County of Ventura Planning Division
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Initial Study for Jain Residence

Section A – Project Description

1. **Project Case Number:** PL17-0005

2. **Name of Applicant:** Sanjiv and Shubha Jain

3. **Applicant's Representative:** Luke Tarr, 6411 Independence Ave, Woodland Hills, CA 91367

4. **Project Location and Assessor's Parcel Number:** The project site is located at 41700 Pacific Coast Highway, in the unincorporated area of Ventura County. The Tax Assessor's parcel number (APN) for the property that comprises the project site is 700-0-200-655.

5. **General Plan Land Use Designation and Zoning Designation of the Project Site:**

   a. **General Plan Land Use Designation:** Existing Community

   b. **Area Plan Land Use Designation:** Residential Medium 2.1-6 DU/AC (2.1 to 6 dwelling units per acre)

   c. **Zoning Designation:** Coastal Residential Planned Development, CRPD-3 DU/AC (3 dwelling units per acre)

6. **Description of the Environmental Setting**: The project site is located within the Ventura County South Coast community area, approximately 600 feet east of Yerba Buena Beach and approximately 0.7 miles west of the Ventura-Los Angeles County Line. The South Coast Segment S1 of the Coastal Trail (Coastal Area Plan Figure 4.17-1) is located seaward of the project site and provides seasonal/tidal walking along the beach. Shoreline access, public beach areas and parking are located along the road shoulder adjacent to County Line Beach (Attachment 1).

   On December 18, 1981, Parcel Map 3330 (PM-3330) was recorded to allow for the subdivision of 3 lots into 4 lots. The project site is Lot 1 of PM-3330. The lot is approximately 16,550 square feet in area, 500 feet long, 50-feet wide in the first 200 feet of the northern portion of the lot and tapering to a width of 20-feet for approximately 250 feet of the southern portion of the lot. At the northern property boundary, the site has an elevation of approximately 70 feet above mean sea level (msl) and gradually tapering down to an elevation of 35 feet (msl), approximately 200 feet from right of way of Pacific Coast Highway (PCH). Physical and legal

access to the site is provided by an existing private driveway and access easement which extends across APNs 700-0-200-815, -765, and -715 before connecting to PCH. On April 30, 1982, Residential Planned Development Permit Case No. RPD-893 was issued for Lot 1 to allow for the construction of a 4,500 sq. ft. two-story single-family dwelling. Other accessory improvements include perimeter fencing (approximately 5 feet high and varies between chain link fence, rock garden walls and concrete masonry unit walls), an outdoor shade structure, railroad ties utilized as stairway access to the shore, and multiple retaining walls (ranging in height from 2-5 feet). Mature ornamental vegetation occurs throughout the undeveloped portions of the lot.

The adjacent parcels surrounding the project site consist of the following:

Adjacent Parcels	Zoning Designation	Zoning Description	Existing Use
North	---	---	State Highway 1 (PCH)
East	CRPD-3 du/ac	Coastal Residential Planned Development (three dwelling units per acre)	Single-family dwelling
South	Pacific Ocean	---	Beach/Recreation
West	CRPD-3 du/ac	Coastal Residential Planned Development (three dwelling units per acre)	Single-family dwelling

7. **Project Description:** The applicant is requesting a Coastal Planned Development (PD) Permit for the demolition of an existing 4,500 square foot (sq. ft.) two-story single family dwelling (SFD) with an attached two-car garage and the construction of a new 5,049 sq. ft. two-story SFD with an attached 352 sq. ft. garage and a detached 491 sq. ft. one-story accessory dwelling unit (ADU) located on a lot addressed as 41700 Pacific Coast Highway. The new SFD will contain five bedrooms, five bathrooms and one half-bathroom. The ADU will contain one bedroom and one bathroom. The project includes the construction of a 10 foot by 29-foot outdoor pool, installation of six biofiltration planter boxes (adding up to total 585 sq. ft.) to treat the volume of storm water runoff resulting from a 100-year storm, and approximately 330 linear feet of retaining walls ranging in height from 2 feet to 12 feet high. Access to the site is provided by an existing private driveway and access easement which extends across APNs 700-0-200- 815, -765, and -715 before connecting to Pacific Coast Highway (Attachment 2).

Water will continue to be provided by Yerba Buena Water Company and wastewater disposal will be handled by a new onsite wastewater treatment system (OWTS).

8. List of Responsible and Trustee Agencies: California Coastal Commission

9. Methodology for Evaluating Cumulative Impacts: "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable, probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time [California Environmental Quality Act (CEQA) Guidelines, 2014c, Section 15355].

In order to analyze the proposed project's contribution to cumulative environmental impacts, this Initial Study relies on both the list method in part (e.g., for the analysis of impacts to biological resources) and the projection (or plans) method in part (e.g., for the analysis of cumulative traffic impacts).

Pursuant to the California Environmental Quality Act (CEQA) Guidelines [§ 15064(h)(1)], this Initial Study evaluates the cumulative impacts of the project, by considering the incremental effects of the proposed project in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects within a five mile radius of the project site. The projects listed in Table 1 were included in the evaluation of the cumulative impacts of the project, due to their proximity to the proposed project site and potential to contribute to environmental effects of the proposed project. Attachment 3 of this Initial Study includes a map of pending and recently-approved projects within the Ventura County Unincorporated Area.

Table 1 – Ventura County Unincorporated Area Pending and Recently Approved Projects within 5 Mile Radius

Permit No.	Permit Type	Description	Status
PL15-0005	Conditional Certificate of Compliance (CCC)	CCC (Case No. PL15-0005) to legalize an existing 19.16-acre lot (APNs 700-0-070-375 and 700-0-070-395)).	Recorded Instrument No. 20190807-0009032000-0

PL15-0083	Major Mod	Minor Modification to PD Permit LU07-0123 (approved on December 8, 2008), increasing the single-family dwelling from 3,787 sq. ft. to 4,120 sq. ft. and increasing the attached two car garage from 441 sq. ft. to 445 sq. ft.. The residence is located on APN 700-0-010-425.	Approved on March 27, 2019
PL16-0006	Lot Line Adjustment & Planned Development	Coastal PD Permit that includes the drilling of an exploratory water well and Parcel Map Waiver-Lot Line Adjustment for Assessor's Parcel Numbers (APN) 700-0-030-065 (Parcel A) and 700-0-170-300 (Parcel B). Parcel A is currently 2.15 acres, and Parcel B is currently 68.78 acres. The applicant proposes to increase parcel A to 8.39 acres and decrease Parcel B to 62.54 acres. The Applicant is not proposing to develop the reconfigured lots at this time, a separate Coastal PD will be required for future development.	Pending
PL17-0088	Planned Development Permit	Coastal PD Permit for the construction of a new swimming pool, pool deck, and covered, open-air, non-habitable pool cabana on a 30.43-acre property addressed as 12233 Cotharin Road. The subject property is developed with an existing single-family dwelling that predates the Coastal Act (Constructed Prior to 1947).	Pending
PL17-0103	Planned Development Permit	Coastal PD Permit for the construction of a 9,803 sq.ft. single-family dwelling with a 919 sq.ft. attached garage, outdoor patio and decks, a swimming pool, two (2) 10,000-gallon water tanks, new utilities, new septic system and associated grading.	Approved on October 22, 2019
PL17-0104	Major Modification	Major Modification to PD Permit No. 1609 (approved on January 26, 1995) for the following: 1) Demolition of existing 2,787sq. ft. dwelling, 400 sq. ft. carport and septic system (subsequently destroyed in the Woolsey Fire). 2) Construction of a 2,160 sq. ft, single-story single-family dwelling. The single-family residence has two bedrooms and two bathrooms. 3) Construction of a 6,240 sq. ft. garage with a 6,240 sq. ft. basement . 5) A new water well is proposed to provide domestic water and an existing water well (SWN 01S20W22D01S) will be used as a back-up well.6) Installation of 10,000-gallon water tank. 7) Installation of a 1,500-gallon septic tank and with an alternative treatment technology.	Pending

PL17-0130	Planned Development Permit	Coastal PD Permit to construct a private driveway within Ventura County to access a dwelling in Los Angeles County. The proposed driveway is approximately 800 linear feet. Estimate earthwork includes 604 cubic yards (cy) of cut, 64 cy of fill,2,552 cy of over excavation, and 540 cy of export.	Pending
PL18-0010	Planned Development Permit	Coastal PD Permit to restore 4,253.98 sq. ft. of unpermitted removal of native coastal sage scrub.	Pending
PL18-0019	Conditional Certificate of Compliance	CCC (Case No. PL18-0019) in order to bring an existing 40-acre lot (APN (701-0-020-20), into compliance with the Subdivision Map Act and the Ventura County Subdivision Ordinance (VCSO).	Recorded Instrument No. 20190123-00005733-0
PL18-0020	Planned Development Permit	The Applicant requests a Coastal Planned Development (PD) Permit to revise the approved project description. The previously approved barn has been removed from the project and the following structures are proposed: a 27-foot-high, 10,069-square-foot (sq. ft.), two-story single-family dwelling with an attached 869 sq. ft. two-car garage, 517 sq. ft. open roof deck, 700 sq. ft. detached accessory dwelling unit (ADU), 790 sq. ft. swimming pool and spa, and two detached open gazebos (400 sq. ft. and 225 sq. ft. The proposed project will be sited within the same general footprint as the previously-approved Coastal PD Permit Case No. PD-1959 and will not create any new potentially significant environmental impacts. No grading or vegetation removal is proposed. An existing on-site private water well, State Well Number (SWN) 01S20W15C04S, will continue to provide water for the site, and four new 7-foot-high, 5,000-gallon water storage tanks will provide water for fire suppression. Two existing 4,000-gallon water storage tanks, previously used for irrigation, will remain on site and provide additional water for fire suppression. The proposed project will include a new on-site waste treatment system (OWTS) for domestic sewage disposal that will incorporate two septic tanks (2,000-gallons and 1,000-gallons), which will handle domestic sewage disposal for the single-family dwelling and the ADU (Exhibit 3, Project Plans). Access to the site will be provided by an existing 15-foot-wide, 980-foot-long paved driveway extending from Cotharin Road. The	Pending

		proposed project also includes a temporary dwelling unit during construction, equipment storage containers, drainage improvements, hardscape surfaces (e.g. xeriscaping, which will include list plants here), one fire hydrant, and one draft hydrant, in accordance with Ventura County Fire Protection District (VCFPD) requirements. The proposed project includes approximately 1.31 acres of vegetative restoration to abate Zoning Violation Case No. ZV01-0088 for unauthorized vegetation removal of Environmentally Sensitive Habitat Area (ESHA) associated with a former vineyard, which no longer exists on the subject property.	
PL18-0033	Planned Development Permit	Coastal PD Permit for the construction of a new 2,052 sq. ft two-story single-family dwelling with an attached 641 sq. ft. car garage located on a 1.28-acre lot addressed as 11682 Ellice Street, Malibu (Ventura County Unincorporated), CA. The project also includes an 899 sq. ft. lanai, and a 691 sq. ft. covered patio. Access to the project site is provided by a private driveway via Ellice Street. Water is provided by the Yerba Buena Water Company and waste water discharge will be handled by a new on-site septic system.	Pending
PL18-0074	Planned Development Permit	Coastal PD Permit for the construction of a new 11,932 sq. ft. single-family dwelling with an attached 1,158 sq. ft. four-car garage located on a 2.19-acre property addressed as 11865 Ellice Street, Malibu (Ventura County Unincorporated), CA..	Approved on February 15, 2019
PL18-0097	Planned Development Permit	Coastal PD Permit to permit interior modifications to the dwelling (remodeling of bathrooms, bedrooms, kitchen and dining room) and exterior modifications to the dwelling (replacement of windows, glass doors and relocating a fireplace) addressed as 11350 PCH (APN 700-0-080-05).	Approved on October 25, 2019
PL18-0102	Planned Development Permit	Coastal PD Permit for the construction of a new single-family dwelling (11,115 square feet (sq. ft.)) with attached garage (1,682 sq. ft.), an attached workshop (1,583 sf), and first floor covered porches (1,819 sf). The two-story residence will be located on the lower pad of the graded parcel. A powder room (57 sf) is proposed on the upper pad. Total proposed development will be 16,258 sf.	Approved on February 26, 2019

PL18-0113	Planned Development Permit	Coastal PD Permit to address a code violation (Case No. CV17-0237) related to unpermitted vegetation removal and grading in an area considered to be environmentally sensitive habitat area (ESHA). Changes to the project description are currently pending.	Pending
PL18-0132	Permit Adjustment	Site Plan Adjustment to Coastal PD Case No. 1956 (approved on June 12, 2003). The Applicant requests the previously approved (unbuilt) 2,000 square-foot (sq. ft.) single-family dwelling and 420 sq. ft. two-car garage, be replaced with a 2,176 sq. ft. single-family dwelling with an attached 440 sq. ft. two-car garage.	Approved on March 11, 2019
PL18-0142	Permit Adjustment	Site Plan Adjustment for construction of non-habitable "attic" storage space above permitted existing attached garage located within the Malibu Bay Club community at 11936 Beach Club Way, Malibu.	Pending
PL19-0005	Planned Development Permit	Camp Hess Kramer: Follow-up Coastal PD Permit to an Emergency Permit to authorize the following: 1. Mud and debris removal totaling approximately 15,000 CY within approximately 2,550 linear feet of Little Sycamore Creek Mud is currently stockpiled on site and may be used for future bank stabilization efforts or master plan work (under separate permit). 2. Grade Control Structures - Two proposed grade control structures consisting of un-grouted rock rip rap and approximately 150 linear foot long buried rock trench or “backstop”. 3. Bank Stabilization - Approximately 300 linear feet of bank stabilization consisting of un-grouted rock rip rap, vegetated soil lifts (double layer of biodegradable fabric filled with soil and seeds), and erosion control fabric to the top of bank.	Pending
PL19-0011	Planned Development Permit	Coastal Planned Development Permit for the construction of a 2,700 sq. ft. single-story single-family dwelling with an attached 994 sq. ft. 3-car garage with a 400 sq. ft. accessory dwelling unit above the garage and an attached 1,100 sq. ft. covered patio.	Pending
PL19-0029	Permit Adjustment	Site Plan Adjustment to Coastal PD Permit Case No. LU07-0031 (approved on February 9, 2009) to abate a violation (Case No. PV12-0022) related to the additional vegetation clearance that resulted in 2012 following the construction of the residence. This violation is not related to the offsite individual who illegally	Pending

		removed vegetation on Kushner's property (Case No. PL18-0010).	
PL19-0072	Minor Modification	Minor Modification to remove the permit expiration date Planned Development Permit No. 745-1 (PD-745-1) for continued operation of the Neptune's Net Restaurant.	Pending

CCC – Conditional Certificate of Compliance
CUP – Conditional Use Permit
PD – Planned Development
PM – Parcel Map
PMW – Parcel Map Waiver
LLA – Lot Line Adjustment
PAJ – Permit Adjustment
SPAJ – Site Plan Adjustment
SD - Subdivision

Section B – Initial Study Checklist and Discussion of Responses[1]

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
RESOURCES:								
1. Air Quality (VCAPCD)								
Will the proposed project:								
a) Exceed any of the thresholds set forth in the air quality assessment guidelines as adopted and periodically updated by the Ventura County Air Pollution Control District (VCAPCD), or be inconsistent with the Air Quality Management Plan?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 1 of the Initial Study Assessment Guidelines?		X				X		

1. Air Quality (VCAPCD) Impact Discussion:

1a. Based on information provided by the applicant, air quality impacts are below the 25 pounds per day threshold for reactive organic compounds and oxides of nitrogen as described in the *Ventura County Air Quality Assessment Guidelines*. Therefore, the project will have a less-than-significant impact on regional air quality.

1b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 1 of the *Ventura County Initial Study Assessment Guidelines*, specifically Section 1.2, Air Quality (Sections 1.2.1, 1.2.2 and 1.2.3). The project is consistent with the *Ventura County Air Quality Management Plan*.

Mitigation/Residual Impact(s): Potential impacts on air quality will be less-than-significant and no mitigation is required.

[1] The threshold criteria in this Initial Study are derived from the *Ventura County Initial Study Assessment Guidelines* (April 26, 2011). For additional information on the threshold criteria (e.g., definitions of issues and technical terms, and the methodology for analyzing each impact), please see the *Ventura County Initial Study Assessment Guidelines*.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2A. Water Resources – Groundwater Quantity (WPD)								
Will the proposed project:								
1) Directly or indirectly decrease, either individually or cumulatively, the net quantity of groundwater in a groundwater basin that is overdrafted or create an overdrafted groundwater basin?	X				X			
2) In groundwater basins that are not overdrafted, or are not in hydrologic continuity with an overdrafted basin, result in net groundwater extraction that will individually or cumulatively cause overdrafted basin(s)?	X				X			
3) In areas where the groundwater basin and/or hydrologic unit condition is not well known or documented and there is evidence of overdraft based upon declining water levels in a well or wells, propose any net increase in groundwater extraction from that groundwater basin and/or hydrologic unit?	X				X			
4) Regardless of items 1-3 above, result in 1.0 acre-feet, or less, of net annual increase in groundwater extraction?	X				X			
5) Be consistent with the applicable General Plan Goals and Policies for Item 2A of the Initial Study Assessment Guidelines?	X				X			

2A. Water Resources – Groundwater Quantity (WPD) Impact Discussion:

2A-1 and 2A-2. The proposed project does not overlie a County or State recognized groundwater basin. The project applicant proposes the demolition of a two-story single-family dwelling with an attached two-car garage and the construction of a 5,049 square-foot, two-story single-family dwelling with an attached 352 square-foot garage and a 491 square-foot accessory on a 16,552 square foot lot. Water for the site is currently provided by the Yerba Buena Water Company as evidenced by a water utility bill submitted by the applicant. The project applicant proposes to continue the use of water supplied from Yerba Buena Water Company and is not proposing to directly use groundwater. Yerba

Buena Water Company's source of water is groundwater. However, the Yerba Buena Water Company has the ability to provide a permanent supply of domestic water based on an approved Water Availability Letter (WAL 15-0010). Therefore, the proposed project is considered to have a less-than-significant impact to groundwater quantity.

2A-3 and 4. The project applicant is not proposing the use of groundwater. Therefore, the proposed project is considered to have a less-than-significant impact to groundwater quantity.

2A-5. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 2A of the *Ventura County Initial Study Assessment Guidelines* and is considered to have no impact with respect to groundwater.

Mitigation/Residual Impact(s): Potential impacts on groundwater quantity will be less-than-significant and no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2B. Water Resources - Groundwater Quality (WPD)								
Will the proposed project:								
1) Individually or cumulatively degrade the quality of groundwater and cause groundwater to exceed groundwater quality objectives set by the Basin Plan?		X				X		
2) Cause the quality of groundwater to fail to meet the groundwater quality objectives set by the Basin Plan?		X				X		
3) Propose the use of groundwater in any capacity and be located within two miles of the boundary of a former or current test site for rocket engines?	X				X			
4) Be consistent with the applicable General Plan Goals and Policies for Item 2B of the Initial Study Assessment Guidelines?		X				X		

2B. Water Resources - Groundwater Quality (WPD)Impact Discussion:

2B-1 and 2B-2. The project applicant is proposing to utilize a new onsite wastewater treatment system (OWTS) consisting of one 2,500-gallon septic tank serving the main residence, one 1,000-gallon septic tank serving the ADU, a Septitech STAAR 1.0 nitrate removal device, and two new seepage pits, for domestic wastewater disposal. The soils and engineering report dated September 13, 2018, indicates the site is suitable for an alternate septic system. A properly installed and functioning septic system will reduce the groundwater contamination potential to less than significant and would not cause groundwater to exceed groundwater quality objectives set by the Basin Plan. The proposed project will not degrade groundwater quality, and construction of a future onsite septic system is not anticipated to result in substantial degradation of groundwater quality or cause groundwater to fail to meet water quality objectives set by the Basin Plan.

2B-3. The proposed project is not located within two miles of the boundary of a former or current test site for rocket engines.

2B-4. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 2B of the *Ventura County Initial Study Assessment Guidelines* and is considered to have a less than significant impact.

Mitigation/Residual Impact(s): Potential impacts on groundwater quality will be less-than-significant and no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2C. Water Resources - Surface Water Quantity (WPD)								
Will the proposed project:								
1) Increase surface water consumptive use (demand), either individually or cumulatively, in a fully appropriated stream reach as designated by SWRCB or where unappropriated surface water is unavailable?	X				X			
2) Increase surface water consumptive use (demand) including but not limited to diversion or dewatering downstream reaches, either individually or cumulatively, resulting in an adverse impact to one or more of the beneficial uses listed in the Basin Plan?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 2C of the Initial Study Assessment Guidelines?	X				X			

2C. Water Resources - Surface Water Quantity (WPD) Impact Discussion:

2C-1 and 2C-2. Water for the site is currently provided by the Yerba Buena Water Company as evidenced by a water utility bill submitted by the applicant. The project applicant proposes to continue the use of water supplied from Yerba Buena Water Company and will not rely on surface water supplies in a fully appropriated stream reach as designated by SWRCB, or where unappropriated surface water is unavailable. The proposed project is considered to have no impact on surface water quantity.

2C-3. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 2C of the *Ventura County Initial Study Assessment Guidelines* and is considered to have no impact to surface water quantity.

Mitigation/Residual Impact(s): The proposed project will not require surface water supplies to be diverted or dewatered. Potential impacts on surface water consumption will be less-than-significant and no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
2D. Water Resources - Surface Water Quality (WPD)								
Will the proposed project:								
1) Individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the three Basin Plans?		X				X		
2) Directly or indirectly cause storm water quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits?		X				X		
3) Be consistent with the applicable General Plan Goals and Policies for Item 2D of the Initial Study Assessment Guidelines?		X				X		

2D. Water Resources - Surface Water Quality (WPD) Impact Discussion:

2D-1. The proposed project will not individually or cumulatively degrade the quality of surface water causing it to exceed water quality objectives as contained in Chapter 3 of the Los Angeles Basin Plan as applicable for this area. Surface water quality is deemed less than significant because the proposed project is not expected to result in a violation of any surface water quality standards as defined in the Los Angeles Basin Plan.

2D-2. The project is located at 41700 Pacific Coast Highway, Malibu, CA within the Ventura County Existing Community General Plan Land Use Designation (APN 700-0-200-655). The Applicant is requesting a Coastal PD to demolish the existing home and construct a new 5,049 sq. ft. two-story single-family dwelling with an attached 352 sq. ft. garage and a 491 sq. ft. accessory dwelling. The proposed project will not directly or indirectly cause stormwater quality to exceed water quality objectives or standards in the applicable Ventura Countywide National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002 or any other Permits. A biofiltration planter box and drop inlet filter insert are proposed for post-construction stormwater treatment. The biofiltration planter boxes are best management practices (BMPs) designed to treat the volume of storm water runoff resulting from a 100-year storm. In accordance with the Ventura Countywide Municipal Stormwater NPDES Permit CAS004002, “Planning and Land Development Program” Subpart 4.E, the applicant will be required to ensure that proposed stormwater treatment is designed and

installed to function properly. Additionally, to ensure compliance with the Ventura Countywide Municipal Stormwater NPDES Permit CAS004002, “Development Construction Program” Subpart 4.F, the applicant will be required to include Best Management Practices (BMP’s) designed to ensure compliance and implementation of an effective combination of erosion and sediment control for a disturbed site less than 1 acre to protect surface water quality during construction (Table 6 of subpart 4.F). As such, the proposed project will not directly or indirectly cause stormwater quality to exceed water quality objectives or standards and the project is expected to have a less-than-significant impact related to water quality objectives or standards in the applicable Ventura Countywide NPDES MS4 Permit or any other NPDES Permits.

2D-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 2D of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s): The proposed project will not individually or cumulatively degrade the quality of surface water. Potential impacts on surface water quality will be less-than-significant and no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
3A. Mineral Resources – Aggregate (Plng.)								
Will the proposed project:								
1) Be located on or immediately adjacent to land zoned Mineral Resource Protection (MRP) overlay zone, or adjacent to a principal access road for a site that is the subject of an existing aggregate Conditional Use Permit (CUP), and have the potential to hamper or preclude extraction of or access to the aggregate resources?	X				X			
2) Have a cumulative impact on aggregate resources if, when considered with other pending and recently approved projects in the area, the project hampers or precludes extraction or access to identified resources?					X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 3A of the Initial Study Assessment Guidelines?	X				X			

3A. Mineral Resources – Aggregate (Plng.) Impact Discussion:

3A-1 and 3A-2. The project site is not located within an MRP Overlay Zone or located adjacent to land classified as MRZ-2 (Mineral Resource Zone 2) (i.e., areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists). The project site is not located adjacent to a principal access road for a site that is the subject of an aggregate extraction CUP. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to the extraction of or access to aggregate resources.

3A-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 3A of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s): No significant impacts on mineral resources have been identified, therefore no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
3B. Mineral Resources – Petroleum (Plng.)								
Will the proposed project:								
1) Be located on or immediately adjacent to any known petroleum resource area, or adjacent to a principal access road for a site that is the subject of an existing petroleum CUP, and have the potential to hamper or preclude access to petroleum resources?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 3B of the Initial Study Assessment Guidelines?	X				X			

3B. Mineral Resources – Petroleum (Plng.) Impact Discussion:

3B-1. The proposed project is not located on or adjacent to an oil field or subject to an oil extraction CUP, and thus will not cause a significant impact with regard to the extraction of petroleum resources. Likewise, the subject property is not located adjacent to a principal access road for a site that is the subject of an existing, active CUP for oil extraction and does not have the potential to disturb access to petroleum resources. Therefore, the proposed project will not have a project-specific impact to petroleum resources, and the proposed project will not make a cumulatively considerable contribution to a significant cumulative impact related to the extraction of or access to petroleum resources.

3B-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 3B of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s): No significant impacts on mineral (petroleum) resources have been identified, therefore no mitigation is required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4. Biological Resources								
4A. Species								
Will the proposed project, directly or								
1) Impact one or more plant species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?		X				X		
2) Impact one or more animal species by reducing the species' population, reducing the species' habitat, fragmenting its habitat, or restricting its reproductive capacity?		X				X		

4. Biological Resources Impact Discussion:

4A-1 and 4A-2: The project would be located on Lot 1 of Parcel Map No. 3330 (35PM1). The lot is irregularly shaped, approximately 500 feet long with the northern portion providing a width of 50 feet for approximately 200 feet before the lot tapers to a width of 20 feet for the remaining 300-foot southern portion of the lot. Existing development is in the northern portion of the site. Proposed development is sited in the same approximate location as the existing residence and shade structure, specifically, 25-feet from the northern property line (at PCH) and approximately 130 feet from the October 21, 2014 Mean High Tide Line. The landforms on the site have been modified with the construction of existing development. Mature ornamental vegetation occurs throughout the undeveloped portions of the lot.

The lot to the west is rectangularly shaped (75-feet wide by 497-feet long, 0.83 acres) and developed with an 8,556 square foot single-family dwelling with an attached 662 square foot garage and 650 square foot accessory structure. The lot to the east is shaped similar to the project site and is developed with a 6,309 square foot single-family dwelling, 504 square foot garage and pool. PCH is immediately to the north and the beach is to the south.

The potential for sensitive plant communities and animal species to occur at the project site is considered low. As indicated within the Ventura County Geographic Information Systems (GIS) databases, the development envelope for the project is located outside the boundaries for critical habitat areas, the Santa Monica Mountains Overlay, wetlands areas, and the Habitat Connectivity and Wildlife Corridors. Based on there being a low potential for suitable habitat for special-status species, project implementation will not

impact one or more plant or animal species by reducing a species' population, reducing a species' habitat, fragmenting its habitat, or restricting its reproductive capacity.

