LACPC:

While the sewer system might be able to accommodate the total flows for the proposed project, further detailed gauging and evaluation may be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity, then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Treatment Plant, which has sufficient capacity for the project.

It is therefore currently unknown whether there is sufficient existing current local sewer line capacity to serve the proposed Project and the linear distance of any needed sewer line capacity increases to address Project demand.

Venice Coastal Zone and Land Use Plan

The proposed Project is not consistent with the following goals, objectives and policies of the Venice Coastal Zone and Land Use Plan as detailed herein and in prior Channel Law letters:

- **Policy I. E. 2. Scale.** New development within the Venice Coastal Zone shall respect the scale and character of community development. Buildings which are of a scale compatible with the community (with respect to bulk, height, buffer and setback) shall be encouraged. All new development and renovations should respect the scale, massing, and landscape of existing residential neighborhoods. Lot consolidations shall be restricted to protect the scale of existing neighborhoods. Roof access structures shall be limited to the minimum size necessary to reduce visual impacts while providing access for fire safety. In visually sensitive areas, roof access structures shall be set back from public recreation areas, public walkways, and all water areas so that the roof access structure does not result in a visible increase in bulk or height of the roof line as seen from a public recreation area, public walkway, or water area. No roof access structure shall exceed the height limit by more than ten (10') feet. Roof deck enclosures (e.g. railings and parapet walls) shall not exceed the height limit by more than 42 inches and shall be constructed of railings or transparent materials. Notwithstanding other policies of this LUP, chimneys, exhaust ducts, ventilation shafts and other similar devices essential for building function may exceed the specified height limit in a residential zone by five feet.
- **Policy I. B. 5. Neighborhood Commercial Land Use.** The Neighborhood Commercial designation is intended to accommodate local neighborhood commercial facilities and services which provide daily convenience goods and services to persons living in nearby residential areas. Small scale neighborhood stores and community services shall be preserved and encouraged. Neighborhood retail goods and services include, but are not limited to the following: art

galleries; barber shops or beauty parlors; dry cleaners; laundry services; shoe repair; tailors; florists; hardware stores; drug stores; food/grocery stores; newsstands; medical facilities; and job service centers. Drive-thru facilities and billboards shall be prohibited on properties designated as neighborhood commercial. Community services include day-care, community-meeting rooms, recreational, religious or cultural facilities and similar uses. The clustering of uses minimizes multiple vehicle trips and encourages walking to and from adjacent residential neighborhoods. Areas designated for Neighborhood Commercial Land Use are shown in Exhibits 9 through 12.

Physically, Neighborhood Commercial areas are generally characterized by one- and two-story low-rise structures. Pedestrian activities shall be encouraged by the emphasis on local serving uses, design of buildings, and the incorporation of streetscape amenities.

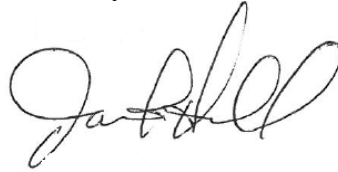
- **Policy II. A. 2. Expansion of Public Beach Parking Supply.** The construction of new public parking facilities should be implemented, as well as maximizing the use of existing ones by restriping existing parking lots or converting them to multi-level structures where consistent with other Coastal Act policies. The parking lots located west of the Ocean Front Walk shall remain surface parking lots. In no case shall such structures obstruct ocean views or be inconsistent with other Coastal Act or LUP Policies.
- **Policy III. D. 2. Boating Use of Canals and Lagoon.** Recreational boating use of the Venice Canals shall be limited to non-commercial shallow-bottom, non-motorized boats such as canoes and rafts, in order to permit recreation while protecting the environmentally sensitive habitat area and maintain a quiet ambience within the neighborhoods of the plan area. A public boat launch facility was built as part of the Venice Canals Rehabilitation Project at the Grand Canal and North Venice Boulevard. The City shall protect the public's ability to access the canals by boat by maintaining public access to the Grand Canal public boat launch. The facility shall provide adequate on-site public parking consistent with the sizes and types of boats to be launched and frequency of launching pursuant to the County Department of Small Craft Harbors standards.
- **Policy I. F. 3. Venice Canals.** The historic integrity of the Venice Canals shall be preserved. The canals are deemed to be significant as an early example of community recreational planning in a coastal marshlands area. Included in the historic district are the six canals, their associated sidewalks and a number of pedestrian and vehicular bridges. The Venice Canals are listed on the National Register of Historic Places as an historic district (August 30, 1982). Additionally, the City of Los Angeles Cultural Heritage Commission declared the Venice Canal System a Los Angeles City Historic-Cultural Monument (HCM No. 270, August 2, 1983).

The proposed Project and thus the GPA and Zone Change are not is substantial conformance with the General Plan. The proposed Project and thus the GPA and Zone Change **are not** in conformity with public necessity, convenience, general welfare and good zoning

practice and should therefore not be approved. The Planning and Land Use Committee should, therefore, deny the requested General Plan Amendment and Zoning Change.

I may be contacted at 310-982-1760 or at jamie.hall@channellawgroup.com if you have any questions, comments or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Jamie T. Hall". The signature is fluid and cursive, with the first name "Jamie" being more prominent than the last name "Hall".

Jamie T. Hall

Encl. -Attachment A

Attachment A

June 13, 2022

Mr. Jamie T. Hall, Esq.
Channel Law Group, LLP
8383 Wilshire Blvd., Suite 750
Beverly Hills, CA 90211

SUBJECT: Geotechnical and Coastal Engineering Review of Submitted Documents
Regarding The Proposed Reese Davidson Community, Venice Area of The City
of Los Angeles, California, Council File Nos. 22-0496, 21-0829, 21-0829-51.

Dear Mr. Hall:

INTRODUCTION

At your request and authorization, we reviewed geotechnical and coastal documents as well as plans (see attached list of references) related to the proposed Reese Davidson Community in the Venice area of the City of Los Angeles. This letter report focuses on the coastal and geotechnical engineering conditions at the project site, and how those conditions could affect the proposed development and surrounding areas. The focus of our review was to evaluate/check conformance of the submitted reports and documents with applicable codes, geotechnical guidelines, and standards of practice, as related to the proposed development at the site.

Project Location

The project site is in the Venice Community of Los Angeles on the coastal plain adjacent to the Venice canals. The project site is bordered by North Venice Boulevard (Blvd.) on the northwest, South Venice Blvd. on the southeast, Dell Avenue (Ave.) on the northeast, and South Pacific Ave. on the southwest. The Grand Canal waterway extends northwest-to-southeast across the property northeast of Pacific Ave. See the Geocon West, Inc. (2017) Figures 1 and 2 maps for reference. The street addresses associated with the project site area: 2102-2120 South Pacific Avenue, 116-128 East North Venice Boulevard, 125 East South Venice Boulevard, 200 East North Venice Boulevard, 2-4-216 & 302 East North Venice Boulevard, 2116 South Canal Street, 301-319 East South Venice Boulevard.

Project Background

It is understood that the proposed project consists of two 3- to 4-story mixed use buildings/housing units and parking structures at the locations stated above. A large portion of the development will consist of two parking garages. The west garage is proposed to provide parking for all residential and commercial uses through the site at approximately 103-108 spaces. The east garage is proposed to provide replacement of 196 parking spaces, 27 Beach Impact spaces, 2 canal access spaces and a varying number of additional spaces. For instance, the east public parking garage holds approximately 233-252 parking spaces surrounded by the mixed-use/housing structures. The most recent plans (February 2022) show parking spaces will be floor level single spaces and mechanical vehicular lifts on two of the three floor levels.

The site is located in several hazard zones, as designated by federal, state and local hazard zone maps: flooding (FEMA, 2021), liquefaction (CGS, 1999), tsunami (CGS, 2021), and methane (GWI, 2017). These hazard zones are also indicated on a parcel-by-parcel basis on

the City of Los Angeles Planning Department Zone Information and Map Access System (ZIMAS) online (<http://zimas.lacity.org/>).

Site Geology and Setting

The underlying soils at the project site (Roffers and Bedrossian, 2010) consist of the following mapped geologic units: alluvial valley deposits (map symbol Qa) at the surface underlain by young alluvial fan deposits (Qya). There is likely some scattered artificial fill (af) with a possible concentration at the northeast end of the project site. Qa is generally unconsolidated sand, silt, clay, and gravel with sandy sediment being more predominant. Qya is typically unconsolidated to slightly consolidated clay silt, sand, and gravel. The depth and characteristics of these formations can be interpreted in the GWI (2017) Borings 1-5. Groundwater was observed by GWI at is between 7.0 to 12 feet below grade at the time of drilling (GWI 2017).

Geology, hydrology, and geotechnical-related hazard zones impacting the site are coastal flooding, sea level rise, tsunami, methane, shallow groundwater, strong seismic earthquake shaking, liquefaction potential and related hazards (example: lateral spreading, seismic settlement and surface manifestation in the form of sand boils, fissures and loss of bearing).

History of Geotechnical/Coastal Engineering Review

Technical review of the Project site began August 28 and 29, 2017 with drilled borings and obtaining soil samples at five locations on the Project Site. On October 11, 2017, a soils report prepared by GWI was submitted to the City for review. On July 17, 2018, the Grading Division of the Los Angeles Department of Building and Safety (LADBS) issued a Soils Report Review letter for the Project. On July 31, 2018, GWI filed with the City its Response to the Soils Report Review letter and made minor changes to the report. On August 12, 2018, LADBS issued a City Soils Report Approval Letter for the Project.

After project application with architectural plans dated December 2018, a coastal engineering report was prepared by GeoSoils, Inc. (GSI, 2020) examining the effects of sea level rise and coastal flooding on the project site. Revised plans dated May 12, 2021 were attached to the City Planning Recommendation Report prepared for review of the Project by the City Planning Commission. The May 12, 2021, plans are the planning entitlement plans, as confirmed by a Report of the Chief Administrative Officer dated June 3, 2022, according to the client group.

We are informed by the client group that additional discretionary planning approvals are foreseeable. The client reports that after the City Council granted project approvals on December 1, 2021 for the Project using May 12, 2021 design plans, alternative architectural plans were prepared for the LADOT public parking garage on the east site that, among other things, remove the subterranean parking level.

The client was unable to confirm that the GWI Soils Report (2017) has been updated given that it is now 3.5 years old, or that the GeoSoils, Inc. report (2020) has been reviewed/approved in accordance with the City's Flood Hazard Management Ordinance and LADBS Bulletin P/BC 2020-064 (2020). We also were unable to confirm any further City reviews since the August 12, 2018 Soils Report Approval Letter the client provided us.

FINDINGS

Geotechnical Engineering

We have reviewed the following geotechnical documents, which were previously reviewed and approved by the City of Los Angeles:

- GWI (2017) "Proposed Mixed-Use Development, 2102-2120 S Pacific Ave, 116-128 E North Venice Blvd, 204-216 E North Venice Boulevard, 302 E North Venice Blvd, 125 E South Venice Blvd, 301-319 E South Venice Boulevard, and , 2106-2116 S Canal Street, Venice, California, Tract: Short Line Beach Subdivision No. 1, Block: 9, Lots: 1-6, 36-42, (ARB: 1-3), LT 42 (ARB 1-3), Block: 12, Lots: 1-2, Block: 14, Lots: 1, 7-12, Project No.: A9657-06-01, dated October 11, 2017.
- City of Los Angeles (LADBS Grading Division), Soils Report Review Letter, dated July 17, 2018.
- GWI (2018) "2102-2120 South Pacific Avenue, 116-128 East North Venice Boulevard, 125 East South Venice Boulevard, 200 East North Venice Boulevard, 204-216 & 302 East North Venice Boulevard, 2116 South Canal Street, 301-319 East South Venice Boulevard, Lots: FR1, 2-6, FR7, LT42 (ARB 1-3), 36 (ARB 1-2), 37, 38 (ARB 1-3), 39-41 // FR1-FR6, 7-12, // ARB D//FR1,7-13, Tract: Short Line Beach Subdivision No. 1 (M P2-59), Block: 9// 12// --// 14, Project No.: A9657-06-01, dated July 31, 2018.
- City of Los Angeles LADBS Grading Division, Soils Report Approval Letter, dated August 10, 2018.

Based on our review, it seems that the approved geotechnical reports are based on plans that do not include subterranean parking, as it was not included in the project description of the GWI report, although plans approved by the City include subterranean parking. We have the following items related to geotechnical issues that were not completely addressed by the above reports. Regardless of the configuration of the current approved plans, with or without the subterranean garage, our comments on the technical reports still apply, particularly with respect to liquefaction. It is our professional opinion that the geotechnical report needs to be updated, and these items need to be further evaluated and addressed. Accordingly, additional mitigation measures should be recommended as appropriate for conformance with applicable codes and guidelines.

1. The project plans appear to have changed significantly with respect to the proposed foundation level (now includes subterranean parking) and the geotechnical report is out of date according to the "Limitations and Uniformity Conditions" specified by GWI (2017) as follows (*emphasis added*):

"1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, *or if the proposed construction will differ from that anticipated herein*, Geocon West, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon West, Inc."

"2. The findings of this report are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent

properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon *after a period of three years.*"

2. The approved project plans are dated May 12, 2021, show that a subterranean level is proposed. We understand that the May 12, 2021, plans are attached as Exhibit A to the land case approval in Council Nos. 21-0829 and 21-0829-S1. Hence, the project geotechnical consultant, GWI needs to address excavation and, dewatering and shoring to support the proposed excavation for the proposed subterranean level as well as the over-excavation below foundations level. Orthogonal cross sections through the buildings need to be provided. The sections should depict existing and proposed grade, existing and proposed improvements within close proximity to excavation areas, excavation limits, geotechnical borings, interpreted geologic/soil layers, and groundwater depth.
3. GWI recommends in the geotechnical report dated October 11, 2017, page 2 that "*Once the design phase and foundation loading configuration proceeds to more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Any changes in design, location, or elevation of any structure, as outlined in this report should be reviewed by this office Geocon should be contacted to determine the necessity for review and possible revision of this report.*" The submitted geotechnical investigation report (GWI, 2017) and response (GWI, 2018) are over one year old. Since the approval of these reports, the City of Los Angeles adopted the 2019 edition of the California Building Code (CBC). The 2019 edition of the CBC updated and revised the seismic design parameters relative to corresponding 2016 edition values used by GWI (GWI 2017, page 6). As such, GWI needs to provide an updated report to address 1) changes in geotechnical conditions at the site; 2) changes in the proposed development plans relative to plans used in the preparation of the 2017 and 2018 geotechnical reports including approved plans that show a proposed subterranean parking garage; and 3) changes in applicable codes and geotechnical guidelines particularly in seismic parameters.
4. Based on liquefaction analyses performed by GWI, potentially liquefiable soils (including soft clayey soils) are at (subterranean parking) or very close to (at level parking) the finish grade. GWI evaluated the potential for post-liquefaction settlement. As per the State of California Special Publication 117A (SP-117A), all hazards associated with liquefaction potential including lateral spreading (towards an open face, and on sloping ground) and surface manifestation in the form of sand boils, fissures, and loss of bearing, must also be considered. Please note that Borings 1 and 4 (used for liquefaction analyses) indicate a high potential for liquefaction of earth materials (including the potential liquefaction of soft clay) immediately below the currently recommended depth of over-excavation. As per Ishihara charts (Ishihara 1985), there seems to be a high potential for surface manifestation in the form of sand boils, fissures and loss of bearing to develop due to liquefaction potential of some of the underlying layers. There could also be a potential for lateral sliding towards adjacent open channels such as the Grand Canal and needs to be evaluated, and additional recommendation measures provided as appropriate.
5. Log of B-1 shows loose to very loose sandy soils from about 6-14 feet below existing grade. Log of B-4 shows "very soft clay with sand" from about 4.5 to 15 feet below the existing grade. Yet, GWI recommends on page 10 that "*Deeper excavation should be conducted as needed to remove any encountered fill or soft soils as necessary at the direction of the Geotechnical Engineer*". But based on available data from drilled borings as discussed above, very loose and soft materials are expected to be encountered at the GWI's

recommended depth of over-excavation of a minimum of 6 feet below grade, down to at least 14 feet below existing grade. This will require excavation below the anticipated groundwater table (between 7 to 12 feet below grade). Therefore, additional recommendations for dewatering and shoring design should be provided based on the proposed project plans and proposed subterranean parking garage.

6. GWI recommends mat foundations to be designed for a maximum bearing pressure of 4250 pounds per square foot (psf) and estimated static settlement at $\frac{3}{4}$ inch, and differential settlement at 0.4 inch. Considering the anticipated large and deep stress field associated with mat foundations, the estimated static settlement appears to be low and should be supported with calculations. GWI's assertion that the static settlement should be rapid and take place shortly after the application of loads needs to be verified with testing (example: time rate of consolidation of the "very soft" clayey soils encountered in Boring 4) and analyses.
7. GWI states that it reviewed DOGGR records for location of recorded abandoned oil wells on the site, noted the presence of some nearby wells within 300 feet of the site and indicated that wells are sometimes mislocated or the records may be incomplete. Where present, old, abandoned oil wells must be exposed and tested to determine if they have been abandoned properly or if there are methane leaks present. Based on our experience in Venice Beach (e.g., performing a well location study for the Venice Forced Main for the City of Los Angeles), these studies are typically completed before project design is finalized. The project design team should review available aerial photographs (including investigating if oblique aerial photos of the site are available on the Marina del Rey Historical Society website <https://www.marinadelreyhistoricalsociety.org/oil-boom-1929-1930/>) and consider whether a geophysical survey of the site is warranted to identify the presence of any potentially unmarked wells which may have a significant impact on design or construction.
8. GWI noted the site is in a city-designated Methane zone, that there is potential for methane on the site, and recommended that if a methane study is required, qualified methane consultant should perform it. The methane study should be performed in the planning stage, since the results of this study likely require changes in project design that affect planning approval. If methane mitigation is required, this may affect the proposed depth and configuration of the foundation system as well as at graded facilities/space.

Coastal Vulnerability – Flooding Assessment

General discussion

The project site is in the Venice Beach Local Coastal zone and will be subject to Local Coastal Plan/Local Implementation Plan when the City of Los Angeles completes the plan updates and certification. Plan preparation is in progress as of the date of this review, according to the Venice Beach Local Coastal zone website. GSI prepared a report addressing the potential site hazards due to sea level rise and existing coastal flooding hazards (GSI, 2020). Other applicable references and guidelines for the region, as well as references utilized by GSI (2020), were reviewed. Commentary below is organized and provided in order from statewide policies, to local, site-specific reports and plans, with review comments on the GSI report. A list of the references reviewed or referred to is included in the References section.

The term "flooding" is used to describe a temporary, time limited presence of surface water on the site, whereas "tidal inundation" is used to indicate a permanent, long-term presence of water. When discussing elevations with respect to flooding and inundation, the reference datum is extremely important for accurate comparison relevant elevations of the proposed

development to published maps and studies. NOAA Base Flood maps use North American Vertical Datum 1988 (NAVD88).

The site is located approximately 750 feet from the beach (oceanside edge of beach front parking lot) bounded by North and South Venice Boulevards, between Pacific Avenue and Dell Street. The east parcel is separated from the west parcel by the Venice Grand Canal.