Suitable nesting habitat for passerines (perching birds) could occur in surrounding vegetation and trees. Avian species could be adversely affected directly (e.g., nest removal) or indirectly (e.g., nest abandonment from noise and vibrations). To comply with the protection of such birds afforded by the Migratory Bird Treaty Act and California Department of Fish and Game Code, the proposed project would be subject to a condition of approval requiring the Applicant to prohibit land clearing activities during the breeding and nesting season (January 1 - September 15), or retain a County-approved biologist to conduct site-specific surveys prior to land clearing activities during the breeding and nesting season (January 1 - September 15) and to submit a Survey Report documenting the results of the initial nesting bird survey and a plan for continued surveys and avoidance of nests.

Mitigation/Residual Impact(s): Because no significant impacts on plant or animal species have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4B. Ecological Communities - Sensitive Plant Communities								
Will the proposed project:								
1) Temporarily or permanently remove sensitive plant communities through construction, grading, clearing, or other activities?	X				X			
2) Result in indirect impacts from project operation at levels that will degrade the health of a sensitive plant community?	X				X			

4B. Ecological Communities - Sensitive Plant Communities Impact Discussion:

4B-1 and 4B-2: Plant communities are considered special status if they are designated as sensitive by CDFW (2010) or if they are identified as Locally Important Species by the County of Ventura. Plant communities are also provided legal protection when they provide habitat for protected species or when the community is in the coastal zone and qualifies Environmentally Sensitive Habitat Areas (ESHA). ESHA are sensitive ecological communities because they provide significant wildlife habitat and resources vital to many local wildlife species within the Santa Monica Mountains[2]. ESHA are primarily riparian and wetland habitats and closed-canopy oak woodlands; however, within the Coastal

[2] Dixon, J., 2003. Designation of ESHA in the Santa Monica Mountains. California Coastal Commission.

Zone the California Coastal Commission has also recognized coastal sage scrub, chaparral, and California's native perennial grasslands as meeting the definition of ESHA.

The proposed project will not temporarily or permanently remove sensitive plant communities through any of the proposed construction activities. The proposed project site is heavily disturbed, lacks native habitat, and does not presently support sensitive plant species. Areas adjoining the development envelope are also heavily disturbed. Dust associated with construction activities would be reduced by adherence to the Ventura County Air Pollution Control District (VCAPCD) construction dust reduction requirements.

An arborist letter report dated October 27, 2015 from White's Tree Service (Attachment 4) indicates that trees impacted by the demolition phase of the project are both non-native and non-protected species. The proposed project will not result in any direct or indirect impact that will degrade the health of a sensitive plant community or protected trees.

Mitigation/Residual Impact(s)
Because no significant impacts on sensitive plant species have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4C. Ecological Communities - Waters and Wetlands								
Will the proposed project:								
1) Cause any of the following activities within waters or wetlands: removal of vegetation; grading; obstruction or diversion of water flow; change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; or any disturbance of the substratum?	X				X			
2) Result in disruptions to wetland or riparian plant communities that will isolate or substantially interrupt contiguous habitats, block seed dispersal routes, or increase vulnerability of wetland species to exotic weed invasion or local extirpation?		X				X		
3) Interfere with ongoing maintenance of hydrological conditions in a water or wetland?		X				X		
4) Provide an adequate buffer for protecting the functions and values of existing waters or wetlands?	X				X			

4C. Ecological Communities - Waters and Wetlands Impact Discussion:

4C-1 through 4C-4: There are no potential jurisdictional waters present within the proposed development envelope nor does the parcel contain water bodies such as creeks or streams. The nearest stream is an unnamed blueline stream located approximately 1,300 feet to the east. The Pacific Ocean is immediately to the south. Proposed development is setback approximately 130 feet from the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2). To offset the additional stormwater runoff, the proposed project has been designed with stormwater capture devices, the six biofiltration planter boxes and drop inlet filter insert, as indicated by the Hydraulic and Hydrology Calculations prepared by Amit Apel Design Inc (Attachment 5, June 2019), to reduce any increase in post-development runoff to pre development rates and amounts. As stated in Section 2D (above), biofiltration planter box and drop inlet filter

insert are proposed for post-construction stormwater treatment. The biofiltration planers are sized to treat the volume of runoff resulting from a 100 year storm. Following a 7 hour detention period, he treated runoff exits the bottom of the Planter and sheet flows across the descending slope at a rate equal to or less than the existing rate – thereby resuming the lot's pre-development, sheet flow drainage patter. In accordance with the Ventura Countywide Municipal Stormwater NPDES Permit CAS004002, "Planning and Land Development Program" Subpart 4.E, the applicant will be required to ensure that proposed stormwater treatment is designed and installed to function properly. Additionally, to ensure compliance with the Ventura Countywide Municipal Stormwater NPDES Permit CAS004002, "Development Construction Program" Subpart 4.F, the applicant will be required to include Best Management Practices (BMP's) designed to ensure compliance and implementation of an effective combination of erosion and sediment control for a disturbed site less than 1 acre to protect surface water quality during construction (Table 6 of subpart 4.F). The proposed project will not directly or indirectly cause stormwater quality to exceed water quality objectives or standards in the applicable MS4 Permit or any other NPDES Permits and will therefore not result in any project-specific impact or a cumulatively considerable contribution to a significant impact to waters and wetlands.

Mitigation/Residual Impact(s)

Because no significant impacts on wetlands have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4D. Ecological Communities - ESHA (Applies to Coastal Zone Only)								
Will the proposed project:								
1) Temporarily or permanently remove ESHA or disturb ESHA buffers through construction, grading, clearing, or other activities and uses (ESHA buffers are within 100 feet of the boundary of ESHA as defined in Section 8172-1 of the Coastal Zoning Ordinance)?			X				X	
2) Result in indirect impacts from project operation at levels that will degrade the health of an ESHA?	X				X			

4D. Ecological Communities - ESHA (Applies to Coastal Zone Only) Impact Discussion:

4D-1, 4D-2, and 4D-3. The project would be located on Lot 1 of Parcel Map No. 3330 (35PM1). Lot 1 abuts PCH to the north and the Pacific Ocean to the south. The lot to the west is developed with an 8,556 square foot single-family dwelling, 662 square foot garage and 650 square foot accessory structure. The lot to the east is developed with a 6,309 square foot single-family dwelling, 504 square foot garage and pool.

ESHA is defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Public Resources Code § 30107.5). ESHA includes coastal dunes, tidepools, wetlands, creek corridors, and certain upland habitats in the Santa Monica Mountains (Ventura County Coastal Area Plan). The project site and surrounding areas have been highly disturbed to accommodate existing development. No ESHA has been identified on the project site. The nearest ESHA is approximately 375 feet northeast of the project site, across PCH. The southernmost portion of the development envelope is 130 feet north of the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2).

4D-4. The proposed project will involve temporary indirect impacts associated with noise from construction activities and increased human presence that could affect migrating wildlife. The proposed project will be subject to a construction noise condition to ensure that development of the proposed project complies with the requirements of the *Ventura County General Plan Goals, Policies and Programs* Policy 2.16.2-1(5), Construction Noise Threshold Criteria and Control Plan (2010a). Currently, the project site is already exposed to noise (vehicular traffic on PCH) and human presence with the existing residential uses. Therefore, the proposed project will have a less-than-significant project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, with regard to indirect impacts on ESHA.

Additionally, the proposed project will likely incorporate lighting that could have a impact on wildlife movement, if it is excessive or shines into adjacent ESHA areas. However, these impacts can be sufficiently addressed through project conditions of approval which require the preparation and implementation of a lighting plan. An adequate lighting plan will demonstrate all exterior lighting will be shielded and directed downward, with no trespass onto adjacent properties.

Mitigation/Residual Impact(s)

Because no significant impacts on ESHA have been identified, no mitigation measures are required.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4E. Habitat Connectivity								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Will the proposed project:								
1) Remove habitat within a wildlife movement corridor?	X				X			
2) Isolate habitat?	X				X			
3) Construct or create barriers that impede fish and/or wildlife movement, migration or long term connectivity or interfere with wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction?	X				X			
4) Intimidate fish or wildlife via the introduction of noise, light, development or increased human presence?		X				X		

4E. Habitat Connectivity Impact Discussion:

4E-1. through 4E-4. The project site is located more than 10 miles southeast of the Santa Monica-Sierra Madre Habitat Connectivity Corridor. Project development will not result in removal of habitat within a designated movement corridor.

Natural open space is present north of PCH, approximately 375 feet northeast of the development envelope and provides linkages to allow movement between large open space areas. Residential housing is located to immediately to the west and east of the project site, and PCH is located to the north, all of which constrain the movement of wildlife.

The proposed project does not include the removal of habitat from within a wildlife movement corridor, nor will the project result in the isolation of habitat or the construction of other barriers to wildlife movement. However, the proposed project is located within 375 feet of the Santa Monica Mountains Overlay. Lighting associated with the proposed single-family dwelling, especially during night times, may affect wildlife movement of animals that may incidentally use areas within the vicinity of the project site. However, these impacts can be sufficiently addressed through project conditions of approval which require the preparation and implementation of a lighting plan. An adequate lighting plan will demonstrate all exterior lighting will be shielded and directed downward, with no trespass onto adjacent properties.

Mitigation/Residual Impact(s)

Because no significant impacts on habitat connectivity have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
4F. Will the proposed project be consistent with the applicable General Plan Goals and Policies for Item 4 of the Initial Study Assessment Guidelines?		X				X		

4F. Impact Discussion:

4F. The Planning Division determined the proposed project did not have the potential to impact biological resources and an Initial Study Biological Assessment (ISBA) prepared by a qualified biologist was not required. The proposed project site has been heavily disturbed to accommodate existing development. No jurisdictional waters or wetlands are known to be onsite and ESHA is located over 375 feet north of the project site. The proposed project does not propose any diking, filling or dredging activities or other activities or uses that will impact marine resources and the quality of the environment within the coastal zone. The project site does not contain coastal dunes, rocky tidepools, or creek corridors. The Santa Monica Mountains Overlay Zone is located north of PCH, approximately 375 feet northeast of the project site. Additionally, existing development to the west and east, and PCH immediately to the north, prevent wildlife movement to and across the project site. As a result, the project is consistent with all relevant *General Plan* Goals and Policies and *Coastal Area Plan* policies governing biological resources.

Mitigation/Residual Impact(s)

Because no significant consistency issues for the proposed project have been identified, no mitigation measures are necessary.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
5A. Agricultural Resources – Soils (Plng.)								
Will the proposed project:								
1) Result in the direct and/or indirect loss of soils designated Prime, Statewide Importance, Unique or Local Importance, beyond the threshold amounts set forth in Section 5a.C of the Initial Study Assessment Guidelines?	X				X			
2) Involve a General Plan amendment that will result in the loss of agricultural soils?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 5A of the Initial Study Assessment Guidelines?	X				X			

5A. Agricultural Resources – Soils (Plng.) Impact Discussion:

5A-1. The proposed project site is identified as "Urban and Built-Up Land" in the Ventura County Important Farmland Inventory. The proposed project will not disturb or remove classified soils as identified in the Ventura County Important Farmland Inventory. While grading activities subject to grading permit review are proposed, the project does not disturb, remove or cover soils designated as Prime, having Statewide Importance, Unique, or Local Importance set forth in the Important Farmlands Inventory (lFl). Therefore, the proposed project will not result in the loss of any classified agricultural soils nor will the project result in cumulatively considerable impacts.

5A-2. The proposed project does not include a General Plan amendment that will result in the loss of designated agricultural soils. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to agricultural soil resources.

5A-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 5A of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s): Because no significant impacts on agricultural soils have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
5B. Agricultural Resources - Land Use Incompatibility (AG.)								
Will the proposed project:								
1) If not defined as Agriculture or Agricultural Operations in the zoning ordinances, be closer than the threshold distances set forth in Section 5b.C of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 5b of the Initial Study Assessment Guidelines?	X				X			

5B. Agricultural Resources - Land Use Incompatibility (AG.) Impact Discussion:

5B-1. The proposed project will not disturb or remove classified soils as identified in the Ventura County Important Farmland Inventory. The proposed structures and uses will not be located closer than the 300-foot threshold distance, set forth in Section 5b.C of the *Ventura County Initial Study Assessment Guidelines,* to lands that are in agricultural production. Therefore, the proposed project will not have a project-specific impact on agricultural resources and will not make a cumulatively considerable contribution to a significant cumulative impact related to agricultural resources.

5B-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 5b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

Because no significant impacts on agricultural resources have been identified, no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
6. Scenic Resources (Plng.)								
Will the proposed project:								
a) Be located within an area that has a scenic resource that is visible from a public viewing location, and physically alter the scenic resource either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects?		X				X		
b) Be located within an area that has a scenic resource that is visible from a public viewing location, and substantially obstruct, degrade, or obscure the scenic vista, either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable future projects?		X				X		
c) Be consistent with the applicable General Plan Goals and Policies for Item 6 of the Initial Study Assessment Guidelines?		X				X		

6. Scenic Resources (Plng.) Impact Discussion:

6a and 6b. The proposed project site does not include any land within the Scenic Resource Protection (SRP) Overlay Zone. The proposed project is located immediately south of PCH (an eligible state scenic highway). The Santa Monica Mountains are located north of PCH. The Santa Monica Mountains consist of sensitive habitats, such as riparian corridors, native chaparral and oak woodlands. Public Resources Code (PRC) Section 30240 requires development in areas adjacent to ESHA be designed to prevent impacts which would significantly degrade those areas. As discussed in Section 4D, ESHA includes coastal dunes, tidepools, wetlands, creek corridors, and certain upland habitats in the Santa Monica Mountains. No ESHA has been identified on the project site. The southernmost portion of the development envelope is 130 feet north of the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2). The Applicant will be required to submit a Lighting Plan, to ensure exterior night lighting is not directed towards the beach and shoreline.

PRC Section 30251 requires permitted development to be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Planning Division staff conducted a site visit on August 21, 2019 and determined that the

proposed project site, may be visible from PCH or along the beach during low tide. The proposed project will not be visible from the nearest trails that are part of the Point Mugu State Park Trail System, including Big Sycamore Canyon Trail and Yellow Hill Trail. In addition, the proposed project site is located greater than 1,000 feet from publicly-owned park lands.

In order to ensure that the proposed development blends in with the natural coastal bluff environment, the project will be conditioned to require that the single-family dwelling and accessory dwelling unit be painted with earth tone colors and non-reflective paints. The proposed project would result in less-than-significant project-specific impacts and would not result in a cumulatively considerable contribution to a significant cumulative impact, related to scenic resources.

6c. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 6 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on scenic resources have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
7. Paleontological Resources								
Will the proposed project:								
a) For the area of the property that is disturbed by or during the construction of the proposed project, result in a direct or indirect impact to areas of paleontological significance?	X					X		
b) Contribute to the progressive loss of exposed rock in Ventura County that can be studied and prospected for fossil remains?	X					X		
c) Be consistent with the applicable General Plan Goals and Policies for Item 7 of the Initial Study Assessment Guidelines?	X					X		

7. Paleontological Resources Impact Discussion:

7a. Paleontological resources are the fossilized remains of ancient plants and animals. The proposed project is within the Topanga Group formation of soils and contains fill soils to an undetermined depth underlain by Miocene Age alluvial terrace deposits of sedentary marine rocks (silty sand with clay binder) (Attachment 6, Schick Geotechnical, Inc., September 2015). In accordance with the Ventura County Initial Study Assessment Guidelines, the Topanga geologic formation is not considered to have a High, or Moderate to High paleontological importance and therefore it is determined that the project will result in no impact to paleontological resources.

Although the proposed project will not result in impacts to paleontological resources, future ground disturbance activities will be subject to a condition of approval to ensure the protection of any subsurface resources that are inadvertently encountered during ground disturbance activities. The Applicant will be required to: (1) stop all work that has the potential to adversely affect paleontological resources; (2) retain a qualified paleontologist or geologist to assess the significance of the find and provide recommendations on the disposition of the resources; and (3) implement any and all measures to protect and curate the resources, subject to the Planning Division's approval.

7b. The proposed project will not contribute to the progressive loss of exposed rock in Ventura County that can be studied and prospected for fossil remains. Therefore, the proposed project will not create a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact to paleontological resources.

7c. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 7 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on paleontological resources have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
8A. Cultural Resources - Archaeological								
Will the proposed project:								
1) Demolish or materially alter in an adverse manner those physical characteristics that account for the inclusion of the resource in a local register of historical resources pursuant to Section 5020.1(k) requirements of Section 5024.1(g) of the Public Resources Code?			X				X	
2) Demolish or materially alter in an adverse manner those physical characteristics of an archaeological resource that convey its archaeological significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA?			X				X	
3) Be consistent with the applicable General Plan Goals and Policies for Item 8A of the Initial Study Assessment Guidelines?			X				X	

8A. Cultural Resources - Archaeological Impact Discussion:

8A-1. and 8A-2. The proposed project is located on a 10,355 square foot portion of a 16,552 square foot lot within the Triunfo 7.5 Minute Series Topographic Quadrangle Maps (USGS, 2015). The project site is presently occupied by an existing single-family dwelling with appurtenant site improvements such as retaining walls, garden walls, perimeter fencing and ornamental landscaping. A review of the project plans and background studies indicate demolition and site grading has the potential to disturb subsurface soils. Subsurface improvements include new friction piles to support the building foundation, installation of the onsite wastewater treatment system (OWTS) and construction of footings for new retaining walls.

The project impact area was evaluated by County Planning Staff to determine the likelihood of the presence of archeological resources at the site. Planning Staff consulted the Resources Appendix of the Ventura County General Plan (Figure 1.8.1) as well as the available records in the County GIS database and permit files. The project site is not located within either the Very Sensitive or Sensitive areas of the Archeological Sensitivity Map. No archaeological surveys have been performed for the subject property.

On July 17, 2019, County Planning staff contacted the South Central Coastal Information Center (SCCIC) to conduct a record search for the project. SCCIC is an affiliate of the State Office of Historic Preservation and the official repository for archaeological records for most of Southern California. SCCIC determined that the archeological sensitivity of the project site is unknown, and the existing conditions of the site do not appear to allow for a survey of the site typically associated with a Phase I Archaeological Resources Report. However, SCCIC did identify the presence of a unique archeological resource within close proximity of the project site. As a result of this review, SCCIC has recommended that a professional archeologist be retained to monitor ground disturbing activities.

In accordance with Public Resources Code Section 21080.3.1 et seq., the County of Ventura Planning Division sent a formal request to representatives of the responsible California Native American tribe for the South Coast. On September 27, 2019, Ms. Julie Tumamait-Stenslie, Chair of the Barbareno-Ventureno Band of Mission Indians conducted consultation with John Oquendo, Project Case Planner. Ms. Tumamait-Stensile recommended that a Native American monitor all ground disturbing activities to occur with the project impact area. This recommendation has been incorporated in the mitigation measure requiring archaeological monitoring.

8A-3. With the implementation of the recommended mitigation measures CULTURAL-1 and CULTURAL 2, the proposed project will be consistent with the applicable *Ventura General Plan Goals and Policies* for Item 8A of the *Ventura Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

Mitigation Measure CULTURAL – 1 (Archaeological Resources)
Purpose: To avoid significant impacts to archeological resources that may exist on the subject property.

Requirement: The Permittee shall retain a Qualified Archaeologist and Native American Monitor to monitor all project-related ground disturbance (including demolition of foundations and tree removal, grading and trenching activities) on the Project site.

Documentation: The Permittee shall submit one copy of a signed contract (financial information redacted) with a Qualified Archeologist and Native American monitor responsible for conducting archeological monitoring for the project site along with a statement of qualifications. The Qualified Archaeologist shall provide a weekly report to the Planning Division summarizing the activities during the reporting period. If no archaeological resources are discovered, the Qualified Archaeologist shall submit a brief letter to the Planning Division, stating that no archaeological resources were discovered and that the monitoring activities have been completed.

Timing: Prior to the issuance of a Zoning Clearance for Construction, the Permittee shall submit the required contracts and statements of qualifications to the Planning Division for

review and approval. The Qualified Archaeologist and Native American monitor shall monitor the Project site during ground disturbance (including demolition of foundations and tree removal), subsurface grading, and trenching. The Qualified Archaeologist and Native American monitor shall submit reports weekly to the Planning Division during all ground disturbance, subsurface grading, and trenching activities.

Monitoring and Reporting: The Planning Division reviews the monitoring reports and maintains the monitoring reports in the Project file. The Qualified Archaeologist and Native American monitor shall monitor the Project site during all ground disturbance, subsurface grading, and trenching. The Planning Division has the authority to conduct site inspections to ensure that the monitoring activities occur in compliance with this condition, consistent with the requirements of Section 8183-5 of the Ventura County Coastal Zoning Ordinance.

Mitigation Measure CULTURAL – 2 (Archaeological Resources Discovered During Grading)

Purpose: In order to mitigate potential impacts to archaeological resources discovered during ground disturbance.

Requirement: The Permittee shall implement the following procedures:

a. If any archaeological or historical artifacts are uncovered during ground disturbance or construction activities, the Permittee shall:

    (1) Cease operations and assure the preservation of the area in which the discovery was made;

    (2) Notify the Planning Director in writing, within three days of the discovery;

    (3) The County-approved archaeologist shall assess the find and provide recommendations on the proper disposition of the site in a written report format;

    (4) Obtain the Planning Director's written concurrence of the recommended disposition of the site before resuming development; and

    (5) Implement the agreed upon recommendations.

b. If any human burial remains are encountered during ground disturbance or construction activities, the Permittee shall:

    (6) Cease operations and assure the preservation of the area in which the discovery was made;

    (2) Immediately notify the County Coroner and the Planning Director;

(3) If the County Coroner determines that human remains are those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact the Native American Heritage Commission by telephone with 24 hours to name a Most Likely Descendant (MLD) for the disposition of the remains;

(4) Upon the discovery of Native American remains, the permittee shall ensure that the immediate vicinity is not damaged or disturbed by further development activity until the permittee has discussed and conferred with the most likely descendants regarding the descendants' preferences and all reasonable options for treatment and disposition of remains, in accordance with Public Resources Code section 5097.98.

(5) Obtain the Planning Director's written concurrence of the recommended disposition of the site before resuming development on-site; and

(6) Implement the agreed upon recommendations.

Documentation: The above measure shall be noted on all grading and construction plans. If archaeological remains are encountered, the Permittee shall submit a report prepared by a County-approved archaeologist including recommendations for the proper disposition of the site. Additional documentation may be required to demonstrate that the Permittee has implemented any recommendations made by the archaeologist's report.

Timing: Prior to the issuance of a Zoning Clearance for construction, the Permittee shall submit a copy of the grading plans which shall include the above required notation. If any archaeological remains are uncovered during ground disturbance or construction activities, the Permittee shall provide the written notification to the Planning Director within three days of the discovery. The Permittee shall submit the archaeological report to the Planning Division immediately upon completion of the report.

Monitoring and Reporting: The Permittee shall provide the archaeological report to the Planning Division to be made part of the Project file. The Permittee shall implement any recommendations made in the archaeological report to the satisfaction of the Planning Director. The archaeologist shall monitor all ground disturbance activities within the area in which the discovery was made, in order to ensure the successful implementation of the recommendations made in the archaeological report. The Planning Division has the authority to conduct site inspections to ensure that the Permittee implements the recommendations set forth in the archaeological report, consistent with the requirements of Section 8183-5 of the Ventura County Coastal Zoning Ordinance.

Residual Impacts:
With the implementation of Mitigation Measures CULTURAL 1 and CULTURAL 2, set forth above, significant project-specific or cumulative impacts related to the demolition or material alteration of the physical characteristics of an archaeological resource would be reduced to a less-than-significant level.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
8B. Cultural Resources – Historic (Plng.)								
Will the proposed project:								
1) Demolish or materially alter in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources?	X				X			
2) Demolish or materially alter in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code?	X				X			
3) Demolish or materially alter in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA?	X				X			
4) Demolish, relocate, or alter an historical resource such that the significance of the historical resource will be impaired [Public Resources Code, Sec. 5020(q)]?	X				X			

8B. Cultural Resources – Historic (Plng.) Impact Discussion:

8B-1. through 8B-4.

The subject property is currently developed with a privately-owned two-story contemporary-style single-family that was constructed in 1982 based on a design from architects Conrad Buff III and Donald Hensman. Hensman and Buff were popular home designers during the 1950s and 1960s. The building is not distinctive within their body of work, nor is it a remarkable example of the contemporary-style. American Jazz musician Miles Davis lived at one time in the home, though his tenancy is not associated with any

significant or important events with respect to his contribution to America's cultural heritage.

The Planning Division reviewed County and State records in accordance with the procedures for the evaluation of potential historic resources. A review of the available records determined that the single-family dwelling is not presently listed on any register of historic resources nor does the project impact area contain any other historically significant structure or object. Cultural Heritage Board Program Staff determined a historic resource report was not necessary and that the building did not meet the definitions of a building of historic merit. The building was evaluated under the criteria defined in the Public Resource Code Section 5024.1 and Title 14 of the California Code of Resources Section 4852 (b) (1) - (4) as well as CEQA Guidelines Section 15064.5. The building is not eligible for listing on the National, State or local register of historic resources. Therefore, demolition of the existing single-family dwelling will not materially impair the significance of a historic resource and will have no impact upon historic cultural resources.

Mitigation/Residual Impact(s)

No significant impacts on historic resources have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
9. Coastal Beaches and Sand Dunes								
Will the proposed project:								
a) Cause a direct or indirect adverse physical change to a coastal beach or sand dune, which is inconsistent with any of the coastal beaches and coastal sand dunes policies of the California Coastal Act, corresponding Coastal Act regulations, Ventura County Coastal Area Plan, or the Ventura County General Plan Goals, Policies and Programs?		X				X		
b) When considered together with one or more recently approved, current, and reasonably foreseeable probable future projects, result in a direct or indirect, adverse physical change to a coastal beach or sand dune?						X		
c) Be consistent with the applicable General Plan Goals and Policies for Item 9 of the Initial Study Assessment Guidelines?		X				X		

9. Coastal Beaches and Sand Dunes Impact Discussion:

9a. through 9b. The proposed project is located adjacent to the beach. Countyline Beach is located 1,100 feet to the east of the project site and designated Coastal Access ways and public beaches are located 550 feet west of the project site. Lateral access along the shoreline is influenced by hightide, making the beach in front of the project site inaccessible during high tide.

The lot is developed with an existing single-family dwelling and accessory improvements that are confined to the first 150 feet of the northern portion of the subject lot. A shade structure is located approximately 142 feet from the beach, and retaining walls, fencing, decking are located approximately 200 feet from the beach, and access stairs (railroad ties) lead all the way down to the beach. The proposed project includes the demolition of all existing improvements and construction of a new single-family dwelling, accessory dwelling unit, and other appurtenant site improvements including the construction of a new onsite wastewater treatment system (OWTS) which will utilize two septic tanks (one 1,000 gallon and one 2,500 gallon), a secondary processor tank and seepage pits (two existing seepage pits and two future seepage pits). Site preparation for the proposed project includes excavation and grading for construction of new retaining walls, the OWTS, and outdoor decking as well as the construction of friction piles for the proposed

structures' foundation system. All proposed development will be setback 130 feet from the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2).