Review of State, Regional and Local Coastal Hazard References.

California Coastal Act

There is no current certified Local Coastal Plan (LCP) for Venice Beach, as of June 2022. We are unaware of any specified project life for the Venice Beach area, although GSI (2020) refers to a project life span of 75 years. During our technical meetings with the California Coastal Commission (CCC) staff (as part of review work for other coastal communities), the CCC staff has stated clearly that their standards do NOT include a specified project life, rather they re-emphasized projects should be designed to conform to Coastal Act Policies (Sections 30235, 30253 and 30610(g)), i.e., 1) to minimize risks to life and property in areas of high geologic, flood or fire hazards and 2) designed to be constructed without contributing to erosion or instability, or require protective devices that would alter landforms.

The significance of these policies to this project at 200 N. Venice Boulevard is that minimizing risks in design should include avoidance, i.e. finish floor elevations sufficiently high enough to avoid flooding now as well as in the future due to predicted changes in site conditions, and to avoid construction vulnerable to flooding (i.e. the proposed underground parking 10 to 15 feet below mapped flood elevations, where flood waters can enter via subterranean ingress and egress).

Tsunami Hazard Maps

Statewide mapping (CGS 2022), regional (Moffat & Nichol, 2007) and the Venice Sea Level Rise Vulnerability Assessment study (Moffat & Nichol, 2018, referred to as the Venice SLR Study, 2018) indicate that the site is a tsunami hazard zone. A tsunami is a long wavelength ocean wave generated by sudden displacement of the seafloor normally by earthquake faulting, volcanism, or a large submarine landslide. Initially the tsunami creates a drop in water level at the shoreline, followed by a rapid rise with attendant run up on the shore, surges into shallow coastal inlets and harbors, and substantial rising of the water in deeper water ports and harbor areas. Tsunami damage is by far the more serious of the two wave types with damages caused in water surging in and out, and debris colliding with fixed structures.

Moffatt & Nichol (2007) developed a tsunami model for the Long Beach (POLB)/Los Angeles (POLA) Port Complex that considers local sources to generate a tsunami wave from a magnitude seven earthquake on the Santa Catalina fault and is generally applicable to the project site. They indicate that this is a reasonable maximum for future events. Their model incorporates ground surface configurations, bathymetry, and the interaction of the diffraction, reflection, and refraction of the tsunami wave within the POLB/POLA complex to predict tsunami water levels.

The California Geological Survey Tsunami Hazard Area Maps (CGS, July 2021 update for Los Angeles County) indicate the project site is within a tsunami hazard zone. The tsunami wave height would depend upon the source location but could be tens of feet depending upon the tsunami source event and tidal levels (based on Moffat & Nichol, 2007). GWI (2017) indicates there is a potential for tsunamis to impact the site. Currently the proposed project parking and residential structures appear to be at 5 to 7 feet above MSL (mean sea level) based on the

Venice CA USGS (1981) topographic map . Tsunami wave height predictions for POLB are presented in the Port Complex model (Moffat & Nichol, 2007; Figure 4-1) suggest tsunami wave heights of up to 2.8 meters (~9.3 feet) for a large earthquake on the Catalina fault. If the tsunami were coincident with a 5- to 7.5-foot high tide (an unlikely event) the tsunami elevation could reach more than 15 feet in elevation and would flood the project site.

Venice Sea Level Rise Vulnerability Assessment (Moffat & Nichol 2018)

The Venice SLR Study (2018) was completed after the California Coastal Commission (CCC) adopted its draft “Sea Level Rise Policy - Original Guidance August 2015”, but shortly before the Science-based updates were adopted in November 2018. Both the Venice SLR Study and the CCC SLR Policy (2018) rely on the same scientific reports published by the Ocean Protection Council (and referenced in both documents). The Venice SLR Study evaluated four different sea level rise (SLR) scenarios for Venice Beach, as shown on Table 4.1 (page 11) of the study, which are a subset of the SLR scenarios presented in the CCC SLR Guidance. These SLR scenarios were modeled for sea level rise impacts on the California coastline and coastal communities by a partnership between the United States Geologic Survey (USGS) and other academic and research groups collectively called “Our Coast Our Future.” The model results were first presented in 2012 for portions of the California Coastline as the CoSMoS model (<https://ourcoastourfuture.org/about/>), referred to hereafter as the OCOF Hazard Map. The model was expanded to cover southern California in 2018 (CoSMoS v 3.0) and central California in 2020. The Venice SLR Study utilized the OCOF Hazard Map model in evaluating the impacts of sea level rise on the community. (NB: The OCOF Hazard Map model is just one of three coastal flooding models available online but the most widely used. This review only looked at the OCOF Hazard Map, as this model was the one that was utilized in the Venice SLR Study (2018) and by GesoSoils, Inc. (2018), the project coastal engineering consultant).

Based on a review of the Venice SLR Study and comparison with the current OCOF Hazard Map model, it appears that in addition to potential flooding by rain events, coastal flooding of the project is due to inundation from the canals, but not from the beach or ocean side. The canals are fed by the main Ballona Lagoon canal along Pacific Avenue, connected to the Marina del Rey channel under Via Marina between Pacific Avenue and Via Donte (see Figure 3.5, Venice SLR Study). There are two tide gates that are owned and operated by the City of Los Angeles, to prevent flooding during astronomical high tides, and mute the effects of tides to allow for better drainage. It appears none of the SLR flooding models account for the presence of these tide gates. The FEMA (2018) flood maps do not account for these structures either as at the time of the study (2018) these two structures (the Marina del Rey Tide Gate and Washington Tide Gate) were not certified by FEMA as flood control infrastructure. This means that the presence of the tide gates (and potential flood protection) was not incorporated into the FEMA flood model.

Under the SLR scenarios evaluated in the Venice SLR Study (2018), we reviewed the site vulnerability based on the OCOF Hazard map, with respect to the effects of sea level rise on shoreline position, wave action, flooding, and impact of sea level rise on depth to groundwater. Our summary is as follows:

1. Shoreline Position: The position of the shoreline does not change under the four SLR scenarios, which is typical of an already developed coastline. The assumption in the assessment is that mitigation measures will be implemented to protect existing development in this area (e.g., beach nourishment, coastline protection, protective structures)

2. Wave Action: None of the SLR scenarios result in wave action on or near the project site because the shoreline position is fixed. Even if the shoreline position were to advance, it is unlikely wave action would affect the site.
3. Coastal Flooding due to SLR: The four SLR scenarios evaluated in the Venice SLR Study were modeled utilizing the OCOF Hazard map, and the effect of surface flooding on the site is described as:
 - a. 2040 to 2080, 1.6 feet, SLR – no flooding, not flood prone.
 - b. 2060 to 2100+, 3.3 feet SLR - eastern edge of property flood prone (occasional).
 - c. 2080 to 2100+, 4.9 feet SLR - entire site flood prone.
 - d. 2090 to 2100+, 6.6 feet SLR - entire site flooded, up to 8.2 feet deep.

The above summarizes flooding at the surface of the site. Once flood waters reach the site, any subterranean structures will very likely be flooded. Flood duration can also be modeled utilizing the OCOF Hazard Map and becomes an issue when the 6.6 feet SLR scenario is modeled, whether for the annual, 20-year or 100-year flood. In all storm scenarios, once SLR reaches 6.6 feet or higher, the site floods and the flooding is of a duration longer than 18+ hours.

4. Effect of SLR on depth to groundwater: Currently, as observed in the GWI (2017) report, groundwater is between 7 to 12 feet below grade. When comparing the site-specific observations of the OCOF Hazard map groundwater model (utilizing the more permeable option to represent the sandy nature of the soils under the site), groundwater in this area at present has been modeled as very shallow on the western lot (0-1m, or 0 to 3.3 feet) to shallow on the eastern lot (1-2m, or 3.3 feet to 6.6 feet). By comparison, the GWI (2017) borings show current groundwater appears to be slightly deeper at 7 to 12 feet. When applying the SLR scenarios evaluated by the Venice SLR Study, SLR is modeled as affecting the groundwater table causing it to become “emergent” (i.e., at the ground surface) under all scenarios (i.e., at a SLR of 1.6 feet, potentially by 2040, groundwater will be close to the ground surface). Given that the actual groundwater table has been observed to be deeper than the OCOF Hazard model depicts, it may be that emergent groundwater will be delayed until a higher sea level rise occurs (higher than 1.6 feet). As the model shows, by 2040 to 2060, if sea level rise occurs as the scientific models adopted by the CCC predict, the effects will likely cause groundwater to rise to the within 3 feet of the ground surface, if not to the ground surface. If at some point in the future groundwater is affected by SLR such that it becomes emergent, the site will be inundated, whether the tidal gates prevent tidal inundation or not. According to this model, current groundwater levels near Sherman Canal are emergent without sea level rise (OCOFC Hazard Map model 2022, groundwater conditions module, options: permeable soil, no sea level rise) and anecdotal evidence on at least one construction site on Sherman Canal appears to confirm this present condition.