The project was evaluated for Coastal Hazards by the Public Works Agency Watershed Protection District (WPD) in conformance with General Plan Coastal Wave and Beach Erosion Hazards Policy 2.12.2-2, which states:

> *Discretionary development in areas adjacent to coastal beaches shall be allowed only if the Public Works Agency with technical support from the Ventura County Watershed Protection District, determines from the applicant's submitted Wave Run-Up Study that wave action and beach erosion are not hazards to the proposed development, or that the hazard would be mitigated to a less than significant level, and that the project will not contribute significantly to beach erosion.*

A Coastal Engineering Report was prepared for the project which establishes the coastal engineering parameters of the project site (David C. Weiss Structural Engineer & Associates, Inc., August 2016, Attachment 7). The coastal engineering parameters include the base flood elevation – the engineers recommended elevation for the finished floor of the proposed habitable structures, the Design Beach Profile – the lowest profile at the site that the beach is expected to reach under the action of the wave uprush limit, and the Stillwater Level – the elevation of the surface water absent any wave action. The report establishes a base flood elevation for the proposed project of 41.67 NAVD88; the finish floor of the ADU is 41.67 feet and the finished floor of the SFD is 60.167 feet. The Design Beach Profile established in the report will not scour any closer than 246.3 feet from the north right-of-way line at PCH (an elevation of 19.53 above the North American Vertical Datum NAVD88[3]). Finally, the Stillwater Level for this geographic area of Ventura County is +8.0 NAVD88.

The southern extent of the proposed development envelope is approximately 235 feet from PCH right-of-way and approximately 120 feet from the beach. One of the biofiltration planter boxes, a segment of retaining wall, and friction piles located nearest to the ADU are located 11.3 feet landward of the Design Beach Profile. A review of the plans (Attachment 2) and the Coastal Engineering Report, indicate that the proposed project, including the proposed OWTS, will not necessitate the development of shoreline protection devices or the permanent conversion of beach areas through building or structural development. The Coastal Engineering Report also concludes the proposed project will have no adverse impact on the beach profile and no long-term effects on sand supply as the beach receives its sand from various inland areas upstream from the site.

The southern-most portion of the property includes a narrow band of beach that is significantly influenced by the tide. This area does not contain coastal sand dunes. A lateral public access easement is presently located on the subject property, as recorded in Miscellaneous Official Record Book No. 1981 Page 43446 (Instrument Number 1981-

[3] Reference to the North American Vertical Datum of 1988; elevation in feet

05110045504, May 11, 1981). The proposed project is located approximately 130 feet from the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2) and does not encroach into the lateral access easement. Therefore, the project will result in no impact to coastal sand dunes or public recreation.

9c. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 9 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on coastal beaches or sand dunes have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
10. Fault Rupture Hazard (PWA)								
Will the proposed project:								
a) Be at risk with respect to fault rupture in its location within a State of California designated Alquist-Priolo Special Fault Study Zone?	X							
b) Be at risk with respect to fault rupture in its location within a County of Ventura designated Fault Hazard Area?	X							
c) Be consistent with the applicable General Plan Goals and Policies for Item 10 of the Initial Study Assessment Guidelines?	X				X			

10. Fault Rupture Hazard (PWA) Impact Discussion:

Fault rupture hazard will impact each project individually. No cumulative fault rupture hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

10a and 10b. There are no known active or potentially active faults extending through the proposed project based on State of California Earthquake Fault Zones in accordance with the Alquist-Priolo Earthquake Fault Zoning Act, and Ventura County General Plan Hazards Appendix – Figure 2.2.3b. Furthermore, no habitable structures are proposed at this time within 50 feet of a mapped trace of an active fault. There is no impact from potential fault rupture hazard. Additionally, there is no known cumulative fault rupture hazard impact that would occur as a result of other approved, proposed, or probable projects.

10c. The project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 10 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s): No significant impacts on fault rupture hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
11. Ground Shaking Hazard (PWA)								
Will the proposed project:								
a) Be built in accordance with all applicable requirements of the Ventura County Building Code?		X			X			
b) Be consistent with the applicable General Plan Goals and Policies for Item 11 of the Initial Study Assessment Guidelines?	X				X			

11. Ground Shaking Hazard (PWA) Impact Discussion:

The hazards from ground shaking will affect each project individually. No cumulative ground shaking hazard would occur as a result of other projects. Any discussion of potential impacts from ground shaking is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

11a. The property will subject to moderate to strong ground shaking from seismic events on local and regional fault systems. The County of Ventura Building Code adopted from the California Building Code, dated 2019, Chapter 16, Section 1613 requires structures be designed to withstand this ground shaking. The Geologic and Soils Engineering Exploration Report, prepared by Schick Geotechnical, dated September 20, 2015 (Attachment 6), provides the structural seismic design criteria (Page 5-7) for the proposed project and may be required to be updated to the Building Code in effect at the time of building permit issuance. The requirements of the building code will reduce the effects of ground shaking to less than significant.

11b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 11 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on ground shaking hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
12. Liquefaction Hazards (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving liquefaction because it is located within a Seismic Hazards Zone?		X						
b) Be consistent with the applicable General Plan Goals and Policies for Item 12 of the Initial Study Assessment Guidelines?		X			X			

12. Liquefaction Hazards (PWA) Impact Discussion:

The hazards from liquefaction will affect each project individually. No cumulative liquefaction hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

12a. Portions of the subject property are located within a potential liquefaction zone based on the Ventura County General Plan Hazards Appendix – Figure 2.4b. This map is a compilation of the State of California Seismic Hazards Maps for the County of Ventura and was used as the basis for delineating the potential liquefaction hazards within the County. The area of the property where the proposed development will occur is not within the potential liquefaction zone. In this regard the potential hazards resulting from liquefaction are considered less than significant.

12b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 12 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on liquefaction hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
13. Seiche and Tsunami Hazards (PWA)								
Will the proposed project:								
a) Be located within about 10 to 20 feet of vertical elevation from an enclosed body of water such as a lake or reservoir?	X							
b) Be located in a mapped area of tsunami hazard as shown on the County General Plan maps?		X						
c) Be consistent with the applicable General Plan Goals and Policies for Item 13 of the Initial Study Assessment Guidelines?		X			X			

13. Seiche and Tsunami Hazards (PWA) Impact Discussion:

The hazards from seiche and tsunami will affect each project individually. No cumulative seiche and tsunami hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

13a . The site is not located adjacent to a closed or restricted body of water based on aerial imagery review (photos dated October 2017, aerial imagery is under the copyrights of Pictometry, Source: Pictometry©, 2017) and is not subject to seiche hazard. Therefore, the proposed project will not have a project-specific impact related to potential seiche hazard.

13b. The project site is adjacent to the beach and is mapped outside of the tsunami inundation zone based on the *Ventura County General Plan*, Hazards Appendix, Figure 2.6, dated October 22, 2013. The threat to life can be prevented by an effective early warning system. The threat to structures remains despite subject property being located outside of the tsunami inundation zone. However, because of the very low probability of a major tsunamis occurring in Ventura County, it is not reasonable to prohibit development near the coastline. Further, the potential hazard of tsunamis inundation is an accepted risk for development near the coastline. No new proposed habitable structures are located within 130 feet from the October 21, 2014 Mean High Tide Line identified by Land & Air Surveying, Inc (Attachment 2), an area that could be subject to the tsunamis hazard zone. With a very low probability of occurrence, the tsunamis hazard is considered less than significant.

13c. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 13 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant Impacts on tsunami Hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
14. Landslide/Mudflow Hazard (PWA)								
Will the proposed project:								
a) Result in a landslide/mudflow hazard, as determined by the Public Works Agency Certified Engineering Geologist, based on the location of the site or project within, or outside of mapped landslides, potential earthquake induced landslide zones, and geomorphology of hillside terrain?		X						
b) Be consistent with the applicable General Plan Goals and Policies for Item 14 of the Initial Study Assessment Guidelines?		X			X			

14. Landslide/Mudflow Hazard (PWA) Impact Discussion:

The hazards from landslides/mudslides will affect each project individually. No cumulative landslide/mudslide hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

14a. Based on analysis conducted by the California Geological Survey as part of California Seismic Hazards Mapping Act, 1991, Public Resources Code Sections 2690-2699.6, portions of the property are within a potential seismically induced landslide zone. The Geologic and Soils Engineering Exploration Report, prepared by Schick Geotechnical, dated September 20, 2015 (Attachment 6), evaluated the slope stability of the descending slope below the proposed residence and concluded the site grossly stable (page 7 and 8) and the development is free of any potential geologic hazard. The landslide hazard is considered to be less than significant.

14b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 14 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on landslide and mudflow hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
15. Expansive Soils Hazards (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving soil expansion because it is located within a soils expansive hazard zone or where soils with an expansion index greater than 20 are present?		X						
b) Be consistent with the applicable General Plan Goals and Policies for Item 15 of the Initial Study Assessment Guidelines?		X			X			

15. Expansive Soils Hazards (PWA) Impact Discussion:

The hazards from expansive soils will affect each project individually. No cumulative expansive soils hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

15a. The expansion range of the soils in the project area will be mitigated to less than significant by implementation of the Ventura County Building Code. The Engineering Geology and Geotechnical Engineering Report, prepared by Schick Geotechnical, dated September 20, 2015, indicates the residence will be placed on new friction piles to support the building foundation. The piles will be drilled to bedrock and will be below the zone of potential expansive soils. Future development of the site will be subject to the requirements of the County of Ventura Building code adopted from the California Building Code, dated 2019, Section 1803.5.3 that require mitigation of potential adverse effects of expansive soils. The hazard associated with adverse effects of expansive soils is less than significant.

15b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 15 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant Impacts on expansive soil hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
16. Subsidence Hazard (PWA)								
Will the proposed project:								
a) Expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving subsidence because it is located within a subsidence hazard zone?	X							
b) Be consistent with the applicable General Plan Goals and Policies for Item 16 of the Initial Study Assessment Guidelines?	X				X			

16. Subsidence Hazard (PWA) Impact Discussion:

The subsidence hazards will affect each project individually. No cumulative subsidence hazard would occur as a result of other projects. Any discussion of potential impacts of seismic and geologic hazards to the proposed project is provided for informational purposes only and is neither required by CEQA nor subject to its requirements.

16a. The subject property is not within the probable subsidence hazard zone as delineated on the Ventura County General Plan Hazards Appendix, Figure 2.8 (October 22, 2013). In addition, the project is not for oil, gas or groundwater withdrawal, therefore, the project is considered to have no impact on the hazard of subsidence.

16b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 16 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on subsidence hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
17a. Hydraulic Hazards – Non-FEMA (PWA)								
Will the proposed project:								
1) Result in a potential erosion/siltation hazard and flooding hazard pursuant to any of the following documents (individually, collectively, or in combination with one another): • 2007 Ventura County Building Code Ordinance No.4369 • Ventura County Land Development Manual • Ventura County Subdivision Ordinance • Ventura County Coastal Zoning Ordinance • Ventura County Non-Coastal Zoning Ordinance • Ventura County Standard Land Development Specifications • Ventura County Road Standards • Ventura County Watershed Protection District Hydrology Manual • County of Ventura Stormwater Quality Ordinance, Ordinance No. 4142 • Ventura County Hillside Erosion Control Ordinance, Ordinance No. 3539 and Ordinance No.		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 17A of the Initial Study Assessment Guidelines?		X				X		

17a. Hydraulic Hazards – Non-FEMA (PWA) Impact Discussion:

17a-1. The proposed project will result in an increase in impervious area. The area of impervious hardscape includes the roof of the proposed structures and decks and areas surrounding the proposed buildings. To offset the additional runoff from the developed to the pre-developed condition, the project is being designed with stormwater control measures, planter boxes with controlled outlets, as indicated in the Hydrology and

Hydraulic Calculations, prepared by Amit Apel Design dated June 20, 2019 (Attachment 5), to reduce any increase in post development runoff to pre-development rates and amounts. According to the report, rainfall runoff from a design storm event (a volume of runoff from the 100-year storm event) will be directed to the biofiltration planter for approximately seven hours of percolation through the active filtration media. The treated runoff exits the bottom of the planter and sheet flows across the descending slope at a rate equal to or less than the existing flow rate of the property. Proposed development will be constructed in accordance with current codes and standards, which require that there is no increase in flooding hazard and no increase in the potential for erosion or siltation.

17a-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 17a of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on non-FEMA hydraulic hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
17b. Hydraulic Hazards – FEMA (WPD)								
Will the proposed project:								
1) Be located outside of the boundaries of a Special Flood Hazard Area and entirely within a FEMA-determined 'X-Unshaded' flood zone (beyond the 0.2% annual chance floodplain: beyond the 500-year floodplain)?		X				X		
2) Be located outside of the boundaries of a Special Flood Hazard Area and entirely within a FEMA-determined 'X-Shaded' flood zone (within the 0.2% annual chance floodplain: within the 500-year floodplain)?		X				X		
3) Be located, in part or in whole, within the boundaries of a Special Flood Hazard Area (1% annual chance floodplain: 100-year), but located entirely outside of the boundaries of the Regulatory Floodway?		X				X		
4) Be located, in part or in whole, within the boundaries of the Regulatory Floodway, as determined using the 'Effective' and latest available DFIRMs provided by FEMA?		X				X		
5) Be consistent with the applicable General Plan Goals and Policies for Item 17B of the Initial Study Assessment Guidelines?		X				X		

17b. Hydraulic Hazards – FEMA (WPD) Impact Discussion:

17b-1 through 17b-4. The proposed project is located at the northern half of the property at 41700 Pacific Coast Highway, Malibu CA and is in a FEMA "X" Unshaded Zone" (+500-year floodplain). The southern part of the property is located in a FEMA coastal "VE" zone (El. 14 feet) as well as a "AE" Zone (Elevation 14 feet) as shown in the effective FEMA Flood Insurance Rate Map (FIRM) No. 06111C1140E (January 20, 2010). The proposed project is also located outside the preliminary coastal flood hazard zones as defined on the preliminary FEMA FIRM map (No. 06111C1137F) issued September 30, 2016 on which no significant changes were made to floodplain boundaries but the Base Flood Elevation (BFE) was changed from 14 feet to 19 feet.

A Coastal Engineering Report, prepared by David C. Weiss Structural Engineer & Associates, Inc., dated August 2016, and amended on October 9, 2018 (Attachment 7), includes an analysis of Sea Level Rise (SLR). The report concluded that with 2 feet of

SLR expected during the 75 years of the project life, a wave runup elevation of 20 feet is expected. With the proposed first floor elevation of 41.67 feet, the proposed project is outside of the wave runup floodplain boundaries. A Floodplain Development Permit is not required however, a Floodplain Clearance will be required prior to issuance of a zoning clearance. The proposed project will not result in project-related impacts related to flooding or contribute to cumulative impacts related to flooding.

17B-5. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 17B of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on FEMA hydraulic hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
18. Fire Hazards (VCFPD)								
Will the proposed project:								
a) Be located within High Fire Hazard Areas/Fire Hazard Severity Zones or Hazardous Watershed Fire Areas?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 18 of the Initial Study Assessment Guidelines?		X				X		

18. Fire Hazards (VCFPD) Impact Discussion:

18a. The proposed project is located within a High Fire Hazard Area. Fire Station 56, located at 11855 Pacific Coast Highway, in Malibu, is approximately 160 feet northeast of the project site. The proposed project will comply with all applicable Federal and State regulations and the requirements of the Ventura County Building Code and Ventura County Fire Code. The proposed project will be subject to conditions of approval to ensure the project is in conformance with current California State Law and the Ventura County Fire Code. Therefore, the proposed project will result in less-than-significant project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative fire hazards impact.

18b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 18 of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts on fire hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
19. Aviation Hazards (Airports)								
Will the proposed project:								
a) Comply with the County's Airport Comprehensive Land Use Plan and pre-established federal criteria set forth in Federal Aviation Regulation Part 77 (Obstruction Standards)?	X				X			
b) Will the proposed project result in residential development, a church, a school, or high commercial business located within a sphere of influence of a County airport?	X				X			
c) Be consistent with the applicable General Plan Goals and Policies for Item 19 of the Initial Study Assessment Guidelines?	X				X			

19. Aviation Hazards (Airports) Impact Discussion:

19a. and19.b. The project site is not located within the sphere of influence of Oxnard, Camarillo, Santa Paula, or Naval Base Ventura County airports. The nearest airport is the Naval Base Mugu Airport, which is located approximately 11 miles to the west of the project site. The proposed project will not involve any obstructions to navigable airspace, as all on-site proposed and reasonably foreseeable future development will be limited to a maximum height of 25 feet. Therefore, the proposed project will comply with the County's Airport Comprehensive Land Use Plan and pre-established deferral criteria set forth in the Federal Aviation Regulation Part 77 (Obstruction Standards). The proposed project will not have a significant project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact related to aviation hazards.

19c. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 19 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on aviation hazards have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
20a. Hazardous Materials/Waste – Materials (EHD/Fire)								
Will the proposed project:								
1) Utilize hazardous materials in compliance with applicable state and local requirements as set forth in Section 20a of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 20a of the Initial Study Assessment Guidelines?	X				X			

20a. Hazardous Materials/Waste – Materials (EHD/Fire) Impact Discussion:

20a-1. The proposed project is a residential development and will not utilize hazardous materials which require permitting or inspection from Ventura County Environmental Health Division/Certified Unified Program Agency. Therefore, the proposed project will not have a significant project-specific impact to hazardous materials/waste. The proposed project will not make a cumulatively considerable contribution to a significant cumulative hazardous materials/waste impact.

20a-2. The proposed project will be consistent with the *Ventura County General Plan Goals and Policies* for Item 20a of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant Impacts on hazardous materials/waste (EHD/Fire) have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
20b. Hazardous Materials/Waste – Waste (EHD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Comply with applicable state and local requirements as set forth in Section 20b of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 20b of the Initial Study Assessment Guidelines?	X				X			

20b. Hazardous Materials/Waste – Waste (EHD) Impact Discussion:

20b-1. The proposed project is not considered an activity that generates hazardous waste. Therefore, the proposed project will not have a significant project-specific impact related to hazardous materials/waste. The proposed project will not have any project-specific or cumulative impacts relative to hazardous wastes.
20b-2. The proposed project is consistent with the *Ventura County General Plan Goals and Policies* for Item 20b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on hazardous materials/waste (EHD) have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
21. Noise and Vibration								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Either individually or when combined with other recently approved, pending, and probable future projects, produce noise in excess of the standards for noise in the Ventura County General Plan Goals, Policies and Programs (Section 2.16) or the applicable Area Plan?		X				X		
b) Either individually or when combined with other recently approved, pending, and probable future projects, include construction activities involving blasting, pile-driving, vibratory compaction, demolition, and drilling or excavation which exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment (Section 12.2)?		X				X		
c) Result in a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1 (Initial Study Assessment Guidelines, Section 21)?	X				X			
d) Generate new heavy vehicle (e.g., semi-truck or bus) trips on uneven roadways located within proximity to sensitive uses that have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria of the Transit Use Thresholds for rubber-tire heavy vehicle uses (Initial Study Assessment Guidelines, Section 21-D, Table 1, Item No. 3)?	X				X			
e) Involve blasting, pile-driving, vibratory compaction, demolition, drilling, excavation, or other similar types of vibration-generating activities which have the potential to either individually or when combined with other recently approved, pending, and probable future projects, exceed the threshold criteria provided in the Transit Noise and Vibration Impact Assessment [Hanson, Carl E., David A. Towers, and Lance D. Meister. (May 2006) Section 12.2]?		X				X		

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
f) Be consistent with the applicable General Plan Goals and Policies for Item 21 of the Initial Study Assessment Guidelines?		X				X		

21. Noise and Vibration Impact Discussion:

21a.. In order to determine whether a project will result in a significant noise impact, the Ventura County Initial Study Assessment Guidelines set forth standards to determine whether the proposed use is a "noise sensitive use" or a "noise generator." Noise sensitive uses include, but are not limited to, dwellings, schools, hospitals, nursing homes, churches and libraries. The proposed project, consisting of a single-family dwelling unit and an ADU, is considered a noise sensitive use.

The proposed project is located adjacent to State Route 1 (PCH), a noise generator, and is within the CNEL 60dB(A) noise contour [Resource Management Agency Geographic Information System (RMA GIS) Viewer, Noise Contour Maps, 2018]. Therefore, proposed and future residential uses will be subject to noise levels from traffic along State Route 1, which are incompatible with residential uses.

The northern elevation of the proposed single-family dwelling (facing State Route 1) includes a front entry. An attached two-car garage is located on the western side of the entryway. Outdoor living areas are located on the western side of the residence and south of the ADU. A proposed pool is located south of the living room and west of the dining room and the back yard leading to the beach is located in the southern portion of the lot. The proposed residence will provide a buffer between PCH and outdoor living areas. Additionally, to address potential noise impacts from State Route 1, the proposed project will be subject to standard conditions of approval which requires the integration of noise attenuation features such as dual-paned windows and insulated doors that reduce the interior noise level of the proposed buildings below the noise standards contained within the *Ventura County General Plan*.

The proposed project site is not located near any railroads or airports (both of which are approximately nine miles and 12 miles away, respectively). Therefore, the proposed project will not be subject to unacceptable levels of noise from these noise generators.

21b. and 25e. The proposed project is not considered a noise-generating land use that will adversely impact nearby noise sensitive uses (e.g. existing surrounding residences). However, the proposed project will involve noise-generating construction activities that have the potential to adversely affect surrounding residential uses. Construction activities may include blasting, pile-driving vibratory compaction, demolition, drilling, excavation, or other similar types of noise/vibration-generating activities that may temporarily exceed

the threshold criteria defined in the Transit Noise and Vibration Impact Assessment (written by Carl Hanson, David Towers, and Lance Meister, dated May 2006, Initial Study Assessment Guidelines, page 119). Therefore, pursuant to the requirements of the *Ventura County Construction Noise Threshold Criteria and Control Plan*, the proposed project will be subject to a condition of approval to limit noise generating activities to the days and times when construction is least likely to adversely affect surrounding residential uses. Additionally, a contact person responsible for addressing complaints will be designated by the Applicant prior to commencement of construction. Therefore, the proposed project will have a less-than-significant project-specific vibratory impact and will not make a cumulatively considerable contribution to a significant cumulative vibratory impact, related to vibration-generating activities.

21c. The proposed project does not involve the creation of a vibration-generating transit use. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to the creation of a transit use located within any of the critical distances of the vibration-sensitive uses listed in Table 1 of the *Ventura County Initial Study Assessment Guidelines* (Section 21).

21d. The project has direct access to PCH, an existing paved road. The project does not involve the use of semi-trucks or buses. Therefore, the proposed project will not have a project-specific vibratory impact and will not make a cumulatively considerable contribution to a significant cumulative vibratory impact related to the use of rubber-tire heavy vehicle uses.

21f. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 21 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on noise and vibration caused by the project have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
22. Daytime Glare								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Create a new source of disability glare or discomfort glare for motorists travelling along any road of the County Regional Road Network?	X				X			
b) Be consistent with the applicable General Plan Goals and Policies for Item 22 of the Initial Study Assessment Guidelines?	X				X			

22. Daytime Glare Impact Discussion:

22a. The proposed project is located adjacent to PCH and has the potential to result in impacts related to the hazard category for daytime glare. Review of the project plans (Attachment 2) indicate that the proposed structures incorporate a variety of materials including reflective and non-reflective materials that will not create a significant new source of daytime glare. Reflective surfaces, such as windows, are located on the elevations potentially visible from PCH. The project may also include site lighting when completed. Reflective surface such as glass for windows and lighting have the potential to create disability glare or discomfort glare for motorists traveling on PCH. Views into the property will be obscured by the grade difference between the property and the adjacent roadway and existing landscaping adjacent to the PCH which will remain in place once the home is constructed. The finished grade of the project will be located approximately 8 feet below the grade for PCH, so only the second level of the principle structure is expected to be potentially visible visible to motorists. Existing landscaping located adjacent to the shoulder of PCH is comprised of mature and dense evergreen shrubs which was observed during a site visit conducted for the project. This landscaping obscures views into the property. The applicant will be required to implement conditions of approval requiring the submittal of a schedule building materials and a lighting plan prior to construction document submittal. The project-related impacts are less than significant

22b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 22 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on daytime glare have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
23. Public Health (EHD)								
Will the proposed project:								
a) Result in impacts to public health from environmental factors as set forth in Section 23 of the Initial Study Assessment Guidelines?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 23 of the Initial Study Assessment Guidelines?		X				X		

23. Public Health (EHD) Impact Discussion:

23a. The proposed project has the potential to impact public health due to the use of onsite wastewater treatment systems (OWTS). An OWTS that is undersized, improperly installed, failing, or poorly maintained has the potential to create a public nuisance and/or contaminate groundwater. Potential impacts can be reduced to less than significant with adherence to state and local OWTS regulations and proper maintenance of tanks and disposal fields. The septic tank must be pumped by a Ventura County EHD permitted pumper truck and septage wastes must be disposed of in an approved manner.

23b. The proposed project will be consistent with the *Ventura County General Plan Goals and Policies* for Item 23 of the *Ventura County Initial Study Assessment Guidelines*, provided the onsite wastewater treatment system is properly installed and maintained so as not to contaminate groundwater or create a public nuisance.

Mitigation/Residual Impact(s)

No significant impacts on public health have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
24. Greenhouse Gases (VCAPCD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Result in environmental impacts from greenhouse gas emissions, either project specifically or cumulatively, as set forth in CEQA Guidelines §§ 15064(h)(3), 15064.4, 15130(b)(1)(B) and -(d), and 15183.5?		X				X		

24. Greenhouse Gases (VCAPCD) Impact Discussion:

24a. The Ventura County Air Pollution Control District has not yet adopted any approach to setting a threshold of significance for land use development projects in the area of project greenhouse gas emissions. Furthermore, the amount of greenhouse gases anticipated from the project will be a small fraction of the levels being considered by the APCD for greenhouse gas significance thresholds and far below those adopted to date by any air district in the state. Therefore, the project specific and cumulative impacts to greenhouse gases are less than significant.

Mitigation/Residual Impact(s)

No significant impacts on greenhouse gases have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
25. Community Character (Plng.)								
Will the proposed project:								
a) Either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable probable future projects, introduce physical development that is incompatible with existing land uses, architectural form or style, site design/layout, or density/parcel sizes within the community in which the project site is located?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 25 of the Initial Study Assessment Guidelines?	X				X			

25. Community Character (Plng.) Impact Discussion:

25a. The project site is within the Existing Community land use designation of the Ventura County General Plan, the Residential Medium (2.1-6 dwelling units per acre) land use designation of the Coastal Area Plan, and zoned Coastal Residential Planned Development (CRPD). The proposed project is consistent with the land use and maximum building density requirements of the General Plan and Coastal Area Plan. The proposed project does not include any request to amend the land use designations or zoning for the site. The adjacent properties possess the same land use designation and zoning and are occupied by similar single-family development.

The proposed project includes the construction of a single-family dwelling with an accessory dwelling unit and appurtenant site improvements which include new patios/decking, retaining walls, a pool, and an onsite wastewater treatment system. The proposed project has been evaluated for conformance with applicable requirements of the Ventura County CZO for the construction of a new single-family dwelling and accessory dwelling unit, including building setbacks, height limits, and other development standards for new residences. Additionally, as discussed in Section 6 (above), the proposed project will be conditioned to require the Applicant to submit plans and a materials sample/color board for the new single-family dwelling to the Planning Division for review and approval, prior to issuance of a Zoning Clearance for the construction to ensure the proposed residence is compatible with the natural environment of coastal beach area. Therefore, the project-specific community character impact will be less-than-significant, and the proposed project will not make a cumulatively considerable contribution to significant community character impacts.

25b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 25 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on community character have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	**Project Impact Degree Of Effect****				**Cumulative Impact Degree Of Effect****			
	N	LS	PS-M	PS	N	LS	PS-M	PS
26. Housing (Plng.)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Eliminate three or more dwelling units that are affordable to: • moderate-income households that are located within the Coastal Zone; and/or, • lower-income households?	X				X			
b) Involve construction which has an impact on the demand for additional housing due to potential housing demand created by construction workers?		X				X		
c) Result in 30 or more new full-time-equivalent lower-income employees?	X				X			
d) Be consistent with the applicable General Plan Goals and Policies for Item 26 of the Initial Study Assessment Guidelines?	X				X			

26. Housing (Plng.) Impact Discussion:

26a. The proposed project includes the demolition of an existing single-family dwelling. The unit is presently occupied by the property owner. The proposed demolition does propose the demolition of three or more moderate- or low-income dwelling units. Therefore, the proposed project will not have a significant project-specific impact to the loss of affordable housing. The proposed project will not make a cumulatively considerable contribution to a significant cumulative affordable housing impact.