FEMA Flood Zone maps (release date April 21, 2021), Base Flood Elevation (BFE)

In April 2021, FEMA updated the Flood Maps for the County of Los Angeles. These maps depict regional flooding based on topography and specific storm return periods. The site is mapped partially within Zone AE BFE of eight (8) feet NAVD88). (See Figure 1 appended). This means that at present, the site has a 1% chance of flooding to this level annually. Typical project design standards are that the lowest horizontal structural member should be two (2) feet above the BFE. A summary of areas with a 1% annual chance of flooding are as follows:

- Eastern lot (between Dell Avenue and Grand Canal) – the lot boundaries are outside Zone AE (e.g., not subject to flooding), but the surrounding surface streets are flooded to elevation 8 feet NAVD88.
- Western lot (between Pacific Avenue and Grand Canal) – the center of the lot (high point above elevation 8 feet NAVD88) is outside flood zone AE, but the edge of lot and all surrounding access streets are mapped in flood Zone AE.
- As noted by M&N (2018) the FEMA flood maps in 2018 did not take into account any protection from the City of Los Angeles operation of the Marina del Rey Tide Gate and Washington Tide Gate, as they were not certified by FEMA as flood control infrastructure. Whether the 2021 updated FEMA map accounts for these tide gates should be determined, but it appears it does not.
- In general, the area is low-lying and flood prone, with little natural topographic gradient to provide adequate drainage. In addition, both the inflow and outflow of any surface waters are limited by the capacity of the canals, and operation of the tide gates. This means that in times of heavy rainfall, flooding and high tides, drainage of the site may be slow and may need to be actively managed with respect to timing of flood water ejection from the site (by pumping or gravity) and coordinated with the operation of the tide gates.

GeoSoils, Inc. (GSI) Sea Level Rise commentary for the project (December 28, 2020)

GeoSoils, Inc. (GSI, 2020) provided a report that evaluated the vulnerability of the project site to sea level rise, and commented on tsunami hazard, coastal flooding and FEMA flood maps. The Planning Department summarized the report in their report to City Planning Commission dated May 27, 2021 (page F-49):

“A Sea Level Rise Report was prepared by GeoSoils, Inc., dated December 28, 2020. The report analyzes current flood hazards, potential for future flooding due to sea level rise, and the risk of tsunamis. Based on a study of the best available science and the latest SLR projections, the report estimates the maximum (0.5%) SLR over the next 75 years would be 5.6 to 6.15 feet. While the site is not currently vulnerable to flooding, sea level rise would increase the vulnerability of the site to flooding. The report estimates that SLR would need to be more than 6 feet before the buildings may be subject to flooding. The Coastal Storm Modeling System (CoSMoS) was utilized to analyze the project’s vulnerability to flood hazards, considering a scenario of a minimum 6.6-foot sea level rise and a 100-year storm scenario. Based on this scenario, the proposed development could potentially be affected by flooding because of SLR, however, the potential for such flooding in severe storm events is likely to increase towards the end of the project life (based on a typical development life of 75 years). No subterranean levels are proposed, and the project is conditioned to require the lowest finished floor (FF) elevation (not garage floor) should be 2 feet, or more, above the street flow line until reaching elevation 11 feet NAVD88, and for street flow lines above +11 feet NAVD88 the FF elevation should be a minimum of 1 foot above the flow line or that the first floor and foundations be waterproofed. Furthermore, the Project is limited to the site, would not impact emergency access along North and South Venice Boulevard, and is subject to the regulations of the Flood Hazard Zone Specific Plan.”

GSI (2020) discussed site vulnerability due to flooding, and specifically addressed the effect of sea level rise on the site. In general, the report provides a sufficient discussion of the effects of

sea level rise on the site with respect to flooding and sources of flooding. The report concludes that the site is not vulnerable to flooding from wave action, or shoreline advance, but may be subject to inundation by tsunamis. The site is vulnerable to flooding from the Ballona Lagoon via the canals and relies on City of Los Angeles effective operation of two tide gates (as described in the Venice SLR Study, 2018). However, GSI's conclusions are based on outdated project plans, and outdated FEMA flood maps (2016 as opposed to the updated 2021 maps). The report needs to be updated utilizing current FEMA flood maps, current project plans, and provide recommendations in accordance with the current California Building Code (CBC 2019, including July 2021 supplemental Appendix G – Flood Proof Construction). Additionally, GSI concludes that sea level rise will not impact groundwater levels on the site significantly, however, as previously discussed, this conclusion is not supported by the OCOF Hazard Map model during the life of the project.

In accordance with the City of Los Angeles Flood Hazard Ordinance, it appears the GSI (2020) report should have been forwarded to Bureau of Engineering for review (LADBS Information Bulletin P/BC 2020-064).

Based on our review of the above referenced documents and the GSI (2020) report, we have the following items related to sea level rise and coastal flooding that were not completely addressed by the above report. It is our professional opinion that the GSI report needs to be updated, and these items need to be further evaluated and addressed. Accordingly, additional mitigation measures should be recommended as appropriate for conformance with applicable codes and guidelines. Our comments are:

1. The GeoSoils Inc report on Sea Level Rise concludes that the site is not vulnerable to flooding. GSI (2020) references outdated FEMA Flood maps and the report findings and conclusion should be updated to reflect the newest maps released April 21, 2021. The project site is in a FEMA (2021) identified flood zone (AE) and has been identified as subject to potential future flooding because of sea level rise (depending on project life and risk aversion level). All finished floor elevation (FFE) recommendations should be updated and revised as appropriate as it appears the lowest design FFE (8.25 feet NAVD88) as stated by GSI (2020) is only 0.25 feet above the base flood elevation of 8 feet NAVD88 of the site and surrounding streets.
2. GSI utilizes a project life of 75 years and concludes that the referenced FFE are adequate to protect against flooding, based on evaluating several different scenarios for flooding. A reference should be provided for the selected project life standard of 75 years; however, the client group has informed us that the developer seeks a 99-year lease. The project design flood scenario and the basis for the project life should be clearly identified in the conclusions of the updated report so there is no ambiguity about the design basis for recommended FFE. Additionally, the project life span and evaluation should incorporate a construction period into the life of the project to evaluate flooding exposure due to projected SLR.
3. While GSI (2020) concludes that SLR will not impact the groundwater table at the site, based on attenuation, the OCOF (also known as CoSMoS) Hazard model for groundwater indicates the site may be impacted at a SLR threshold within the project lifespan. If subterranean construction is proposed, the project team should consider whether permanent dewatering will be necessary, and groundwater monitoring would be prudent as part of site maintenance.
4. Exhibit B Garage plans (dated May 12, 2021, currently approved) indicate that there is a subterranean garage as part of the project design, which is approximately 8-10 feet below grade (wall height unspecified). Given the location, shallow groundwater and

potential existing and future flood characteristics of the site, the project design team should consider alternatives to below ground construction. It appears that based on source of flooding (potentially affected and by tide gates controlled by the City of Los Angeles), that once flooded, there may be limited options for discharge of flood waters in the subterranean parking.

5. The project design team (civil, structural, and geotechnical engineers and project architect) should review the updated GSI report (once completed) and incorporate potential impacts of SLR on the project design and recommendations. Impacts from SLR include flooding of the lower floors of the project below FEMA Base Flood Elevation of 8.0 feet NAVD88, future potential flooding due to SLR, and impacts of the rise in groundwater table and documented corrosive soils on subsurface structures (including utilities), foundation, drainage facilities and pavements for the life of the project. Based on the approved project plans, it appears that the project as designed does not conform to CCC adopted Coastal Act Policies (Sections 30235, 30253 and 30610(g)), i.e., to minimize risks to life and property in areas of high geologic, flood or fire hazards as well as CBC2019 Supplement July 2021, Appendix G - Flood Resistant Construction.
6. The site may be affected by tsunami depending on the return period and model utilized. CalOES models a 1000-year return period, while the USGS model utilizes a 200–240-year return period, with different site exposure potential. The applicable risk scenario required by City Planning standards should be clearly identified, and site exposure and recommendations (including evacuation notices) should be clearly communicated and included in the project plans and conditions.
7. It is not clear whether the report by GSI (2020) or any report on flood susceptibility (by the project civil engineer) has been reviewed by the Bureau of Engineering as required by the Flood Hazard Ordinance and LADBS Bulletin 20-064. The anticipated flood elevation(s) and basis for their determination should clearly be indicate in the Planning phase so that acceptable finish floor elevations can be established that avoid flooding, and other flood proofing or flood avoidance mitigation measures can be incorporated into the design for both present and future flood elevations during the life of the project.

CONCLUSIONS

Based on our review of the referenced documents as discussed in the forgoing observations, we have the following conclusion summary:

- Based on our review, it seems that the technical reports for this project (both geotechnical and coastal engineering) are based on plans that do not include subterranean parking, as it was not included in the project description of the GWI or GSI report, although plans approved by the City include subterranean parking. Our review comments were not completely addressed by the above reports. Regardless of whether the approved plans contain a subterranean garage or not, our comments on the technical reports still apply.
- Potentially liquefiable soils underlie the site. Whether subterranean parking or surface parking level is proposed, the proposed mitigation measures are not likely to be adequate to reduce liquefaction related hazards at the site to an acceptable level as required by applicable codes. Specifically, the proposed mitigation measures do not address or mitigate the potential for surface manifestation and lateral spreading hazards. These hazards could impose significant instability and damage to the project and need to be evaluated and mitigated in conformance with codes and guidelines.

- Additional recommendations will be required to address subterranean parking (if proposed) including construction dewatering and excavation/shoring recommendations, and possibly permanent dewatering. If a subterranean level is proposed and six feet of overexcavation below the foundations is required as recommended by the GWI, then about 15 feet of excavation will be required. This will likely require extensive dewatering and shoring, which can be costly and require logistical considerations as well.
- The estimated static settlement by GWI (2017) appears to be low considering the recommended bearing pressure for the design of the mat foundation. Calculations of static settlement under the recommended bearing pressure under prevailing geotechnical conditions were not provided and need to be performed.
- A methane study should be performed in the planning stage to verify the feasibility of the project. The results of this study may require changes in project design that affect planning entitlement approval.
- The project design team (civil, structural, and geotechnical engineers and project architect) should review the updated geotechnical and sea level rise reports and incorporate the updated information and recommendations into the project plans, as appropriate.
- The project site is in a FEMA identified flood zone (AE) and has been identified as subject to potential future flooding because of sea level rise. Mitigation measures should be incorporated into project design and approvals to conform to Coastal Act Policies (Sections 30235, 30253 and 30610(g)), i.e., to minimize risks to life and property in areas of high geologic, flood or fire hazards.
- The Venice Community and the project site are within a tsunami hazard area as defined by the state and could be subject to wave heights of several tens of feet. This is discussed in the GSI (2020) report but not disclosed or mitigated in the GWI (2017) report.