26b. As stated in the *Ventura County Initial Study Assessment Guidelines*, any project that involves construction has an impact on the demand for additional housing due to potential housing demand created by construction workers. However, construction worker demand is a less than significant project-specific and cumulative impact because construction work is short-term and there is a sufficient pool of construction workers within Ventura County and the Los Angeles metropolitan regions. Therefore, the proposed project will have a less-than-significant project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to the demand for construction worker housing.

26c. The proposed single-family dwelling will not result in 30 or more new full-time-equivalent lower-income employees, as the proposed residential project would not facilitate the development of a new commercial, institutional, industrial, or other

employment-generating use on the subject property. Therefore, the proposed project will not create a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to the demand for housing for employees associated with commercial or industrial development.

26d. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 26 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on housing have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(1). Transportation & Circulation - Roads and Highways - Level of Service (LOS)								
Will the proposed project:								
a) Cause existing roads within the Regional Road Network or Local Road Network that are currently functioning at an acceptable LOS to function below an acceptable LOS?		X				X		

27a(1). Transportation & Circulation - Roads and Highways - Level of Service (LOS) (PWA) Impact Discussion:

27a(1)-a. The project, as proposed, does not have the potential to generate additional traffic on local public roads and the Regional Road Network. Therefore, adverse traffic impacts relating to Level of Service (LOS) of County roads will be less than significant.

Mitigation/Residual Impact(s)

No significant impacts on level of service have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(2). Transportation & Circulation - Roads and Highways - Safety and Design of Public Roads (PWA)								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Will the proposed project:								
a) Have an Adverse, Significant Project-Specific or Cumulative Impact to the Safety and Design of Roads or Intersections within the Regional Road Network (RRN) or Local Road Network (LRN)?		X				X		

27a(2). Transportation & Circulation - Roads and Highways - Safety and Design of Public Roads (PWA) Impact Discussion:

27a(2)-a. The project, as proposed, does not have the potential to generate additional traffic on local public roads and the Regional Road Network. The project does not have the potential to alter the safety and design of roadways and intersections near the project. Therefore, impacts related to safety/design of County roads will be less than significant.

Mitigation/Residual Impact(s)

No significant impacts on level of service have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(3). Transportation & Circulation - Roads & Highways – Safety & Design of Private Access (VCFPD)								
a) If a private road or private access is proposed, will the design of the private road meet the adopted Private Road Guidelines and access standards of the VCFPD as listed in the Initial Study Assessment Guidelines?	X				X			
b) Will the project be consistent with the applicable General Plan Goals and Policies for Item 27a(3) of the Initial Study Assessment Guidelines?	X				X			

27a(3). Transportation & Circulation - Roads & Highways – Safety & Design of Private Access (VCFPD) Impact Discussion:

27a(3)-a. There are no private roads proposed. The proposed project will access the site via an existing driveway which connects to PCH. No changes to the offsite portions of the driveway or its entrance at PCH are proposed with this project. Current site access to the site meets VCFPD standards. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, regarding private roads and the safety and design of private access.

27a(3)-b. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27a(3) of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on private roads or private access have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27a(4). Transportation & Circulation - Roads & Highways - Tactical Access (VCFPD)								
Will the proposed project:								
a) Involve a road or access, public or private, that complies with VCFPD adopted Private Road Guidelines?	X				X			
b) Be consistent with the applicable General Plan Goals and Policies for Item 27a(4) of the Initial Study Assessment Guidelines?	X				X			

27a(4). Transportation & Circulation - Roads & Highways - Tactical Access (VCFPD) Impact Discussion:

27a(4)-a. The proposed project does not propose any new access roads. An existing private driveway which presently accesses PCH will continue to serve the proposed project. The existing site access meets the tactical access requirements of the VCFPD. Additionally, the Applicant will be responsible for complying with the standard requirements of the VCFPD via conditions of approval. Therefore, adverse impacts relating to access for firefighting purposes will be less-than-significant and would not

make a cumulatively considerable contribution to a significant cumulative impact on tactical access.

27a(4)-b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27a(4) of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on tactical access have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27b. Transportation & Circulation - Pedestrian/Bicycle Facilities (PWA/Plng.)								
Will the proposed project:								
1) Will the Project have an Adverse, Significant Project-Specific or Cumulative Impact to Pedestrian and Bicycle Facilities within the Regional Road Network (RRN) or Local Road Network (LRN)?		X				X		
2) Generate or attract pedestrian/bicycle traffic volumes meeting requirements for protected highway crossings or pedestrian and bicycle facilities?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 27b of the Initial Study Assessment Guidelines?	X				X			

27b. Transportation & Circulation - Pedestrian/Bicycle Facilities (PWA/Plng.) Impact Discussion:

27b-1. and 27b-2. The proposed project will not generate additional bicycle and pedestrian traffic on the County of Ventura Regional Road Network and local public roads. There are no pedestrian or bicycle crossings located in the vicinity of this portion of PCH. Furthermore, the most appropriate County road standard for roadways in rural areas does not require pedestrian facilities (sidewalks) and/or bicycle facilities (bike lanes). Therefore, the proposed project will not have a project-specific adverse impact and will

not make a cumulatively considerable contribution to a significant cumulative impact to pedestrian and bicycle facilities/traffic.

27b-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on pedestrian/bicycle facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27c. Transportation & Circulation - Bus Transit								
Will the proposed project:								
1) Substantially interfere with existing bus transit facilities or routes, or create a substantial increase in demand for additional or new bus transit facilities/services?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27c of the Initial Study Assessment Guidelines?	X				X			

27c. Transportation & Circulation - Bus Transit Impact Discussion:

27c-1. According to the Ventura County Initial Study Assessment Guidelines (p. 173), a project will normally have a significant impact on bus transit if it would substantially interfere with existing bus transit facilities or routes, or if it would create a substantial increased demand for additional or new bus transit facilities/services. However, only projects that can be expected to generate more than 100 daily vehicle trips (10 single family housing units or equivalent traffic generation) will require an evaluation of the specific project impacts through either consultation with the appropriate transit service provider or separate analysis performed by the Applicant. Projects not generating more than 100 trips can be expected to result in no impacts to bus transit.

The proposed project site is not located within proximity to any bus transit facilities or routes with which it could interfere. Moreover, the proposed project consists of the construction of one new single-family dwelling and an accessory dwelling unit. The proposed project will not result in a net increase in demand for bus transit facilities and

will not exceed the threshold requiring a transit analysis. Therefore, the proposed project will not have a project-specific impact on bus transit facilities/services and will not make a cumulatively considerable contribution to a significant cumulative impact related to bus transit facilities/services.

27c-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27c of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on bus transit facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27d. Transportation & Circulation - Railroads								
Will the proposed project:								
1) Individually or cumulatively, substantially interfere with an existing railroad's facilities or operations?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27d of the Initial Study Assessment Guidelines?	X				X			

27d. Transportation & Circulation - Railroads Impact Discussion:

27d-1. The proposed project site is located approximately 11 miles from the nearest railroad line and would not interfere with an existing railroad's facilities or operations. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to railroad facilities or operations.

27d-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27d of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on railroad facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27e. Transportation & Circulation – Airports (Airports)								
Will the proposed project:								
1) Have the potential to generate complaints and concerns regarding interference with airports?		X				X		
2) Be located within the sphere of influence of either County operated airport?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 27e of the Initial Study Assessment Guidelines?	X				X			

27e. Transportation & Circulation – Airports (Airports) Impact Discussion:

27e-1. and 27e-2. The project site is located approximately 11 miles southeast from the nearest airport, Naval Base Mugu Airport, and is not located within a sphere of influence of any County-operated airport. Furthermore, the proposed single-family dwelling will not exceed the maximum height of 25 feet in compliance with the Ventura County CZO and will not involve the introduction of substantial lighting or other features that could interfere with air traffic safety. Additionally, potential impacts from glare will be mitigated to a less-than-significant level by implementing mitigation measure BIO-1 which requires the Permittee to provide a lighting plan to the Planning Division for review and approval, as well as a recommended condition of approval requiring the Permittee to submit a materials sample/color board for the construction of residential dwelling and accessory dwelling unit. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to interference with airports.

27e-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27e of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on airports have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27f. Transportation & Circulation - Harbor Facilities (Harbors)								
Will the proposed project:								
1) Involve construction or an operation that will increase the demand for commercial boat traffic and/or adjacent commercial boat facilities?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27f of the Initial Study Assessment Guidelines?	X				X			

27f. Transportation & Circulation - Harbor Facilities (Harbors) Impact Discussion:

27f-1. The project site is located approximately 16 miles from the nearest harbor, Port of Hueneme. The proposed project will not result in an increase in demand for commercial boat traffic. Therefore, the proposed project will not have a project-specific adverse impact and will not make a cumulatively considerable contribution to a significant cumulative impact, related to existing harbor facilities or operations.

27f-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27f of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on harbor facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
27g. Transportation & Circulation - Pipelines								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Substantially interfere with, or compromise the integrity or affect the operation of, an existing pipeline?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 27g of the Initial Study Assessment Guidelines?	X				X			

27g. Transportation & Circulation - Pipelines Impact Discussion:

27g-1. The project site is not located in proximity to any existing pipelines (RMA GIS Viewer, 2018). The nearest pipeline is located approximately 12.5 miles north of the project site. Therefore, the proposed project will not result in a project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative impact related to pipelines.

27g-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 27g of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on pipeline facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28a. Water Supply – Quality (EHD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Comply with applicable state and local requirements as set forth in Section 28a of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 28a of the Initial Study Assessment Guidelines?	X				X			

28a. Water Supply – Quality (EHD) Impact Discussion:

28a-1. Domestic water supply for the proposed project will be provided by Yerba Buena Water Company. The existing metered water connection for the property was verified by a water bill dated May 2015. No impacts are anticipated upon water quality supply. Yerba Buena Water Company will be responsible for the implementation of all local and state requirements for domestic water supply quality. The proposed project will also utilize an OWTS for domestic sewage disposal. The use of an OWTS has the potential to contaminate groundwater supplies. Conformance with the Ventura County Building Code will reduce any project-specific and cumulative impacts to a less-than-significant level. The proposed project will not have any project-specific or cumulative impacts to the domestic water supply.

28a-2. The proposed project is consistent with the *Ventura County General Plan Goals and Policies* for Item 28a of the *Ventura County Initial Study Assessment Guidelines* regarding permanent domestic water supply.

Mitigation/Residual Impact(s)

No significant impacts on water supply quality have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28b. Water Supply – Quantity (WPD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Have a permanent supply of water?		X				X		
2) Either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable probable future projects, introduce physical development that will adversely affect the water supply - quantity of the hydrologic unit in which the project site is located?		X				X		
3) Be consistent with the applicable General Plan Goals and Policies for Item 28b of the Initial Study Assessment Guidelines?		X				X		

28b. Water Supply – Quantity (WPD) Impact Discussion:

28b-1. Water for the site is currently provided by the Yerba Buena Water Company as evidenced by a water utility bill submitted by the applicant, demonstrating a permanent water supply for the proposed project. The project applicant proposes to continue the use of water supplied from Yerba Buena Water Company and is considered to have a less than significant impact to water supply.

28b-2. The proposed project will not, either individually or cumulatively when combined with recently approved, current, and reasonably foreseeable probable future projects, introduce physical development that would adversely affect the water supply quantity and is considered to have a less than significant impact.

28b-3. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 28b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on water supply quantity have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
28c. Water Supply - Fire Flow Requirements (VCFPD)								
Will the proposed project:								
1) Meet the required fire flow?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 28c of the Initial Study Assessment Guidelines?	X				X			

28c. Water Supply - Fire Flow Requirements (VCFPD) Impact Discussion:

28c-1. The project is served by Yerba Buena Water Company, a water purveyor that can provide the required fire flow in accordance with the Ventura County Water Works Manual and VCFPD Fire Code. Therefore, fire flow impacts would be less-than-significant, and the project will not make a cumulatively considerable contribution to a significant cumulative impact related to fire flow.

28c-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 28C of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on water supply fire flow requirements have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29a. Waste Treatment & Disposal Facilities - Individual Sewage Disposal Systems (EHD)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Comply with applicable state and local requirements as set forth in Section 29a of the Initial Study Assessment Guidelines?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 29a of the Initial Study Assessment Guidelines?		X				X		

29a. Waste Treatment & Disposal Facilities - Individual Sewage Disposal Systems (EHD) Impact Discussion:

29a-1. The proposed project includes the construction of a new single-family residence and new accessory dwelling unit (ADU) which will both utilize a new onsite wastewater treatment system (OWTS) for domestic wastewater disposal. The Geologic Report prepared by Schick Geotechnical, Inc., dated September 27, 2018 (Attachment 8), indicates the site is suitable for an alternate septic system and proposes an OWTS consisting of one 2,500-gallon septic tank serving the main residence, one 1,000-gallon septic tank serving the ADU, a Septitech STAAR 1.0 nitrate removal device, and two new seepage pits. Septic feasibility has been demonstrated. A complete and detailed evaluation of the proposed OWTS shall be conducted by Environmental Health Division (EHD) Liquid Waste Program staff during the plan review and construction permitting process. EHD Liquid Waste Program staff shall review and verify all relevant documentation, including but not limited to the geotechnical report, system design calculations, compliance with local building codes, and historic geological data for the area. Conformance with the County Building Code, state OWTS policy, EHD guidelines and the EHD Local Agency Management Program, as well as proper routine maintenance of OWTS, will reduce any project-specific and cumulative impacts to a level considered less than significant.

29a-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 29a of the *Ventura County Initial Study Assessment Guidelines*, provided the septic systems are properly installed and maintained so as not to contaminate groundwater or create a public nuisance.

Mitigation/Residual Impact(s)

No significant impacts related to individual sewage disposal systems have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29b. Waste Treatment & Disposal Facilities - Sewage Collection/Treatment Facilities (EHD)								
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 29b of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 29b of the Initial Study Assessment Guidelines?	X				X			

29b. Waste Treatment & Disposal Facilities - Sewage Collection/Treatment Facilities (EHD) Impact Discussion:

29b-1. The proposed project will utilize an onsite wastewater treatment system and will not require connection to a sewage collection facility at this time. The project will not have any project-specific or cumulative impacts to a sewage collection facility.

29b-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 29b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to sewage collection/treatment facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29c. Waste Treatment & Disposal Facilities - Solid Waste Management (PWA)								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
1) Have a direct or indirect adverse effect on a landfill such that the project impairs the landfill's disposal capacity in terms of reducing its useful life to less than 15 years?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 29c of the Initial Study Assessment Guidelines?		X				X		

29c. Waste Treatment & Disposal Facilities - Solid Waste Management (PWA) Impact Discussion:

29c-1. and 29c-2. As required by California Public Resources Code (PRC) 41701, Ventura County's Countywide Siting Element (CSE), adopted in June 2001 and updated annually, confirms Ventura County has at least 15 years of disposal capacity available for waste generated by in-County projects. Because the County currently exceeds the minimum disposal capacity required by state PRC, the proposed project will have less than a significant project-specific impacts upon Ventura County's solid waste disposal capacity. Ventura County Ordinance 4421 requires all discretionary permit applicants whose proposed project includes construction and/or demolition activities to reuse, salvage, recycle, or compost a minimum of 65% of the solid waste generated by their project. The IWMD's waste diversion program (Form B Recycling Plan/Form C Report) ensures this 65% diversion goal is met prior to issuance of a final zoning clearance for use inauguration or occupancy, consistent with the Ventura County General Plan's Waste Treatment and Disposal Facility Goals 4.4.1-1 and -2 and Policies 4.4.2-1, -2, and -6. Therefore, the proposed project will have less than significant project-specific impacts and will not make a cumulatively considerable contribution to significant cumulative impacts related to the Ventura County General Plan's goals and policies for solid waste disposal capacity.

The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 29c of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts related to solid waste management have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
29d. Waste Treatment & Disposal Facilities - Solid Waste Facilities (EHD)								
Will the proposed project:								
1) Comply with applicable state and local requirements as set forth in Section 29d of the Initial Study Assessment Guidelines?	X				X			
2) Be consistent with the applicable General Plan Goals and Policies for Item 29d of the Initial Study Assessment Guidelines?	X				X			

29d. Waste Treatment & Disposal Facilities - Solid Waste Facilities (EHD) Impact Discussion:

29d-1. The proposed project does not include a solid waste operation or facility. The project will not have any project-specific or make a cumulatively considerable contribution to a significant cumulative impact, related to a solid waste facilities.

29d-2. The proposed project is consistent with the applicable *Ventura County General Plan* Goals and Policies for Item 29d of the *Ventura County Initial Study Assessment Guidelines.*

Mitigation/Residual Impact(s)

No significant impacts related to solid waste facilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
30. Utilities								
Will the proposed project:								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
a) Individually or cumulatively cause a disruption or re-routing of an existing utility facility?		X				X		
b) Individually or cumulatively increase demand on a utility that results in expansion of an existing utility facility which has the potential for secondary environmental impacts?		X				X		
c) Be consistent with the applicable General Plan Goals and Policies for Item 30 of the Initial Study Assessment Guidelines?		X				X		

30. Utilities Impact Discussion:

30a. The project site is currently served with electricity provided by Southern California Edison. The site is also served for water by Yerba Buena Water Company via an existing service connection. The proposed project will not involve the use of natural gas. Therefore, the proposed project will not result in project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative impact related to existing utility facilities.

30b. The proposed project will not increase demand on a utility, such that an expansion of an existing utility facility will be required. Therefore, the proposed project will not result in project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative impact related to an expansion of an existing utility facility.

30c. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 30 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to utilities have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
31a. Flood Control Facilities/Watercourses - Watershed Protection District (WPD)								
Will the proposed project:								
1) Either directly or indirectly, impact flood control facilities and watercourses by obstructing, impairing, diverting, impeding, or altering the characteristics of the flow of water, resulting in exposing adjacent property and the community to increased risk for flood hazards?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 31a of the Initial Study Assessment Guidelines?		X				X		

31a. Flood Control Facilities/Watercourses - Watershed Protection District (WPD) Impact Discussion:

31a-1. The project site is located adjacent to the Pacific Ocean. The nearest Ventura County Watershed Protection District (District) jurisdictional redline channel and flood control facility is Little Sycamore Canyon which is located approximately 2,772-feet northwesterly of the site. Given this distance Watershed Protection District staff finds that the Project design mitigates the direct and indirect project-specific and cumulative impacts to District flood control facilities and watercourses. Therefore, the environmental assessment is deemed to be less than significant on redline channels and facilities under the jurisdiction of the Ventura County Watershed Protection District. The Applicant shall address impacts from increases in impervious surface area and stormwater drainage design pursuant to conditions imposed by the County of Ventura Public Works Agency, Engineering Services Department, Development & Inspection Services Division, by reference to Appendix J of the Ventura County Building Code requiring that runoff from the project site will be released at no greater than the undeveloped flow rate and in such a manner as to not cause an adverse impact downstream in velocity or duration.

31a-2. The proposed project will be consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 31a of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on Flood Control Facilities/Watercourses have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
31b. Flood Control Facilities/Watercourses - Other Facilities (PWA)								
Will the proposed project:								
1) Result in the possibility of deposition of sediment and debris materials within existing channels and allied obstruction of flow?		X				X		
2) Impact the capacity of the channel and the potential for overflow during design storm conditions?		X				X		
3) Result in the potential for increased runoff and the effects on Areas of Special Flood Hazard and regulatory channels both on and off site?		X				X		
4) Involve an increase in flow to and from natural and man-made drainage channels and facilities?	X				X			
5) Be consistent with the applicable General Plan Goals and Policies for Item 31b of the Initial Study Assessment Guidelines?		X				X		

31b. Flood Control Facilities/Watercourses - Other Facilities (PWA) Impact Discussion:

31b-1. through 31b-4. The proposed project preserves the existing trend of runoff and local drainage patterns and will not create an obstruction of flow in the existing drainage patterns. Future development will be completed according to current codes and standards that will require no increase in sediment discharge or obstruction of flows in existing channels. All runoff will be directed to one of the six planter boxes with controlled outlets that are designed to mitigate the increased flows from the projects total impervious area and control and limit discharge to the existing condition. The project runoff will be similar to the present and no increase in effects on Areas of Special Flood Hazard will occur than the pre-project condition. The proposed drainage conditions will maintain the existing pattern of sheet flow. The site drainage system including the planter boxes are designed to maintain runoff at or below predevelopment rates and amounts. (Attachment 5, Amit Apel report, dated June 20, 2019).

31b-5. The proposed project will be consistent with the applicable *Ventura County General Plan* Goals and Policies for Item 31b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on Flood Control Facilities/Watercourses have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
32. Law Enforcement/Emergency Services (Sheriff)								
Will the proposed project:								
a) Have the potential to increase demand for law enforcement or emergency services?		X				X		
b) Be consistent with the applicable General Plan Goals and Policies for Item 32 of the Initial Study Assessment Guidelines?	X				X			

32. Law Enforcement/Emergency Services (Sheriff) Impact Discussion:

32a. The proposed project includes the construction of a single-family dwelling and an accessory dwelling unit with an attached garage and a swimming pool, which is included within a project category that has been determined to have the potential to increase demand for law enforcement or emergency services. The nearest Ventura County Sheriff's Station is the Camarillo Airport Sheriff's Station, located at 100 Durley Avenue in Camarillo, which is approximately 19 miles away from the project site. The nearest Los Angeles County Sheriff's Station, Malibu/Lost Hills Sheriff's Station, located at 27050 Agoura Road in Agoura Hills, is approximately 30 miles away from the project site. However, the proposed project, a single-family dwelling, will not substantially increase demand for law enforcement or emergency services. Therefore, the proposed project would result in less-than-significant project-specific impacts and would not make a cumulatively considerable contribution to a significant cumulative impact to emergency services.

32b. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 32 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts on Law Enforcement/Emergency Services have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
33a. Fire Protection Services - Distance and Response (VCFPD)								
Will the proposed project:								
1) Be located in excess of five miles, measured from the apron of the fire station to the structure or pad of the proposed structure, from a full-time paid fire department?	X				X			
2) Require additional fire stations and personnel, given the estimated response time from the nearest full-time paid fire department to the project site?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 33a of the Initial Study Assessment Guidelines?	X				X			

33a. Fire Protection Services - Distance and Response (VCFPD) Impact Discussion:

33a-1 and 33a-2. Fire Station 56, located at 11855 Pacific Coast Highway, Malibu, is approximately 160 feet northeast of the project site. The distance from Fire Station 56 to the project site is adequate, and the proposed project will not require a new fire station or additional personnel. Therefore, the proposed project will have a less-than-significant project-specific impact related to fire protection services. The proposed project will not make a cumulatively considerable contribution to a significant cumulative impact related to fire protection services.

33a-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 33A of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to distance and response for VCFPD services have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
33b. Fire Protection Services – Personnel, Equipment, and Facilities (VCFPD)								
Will the proposed project:								
1) Result in the need for additional personnel?	X				X			
2) Magnitude or the distance from existing facilities indicate that a new facility or additional equipment will be required?	X				X			
3) Be consistent with the applicable General Plan Goals and Policies for Item 33b of the Initial Study Assessment Guidelines?	X				X			

33b. Fire Protection Services – Personnel, Equipment, and Facilities (VCFPD) Impact Discussion:

33b-1. The proposed project, one single-family dwelling and ADU, will not result in the need for additional fire protection services personnel. Therefore, the proposed project will not have a project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact, with regard to the need for fire personnel.

33b-2. The nearest fire station to the project site is Ventura County Fire Station 56, which is located at 11855 Pacific Coast Highway, Malibu, approximately 160 feet northeast of the project site. The distance from Fire Station 56 to the project site is adequate. Additionally, the Ventura County Fire Protection District requires adequate fire flow and building fire sprinklers for the project in accordance with the Ventura County Waterworks Manual and the Ventura County Fire Code.

A new fire station or equipment will not be required to serve the proposed project. Therefore, the proposed project would not have a project-specific impact or contribute to a cumulatively considerable significant impact to fire personnel, equipment, or facilities.

33b-3. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 33B of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to VCFPD personnel facilities and services have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
34a. Education - Schools								
Will the proposed project:								
1) Substantially interfere with the operations of an existing school facility?		X				X		
2) Be consistent with the applicable General Plan Goals and Policies for Item 34a of the Initial Study Assessment Guidelines?	X				X			

34a. Education - Schools Impact Discussion:

34a-1. The proposed project will not interfere with the operations of an existing school facility or cause a significant demand on schools. Any additional demand created by the proposed project would be mitigated by payment of school fees pursuant to Section 65996 of the California Code (2014b). Therefore, the proposed project will have less-than-significant project-specific impacts related to schools and will not make a cumulatively considerable contribution to a significant cumulative impact related to schools.

34a-2. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 34a of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to schools have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
34b. Education - Public Libraries (Lib. Agency)								

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Will the proposed project:								
1) Substantially interfere with the operations of an existing public library facility?								
2) Put additional demands on a public library facility which is currently deemed overcrowded?								
3) Limit the ability of individuals to access public library facilities by private vehicle or alternative transportation modes?								
4) In combination with other approved projects in its vicinity, cause a public library facility to become overcrowded?								
5) Be consistent with the applicable General Plan Goals and Policies for Item 34b of the Initial Study Assessment Guidelines?								

34b. Education - Public Libraries (Lib. Agency) Impact Discussion:

34b-1. through 34b-4. The proposed project, a single-family dwelling and accessory dwelling unit, will not have an impact on the operations of an existing public library facility. The Planning Division staff analyzed Figure 4.9.1 (County Library Facilities map, Ventura County General Plan Public Facilities and Services Appendix, May 8, 2007 Edition) and determined that the project site is not located adjacent to or near any County library facilities. The nearest public library to the project site, Ray D. Prueter Library, is located approximately 22 miles northwest of the project site. Therefore, the proposed use and development of the subject property does not have the potential to create project-specific impacts, which would interfere with the use of the library. Moreover, the modest incremental increase in the demand for library services that would result from the proposed project would not result in a significant drain on library resources, thereby warranting the need for the construction of new facilities that could result in adverse physical changes to the environment. Therefore, the proposed project will not have a significant project-specific impact and will not make a cumulatively considerable contribution to a significant cumulative impact related to library services.

34b-5. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 34b of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to public library services have been identified, therefore no mitigation measures are required.

Issue (Responsible Department)*	Project Impact Degree Of Effect**				Cumulative Impact Degree Of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
35. Recreation Facilities (GSA)								
Will the proposed project:								
a) Cause an increase in the demand for recreation, parks, and/or trails and corridors?		X				X		
b) Cause a decrease in recreation, parks, and/or trails or corridors when measured against the following standards: • Local Parks/Facilities - 5 acres of developable land (less than 15% slope) per 1,000 population; • Regional Parks/Facilities - 5 acres of developable land per 1,000 population; or, • Regional Trails/Corridors - 2.5 miles per 1,000 population?		X				X		
c) Impede future development of Recreation Parks/Facilities and/or Regional Trails/Corridors?		X				X		
d) Be consistent with the applicable General Plan Goals and Policies for Item 35 of the Initial Study Assessment Guidelines?	X				X			

35. Recreation Facilities (GSA) Impact Discussion:

35a. and 35b. Countyline Beach is located 1,100 feet to the east of the project site and designated Coastal Access ways and public beaches are located 550 feet west of the project site. A lateral public access is presently available via an existing instrument, as recorded in Miscellaneous Official Record Book No. 1981 Page 43446 (Instrument Number 1981-05110045504, May 11, 1981). The proposed project is located approximately 130 feet from the October 21, 2014 Mean High Tide Line identified by Land

& Air Surveying, Inc (Attachment 2) and does not encroach into this easement or the Coastal Trail. Lateral access along the shoreline is influenced by hightides, making the beach in front of the project site inaccessible during high tide.

The proposed project may result in an increased demand for recreation, parks, and/or trails and corridors in the local area, however, the potential increase in population in the South Coast community's geographic area is minimal and will not impede the future development of local parks facilities. Therefore, the proposed project will result in less-than-significant project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative impact, related to recreational facilities.

35c. The proposed project does not include any onsite or offsite improvements that have the potential to impede the development of recreation parks/facilities or regional trails and corridors. In addition, no Quimby fees will be required, as the proposed project does not involve a subdivision of three lots or more. Therefore, the proposed project will result in less-than-significant, project-specific impacts and will not make a cumulatively considerable contribution to a significant cumulative impact related to recreational facilities.

35d. The proposed project is consistent with the applicable *Ventura County General Plan Goals and Policies* for Item 35 of the *Ventura County Initial Study Assessment Guidelines*.

Mitigation/Residual Impact(s)

No significant impacts related to recreation facilities have been identified, therefore no mitigation measures are necessary.

***Key to the agencies/departments that are responsible for the analysis of the items above:**

Airports - Department Of Airports	AG. - Agricultural Department	VCAPCD - Air Pollution Control District
EHD - Environmental Health Division	VCFPD - Fire Protection District	GSA - General Services Agency
Harbors - Harbor Department	Lib. Agency - Library Services Agency	Plng. - Planning Division
PWA - Public Works Agency	Sheriff - Sheriff's Department	WPD – Watershed Protection District

****Key to Impact Degree of Effect:**

N – No Impact
LS – Less than Significant Impact
PS-M – Potentially Significant but Mitigable Impact
PS – Potentially Significant Impact

Section C – Mandatory Findings of Significance

Based on the information contained within Section B:		
	Yes	**No**
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one that occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future).		X
3. Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effect of other current projects, and the effect of probable future projects. (Several projects may have relatively small individual impacts on two or more resources, but the total of those impacts on the environment is significant.)		X
4. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X

Findings Discussion:

1. As stated above in Section B, Items 4D and 8A above the proposed project has the potential to result in significant impacts to ESHA and cultural resources. However, with the imposition of the mitigation measures as defined in those sections, potential impacts would be mitigated to less-than-significant on the project-specific and cumulative levels. The proposed project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory.

2. The proposed project will not result in the achievement of short-term environmental goals at the expense of long-term environmental goals.

3. The impacts associated with the proposed project have been evaluated in light of the recently approved and pending projects in the vicinity. The project will not result in any significant cumulatively considerable impacts

4. The proposed project will not result in any environmental effects that will cause substantial adverse effects on human being. Both direct and indirect project related-impacts have been evaluated for this criterion.

Section D – Determination of Environmental Document

Based on this initial evaluation:

[ ]	I find the proposed project **could not** have a significant effect on the environment, and a **Negative Declaration** should be prepared.
[X]	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measure(s) described in Section B of the Initial Study will be applied to the project. A **Mitigated Negative Declaration** should be prepared.
[ ]	I find the proposed project, individually and/or cumulatively, MAY have a significant effect on the environment and an **Environmental Impact Report** (EIR) is required.*
[ ]	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.*
[ ]	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, **nothing further is required.**

John Oquendo, Planner

JANUARY 31, 2020
Date

Attachments:

Attachment 1 – Maps
Attachment 2 – Project Plans
Attachment 3 – Map of Pending and Approved Projects
Attachment 4 – Arborist Consultation (White's Tree Service, October 2015)
Attachment 5 – Hydraulic Calculations (Amit Apel Design, Inc. June 2019)
Attachment 6 – Geologic and Soils Engineering Exploration (Schick Geotechnical, Inc., September 2015)
Attachment 7 – Coastal Engineering Report (David C. Weiss Structural Engineer & Associates, Inc., August 2016)
Attachment 8 – Update to Geologic Report (Schick Geotechnical, Inc., September 2018)
Attachment 9 – Works Cited

Ventura County, California
Resource Management Agency
GIS Development & Mapping Services
Map created on 07-15-2019

RMAgis

County of Ventura
Initial Study
PL17-0005
Attachment 1 - Maps

0 8,000 16,000 Feet

Disclaimer: This Map was created by the Ventura County Resource Management Agency, Mapping Services - GIS which is designed and operated solely for the convenience of the County and related public agencies. The County does no twarrant the accuracy of this mapand no decision involving a risk of economic loss or physical injury should be made in reliance thereon.

RH

County of Ventura
Resource Management Agency
GIS Development & Mapping Services
Map created on 06-20-2019
Source: Triunfo Pass U.S.G.S.
7.5 Minutes Quadrangle
Contour Interval = 20 ft

RMAgis

County of Ventura
Planning Director Hearing
PL17-0005
Topo Map

0 250 500 Feet

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RH

Ventura County
Resource Management Agency
Information Systems GIS Services
Map created on 07-15-2019
Source: Pictometry: 2018

RMAgis

County of Ventura
Planning Director Hearing
General Plan & Zoning Map
PL17-0005

0 25 50 100 Feet

RH

Ventura County
Resource Management Agency
Information Systems GIS Services
Map created on 07-15-2019
Source: Pictometry: 2018

RMAgis

County of Ventura
Planning Director Hearing
Aerial Photography
PL17-0005

0 10 20 40 Feet

RH

VICINITY MAP

RESIDENTIAL A-2 DEVELOPMENT STANDARDS

PROJECT DESCRIPTION:
PROPOSED CONSTRUCTION OF NEW 5,049 SQFT HOUSE AND 352 SQFT 2-CAR GARAGE, 491 SQFT GUEST HOUSE

PROJECT SCOPE:
1) NEW THREE LEVEL SINGLE FAMILY DWELLING
2) ATTACHED 2-CAR GARAGE

SEPERATE PERMIT:
1) GRADING FOR NEW DRIVEWAY APPROACH AND PARKING AREA UNDER SEPERATE PERMIT
2) SITE RETAINING WALLS: ADJACENT TO DRIVEWAY AND PARKING AREA
3) SITE WALLS AS OCCUR
4) SWIMMING POOL AND SPA STRUCTURE
5) SWIMMING POOL AND SPA EQUIPMENT
6) SWIMMING POOL/SPA PROTECTIV BARRIERS
7) DRIVEWAY APRON

DEVELOPMENT FEATURE	RR5 REQQUIREMENTS	PROPOSED	MEETS REQUIREMENTS
MINIMUM LOT AREA	-	-	YES
RESIDENTIAL DENSITY	(1) SINGLE FAMLIY DWELLING	(1) SINGLE FAMILY DWELLING	YES
PERMITTED / ACCESSORY USES	(1) SRO / ARCE		YES
	PRIVATE GARAGES	2-CAR GARAGE	YES
FRONT SETBACK: (18' HEIGHT)			-
MAIN HOUSE	20'-0"	25'-7"	YES
SIDE SETBACK (EAST):			-
	6'-0"	6'-0"	YES
SIDE SETBACK (NORTH):			
	6'-0"	6'-2"	YES
REAR SETBACK	10'-0"	10'-0"	YES
HEIGHT LIMIT	25'-0"	25'-0"	YES
PARKING (COVERED)	2 SPACES	2 SPACES	YES
PARKING (UN-COVERED)	-	-	-
MAXIMUM GRADED AREA			
MAXIMUM LOT COVERAGE	42% = 6,952 SQFT	5,338 SQFT	YES (SEE A0.3)
	-	-	
MAXIMUM ALLOWABLE SQFT	-	-	YES (SEE A0.2)

CURRENT APPLICABLE CODES
2016 CRC, CBC, CMC, CPC, CEC, CGBC, 2016 T-24 ENERGY STANDARDS

PROJECT SUMMARY

APN #:	700-0-200-655
ADDRESS:	41700 PACIFIC COAST HIGHWAY
CITY:	MALIBU (VENTURA COUNTY)
ZIP:	90265
EXISTING BUILDING:	N/A
EXISTING BEDROOMS:	N/A
EXISTING BATHROOMS:	N/A
(PROPOSED) BEDROOMS:	4
(PROPOSED) BATHROOMS:	5
LOT AREA (GROSS):	16,552 SQFT
LOT AREA (NET):	16,552 SQFT
CONSTRUCTION TYPE:	NFPA-13D SPRINKLERED
SPRINKLERS:	
OCCUPANCY GROUP:	R-3 & U
ZONE:	RR5
GROSS LOT WIDTH:	-
GROSS LOT DEPTH:	-
AVG. LOT SLOPE:	-
(E) LOT COVERAGE:	N/A
(P) LOT COVERAGE:	42% (- SQFT)
(E) NET IMPERVIOUS AREA:	N/A
(P) NET IMPERVIOUS AREA:	(5,338 SQFT)
BUILDING AREA TOTAL (GROSS):	5,892 SQFT
AREA (EXISTING) CONDITIONED:	N/A
AREA (PROPOSED) CONDITIONED:	5,540 SQFT
AREA (PROPOSED) UNCONDITIONED:	352 SQFT

PROJECT DIRECTORY

OWNER	DESIGNER
DR. SANJEIVE JAIN & SHUBHA 1925 ROYAL AVE SIMI VALLEY, CA 93065	AMIT APEL DESIGN INC. 25001 Pacific Coast Hwy Malibu, CA 90265 AMIT APEL (310) 317-0500
STRUCTURAL ENGINEERING	CIVIL ENGINEERING
CALIFORNIA CIVIL AND THINGS, INC. 3878 PUERCO CANYON RD. MALIBU, CA 90265 NnADOZIE DIKE (C 87565) (310) 317-0500	CALIFORNIA CIVIL AND THINGS, INC. 3878 PUERCO CANYON RD. MALIBU, CA 90265 NnADOZIE DIKE (C 87565) (310) 317-0500
SURVEYOR	MEP ENGINEERING
HOOSHMAND JAHANPOUR-BURKE P.L.S 7728 ANTERO CIRCLE LS 8230 LAS VEGAS, NEVADA 89128 (310) 633-1213	- - - - -
GEOLOGY	GEOTECHNICAL ENGINEER
-	-
BIOLOGY	ONSITE WASTE WATER ENGINEERING
-	EPD CONSULTANTS 20722 MAIN STREET CARSON, CA 90745 (310) 241-6565 Kevin Poffenbarger, PE (RCE 69089)
LANDSCAPE	COASTAL ENGINEER
-	DAVID C. WEISS, S.E. & ASSOCIATES 24372 VANOWEN ST. #104 WEST HILLS, CA 91307 JANELLE L.W. LAU (818) 227-8040 JANELLE@DCWSE.COM

DRAWING LIST

T1.1	TITLE SHEET
	SURVEY
A0.0	SITE PLAN
A0.1	SITE PLAN (ENLARGED)
A0.2	DECK HEIGHTS
A0.3	SLOPE ANALYSIS
N1.0	GENERAL NOTES
N1.1	GENERAL NOTES
N1.2	GENERAL NOTES
N2.0	BUILDING NOTES
N2.1	PLANNING NOTES
GR1	CAL GREEN
GR2	CAL GREEN
GR3	CAL GREEN
GR4	CAL GREEN
A1.1	UPPER FLR SPACEPLAN
A1.2	MIDDLE FLR SPACEPLAN
A1.3	LOWER FLR SPACEPLAN
A1.4	ROOF PLAN
A2.0	ELEVATIONS
A2.1	ELEVATIONS
A3.0	SECTIONS
A3.1	SECTIONS
A3.2	SECTIONS
A3.3	SECTIONS
A3.4	SECTIONS
A3.5	SECTIONS
A5.0	DOOR / WINDOW SCHEDULE
A9.0	DETAILS
A9.1	DETAILS
A9.2	DETAILS
E-1	CF-1R
E-2	MF-1R
P-1	PROJECT SUMMARY
L-1	PLANTING PLAN
L-2	PLANTING PLAN NOTES
F-1	FUEL MODIFICATION PLAN
F-2	FUEL MODIFICATION NOTES
S-0	STRUCTURAL OBSERVATION NOTES
S-N	STRUCTURAL NOTES
S-1	FOUNDATION PLAN
S-2	FIRST FLOOR FRAMING PLAN
S-3	SECOND FLOOR FRAMING PLAN
S-3.1	DRIVEWAY STRUCTURAL PLAN
S-4	FRAMING PLAN
S-5	DETAILS
S-5.1	DETAILS
S-6	DETAILS
S-6.1	DETAILS
S-7	DETAILS
S-7.1	DETAILS
S-7.2	DETAILS
S-8	DETAILS
S-8.1	DETAILS
S-9	SECTIONS
S-10	SECTIONS
S-10.B	SECTIONS
HFX1	TYPICAL DETAILS
HFX2	TYPICAL DETAILS
HFX3	TYPICAL DETAILS
S-T	TYPICAL DETAILS
SM-1	DETAILS
SM-2	DETAILS
S-D	DETAILS
S-M-1.1	NOTES DETAILS
S-M1.2	NOTES
S-M1.3	DETAILS
SP-1	DETAILS
SP-2	DETAILS
S-G	GRADING / DRAINAGE PLAN DETAILS
S-G2	EROSION CONTROL PLAN DETAILS
S-G3	GRADING PLAN / GRADING CALCS
M1.0	NOTES, SCHEDULES & LEGENDS
M1.1	NOTES, SCHEDULES & LEGENDS
M2.0	BASEMENT PLAN
M2.1	FIRST FLOOR PLAN
M2.2	SECOND FLOOR PLAN
M3.0	DETAIL SHEET
M3.0	DETAIL SHEET
E-01	ELEC. COVER SHEET
E-02	ELEC. SITE PLAN
E-03	ELEC. LOWER LEVEL POWER
E-04	ELEC. LOWER LEVEL LIGHTING
E-05	ELEC. MIDDLE LEVEL POWER
E-06	ELEC. MIDDLE LEVEL LIGHTING
E-07	ELEC. UPPER LEVEL POWER
E-08	ELEC. UPPER LEVEL LIGHTING
E-09	ELEC. SINGLE LINE DIAGRAM
P0.1	SCHEDULE SHEET
P2.0	BASEMENT PLAN
P2.1	1ST FLOOR PLAN
P2.2	2ND FLOOR PLAN
P3.0	BASEMENT PLAN
P3.1	1ST FLOOR PLAN
P3.2	2ND FLOOR PLAN
P5.0	RISER DIAGRAM
P5.1	RISER DIAGRAM
P6.0	PLUMBING DETAILS
P6.1	PLUMBING DETAILS
T24-1	CAL-CERTS
T24-2	CAL-CERTS

3D VIEW

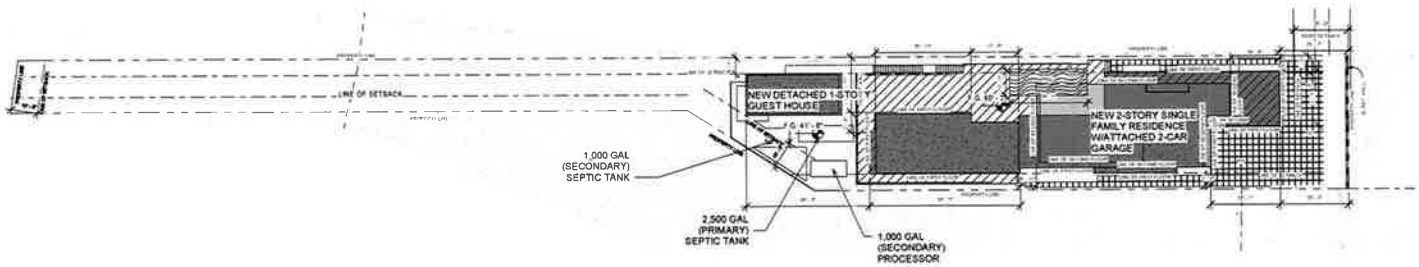
County of Ventura
Initial Study
PL17-0005
Attachment 2 - Project Plans

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

PROGRESS

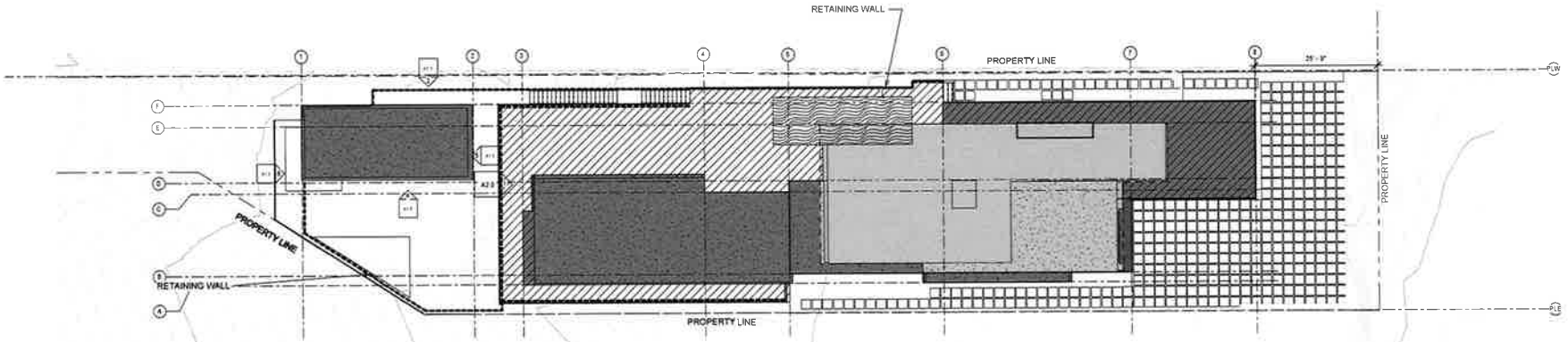
JAIN RESIDENCE
41700 PCH
MALIBU CA 90265
TITLE PAGE
A0.0

AMIT APEL DESIGN INC.



LOT AREA	16,552 SQ FT
MAX. LOT COVERAGE 42%	6,952 SQ FT
PROVIDED LOT COVERAGE	
MAIN HOUSE	4,130 SQ FT
GUEST HOUSE	566 SQ FT
TOTAL	4,696 SQ FT < 6,952 SQ FT

1 SITE MAP
3/64" = 1'-0"



2 SITE PLAN
3/32" = 1'-0"

JAIN RESIDENCE

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MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
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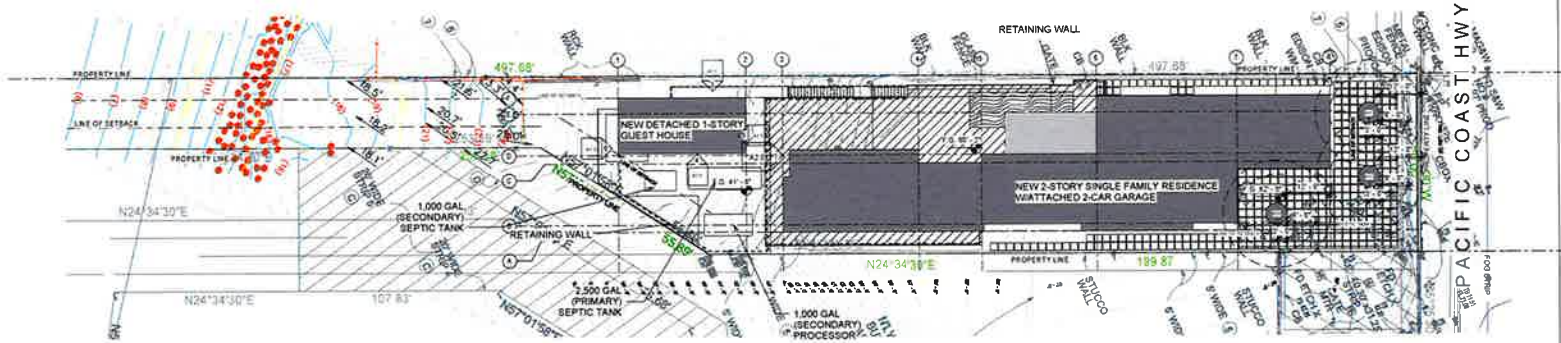
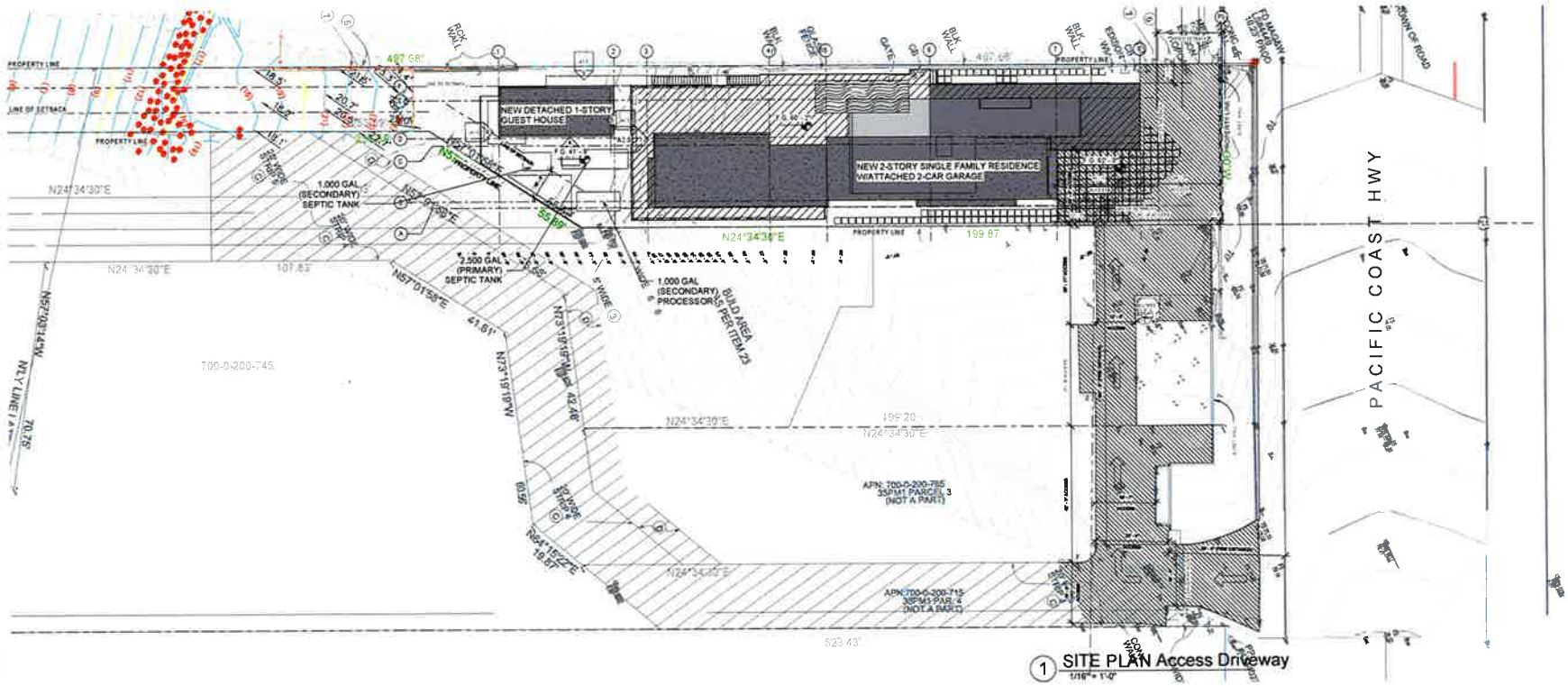
SITE PLAN

NORTH	DATE	PROJECT NO.	SCALE	DRAWING
	DRAWN	CKD BY	1/16"=1'	A0.1

AMIT APEL DESIGN INC.



2 SITE PLAN Septic System
1/16" = 1'-0"



1 SITE PLAN Access Driveway
1/16" = 1'-0"

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PROGRESS

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41700 PCH
MALIBU CA 90265

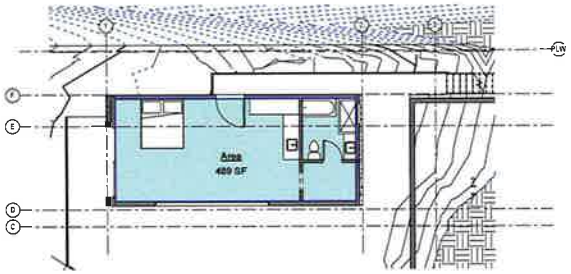
ACCESS & SEPTIC PLANS

DATE 7/16/2019 6:29:41 AM

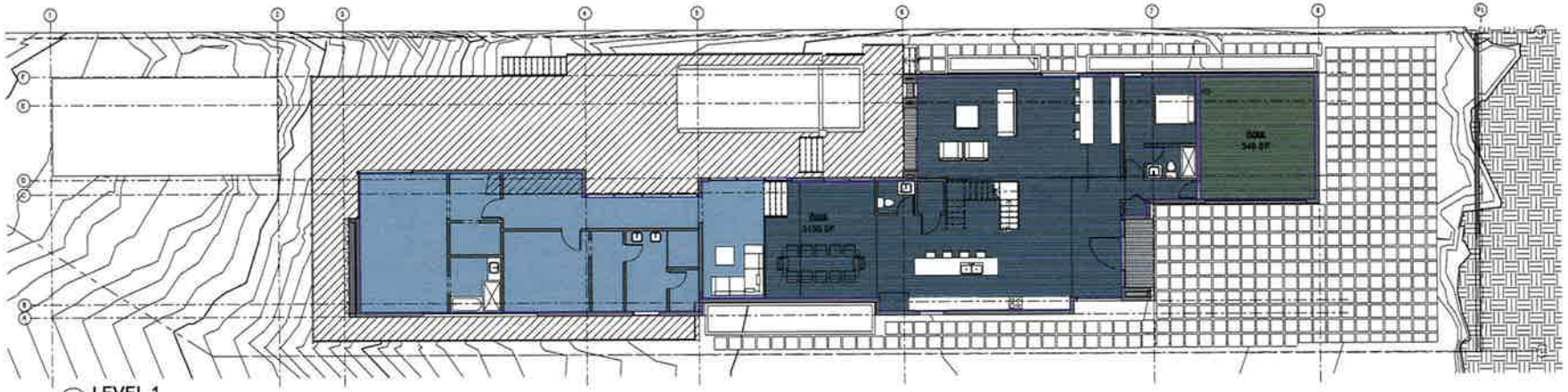
NORTH	PROJ NO	SCALE	DRAWING
			A0.2
	DRAWN	CKD BY	FLOOR
	*	*	

31501 Pacific Coast Hwy
Malibu, CA 90265
Ph: 818.348.5836
www.amitapel.com info@amitapel.com

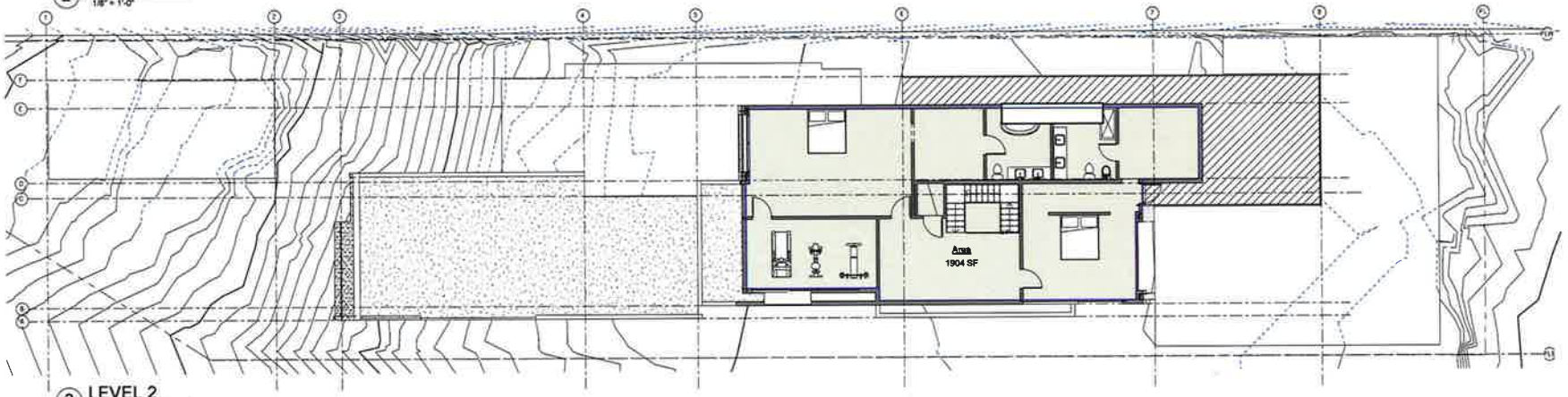
AMIT APEL DESIGN INC.