REFERENCES CONSULTED/CITED

Project-Related Geological/Structural Studies/City Reviews

Geocon West, Inc. (2017) "Proposed Mixed-Use Development, 2102-2120 S Pacific Ave, 116-128 E North Venice Blvd, 204-216 E North Venice Boulevard, 302 E North Venice Blvd, 125 E South Venice Blvd, 301-319 E South Venice Boulevard, and, 2106-2116 S Canal Street, Venice, California, Tract: Short Line Beach Subdivision No. 1, Block: 9, Lots: 1-6, 36-42, (ARB: 1-3), LT 42 (ARB 1-3), Block: 12, Lots: 1-2, Block: 14, Lots: 1, 7-12, Project No.: A9657-06-01, dated October 11, 2017.

City of Los Angeles (LADBS Grading Division), Soils Report Review Letter, dated July 17, 2018.

Geocon West, Inc. (2018) "2102-2120 South Pacific Avenue, 116-128 East North Venice Boulevard, 125 East South Venice Boulevard, 200 East North Venice Boulevard, 204-216 & 302 East North Venice Boulevard, 2116 South Canal Street, 301-319 East South Venice Boulevard, Lots: FR1, 2-6, FR7, LT42 (ARB 1-3), 36 (ARB 1-2), 37, 38 (ARB 1-3), 39-41 // FR1-FR6, 7-12, // ARB D//FR1,7-13, Tract: Short Line Beach Subdivision No. 1 (M P2-59), Block: 9// 12// --// 14, Project No.: A9657-06-01, dated July 31, 2018.

City of Los Angeles LADBS Grading Division, Soils Report Approval Letter, dated August 10, 2018.

GeoSoils, Inc, Sea Level Rise Hazard Discussion for Reese Davidson Community, 2102-2120 S. Pacific Avenue, 116-302 E. North Venice Blvd, 2106-2116 S. Canal Street, and 319 E. South Venice Blvd, dated December 28, 2020.

Project-Related Planning/Administrative Reports

City of Los Angeles Planning Department Recommendation Report, Case CPC-2018-7344-GPAJVZCJ-HD-SP-SPP-CDP-MEL-SPR-PHP, 200 N. Venice Boulevard (Prepared for City Planning Commission dated May 27, 2021).

City of Los Angeles, Report of The Office of The Chief Administrative Officer, CAO File No. 0220-00540-1608, Council File No. 22-0496, Council District: 11, dated June 3, 2022. (Prepared for City Council Homelessness and Poverty Committee)

Project Plans

Architectural Plans by Eric Owen Moss Architects, Sheets 1-20, dated December 12, 2018. (Initial entitlement plans, Version 1.)

Architectural Plans by Eric Owen Moss Architects, dated May 12, 2021 (Approved Project Plans attached to Report of Chief Administrative Officer, CAO File No. 0220-00540-1608).

Architectural Plans by Eric Owen Moss Architects, Sheets A1.01, A1.02 and A1.03, -20, dated October 20, 2021. (no reference datum).

Architectural Plans by Eric Owen Moss Architects, East Garage (4 sheets) dated February 7, 2022, Proposal Phased Construction Plan dated January 2020, and Draft Parking Garage Memorandum dated March 9, 2022.

State/Regional Studies

Moffatt & Nichol, 2007, Tsunami Hazard Assessment for the Ports of Long Beach and Los Angeles, Final Report, April 2007, M&N File: 4839-169.

City of Los Angeles Coastal Vulnerability Assessment, Venice Beach, by Moffat & Nichol, dated May 25, 2018.

California Coastal Commission, 2018, Sea Level Rise Policy Guidance, Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits, adopted November 7, 2018.

Our Coast Our Future Hazard Map (online at <https://ourcoastourfuture.org/hazard-map/>). Accessed June 6, 2022.

State/Regional Maps and Standards

FEMA Base Flood maps, dated April 21, 2021 (NAVD88 datum)

California Building Standards Commission, 2019, California Building Standards Code, <http://www.bsc.ca.gov/codes.aspx>.

California Geological Survey, Department of Conservation, 2008, Special Publication 117A, Guidelines for Evaluating and mitigating Seismic Hazards in California.

California Geological Survey, Department of Conservation, 2010, Geologic Compilation of Quaternary Surficial Deposits in Southern California, Onshore Portion of the Long Beach 30' X 60' Quadrangle, Special Report 217, Plate 8 (<https://www.conservation.ca.gov/cgs/publications/sr217#longbeach>)

California Geological Survey (CGS), 2013, The SAFRR Tsunami Scenario—Physical Damage in California, United States Geological Survey (USGS) Open-File Report 2013-1170-E and CGS Special Report 229, Porter, K and others, 180 pp.

California Geological Survey, Department of Conservation, 2022, California Tsunami Area Hazard Area Maps, (<https://www.conservation.ca.gov/cgs/tsunami/maps/los-angeles>). Accessed June 6, 2022.

Southern California Earthquake Center (SCEC), 2002, Recommended Procedure for Implementations of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California, In California Implementation Committee: T. F. Blake Chair, T. F. Blake, R. A. Hollingsworth, and J. P. Stewart Editors.

Local Ordinances/Plans

City of Los Angeles, Venice Local Coastal Plan (online at <https://planning.lacity.org/plans-policies/community-plan-update/venice-local-coastal-program>) Accessed June 6, 2022.

City of Los Angeles, (1-31-2022) Flood Hazard Management Ordinance, LADBS Information Bulletin P/BC 2020-064 (effective 4-19-2021, revised 1-31-2022).

City of Los Angeles, (1-31-2022) Contents of Reports for Submittal to LADBS Grading Division, LADBS Information Bulletin P/BC 2020-113 (effective 01-01-2020).

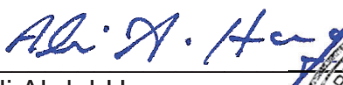
CLOSURE

This report has been prepared for the sole use and benefit of our client. The analysis, results, and conclusions were prepared in general compliance with normal industry practice in the City and County of Los Angeles County. The intent of the report is to advise our client of geotechnical and coastal engineering conditions at the subject site, and the possible effects of these conditions on the proposed development and surrounding properties. It should be understood that the geotechnical engineering and engineering geologic consulting provided represents professional opinions and the contents of this report are not perfect. Any errors or omissions noted by any party reviewing this report should be reported to Wilson Geosciences Inc. and Geo-Dynamics, Inc. in a timely fashion. Only the client can authorize subsequent use of this report. No warranty is either expressed or implied.


Please contact the undersigned if you have any questions.

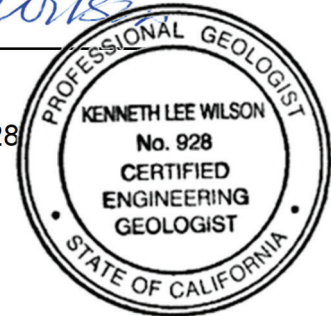
Sincerely,
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Attachments

Figure 1. – FEMA Flood Map (April 21, 2021) excerpt for project site.
Reviewer CVs

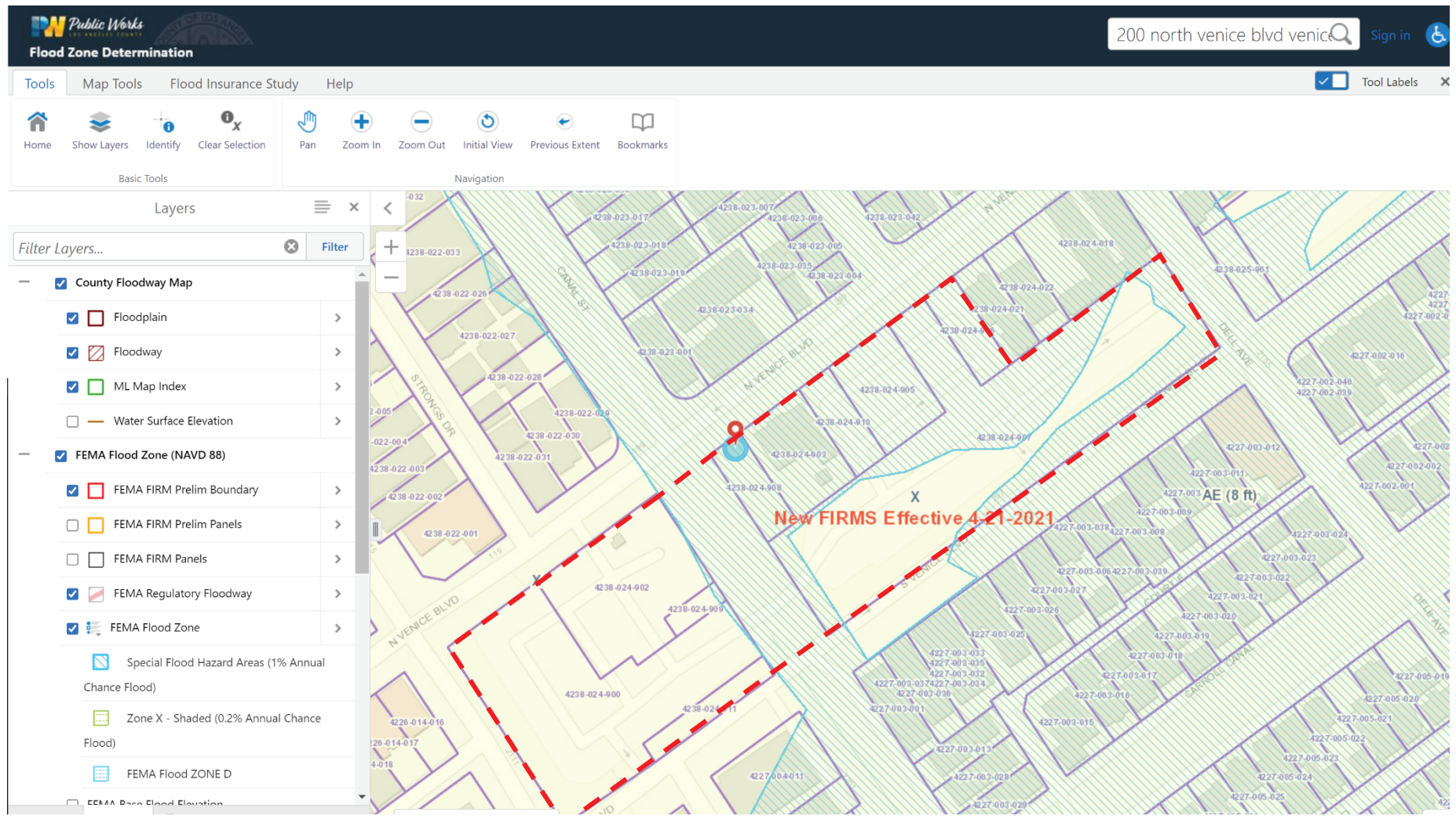


Figure 1. Los Angeles County, Department of Public Works, Flood Zone Determination; 200 N. Venice Boulevard, April 21, 2021. FEMA Flood Zone AE, minimum base flood elevation (BFE) 8 ft NAVD88. Project site outline by red dashed line.

Ref: <https://apps.gis.lacounty.gov/dpw/m/?viewer=floodzone>

EDUCATION

Extension Courses in Environmental Engineering, UCLA, 1989-1991
M.S. Engineering (Geotechnical), University of Ohio, 1987
B.S. (Civil Engineering), The University of Nottingham-England, 1983
Advanced Level in Mathematics & Physics, Swindon College-England, 1980.

REGISTRATIONS

Geotechnical Engineer, California, GE#2308
Professional Engineer (Civil), California, CE#46989

PROFESSIONAL HISTORY

GeoDynamics, Inc., Thousand Oaks, Principal Engineer, 2005-present
Bing Yen & Associates, Inc., Camarillo, Principal Engineer, 2000-2005
Leighton and Associates, Inc., Westlake Village, Senior Project Engineer, 1999-2000
Gorian & Associates, Inc., Senior Project Engineer, 1997-1999
Burns & McDonnell, Senior Project Engineer, 1994-1997
Gorian & Associates, Inc., Senior Project Engineer, 1989-1994
Ensotech, Inc., Senior Project Engineer, 1987-1989

AFFILIATIONS

American Society of Civil Engineers (ASCE), Member

REPRESENTATIVE EXPERIENCE

Mr. Abdel-Haq has over 34 years of professional experience in geotechnical engineering in the State of California, and 3 years of experience on projects throughout the United States. His project experience includes field explorations, laboratory testing, engineering analyses, and construction observations, of various types of projects including hillside land development, commercial and industrial buildings, landslides, theme parks, schools, water tanks, airport facilities, wastewater treatment plants, transmission and distribution lines, and power generator facilities. Mr. Abdel-Haq has managed multiple projects with an emphasis on client and project management particularly on meeting project schedules and budgets. Recently,

Mr. Abdel-Haq provided assistance to the City of Camarillo in the aftermath of the Camarillo Springs Debris Flows of 2014 and 2015. He also provided a rapid-response assessment of debris flow hazards throughout the City of Agoura Hills, California following the Woolsey Fire of 2018.

Mr. Abdel-Haq has performed geotechnical and coastal engineering reviews for over 18 years for various projects for the cities of Simi Valley, Calabasas, Agoura Hills, Rosemead, Palmdale, Moorpark, Santa Clarita, County of Santa Barbara, Hidden Hills and Malibu. He also performed third party reviews of projects for private consultants. He has also served as a geotechnical engineer on several public work projects for municipalities in Southern California, and other parts of the United States including City of Laramie Waste Water Treatment Plant, City of Laramie-Wyoming, clay liner design for lime storage ponds, City of Liberty Waste Water Treatment Facility, Liberty-Missouri, and Doris Drain Channel Improvement, Ventura County, California.

He evaluated the potential for liquefaction and associated hazards at numerous projects including large tract home developments where high liquefaction potential is known to exist, or is suspected. Projects included Simi Village, Tracts 4923, 5164 and 5113 (Simi Valley, California), North Shores at Mandalay Bay, Tract 4424 (Oxnard, California), Tract 44986 (Santa Clarita, California), Mission Bell Plaza Shopping Center and Tracts 5147 (Moorpark, California).

He provided extensive slope stability analyses for hillside developments that included landslides and required mitigation measures to comply with regulatory agencies requirements. One of the largest projects he managed and designed was Tract 46018, Plum Canyon area in the City of Santa Clarita, California. This project involved grading over 11 million cubic yards of soil as part of two deep landslide stabilization plans. Mr. Abdel-Haq has worked on other tract home developments that required landslide analyses and mitigations efforts including Tract 48307 in Palmdale, California, Tract 5164 in Simi Valley, California, and Tract 35998 in Los Angeles County, California.

Mr. Abdel-Haq performed foundation investigations for a wide variety of projects including industrial buildings, Multi-story buildings and parking garages, bridges, water tanks, transmission and distribution, power lines and power substations, retaining walls, several rides at Six Flags Magic Mountain, Navy Facilities, evaluated foundation settlement due to noise vibration (Hush House), and airport facilities.

PUBLICATIONS

Abdel-Haq, A and Hryciw, R. D. (1998). "Ground Settlement in Simi Valley following the Northridge Earthquake." Journal of Geotechnical and Geoenvironmental Engineering, Vol. 124, No. 180-89.

KENNETH WILSON

Principal Engineering Geologist

EDUCATION

University of California at Riverside, B.S. Geological Sciences, 1967

University of California at Riverside, M.S. Geological Sciences, 1972

PROFESSIONAL REGISTRATIONS

Professional Geologist, California, #3175 [Issued 1-08-1974; Expires 2-28-2023]

Certified Engineering Geologist, California, #928 [Issued 1-08-1974; Expires 2-28-2023]

PROFESSIONAL SUMMARY

Kenneth Wilson is responsible for management, technical supervision and performance of engineering geology, geotechnical, environmental impact, and environmental geology projects, and is a Professional Geologist (#3175) and Certified Engineering Geologist (#928) in California. He performs and supervises environmental assessments for commercial, industrial and government projects covering the disciplines of hydrogeology, engineering geology, geology, hydrology, seismicity, tectonics, faulting, mineral resources, and waste management. Geotechnical studies include fault evaluations, ground failure assessments, slope stability and foundation materials characterization, liquefaction potential, flooding hazards and site selection. The emphasis of his work is on defining geologic and geotechnical conditions, and hazards, which may affect the feasibility and design of any type of development project. Mr. Wilson has over 30 years of technical performance and project experience in critical facilities studies, radioactive/mixed/hazardous waste management, energy plant site licensing, impacts to surface and groundwater resources, waste disposal site development, dams and reservoirs and numerous other engineered structures. Specialized experience is in engineering geology in support of geotechnical studies, site selection/evaluation, seismic safety, integration of multidisciplinary technical teams, project management, and EIRs, EAs, and EISs.

PROFESSIONAL EXPERIENCE

Wilson Geosciences, Engineering and Environmental Geology [1989-Present]

Principal Engineering Geologist: Responsible for all management, technical and marketing activities for engineering geology, environmental impact, and environmental geology projects. Performs and supervises environmental assessments for commercial, industrial and government projects covering the disciplines of hydrogeology, engineering geology, geology, hydrology, seismicity, tectonics, faulting, mineral resources, and waste management. Geotechnical studies include fault evaluations, ground failure assessments, slope stability and foundation materials characterization, liquefaction potential, flooding hazards and site selection.

The Earth Technology Corporation [1974-1989]

Corporate Vice President: Mr. Wilson worked from late-1987 to mid-1989 for the Chairman/CEO and the President/COO performing the following tasks: assisting in evaluation of several potential acquisitions; management of pre-acquisition due diligence; evaluation of four new office geographic expansion options; managed preparation of corporate health and safety program and H/S technical procedures. In 1989 was principal-in-charge for start-up of environmental engineering and hydrogeology portion of Technical Assistance Contract with DOE/Nevada Operations, Environmental Safety and Health Branch.

Vice President; Director, Program Management: Mr. Wilson reported to the President of the Western Division (1985-1987) and was responsible for business development, project execution and strategic planning for market areas related to radioactive (high, mixed, and low-level) waste management programs, energy and mineral resources, geophysics and offshore technology. Emphasis was on geosciences, engineering, environmental, and program management disciplines for site selection, site evaluation/characterization, site remediation and specialized advanced technology considerations in hydrologic modeling, rock mechanics testing and geophysical exploration.