1 GUEST HOUSE F.F.
1/8" = 1'-0"



2 LEVEL 1
1/8" = 1'-0"



3 LEVEL 2
1/8" = 1'-0"

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PROGRESS

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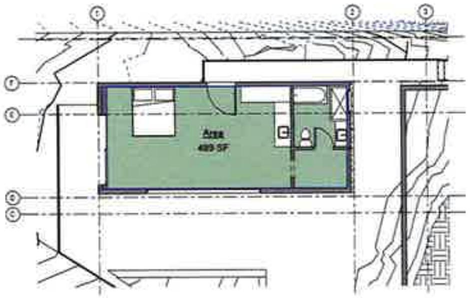
AREA

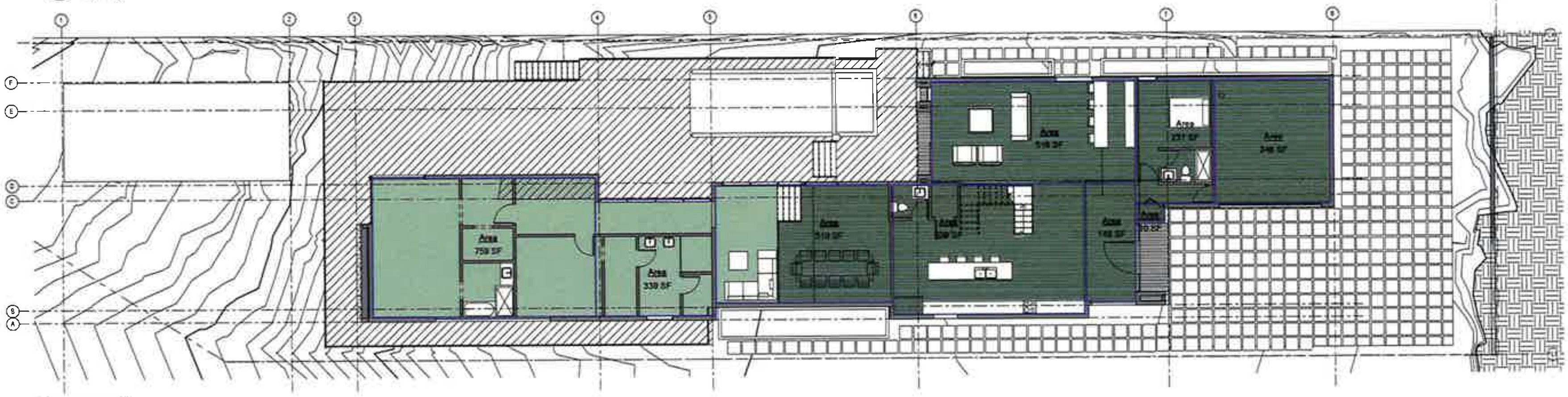
SCALE	DRAWING
1/8" = 1'-0"	A0.3

DRAWN | CHECKED | FLOOR

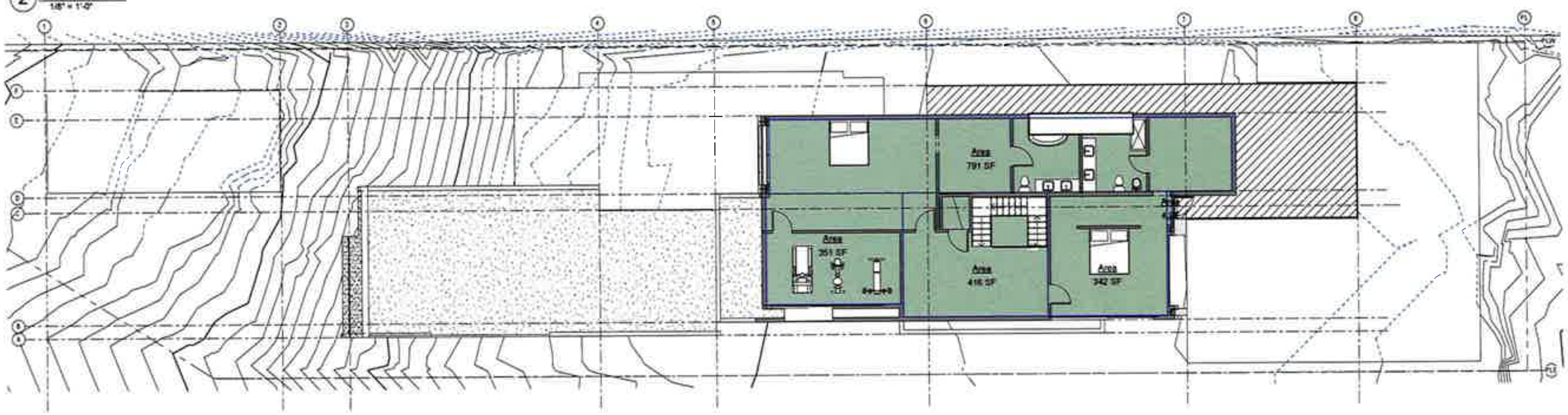
AMIT APEL DESIGN INC.



1 GUEST HOUSE F.F.
1/8" = 1'-0"



2 LEVEL 1
1/8" = 1'-0"



3 LEVEL 2
1/8" = 1'-0"

JAIN RESIDENCE

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MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
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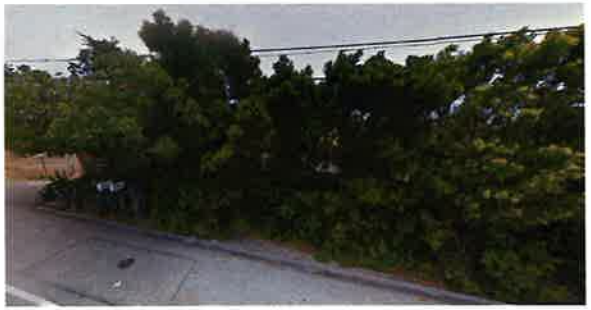
BLOCK AREA

NORTH	DATE	PROJ NO	SCALE	DRAWING
	DRAWN	CKD BY	FLOOR	A0.4

AMIT APEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B MACLAREN AIA ARCHITECT

1

2



3

4

5

6

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

#	Description	Date

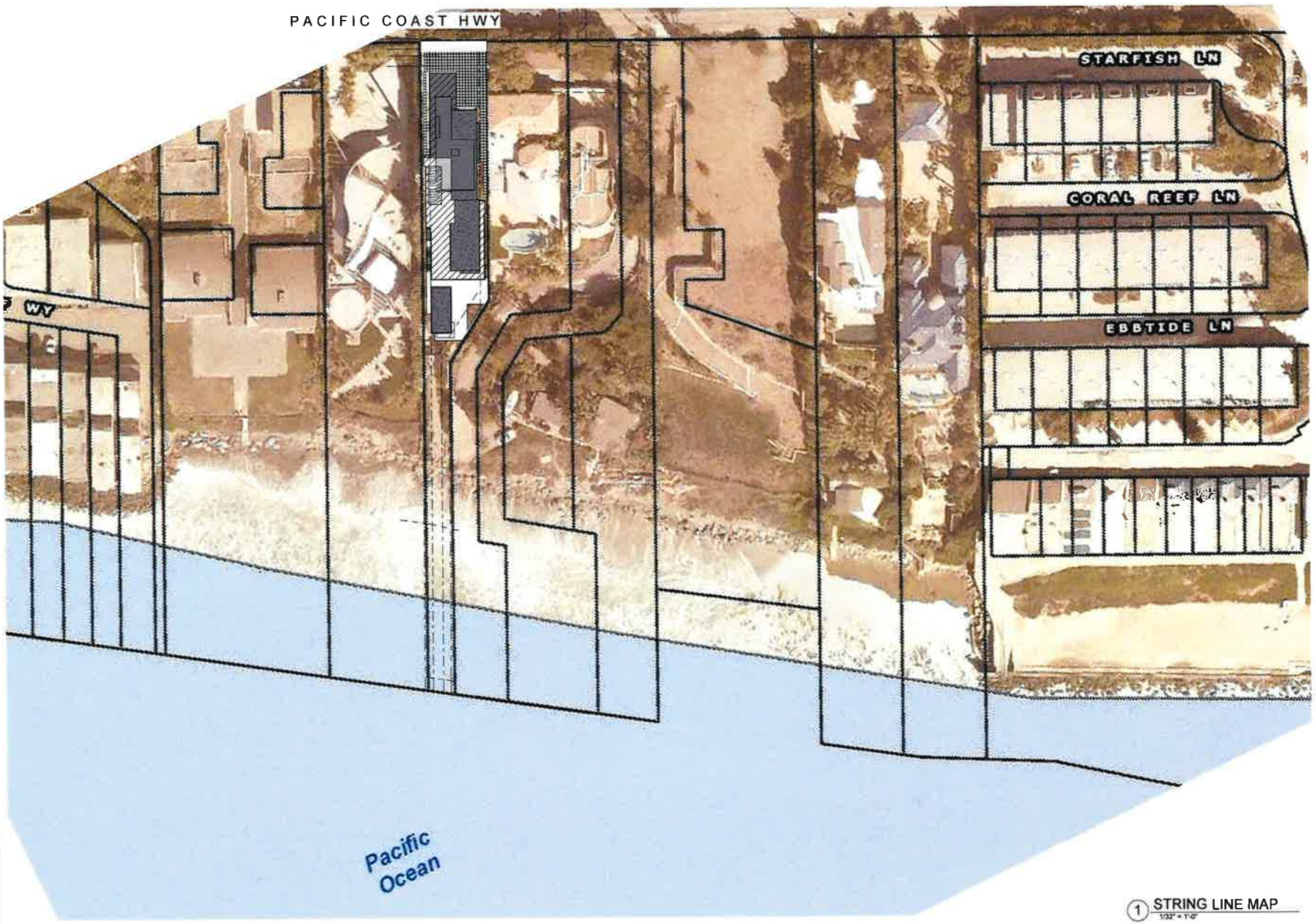
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

PCH IMAGES

NORTH	DATE	PROJ. NO.	SCALE	DRAWING
	11/9/18			
	DRAWN	CKD BY	FLOOR	A0.5
	Author	Manager		

AMIT AMEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B WILLIAMS AIA ARCHITECT



1 STRING LINE MAP
1/32" = 1'-0"

JAIN RESIDENCE

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Revision Schedule

PROGRESS

JAIN RESIDENCE
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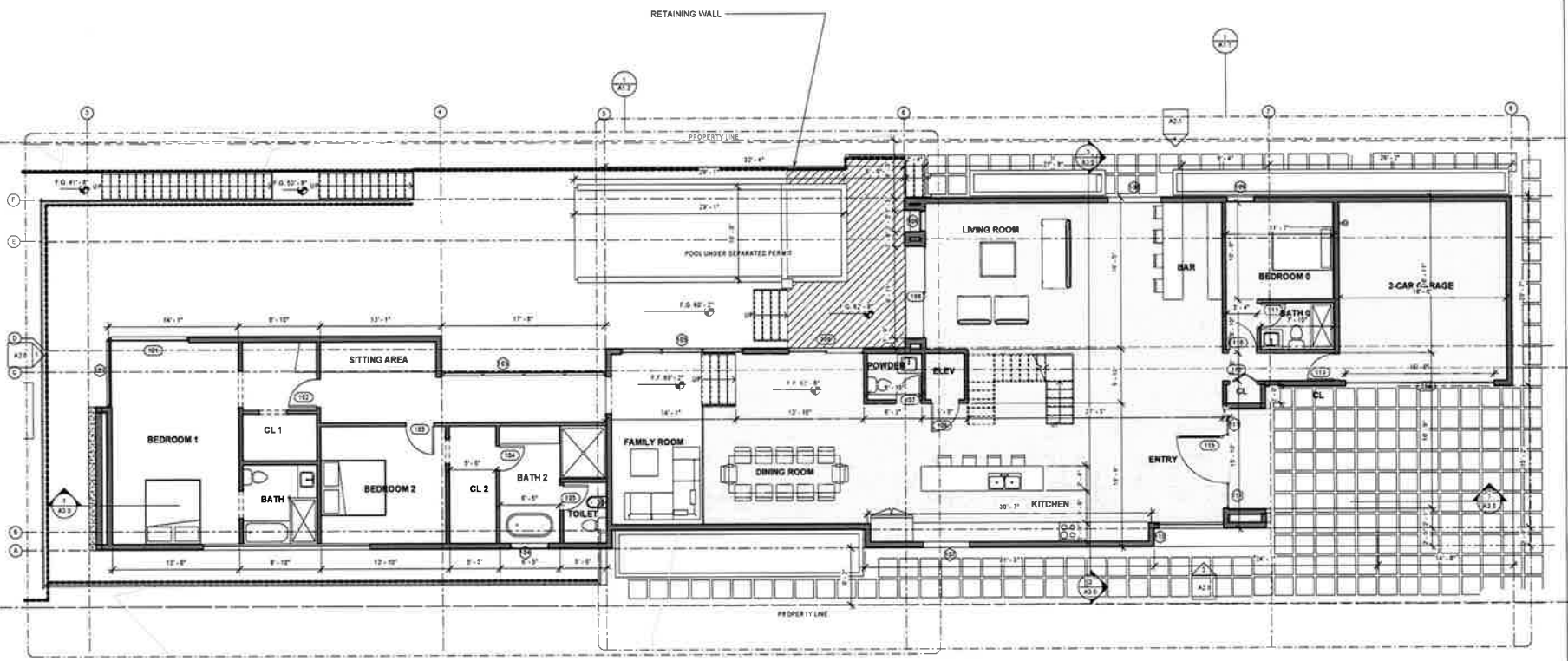
MALIBU CA 90265

STRING LINE

SCALE	DRAWING
	A0.6

AMIT APEL DESIGN INC.



1 FLOOR PLAN LEVEL 1
3/16" = 1'-0"

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

Revision Schedule

#	Issued to	Date

PROGRESS

PARTITION TYPES

- 8" CIP CONCRETE WALL
- 8"CIP CONCRETE WALL WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH BRICK VENEER FINISH
- INTERIOR WOOD STUD WALLS
- 1 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
- 1 HOUR INTERIOR 6" WOOD STUD WALLS BETWEEN UNITS (PARTY WALLS)
- 2 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
- CM CARBON MONOXIDE DETECTOR
- SD SMOKE DETECTOR
- FLUSH CEILING EXHAUST FAN ENERGY STAR & HUMIDISTAL DUCTED TO OUTSIDE

NOTE:
CSS Color Coat and GSS Clear Coat anti-graffiti coatings
By American Polymer Corp
RESEARCH REPORT: RR 25142-T (CSI 09960)

ALL THE TOILETS ARE DUAL FLUSH SEE ITEM 6 ON SUSTAINABILITY CHECK LIST FOR INFORMATION.

1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA 13D.
2. THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.
3. AUTOMATIC GARAGE DOOR OPENERS SHALL BE IN ACCORDANCE WITH UL 325
4. WOOD AND WOOD BASED PRODUCTS SHALL BE PROTECTED FROM DECAY IN THE LOCATIONS SPECIFIED PER SECTION R317.1.

NOTE:

1. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).
2. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).
3. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).
4. NEW CONSTRUCTION SHALL PROVIDE ULTRA LOW FLUSH WATER CLOSETS AND EXISTING SHOWER HEADS AND TOILETS MST BE ADAPTED FOR LOW WATER CONSUMPTION.
5. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED

GREEN BUILDING NOTES:

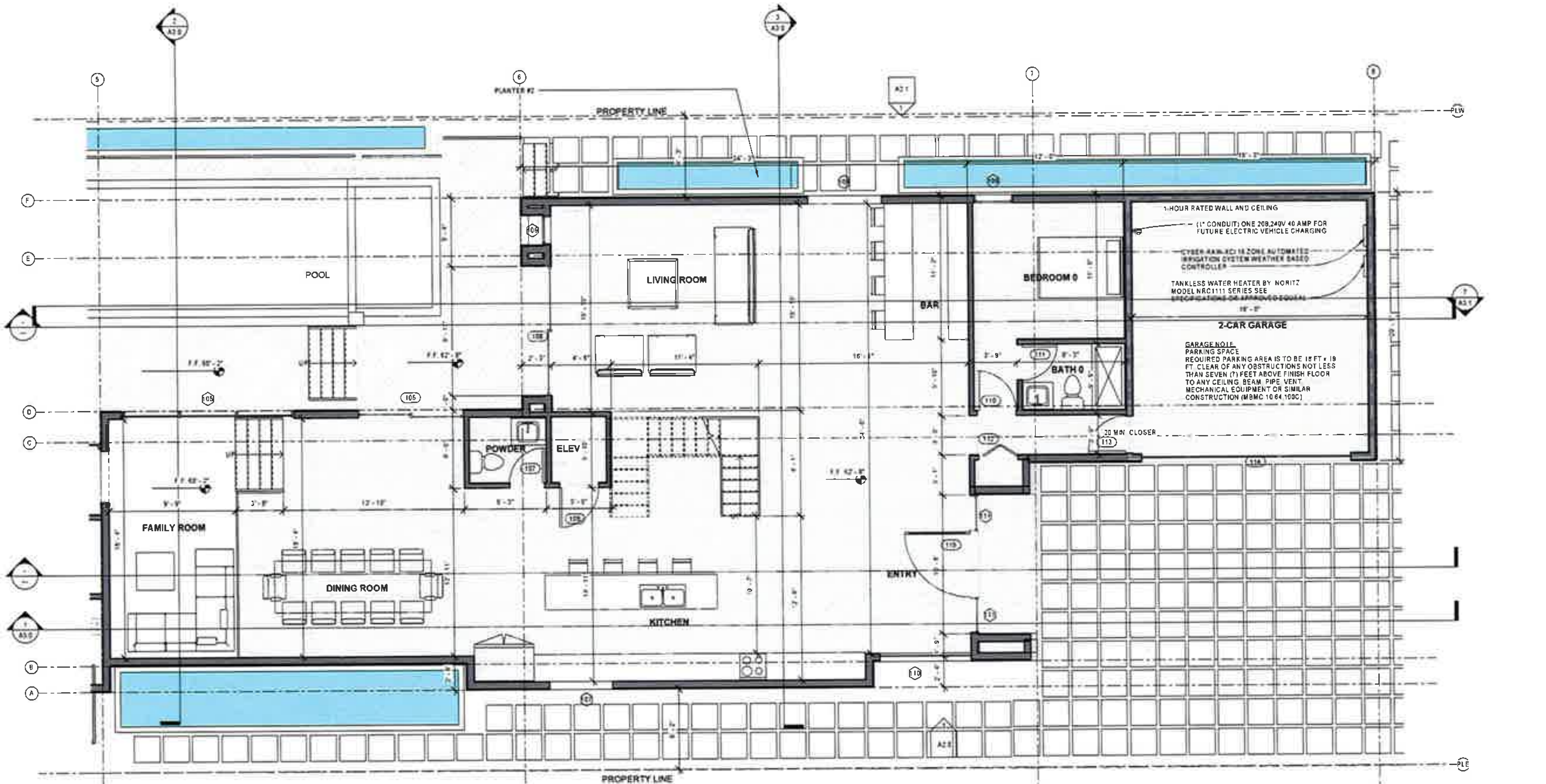
1. CONSTRUCTION WASTE SHALL BE REDUCED BY 50%, INDICATE HOW CONSTRUCTION WASTE WILL BE HANDLED:
a) CITY OF LOS ANGELES CERTIFIED HAULER
2. i) FANS SHALL BE ENERGY STAR® COMPLIANT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING.
3. ii) FANS NOT FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATING SYSTEM MUST BE CONTROLLED BY A HUMIDITY CONTROL
4. "FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION FORM GRN12 SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL" (STATE ASSEMBLY BILL NO 1881)
5. SUFFICIENT CONDUCT SIZING AND SERVICE CAPACITY TO INSTALL LEVEL 2 EVSE SHALL BE PROVIDED
6. A LABEL STATING 'EV CAPABLE' SHALL BE POSTED IN A CONSPICUOUS PLACE AT THE SERVICE PANEL OR SUBPANEL AND NEXT TO THE RACEWAY TERMINATION POINT
7. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION FORM GRN 12 SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

LEVEL 1 OVERALL PLAN

NORTH	DATE	PROJ NO	SCALE	DRAWING
				A1.0
DRAWN	CKD BY	FLOOR		

AMIT APEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B MCLAREN AIA ARCHITECT



1 LEVEL 1 - ENLARGED 2

1/4" = 1'-0"

PARTITION TYPES

- 6" CIP CONCRETE WALL
- 8" CIP CONCRETE WALL WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH BRICK VENEER FINISH
- INTERIOR WOOD STUD WALLS
- 1 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
- 1 HOUR INTERIOR 6" WOOD STUD WALLS BETWEEN UNITS (PARTY WALLS)
- 2 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
- CM CARBON MONOXIDE DETECTOR
- SD SMOKE DETECTOR
- FLUSH CEILING EXHAUST FAN ENERGY STAR & HUMIDISTAL DUCTED TO OUTSIDE

NOTE:

CSS Color Coal and GSS Clear Coat anti-graffiti coalings
By American Polymer Corp.
RESEARCH REPORT: RR 25142-T (CSI 09960)

ALL THE TOILETS ARE DUAL FLUSH. SEE ITEM 6 ON SUSTAINABILITY CHECK LIST FOR INFORMATION.

1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA 13D.
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3. AUTOMATIC GARAGE DOOR OPENERS SHALL BE IN ACCORDANCE WITH UL 325
4. WOOD AND WOOD BASED PRODUCTS SHALL BE PROTECTED FROM DECAY IN THE LOCATIONS SPECIFIED PER SECTION R317.1.

NOTE:

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5. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED

GREEN BUILDING NOTES:

1. CONSTRUCTION WASTE SHALL BE REDUCED BY 50%. INDICATE HOW CONSTRUCTION WASTE WILL BE HANDLED:
a) CITY OF LOS ANGELES CERTIFIED HAULER
2. i) FANS SHALL BE ENERGY START COMPLAINT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING.
3. ii) FANS NOT FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATING SYSTEM MUST BE CONTROLLED BY A HUMIDITY CONTROL

4. "FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION FORM GRN12 SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL" (STATE ASSEMBLY BILL NO 1881)
5. SUFFICIENT CONDUCT SIZING AND SERVICE CAPACITY TO INSTALL LEVEL 2 EVSE SHALL BE PROVIDED
6. A LABEL STATING 'EV CAPABLE' SHALL BE POSTED IN A CONSPICUOUS PLACE AT THE SERVICE PANEL OR SUBPANEL AND NEXT TO THE RACEWAY TERMINATION POINT
7. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION FORM GRN 12 SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

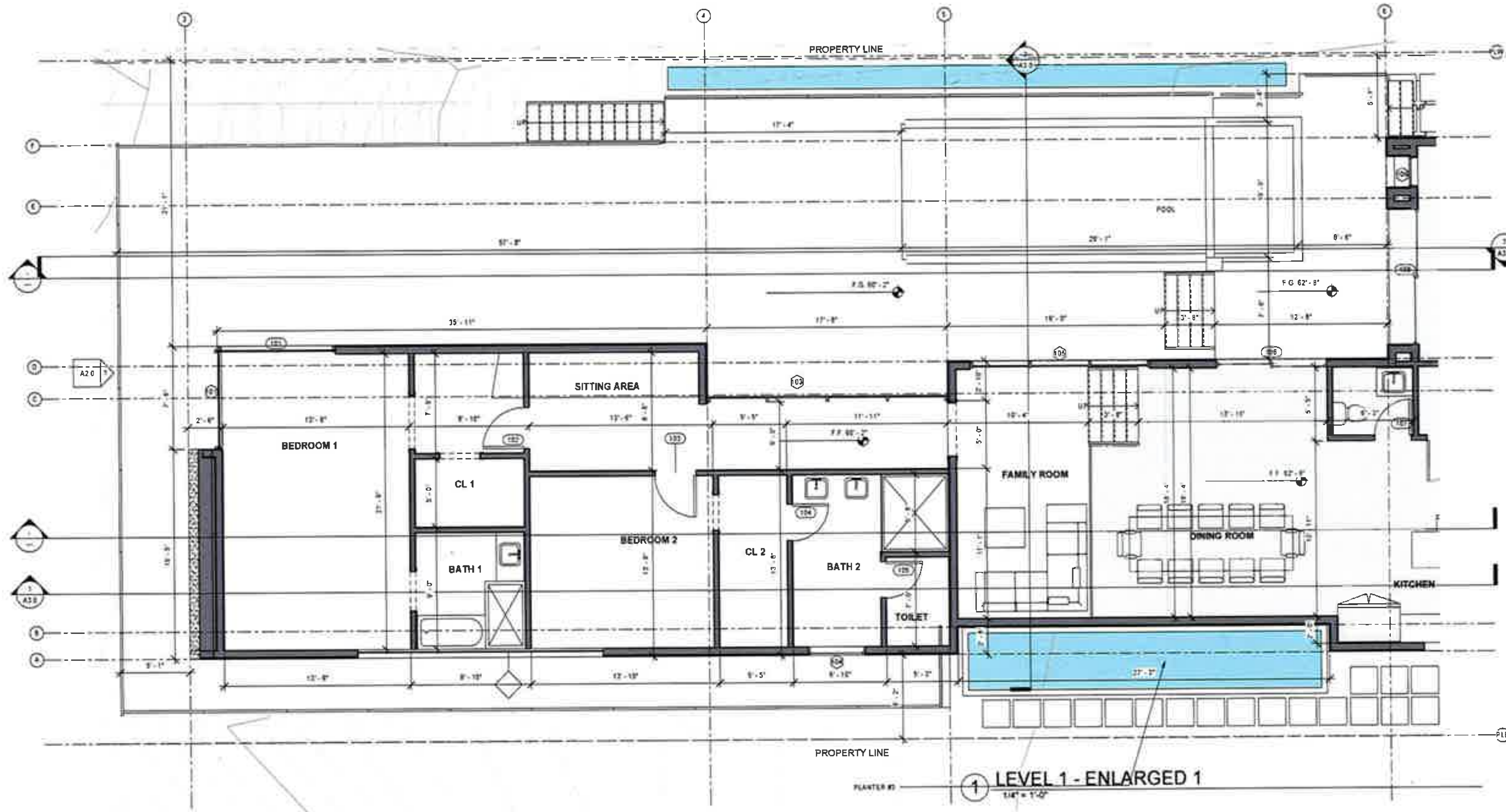
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

LEVEL 1 ENLARGED 2

NORTH	DATE	PROJ NO.	SCALE	DRAWING
	DRAWN	CKD BY	FLOOR	A1.1

AMIT APEL DESIGN INC.