Vice President, Associate and Senior Manager: Mr. Wilson had numerous challenging technical and management responsibilities and assignments during the period 1974-1988. There was a wide range of projects for which he had a technical role, either performance, supervisory, or management in scope. A substantial portion of the time he was Program Manager for the Missile-X (MX) ICBM, Siting and Characterization Studies in the Western and Midwestern United States: for United States Air Force, Ballistic Missile Office, and the Southern Region Geologic Project Manager (SRGPM) in Mississippi, Louisiana, Texas, Georgia, South Carolina, Virginia, Maryland for Office of Nuclear Waste Isolation (ONWI) and Office of

Crystalline Repository Development (OCRD). These projects were national in scope and involved most geologic, geotechnical, geophysical, environmental, and hydrologic disciplines

Converse Consultants (formerly Converse, Davis and Associates) [1970-1974]

Staff and Project Geologist: Conducted and supervised investigations in southern, central, and northern California, southern Nevada, and eastern Washington. Groundwater and related studies included permeability, transmissibility, and storage coefficient studies at Searles Lake, California; earth dam projects at Yucaipa, Littlerock, and Anaheim, California; groundwater contamination (hydrocarbons) evaluation in the Glendale, California area; wastewater and water treatment facilities in Solvang, Lompoc, Victorville, Thousand Oaks, and Sylmar, California. Numerous earthquake and fault risk studies were performed for earth dams and reservoirs, high-and low-rise buildings, hospitals and schools, proposed nuclear power plant sites, water storage tanks, and large-diameter pipelines. Landslide and other slope failure studies were performed in rock and soil terrains. Offshore studies planned and conducted include coastal geophysical (seismic reflection, side scan sonar, fathometer), sampling and scuba investigations near Monterey and Dana Point, California.

PROFESSIONAL ORGANIZATIONS

Member Association of Engineering Geologists, National and Southern California Sections

COURSES, SEMINARS, AND WORKSHOPS

Seismic Interpretation for Geologists, by the Oil and Gas Consultants International, Inc.,
Intensive Short Course, Houston, Texas

Engineering Geophysics Short Course, Colorado School of Mines, Office of Continuing
Education, Golden, Colorado

Fundamentals of Ground-Water Monitoring Well Design, Construction, and Development, Las Vegas, Nevada

Field Practices for Collecting Representative Ground-Water Samples, Las Vegas, Nevada

New Developments in Earthquake Ground Motion Estimation and Implications for Engineering Design

Practice, Applied Technology Council/U.S. Geological Survey, Los Angeles, California

Seismic Hazards Analysis, Course sponsored by Association of Engineering Geologists, Los Angeles,
California

PROJECT-RELEVANT INDIVIDUAL PROFESSIONAL EXPERIENCE

Kenneth Wilson is responsible for management, technical supervision and performance of engineering geology, geotechnical, environmental impact, and environmental geology projects. He is a registered Professional Geologist (#3175) and Certified Engineering Geologist (#928) in California, and has a Master of Science degree from the University of California at Riverside. As indicated above, during his professional career, Mr. Wilson has worked as a staff and project engineering geologist (4 years) for Converse-Davis & Associates (now Converse Consultants), as a project and senior engineering geologist, project manager, and vice-president for Fugro-Earth Technology Corporation in Long Beach (15 years), and for Wilson Geosciences Inc. as principal geologist (30 years).

Kenneth Wilson has performed similar services in the southern California for each of the companies noted and his experience includes performance and management of small task orders and multi-million dollar/multi-year regional investigations. With WGI, approximately 60-percent of the firms work has been CEQA or NEPA-related. During his career, he has conducted technical investigations in onshore and offshore project environments, including subsurface sampling (e.g., drilling, cone penetration testing [CPT], and grab) and geophysics (e.g., offshore seismic reflection and side-scan sonar). Mr. Wilson's has a strong familiarity with the land- and offshore-based geophysical techniques/data (e.g., offshore Dana Point, Long Beach, Santa Barbara Channel, and Monterey Bay) and drilling/CPT methods often used to obtain relevant data to define subsurface conditions in port areas. He has prepared Geology and Soils sections of CEQA/NEPA documents and the equivalent of Special Environmental Studies (SES) report based on review of existing technical reports and maps and performance of field surveys under applicable environmental laws, regulations, and policies.

REPRESENTATIVE NEAR SHORE/MARINE PROJECTS CONSIDERING THE GEOLOGY AND SOILS TECHNICAL ISSUE AREAS:**Geologic Study for Air Products Pipelines in the Port of Long Beach, Carson, Wilmington, Ca Areas (Diaz-Yourman Associates)**

They are basically looking for a geologic hazard evaluation for the six pipelines in the project area defined on the ROUTE MAP NO: 4052-EX-201. Perform a geohazards review along the pipeline locations as shown on the referenced map. Assess and analyze the geohazards associated with the designated pipeline routes for purposes of operations and risk management. Geohazards include assessment of a) geologic units, b) active, potentially active, or other fault crossings, c) liquefaction and d) lateral spreading. WGI will comment of the geologic/groundwater aspects of items c and d. WGI would provide the geologic input data any directly related geotechnical assessment of the pipeline locations.

Port of Los Angeles, City Dock No. 1--DEIR Geology and Soils Section (ICF Jones & Stokes)

Principal Engineering Geologist: Based on a field inspection, review of project area-specific data (subsurface and surface material descriptions, geotechnical reports) and local/regional data, Mr. Wilson prepared the Draft Environmental Impact Report Geology and Soils section.

Port of Los Angeles, West Basin EIR--Geology and Soils Section (Envicom Corporation)

Principal Engineering Geologist: Using project area-specific data (seismic reflection records and local geology mapping) and regional data, Mr. Wilson prepared the Geology and Soils section of the Environmental Impact Report.

Port of Long Beach, Cembra Long Beach LLC Construction Aggregate Terminal, 1710 Pier B Street, Long Beach—DEIR Geology and Soils Section (ICF Jones & Stokes)

Principal Engineering Geologist: Based on a field inspection, review of project area-specific data (subsurface and surface material descriptions, aerial photographs) and regional data, Mr. Wilson prepared the Geology and Soils section of the Environmental Impact Report.

Gerald Desmond Bridge, Long Beach—Analysis of Drilling Results (Diaz-Yourman Associates)

Principal Engineering Geologist: Boring logs and selected subsurface samples were used to define the subsurface geologic formation encountered during geotechnical drilling. A description of the nature, thickness, age, and hydrogeologic characteristics of the Gaspar aquifer were provided with this information from a directional drill site near the west side of the Gerald Desmond Bridge.

Port of Los Angeles, Dredging—On-site Operational Monitoring (Converse Consultants)

Field Engineering Geologist: Based on a review and analysis of existing offshore seismic reflection records and bottom drilling/sampling, Mr. Wilson monitored the dredging operation to determine the materials encountered and proper depths attained for a portion of the ship channel.

EDUCATION

M.S. Civil Engineering (Geotechnical), San Jose State University, 1998
B.S. Environmental Earth Sciences (Geology emphasis), Stanford University, 1984
Stanford Geological Survey, 1983

REGISTRATIONS

Geotechnical Engineer, California, GE#2981
Professional Engineer (Civil), California, CE#61337

PROFESSIONAL HISTORY

GeoDynamics, Inc., Thousand Oaks, Principal, 2018-present
Exponent, Inc., Los Angeles, Managing Engineer, 2017-2018
Leighton Group, Inc., Santa Clarita, Principal Engineer, 2012-2017
Fugro, Ventura, Senior Project, 2004-2006; Associate Engineer, 2007-2012
BTC Laboratories, Inc., Ventura, Chief Engineer, 2006
Bing Yen & Associates, Inc., Camarillo, Project Engineer, 1999-2004
Richard Meehan Associates, Palo Alto, Staff/Project Engineer, 1985-1999.

AFFILIATIONS

American Society of Civil Engineers (ASCE), Member, past President (VTA-SB)
California Marine Navigation Conference (CMANC), Member
International Association of Women (IAW), Member

REPRESENTATIVE EXPERIENCE

Ms. Doyel brings over 36 years of professional experience in peer review, geologic and geotechnical studies for land development, infrastructure, and construction projects in southern California. She has worked in multi-disciplinary services including onshore and offshore geotechnical exploration, design and construction, municipal services in community development and public works, as well marine survey, construction, and forensics. She also has experience working on port and coastal sites nationally and within U.S. Territories.

She has peer reviewed geotechnical and environmental investigations and reports for land development and forensic studies for over 30 years. She currently peer reviews for the City of Malibu (2018 to present) and has been a primary geotechnical and coastal engineering reviewer (1999 to 2012) for the City, as well as a half dozen other municipal and county agencies. This included assisting the City of Malibu by developing coastal engineering report standards and guidelines in support of the Local Coastal Program, including the incorporation of sea level rise into coastal engineering studies submitted to Malibu.

At present, she leads the geotechnical review and final building plan check review services for Woolsey Fire Rebuilds in the City of Malibu, and as well as for geotechnical, coastal engineering and environmental health. She is the primary contact for homeowners and Applicants who need assistance in understanding the Fire Rebuild process, and submittal requirements for Building Plan Check stage, and provides the Planning Department with pre-submittal project planning input for geotechnical and coastal engineering. She works closely with all City of Malibu departments, staff and consultants to move projects efficiently and smoothly through the review, plan check and approval process.

Throughout her career she has performed forensic investigations and analysis of landslides, building structures and man-made embankment failures for cities, insurers and private parties, including the Big Rock Mesa, Flying Triangle, and Love Creek landslides, the Linda Levee failure and Potrero Canyon park slope stabilization project. From 2000 to 2005, she was part of the geotechnical consulting team for the

City of Malibu Landslide Assessment Districts, responsible for installation and maintenance of, collection and interpretation of data from, and reporting and public presentation on slope monitoring and dewatering facilities intended to stabilize landslides with existing residential development. In 2018, she performed inspections and provided failure analysis for debris flows related to the fires and subsequent storms in southern California, including the Thomas, the Creek, the Skirball and the La Tuna fire, providing inspection and forensic reporting on over 50 properties affected by post-fire debris flows. She has also provided technical support for public agencies filing FEMA Disaster Assistance claims, including the Calle del Barco landslide (1998) and the Oroville Dam spillway damage (2018).