LEVEL 1 - ENLARGED 1

1/4" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

PARTITION TYPES

8" CIP CONCRETE WALL	INTERIOR WOOD STUD WALLS
8" CIP CONCRETE WALL WITH STUCCO FINISH	1 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
EXTERIOR WOOD STUD WALLS WITH STUCCO FINISH	1 HOUR INTERIOR 6" WOOD STUD WALLS BETWEEN UNITS (PARTY WALLS)
EXTERIOR WOOD STUD WALLS WITH BRICK VENEER FINISH	2 HOUR FIRE RATED INTERIOR WOOD STUD WALLS

CM CARBON MONOXIDE DETECTOR

SD SMOKE DETECTOR

FLUSH CEILING EXHAUST FAN
ENERGY STAR & HUMIDISTAL DUCTED TO OUTSIDE

NOTE:
CSS Color Coat and GSS Clear Coat anti-graffiti coatings
By American Polymer Corp.
RESEARCH REPORT: RR 25142-T (CSI 09960)

ALL THE TOILETS ARE DUAL FLUSH SEE ITEM 6 ON SUSTAINABILITY CHECK LIST FOR INFORMATION.

1. THE BUILDING SHALL BE EQUIPPED WITH AN AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION R313.3 OR NFPA 13D.
2. THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIV. PRIOR TO INSTALLATION.
3. AUTOMATIC GARAGE DOOR OPENERS SHALL BE IN ACCORDANCE WITH UL 325
4. WOOD AND WOOD BASED PRODUCTS SHALL BE PROTECTED FROM DECAY IN THE LOCATIONS SPECIFIED PER SECTION R317.1.

NOTE:

1. PLUMBING FIXTURES ARE REQUIRED TO BE CONNECTED TO A SANITARY SEWER OR TO AN APPROVED SEWAGE DISPOSAL SYSTEM (R306.3).

2. KITCHEN SINKS, LAVATORIES, BATHTUBS, SHOWERS, BIDETS, LAUNDRY TUBS AND WASHING MACHINE OUTLETS SHALL BE PROVIDED WITH HOT AND COLD WATER AND CONNECTED TO AN APPROVED WATER SUPPLY (R306.4).

3. BATHTUB AND SHOWER FLOORS, WALLS ABOVE BATHTUBS WITH A SHOWERHEAD, AND SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR (R307.2).

4. NEW CONSTRUCTION SHALL PROVIDE ULTRA LOW FLUSH WATER CLOSETS AND EXISTING SHOWER HEADS AND TOILETS MST BE ADAPTED FOR LOW WATER CONSUMPTION.

5. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED

GREEN BUILDING NOTES:

1. CONSTRUCTION WASTE SHALL BE REDUCED BY 50%. INDICATE HOW CONSTRUCTION WASTE WILL BE HANDLED:
a) CITY OF LOS ANGELES CERTIFIED HAULER
2. i) FANS SHALL BE ENERGY START COMPLAINT AND BE DUCTED TO TERMINATE TO THE OUTSIDE OF THE BUILDING.
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7. FOR PROJECTS THAT INCLUDE LANDSCAPE WORK, THE LANDSCAPE CERTIFICATION FORM GRN 12 SHALL BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL

Revision Schedule

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

LEVEL 1 ENLARGED 1

A1.2

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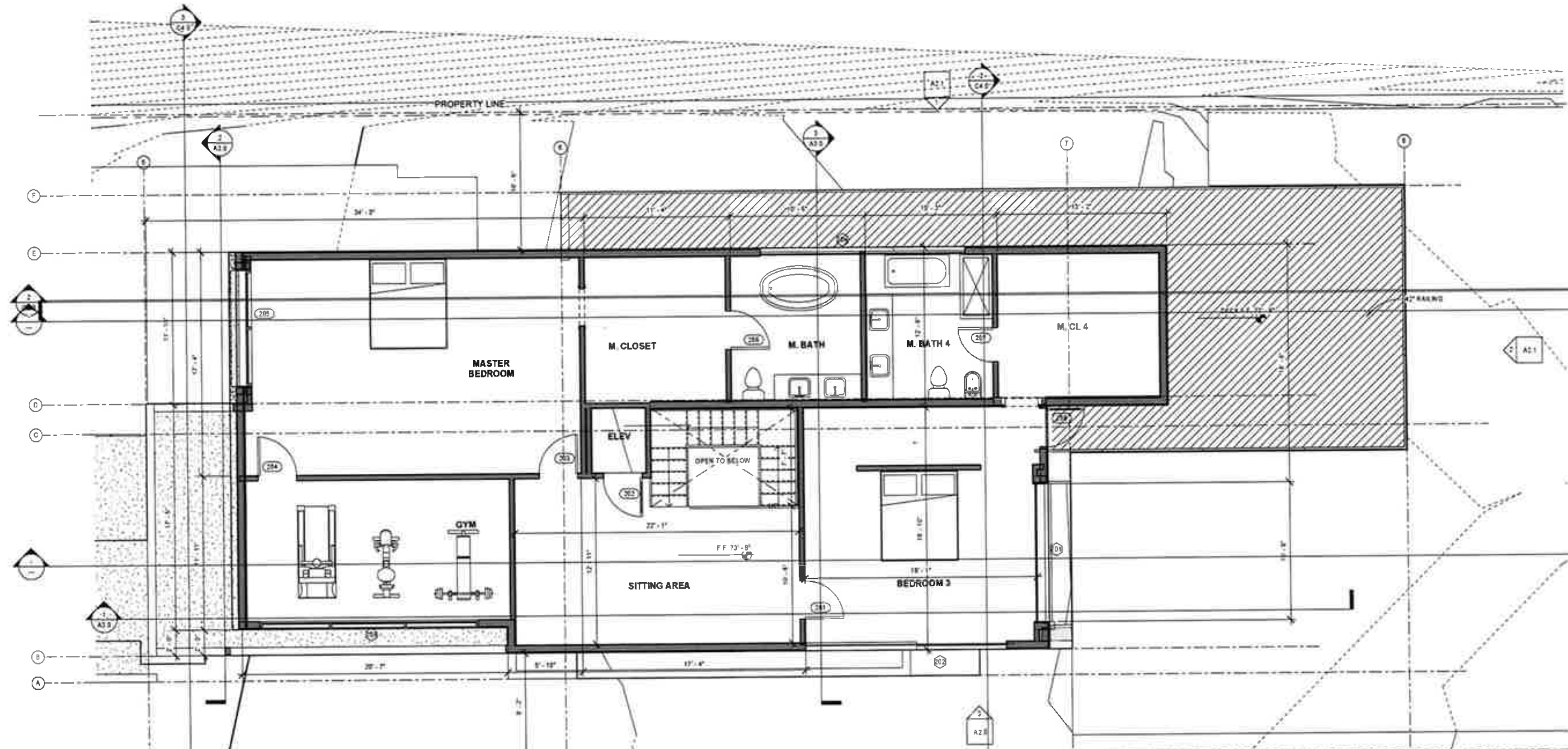

1 FLOOR PLAN LEVEL 2
1/4" = 1'-0"

NOTE:
CSS Color Coat and GSS Clear Coat anti-graffiti coatings
By American Polymer Corp.
RESEARCH REPORT: RR 25142-T (CSI 09960)

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5. ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE ILLUMINATED

PARTITION TYPES

- 8" CIP CONCRETE WALL
- 8" CIP CONCRETE WALL WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH STUCCO FINISH
- EXTERIOR WOOD STUD WALLS WITH BRICK VENEER FINISH
- INTERIOR WOOD STUD WALLS
- 1 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
- 1 HOUR INTERIOR 6" WOOD STUD WALLS BETWEEN UNITS (PARTY WALLS)
- 2 HOUR FIRE RATED INTERIOR WOOD STUD WALLS
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1,904 SQ FT

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

LEVEL 2

DRAWING A1.3

25001 Pacific Coast Hwy
Malibu CA 90265

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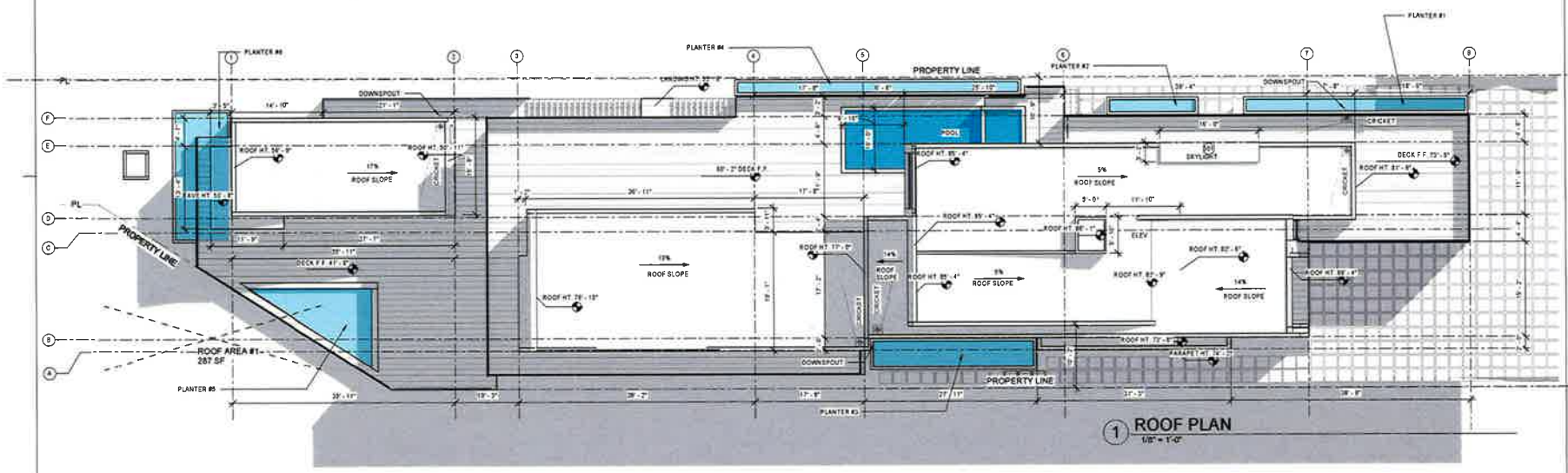
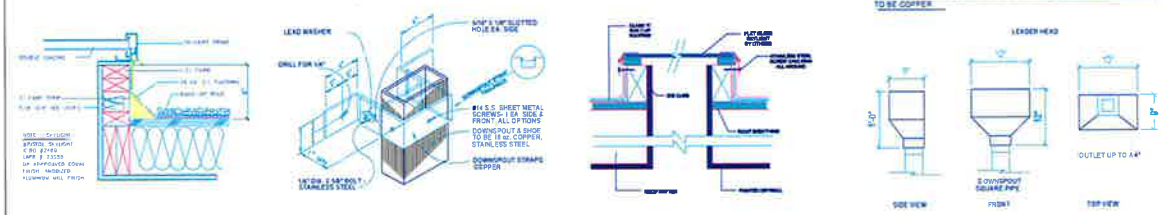


1 ROOF PLAN
1/8" = 1'-0"

GREEN BUILDING NOTES:

1. DURING CONSTRUCTION THERE ARE A NUMBER OF WAYS I THAT AIR QUALI IN THE BUILDING CAN BE PUT AT RISK. THESE INCLUDE WATER DAMAGE TO MATERIALS, DUST COLLECTION IN THE VENTILATION SYSTEM, ABSORPTION OF VOCS INTO POROUS MATERIALS LIKE CARPET AND FURNITURE, AND CLOGGED FILTERS. PREPARING A PLAN PRIOR TO CONSTRUCTION AND PROVIDING THE PLAN TO THE CONTRACTOR HELPS TO ENSURE THAT AIR QUALITY ISSUES WILL BE WELL MANAGED THROUGHOUT THE CONSTRUCTION PROCESS. PROJECTS SHALL PROVIDE A CONSTRUCTION AIR QUALITY MANAGEMENT PLAN ON THE CONSTRUCTION DRAWINGS THAT, AT A MINIMUM INCLUDES PROTECTING DUCTS DURING CONSTRUCTION AND CHANGING THE FILTERS AND VACUUMING DUCTS PRIOR TO OCCUPANCY.
2. LOW VOLATILE ORGANIC COMPOUND (VOC) PAINTS AND WOOD FINISHES ARE BROADLY AVAILABLE AT LITTLE OR NO ADDITIONAL COST THAN THEIR TOXIC COUNTERPARTS. USING THESE MATERIALS PROTECTS BOTH WORKERS AND OCCUPANTS FROM RESPIRATORY IRRITATIONS THAT CAN BE GENERATED BY VOCS. MOST LOW-VOC PAINTS MARKETED BY PAINT MANUFACTURERS MEET THE THRESHOLD OF 50 GRAMS (OR LESS) PER LITER FOR FLAT PAINTS, AND 150 GRAMS PER LITER (OR LESS) FOR NON-FLAT PAINTS
3. ENERGY STAR QUALIFIED APPLIANCES INCORPORATE ADVANCED TECHNOLOGIES THAT USE 50% LESS ENERGY AND WATER THAN STANDARD MODELS.THEY ARE WIDELY AVAILABLE FROM ALL MAJOR BRANDS. REBATES AND INCENTIVES ARE OFTEN AVAILABLE FROM SOUTHERN CALIFORNIA EDISON. SEEHTTP://WWW.SCE.COM/REBATESANDSAVINGS/ AND ALSO FROM SOCAL GAS COMPANY AND LADWP. COMMERCIAL APPLIANCES THAT ARE NOT AVAILABLE IN ENERGY STAR ARE EXEMPT FROM THIS REQUIREMENT
4. PROJECTS SHALL COMPLY WITH APPLICABLE REQUIREMENTS FOR UTILIZING LOW-FLOW SHOWERHEADS, FAUCETS AND WATER CLOSETS AS ADOPTED BY SECTION 13 12 030(I) AND (J). THE MAXIMUM RATE FOR LOW-FLOW FAUCETS IS 2.2 GALLONS PER MINUTE. THE MAXIMUM RATE FOR SHOWER HEADS IS 2.5 GALLONS PER MINUTE. THESE FIXTURES CAN HELP REDUCE WATER USAGE AT A TIME WHEN SOUTHERN CALIFORNIA IS FACING A SHARP DECREASE IN WATER SUPPLY.
5. OUTDOOR LIGHTING SHOULD BE DESIGNED TO PREVENT GLARE, LIGHT TRESPASS, AND SKY GLOW AS MUCH AS POSSIBLE. PERMANENTLY INSTALLED LIGHTING SHOULD NOT BLINK, FLASH, OR BE OF UNUSUALLY HIGH INTENSITY OR BRIGHTNESS. EXTERIOR LIGHTING MUST BE ENERGY-EFFICIENT AND SHIELDED SO THAT ALL GLARE IS CONFINED WITHIN THE BOUNDARIES OF THE SITE. ENERGY EFFICIENT OUTDOOR LIGHTING LASTS LONGER THAN INCANDESCENT BULBS, SAVES ENERGY AND MONEY, AND LIGHT SPILLAGE IS REDUCED.
6. PROJECTS MUST COMPLY WITH ALL APPLICABLE REQUIREMENTS IN SECTION 19.28.100(B) (PARKING AREA LANDSCAPING REQUIREMENTS). THE PARKING LOT MUST HAVE PERIMETER LANDSCAPING, WITH 1 CANOPY TREE FOR EVERY 9 PARKING SPACES. PARKING AREAS ADJACENT TO THE PUBLIC RIGHT OF WAY AND PARKING AREAS ADJACENT TO RESIDENTIALLY ZONED PARCELS MUST BE SCREENED FROM VIEW WITH LANDSCAPING TO A, MEASURED FROM THE SURFACE OF THE PARKING " HEIGHT OF #2 AREA
7. PROJECTS SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS IN CHAPTER 15 (ENVIRONMENTAL PROTECTION, POLLUTION, AND SOLID WASTE)



ROOF SLOPE

1. ROOF SLOPES ARE SHOWN DIRECTLY ON ROOF PLAN DRAWING.
2. ALL FLAT ROOFS AND BALCONIES SHALL SLOPE A MINIMUM OF 1/4" : 12" TOWARD DRAINS.
3. IN THE ABSENCE OF SLOPES SHOWN ON STRUCTURAL DRAWINGS OR ARCHITECTURAL DRAWINGS, ROUGH CARPENTER SHALL PROVIDE REQUIRED SHIMMING BELOW ROOF SHEATHING TO ALLOW FOR PROPER SLOPE TO DRAIN.
4. NO OBSTACLE SHALL PREVENT WATER FLOW TOWARD DRAINS OF 2% TOWARD DRAINS.

ROOFING MATERIAL

NOTE: PROVIDE CLASS "A" FIRE-RETARDANT ROOF COVERING ACCORDING TO CODE.
1. ALL FLAT ROOFS TO BE GAF MATERIAL CORPORATION BUILT UP ROOF TO INCLUDE:

GAF FLEXPLY 6 OVER GAF LEATHERBACK ROOF DECK PROTECTION OVER GAFGLAS #75 BASE SHEET OR APPROVED EQUAL 48" ROLLED ASPHALT CLASS A

ROOF PENETRATION

1. VENTS AT FLAT ROOF AND ROOF STACKS SHALL PROJECT ABOVE ROOF BY THE MINIMUM DISTANCE REQUIRED BY APPLICABLE CODES AND SHALL BE LOCATED IN AREAS NOT VISIBLE FROM STREET. EXACT LOCATION TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
2. ALL VENTS AND ROOF STACKS TO HAVE RAIN PROTECTION CAPS.
3. CONTINUOUS WATERPROOFING AT ALL ROOF PENETRATION SHALL BE PROVIDED WITH W.R. GRACE 4000 BITUTHENE WRAPPING AND 24 GA. GALVANIZED METAL FLASHING AND COUNTER FLASHING. ALL JOINTS AT SHEET METAL SHALL BE CAULKED.
4. COLOR OF ALL EXPOSED VENTS AND ROOF STACKS TO MATCH ADJACENT ROOF MATERIAL, UNLESS SPECIFIED OTHERWISE BY ARCHITECT.

GUTTERS AND ROOF DRAINS

1. GUTTERS SHALL BE CONSTRUCTED OF 24 GA. COPPER METAL WITH 5/8" EXPANSION JOINTS EVERY 30 FEET MAXIMUM.
2. GUTTERS SHALL SLOPE 1/16" PER FOOT TOWARD RAIN WATER LEADERS.
3. UNLESS SPECIFIED OTHERWISE, RAIN WATER LEADERS ARE EXPOSED AND LOCATION IS SHOWN ON ROOF PLAN.
4. PROVIDE DOME WIRE BASKET AT EACH RAIN WATER LEADER.

NOTE: ALL ROOF DRAINS SHALL CONNECT TO SUBSURFACE DRAINAGE SYSTEM WHICH SHALL DISCHARGE AT STREET.

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

ROOF PLAN

DRAWN | CKD BY | FLOOR | A1.4

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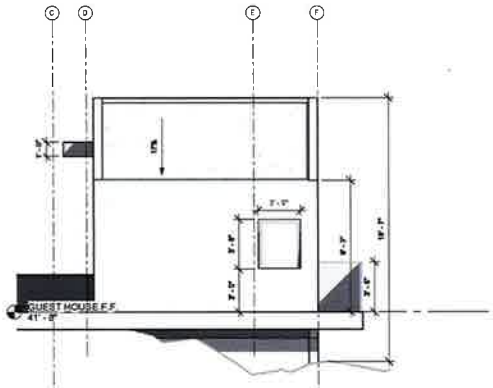
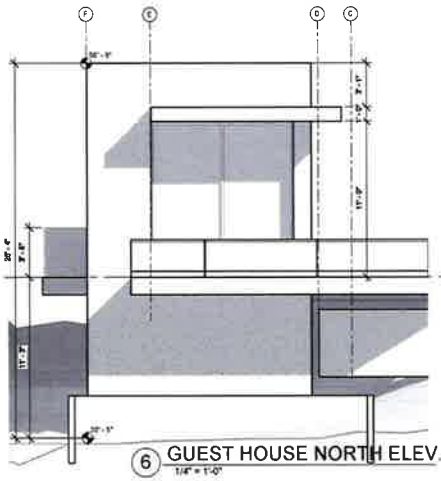
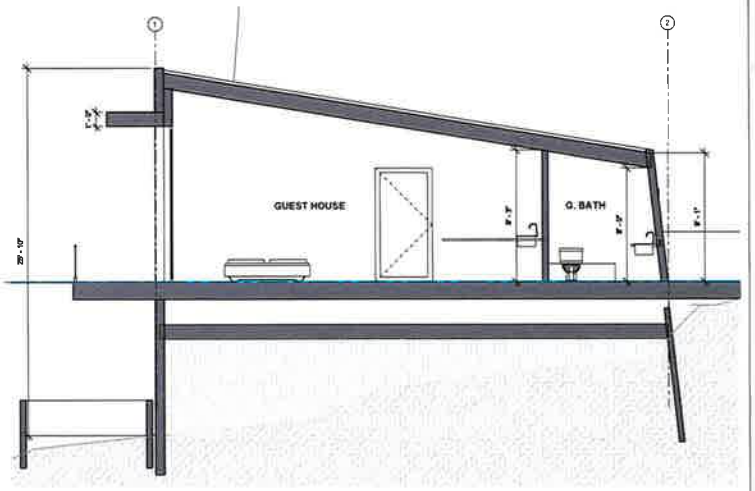


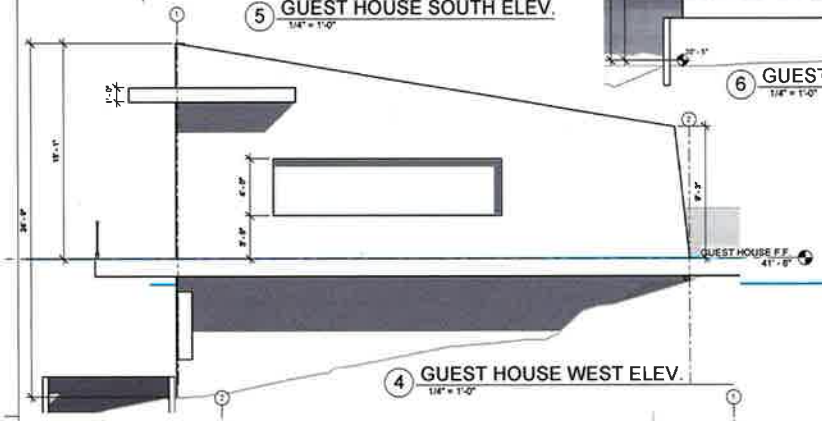
5 GUEST HOUSE SOUTH ELEV.
1/4" = 1'-0"



6 GUEST HOUSE NORTH ELEV.
1/4" = 1'-0"

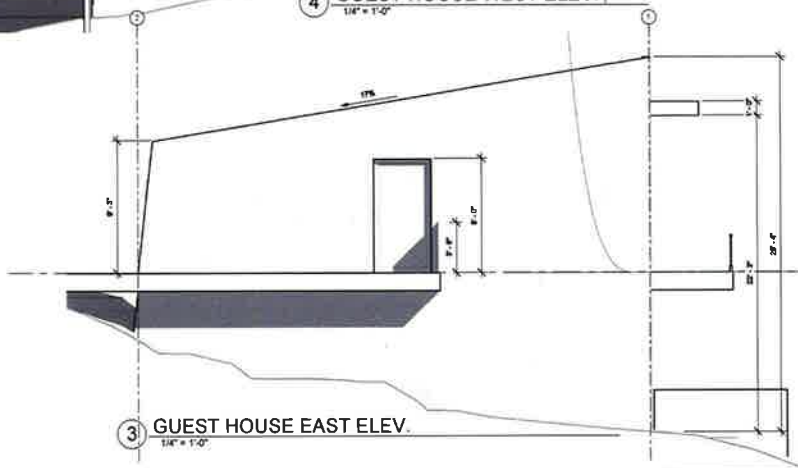


2 GUEST HOUSE SECTION 1
1/4" = 1'-0"

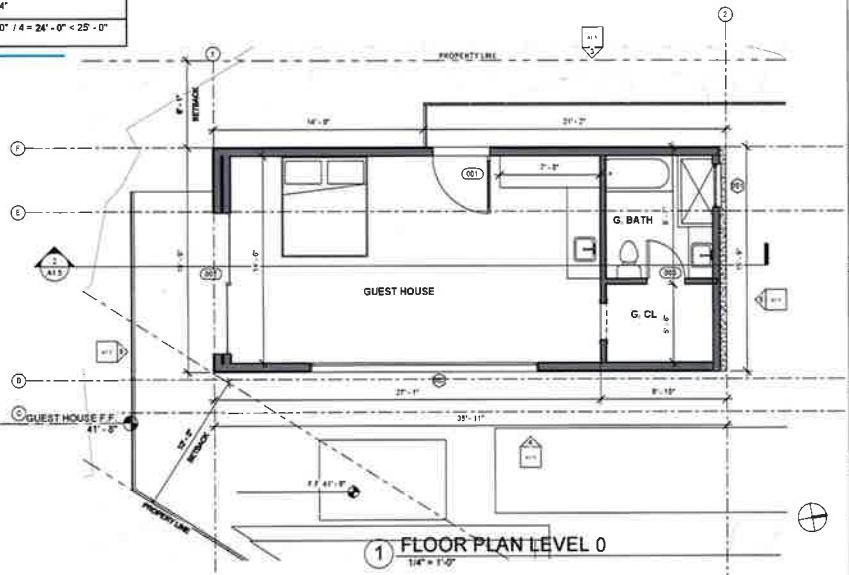


4 GUEST HOUSE WEST ELEV.
1/4" = 1'-0"

GUEST HOUSE HEIGHT TABLE	
WEST ELEVATION	24' - 9"
NORTH ELEVATION	26' - 4"
SOUTH ELEVATION	18' - 7"
EAST ELEVATION	25' - 4"
TOTAL	95' - 0" / 4 = 24' - 0" < 25' - 0"



3 GUEST HOUSE EAST ELEV.
1/4" = 1'-0"



1 FLOOR PLAN LEVEL 0
1/4" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

GUEST HOUSE

NORTH	DATE	PRELIM	SCALE	DRAWING
				A1.5
	DRAWN	CKD BY	FLOOR	

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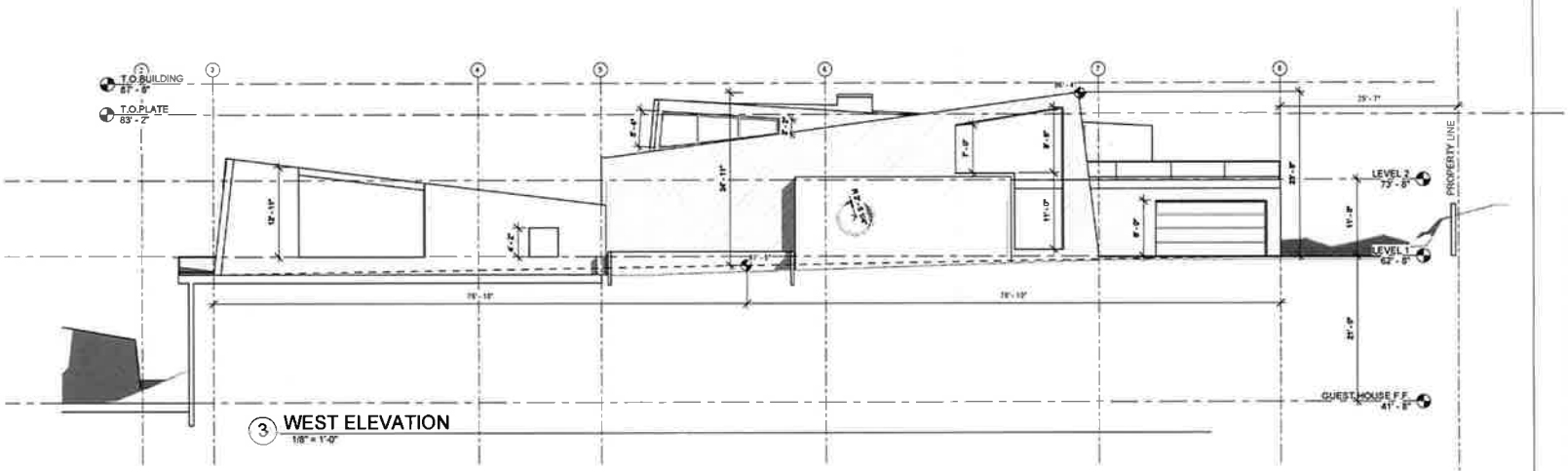
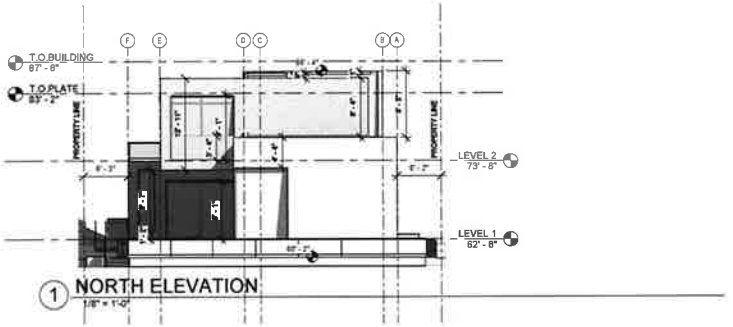