She has provided technical evaluation and design studies for a variety of onshore and coastal geotechnical infrastructure projects, and geotechnical oversight of construction for federal, state and local governments, universities, school districts, utilities and private parties. She has focused on public works infrastructure since 1999, from project review, planning and design studies through permitting and construction. She managed the site geotechnical characterization and reporting phase for the joint the Port of Los Angeles USACE Channel Deepening project, as well as the on-call geotechnical contract for the City and Port of Los Angeles. She developed and executed the geotechnical and environmental site characterization approach, investigation and reporting for Elderberry Reservoir (LADPW), Mockingbird Lake (City of Riverside) and Laguna Lake (City of San Luis Obispo), including recommendations for disposal of dredge spoils.

In April 2018, she co-presented a webinar “Ground Failures and Other Ground-Water Related Property Damage” as part of the online Lorman Technical training program (<http://www.lorman.com/training/water-law/ground-failures-and-water-related-construction-losses>).

CERTIFICATIONS

Certified, HUET and Marine Safety, 2016.

Certified, Slope Inclinator Interpretation and Data Reduction, 2001.

Certified, Hazardous Waste Management, UCSC Extension, 1988.

SELECT PROJECT EXPERIENCE

PEER REVIEW

- **Geotechnical Engineering Peer Reviewer**, City of Malibu, CA (1999-2012, 2018-present).
- **Coastal Engineering Peer Reviewer**, City of Malibu, CA (2000-2012, 2018-present).
- **Coastal Engineering Peer Reviewer**, City of Dana Point, CA (2000-2004).
- **Geotechnical Engineering Peer Reviewer**, City of Agoura Hills, CA (1999-2004, 2018-present).
- **Geotechnical Engineering Peer Reviewer**, County of Ventura, CA (1999-2004).
- **Geotechnical Engineering Peer Reviewer**, City of Simi Valley, CA (1999-2004, 2018-present).
- **Geotechnical Engineering Peer Reviewer**, City of Santa Monica, CA (2001-2004).
- **Geotechnical Engineering Peer Reviewer**, City of Hidden Hills, CA (1999-2004, 2018-present).

FORENSICS (Geotechnical and Environmental)

- **Ladera Elementary School slope failure, Conejo Valley USD (2017).**
- **Westlake High School erosion and slope evaluation, Conejo Valley USD (2016).**
- **Potrero Canyon Park Slope Evaluation and Landslide #8 Repair, Pacific Palisades, CA (2014).**
- **Rambla Pacifico Emergency Access road Restoration, City of Malibu, CA.**
- **Calle Del Barco and La Costa Landslides, Malibu, CA.**
- **Love Creek Landslide, Ben Lomond, CA.**
- **Oddstad Boulevard debris flow, Pacifica, CA.**
- **Abalone Cove Landslide Technical Panel, Rancho Palo Verdes, CA.**

- **Big Rock Mesa Landslide, Los Angeles, CA.**
- **Flying Triangle Landslide, Rancho Palos Verdes, CA.**

Residential, Commercial and Industrial Facilities related to Insurance Claims, Southern California and Nationwide. Project Engineer, Manager and QA/QC Reviewer for geotechnical investigation of insurance claims for commercial, industrial and residential structures including expansive soil and rock, debris flow related to fire, storm drain and plumbing failures, backfill failure, settlement for multiple insurers. Field investigation, documentation, causation analysis and reporting, as well as remedial repair and mitigation of damage. Peer review of forensic damage reports.

Gas Explosions, Northern California, and Nevada. Project Engineer for field investigation and determination of cause of residential gas explosions, evaluation of gas migration, and effect of construction activities.

Montecito MudFlows, Residential and Public Infrastructure Damage Investigation, 2018. Project and Field Engineer for investigation and damage assessment of 40+ houses immediately after mudflows during evacuation conditions. Aerial photo analysis, field investigation, documentation of structure condition and damage, evaluation of mitigating and ed/or exacerbating conditions, causation evaluation and summary reports.

Evaluation of Commercial Structure Construction and Drainage, Oxnard, Santa Clarita and Goleta, CA. Evaluation of commercial structure concrete slab and flooring failure due to moisture intrusion and drainage. Principal Investigator for insurance companies and prospective property buyers.

North Central Animal Shelter, City of Los Angeles, CA. Project Engineer and Manager for geotechnical site characterization and settlement survey analysis to support significant renovation plans for an existing facility. The shelter was constructed on pile foundations over an old landfill, and experiencing ongoing settlement. Survey data provided to City of LA GEO to develop foundation repair recommendations.

Bombardier Storm Drain Backfill Investigation, Norwalk, CA. Project Engineer and Manager for detailed geotechnical investigation of storm drain backfill failure along residential streets (task order for County of Los Angeles).

Hawaiian Avenue Injection Well24B subsidence, Wilmington, CA. Project Engineer and Manager for detailed geotechnical investigation subsidence adjacent to injection well (task order for County of Los Angeles).

Calle Del Barco Landslide Litigation, City of Malibu, CA. Project Engineer responsible for execution of field phase of geotechnical field study of Calle Del Barco landslide, and responsible for technical summary and evaluation of land development and landslide history. Responsible for engineering analysis (slope stability) performed to support City of Malibu application over \$500,000 FEMA funding for landslide repair (successful).

MUNICIPAL INFRASTRUCTURE (DESIGN AND CONSTRUCTION)

Venice Dual Force Main Alignment, Los Angeles, CA (2015). Project Manager and Geotechnical Engineer for a geotechnical and geophysical investigation of a two-mile long 54-inch outside-diameter sewer force main using micro tunneling and open trenching techniques. Field investigation utilized CPT exploration to gather subsurface stratigraphic information along the alignment to confirm subsurface conditions, as well as geophysical study to locate and confirm abandonment of DOGGR identified oil wells.

Road Rehabilitation and Construction projects, City of Oxnard. Project Engineer and Material Testing Laboratory. Projects include AC and PCC pavement reconstruction, pavement evaluation, construction testing and observation for various projects throughout the City including Esplanade Bus Stops, Victoria Avenue Median Strip, Oxnard Alleyway reconstruction, and Orchard Neighborhood Slurry Seal (Phase 1 and Phase 2).

Goleta Fire Station #10, City of Goleta, CA. Geotechnical Engineer of Record for geotechnical design study for a new fire station. Challenges include evaluation and mitigation recommendations for a 35-foot-high slope abutting railroad tracks in eroding marine terrace deposits. The slope repair is the most expensive and significant feature of the development, and current seismic codes result in high ground accelerations. The slope mitigation is an essential part of overall site design evaluation and recommendations due to limited space.

Agoura Road Widening Project, Construction Phase, City of Agoura Hills, CA. Project Manager and Geotechnical Engineer for construction phase of Agoura Road Widening Project, construction oversight and soils and material testing for 2.5-mile road widening project, including 5 retaining walls, cut, fill, utility relocation. Challenges include pavement section redesign utilizing geogrid to accommodate shallow utilities that could not be deepened, resulting in the project staying on schedule and saving the City over \$200,000.

Central Park Development, Phase 4, Design and Construction, City of Santa Clarita, CA. Geotechnical Engineer of Record for design and construction Phase 4 of Central Park, the largest park in the City of Santa Clarita. Phase 4 included a new soccer field, expanded parking, and storm water retention facilities. Leighton provided geotechnical services during the design and construction of Central Park, including extensive geotechnical investigation to generate the geotechnical parameters for park design.

Oxnard Fire Station #8, City of Oxnard. Geotechnical Engineer of Record for geotechnical design study for a new fire station. Challenges include evaluation and mitigation of liquefaction due to dry sand settlement and high groundwater. Ground improvement was not an option due to limited budget and overexcavation was not an option due to shallow ground water and potential pumping. Recommendations were provided for a geogrid reinforced soil section under a rigid mat foundation.

County of Ventura, Bus Canyon Drain Culvert Geotechnical Study, Simi Valley, CA. Geotechnical Engineer and Project Manager for limited study to provide design parameters for replacements of box culvert along Arroyo Simi damaged due to settlement and poor concrete.

Burbank Water and Power Reservoir #2, Burbank, CA. Project Manager and Geotechnical Engineer for site characterization of subsurface conditions, evaluation of slope stability and seismic risk for slopes above and below an underground water reservoir.

TIWRP Blower Replacement Project Geotechnical Study, City of Los Angeles, CA. Geotechnical Engineer of Record for investigation to support new blower foundations for plant upgrades utilizing limited access CPT rig inside the blower building. The project was enhanced by utilizing previous investigations performed for the Channel Deepening project because of Ms. Doyel's knowledge and prior project experience within the Port of Los Angeles.

Termino Avenue Drain, Los Angeles County Department of Public Works, Alamitos Bay, Long Beach, CA. Project Manager and Engineer for geotechnical investigation for new storm drain outlet into Alamitos Bay, Long Beach. Special considerations include coffer dam and seepage analysis for outlet structure. Logistics included finding a cost-effective drilling platform in very shallow water (five feet or less) that could perform in situ geotechnical testing and sampling.

Geotechnical Design, Construction Management and Observation/Corral Canyon Road Repair, Malibu, CA. Project Manager and Engineer for repair of failed road section providing only access to over 200 homes in Los Angeles County.

Stormwater Treatment Plant, City of Malibu, CA. Project Manager and Engineer, geotechnical investigation for new pilot UV treatment system, which included pump stations, pipelines, treatment facility and outlet into Malibu Creek.