3 WEST ELEVATION
1/8" = 1'-0"

HEIGHT TABLE	
WEST ELEVATION	24' - 11"
NORTH ELEVATION	26' - 2"
SOUTH ELEVATION	23' - 8"
EAST ELEVATION	24' - 11"
TOTAL	99' - 8" / 4 = 24' - 11" < 25' - 0"



1 NORTH ELEVATION
1/8" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

#	Description	Date

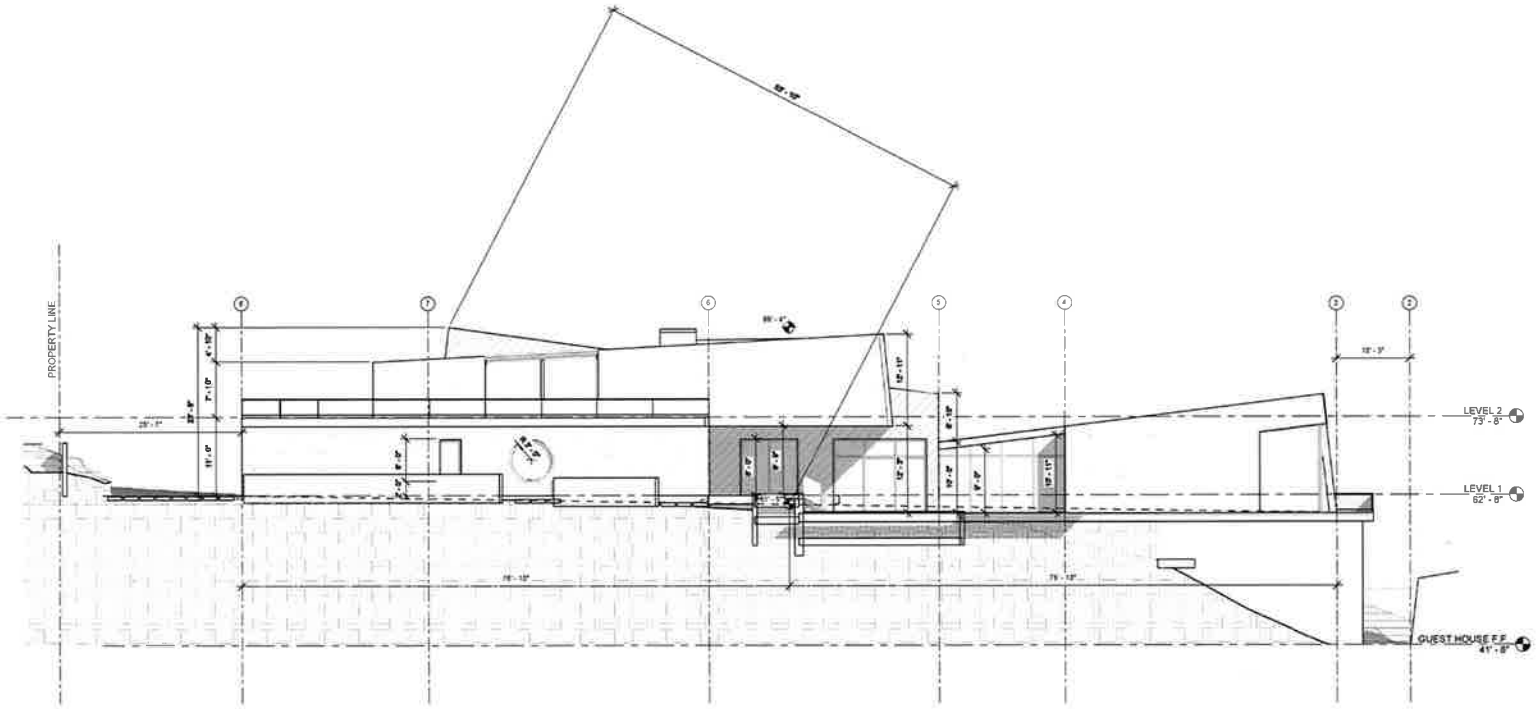
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

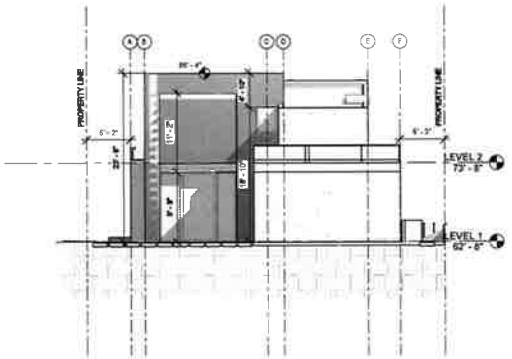
EXTERIOR ELEVATIONS

NORTH	DATE	PROJECT NO.	SCALE	DRAWING
	DRAWN	CKD BY	FLOOR	A2.0

AMIT APEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B. MCLAREN AIA ARCHITECT



1 EAST ELEVATION
1/8" = 1'-0"



2 SOUTH ELEVATION
1/8" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

#	Description	Date

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

EXTERIOR ELEVATIONS

NORTH	DATE	PROJ NO	SCALE	DRAWING
				A2.1
	DRAWN	CKD BY	FLOOR	

AMIT APEL DESIGN INC.

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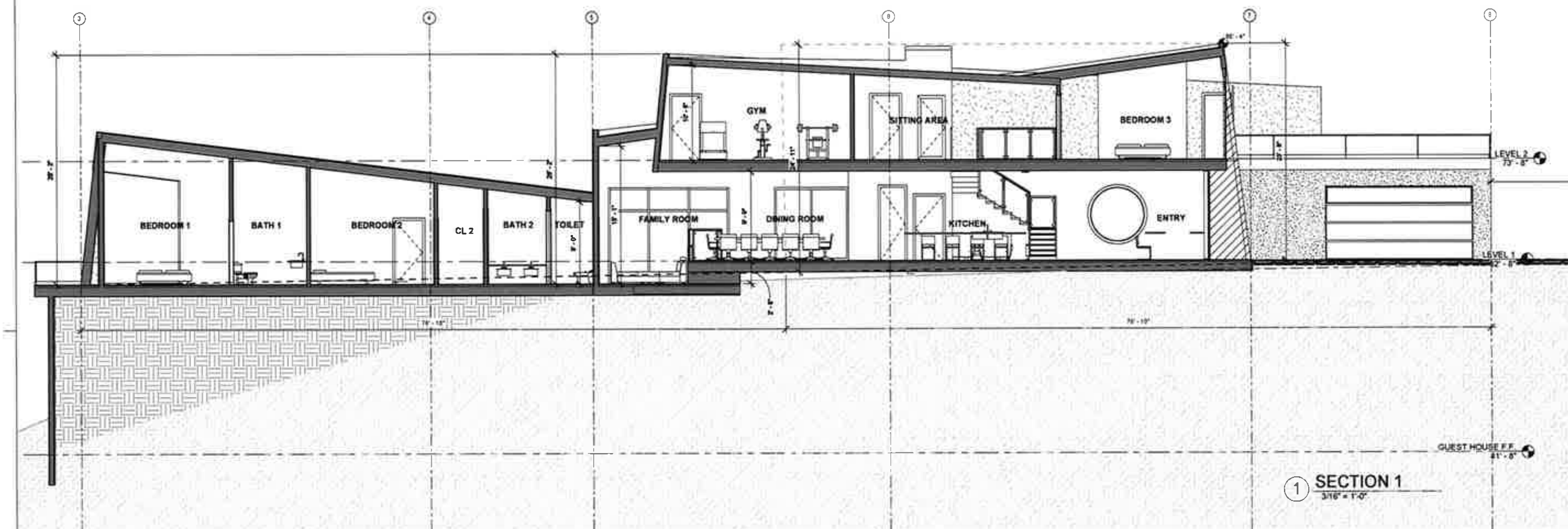
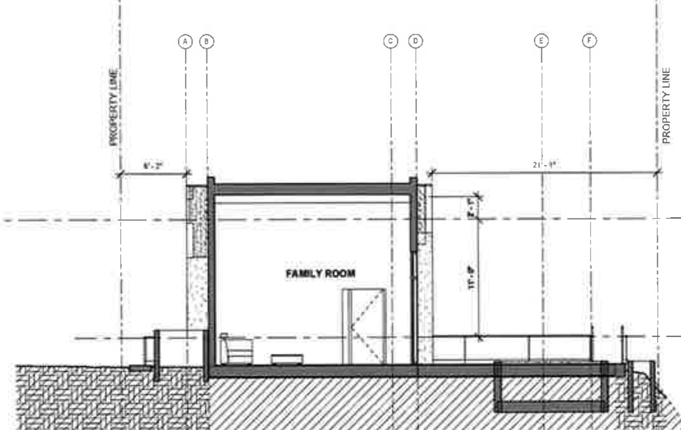
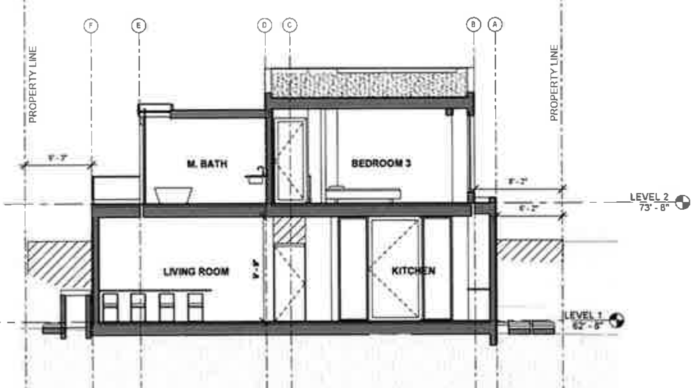


SECTION 1
3/16" = 1'-0"



SECTION 2
3/16" = 1'-0"



SECTION 3
3/16" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

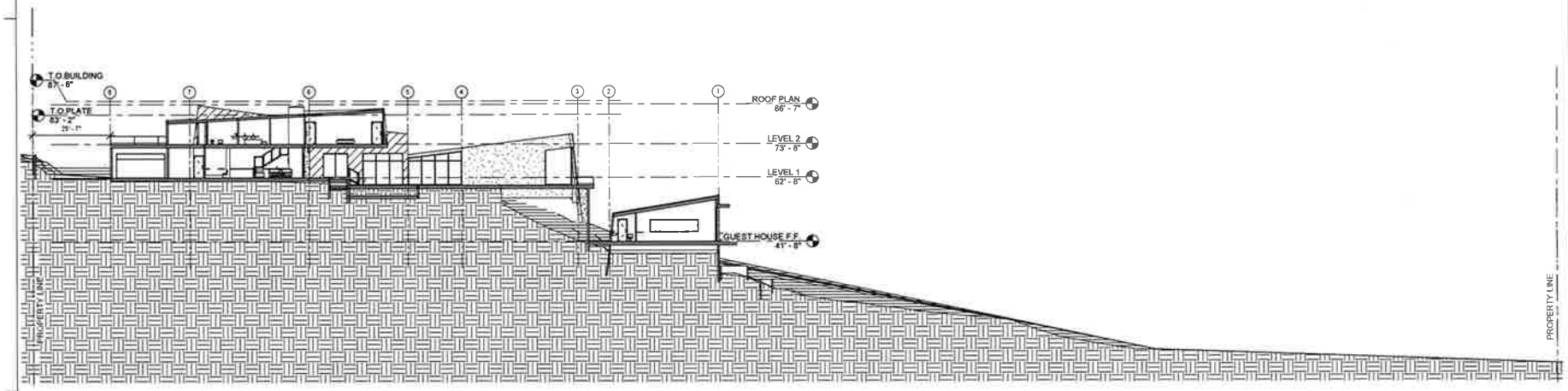
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

BUILDING SECTIONS

A3.0

AMIT APEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B MCLARNN AIA ARCHITECT



7 Section 7
1/16" = 1'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

SITE SECTION

NORTH	DATE	PROJECT	SCALE	DRAWING
				A3.1
	DRAWN	CKD BY	FLOOR	

AMIT APSEL DESIGN INC

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DOOR SCHEDULE

LOCATION		DOOR				FRAME							
FLOOR	DOOR #	WIDTH	HEIGHT	DOOR TYPE	REMARKS	FRAME TYPE	MFG'R	MODEL NUMBER	HEAD	JAMB	SILL	GLAZING	COMMENTS
GUEST HOUSE F.F.	001	4' - 0"	8' - 0"										
GUEST HOUSE F.F.	002	9' - 11"	11' - 0"										
GUEST HOUSE F.F.	003	2' - 8"	7' - 0"										
LEVEL 1	101												
LEVEL 1	102	3' - 0"	7' - 0"										
GUEST HOUSE F.F.	103	3' - 0"	7' - 0"										
LEVEL 1	104	2' - 8"	8' - 0"										
LEVEL 1	105	2' - 8"	8' - 0"										
LEVEL 1	106	8' - 0"	8' - 0"										
LEVEL 1	107	2' - 8"	8' - 0"										
LEVEL 1	108	9' - 11"	8' - 1"										
LEVEL 1	109	3' - 0"	7' - 0"										
LEVEL 1	110	3' - 0"	7' - 0"										
LEVEL 1	111	2' - 8"	7' - 0"										
LEVEL 1	112	3' - 0"	7' - 0"										
LEVEL 1	113	2' - 10"	7' - 0"										
LEVEL 1	114	16' - 0"	8' - 0"										
LEVEL 1	115	5' - 0"	9' - 9"										
LEVEL 2	201	3' - 0"	7' - 0"										
LEVEL 2	202	3' - 0"	7' - 0"										
LEVEL 2	203	3' - 0"	7' - 0"										
LEVEL 2	204	3' - 0"	7' - 0"										
LEVEL 2	205												
LEVEL 2	206	3' - 0"	7' - 0"										
LEVEL 2	207	2' - 8"	7' - 0"										
LEVEL 2	208	3' - 0"	8' - 0"										

WINDOW SCHEDULE

	SIZE												
WINDOW TYPE	WIDTH	HEIGHT	SILL HEIGHT	HEAD HEIGHT	REMARKS	WINDOW TYPE	MFG'R	HEAD	JAMB	SILL	GLAZING	LITES	COMMENTS
					Curtain Panel4								
001	3' - 0"	3' - 6"	3' - 0"	6' - 6"	Fixed								
002	16' - 0"	4' - 0"	3' - 0"	7' - 0"	Fixed								
101					Curtain Panel3								
103					Curtain Panel								
104	4' - 2"	4' - 2"	0' - 0"	4' - 2"	Fixed								
105					Curtain Panel								
106	2' - 3"	8' - 7"	1' - 2"	9' - 9"	Fixed								
107	5' - 0"		3' - 2"	3' - 2"	Round with Trim								
108	6' - 0"		2' - 0"	2' - 0"	Round with Trim								
109	3' - 0"	6' - 0"	2' - 0"	8' - 0"	Fixed								
110					Curtain Panel								
111	2' - 10"	9' - 9"	0' - 0"	9' - 9"	Fixed								
111	2' - 10"	9' - 9"	0' - 0"	9' - 9"	Fixed								
201					Curtain Panel								
202					Curtain Panel1								
203					Curtain Panel								
204					Curtain Panel								
301	3' - 2"	15' - 11"			Skylight								

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

SCHEDULES

A5.0

AMIT APEL DESIGN INC.
IN ASSOCIATION WITH
MICHAEL B. MACLAREN AIA ARCHITECT

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

RENDERS

DRAWN | CHECK | TODAY

A6.0

AMIT APEL DESIGN INC.

PRECISE GRADING AND RETAINING WALL PLANS FOR

NEW HOME CONSTRUCTION
41700 Pacific Coast Hwy

GENERAL NOTES

1 IF THE GRADING PERMIT IS NOT INITATED WITHIN ONE HUNDRED EIGHT (180) DAYS FROM THE DATE OF APPROVAL AND COMPLETED WITHIN THREE HUNDRED SIXTY FIVE (365) DAYS THE GRADING APPROVAL SHALL EXPIRE AND BECOME NULL AND VOID

2 PRIOR TO FINAL APPROVAL OF GRADING AND BEFORE THE RELEASE OF THE GRADING SECRUITY, THE PLANTING SHALL BE WELL ESTABLISHED AND GROWING ON THE SLOPES AND WHERE RODENT CONTROL IS REQUIRED, THERE SHALL BE EVIDENCE OF AN EFFECTIVE RODENT CONTROL PROGRAM

3 CONSTRUCTION FENCING SHALL BE MAINTAINED AROUND THE PERIMETER OF THE SITE AT ALL TIMES UNLESS THE CITY BUILDIGN DIVISION APPROVES THE USE OF 24-HOUR SECRUITY

4 THE GRADING CONTRACTOR SHALL EXERCISE EXTRA CASE TO MINIMIZE THE EFFCTS FROM DISTRUBED EARTH AND/OR DUST DUST SHALL BE CONTROLLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOUTH COAST AIRQUALICTY MANAGEMENT DISTRICT ANDAPPLICABLE COUNTY AND STATE LAWS AT A MINIMUM CONTINUOUS WETTING SHALL BE PERFORMED WHILE ANY GRADING WORK IS BEING DONE IF THE WATER IS TO BE OBTAINED FROM THE CITY WATER SYSTEM THE GRADING CONTRACTOR SHALL FIRST OBTAIN APPROVAL FROM THE CITY PUBLIC WORKS DEPARTMENT

5 ADJACENT PROPERTY OWNERS SHALL BE NOTIFIED IN ADVANCE OF ANY EXCAVATIONS IN ACCORDANCE WITH CALIFORNIA CIVIL CODE

6 AT ALL TIME OF PERMIT ISSUANCE THE CONTRACTOR SHALL PRESENT A VALID WORKES' COMPENSATION INSURANCE CERTIFICATE

7 ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF STATE OF CALIFORNIA TITLE 24 REGARDLESS OF THE INFORMATION INDICATED ON THESE PLANS IT IS THE RESPONSIBILITY OF THE INDIVIDUAL SUPERVISING THE CONSTRUCITON TO ENSURE THAT THE WORK IS DONE IN ACCORDANCE WITH CODE REQUIREMENTS PRIOR TO REQUESTING INSPECTION

8 THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERROS ON THESE PLANS OR FROM PREVENTING ANY VIOLATION OF THE CODES ADOPTED BY THE CITY RELEVANT LAWS ORDINANCES RULES AND/OR REGULATIONS

9 THE DUTIES OF THE SOILS ENGINEER OF RECORD SHALL INCLUDE THE FOLLOWING
A) OBSERVATION OF CLEARED AREAS AND BENCHES PREPARED TO RECIEV FILL
B) OBSERVATIONS OF THE REMOVAL OF ALL UNSUITABLE SOILS AND OTEHR MATERIALS
C) THE APPROVAL OF SOILS TO BE USED AS FILL MATERIALS
D) THE INSPECTION OF PLACEMENT AND COMPACTION OF FILL MATERIALS
E) THE TESTING OF COMPLETED FILLS
F) AND THE INSPECTINO OR REVIEW OF DRAINAGE DEVICES

10 COMPACTION TESTING SHALL NOT BE PERFORMED BY INDIVIDUALS OTHER THAN THE SOILS ENGINEER OR FRECORD UNLESS REQUESTED BY THE SOILS ENGINEER OF RECORD AND APPROVED BY THE CITY BUILDING DIVISION

11 ALL RECOMMENDTIONS CONTAINED WITHIN THE SOILS REPORT FOR THIS PROJECT SHALL BE INCORPORATED INTO THE GRADING WORK

12 THE ENGINEER SHALL OBSERVE AND APPROVED IN WRITTING ALL FOUNDATION EXCAVATIONS PRIOR TO REQUESTING FOUNDATION INSPECTION FROM THE CITY BUILDING DIVISION

13 ERODED SEDIMENTS AND OTHER POLLUTANTS SHALL BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET-FLOW, SWALES AREA DRAINS NATURAL DRAINAGE COURES OR WIND

14 SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICULAR TRAFFIC THE CONSTRUCIOTN ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY ACCIDENTAL DEPOSITIONS SHALL BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS

15 STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS SHALL BE PROTECTED FROM BEING TRANSPORTEDF ROM THE SITE BY FORCES OF WIND OR WATER

16 TRASH AND CONSTRUCTION RELATED SOLID WATES SHALL BE DEPOSITED INTO A COVERED RECEPTABLE TO PREVENT CONTAMINATINO OF RAINWATER AND DISPERSAL BY WIND

17 EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLILD WASTE

18 FUELS OILS SOLVENTS AND OTHER TOXIC MATERIALS SHALL BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOILS AND SURFACE WATERS ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER SPILLS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPERTY MANNER SPILLS MAY NOT BE WASHED INTO THE DRAINGE SYSTEM

19 ANY SLOPES WITH DISTURBED SOILS OR WHICH HAVE BEEN DENUDED OF VEGETATION SHALL BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER

20 SLOPE CORNERS AND EDGES SHALL BE ROUNDED THE OUTSIDE CORNERS AND EDGES OF ANY CUT OR FILL SLPOE SHALL BE ROUNDED WITH A CONVEX RADIUS OF NOT LESS THANTWETNY-FIVE FEET AND WHERE A CUT OR FILL SLOPE MEETS NATURAL GRADE SUCH SLOPE SHALL BE BLENDED INTO THE NATURAL GRADE WITH A CONCAVE RADIUS OF NOT LESS THAN TWENTY FIVE FEET BOTH THE TOP AND BOTTOM OF ANY CUT OR ILL SLOPE SHALL BE ROUNDED WITH A DRAIDUS OF NOT LESS THAN FIVE FEET AT SUCH EXTREMITY

21 THE APPLICABLE CODE IS THE 2016 LOS ANGELES COUNTY BUILDING CODE

22 THE ENGINEER SHALL CERIFY LINE AND GRADE FOR FOUNDATION EXCAVATIONS (AND FORMS IF ANY) PRIOR TO POUR AND PRIOR TO REQUESTING FOUNDATION INSPECTION FROM THE CITY BUILDING DIVISION

23 WHERE SHOWN "CITY" OR "AGENCY" SHALL BE DEEMED TO INDICATE THE CITY OF LA HABRA HEIGHTS ITS EMPLOYEERS OR CONSULTANTS

DIGALERT

800-227-2600

Call 2 Full Working Days in Advance

GENERAL GRADING NOTES

1 THE OWNER OR ANY PERSON OR AGENT IN CONTROL OF THIS PROPERTY SHALL MAINTAIN IN GOOD CONDITION AN REPAIR ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVIES ANS BURROWING RODENT CONTROL WHEN SHOWN ON THE GRADING PLANS

2 THE ISSUANCE OF THE GRADING PERMIT ASSOCAITED WITH THESE PLANS SHALL CONSITUATU AN AUTHORIZATION TO DO ONLY THE WORK WHICH ID SECRIBED OR ILLIUSTRATED ON THE APPLICATION FOR THE PERMIT OR ON THESE PLANS AND SPECIFICAIONS AS APPROVED BY THE BUILDIGN OFFICIAL

3 PERMITS ISSUED UNDER THE PROVISIONS OF THIS CODE SHALL NOT RELIEVE THE OWNER OF THE RESPONSIBLITY FOR SECURING PERMITS FO LICENSES THAT MAY BE REQUIRED FROM OTHER DEPARTMENTS OR DIVISIONS OF THE GOVERNING AGENCIES

4 ANY MODIFICATIONS OF OR CHANGES IN THE APPROVED GRADING PLANS MUST BE APPROVED BY THE BUILDING OFFICIAL MODIFICATIONS THAT AFFECT BASIC TRACT DESIGN OR LAND USE MUST HAVE THE APPROVAL OF THE APPROPRIATE CONTROL AGENCY

5 THE BUILDING OFFICIAL OR THE AUTHORIZED REPRESENTATIVE OF THE SURETY COMPANY OR FINANCIAL INSITUTION SHALL HAVE ACCESS TO THE PREMISES DESCRIBED ON THESE PLANS FOR THE PURPOSE OF INSPECTION THE WORK

6 IN THE EVENT OF DEFUALT IN THE PERFORMANCE OF ANY TERM OR CONDITION DESCRIBED ON THESE PLANS OR MADE A PART OF THIS PERMIT THE SURETY COMPANY FINANCIAL INSITUTION OR THE BUILDING OFFICIAL OR ANY PERSON EMPLOYED OR ENGATED IN THE BEHALF OF ANY OF THESE PARTIES SHALL HAVE THE RIGHT TO GO UPON THE PREMISES TO PERFORM THE REQUIRED WORK

7 THE OWNER OF ANY OTHER PERSONS WHO INTERFERCES WITH OR OBSTRUCTS THE INGRESS TO OR EGRESS FROM THE PREMISES DESCRIBED ON THESE PLANS OF ANY AUTHORIZED REPRESENTATIVE OF THE SURETY COMPANY FINANCIAL INSITUTATION OR THE CITY OF LA HABRA HEIGHTS WHO IS ENGAGED IN THE CORRECTION OF COMPLETION OF THE WORK DESCRIBED ON THESE PLANS AFTER A DEFAULT HAS OCCURRED IN THE PERFORMANCE OF THE TERMS OR CONDITIONS THEREOF IS GUILTY OF A MISDEMEANOR

8 ALL TEMPORARY PROTECTIVE MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER TO THE SATIFACTION OF THE BUILDING OFFICIAL BETWEEN NOVEMBER 1 AND APRIL 15 OF ANY YEAR UNLESS FINAL GRADING APPROVAL HAS BEEN GRANTED BY THE BUILDING OFFICIAL PRIOR TO THE DATE AND ALL PERMANENT DRAINAGE AND EROSION CONTROL SYSTEMS IF REQUIRED ARE IN PLACE

PROPERTY ADDRESS:

41700 PACIFIC COAST HIGHWAY
MALIBU CA 90265 (VENTURA COUNTY)

ASSESSOR'S PARCEL NO.

700-0-200-655 (VENTURA COUNTY)

LEGAL DESCRIPTION:
(BY SURVEY PREPARED BY HOOSHMAND JAHANPOUR-BURKE LS 8330)

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF F VENTURA STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS

PARCEL A.
PARCEL 1 IN THE COUNTY OF VENTURA STATE OF CALIFORNIA AS SHOWN ON PARCEL MAP FILED IN BOOK 35 PAGE 1 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

EXCEPT ALL MINERALS OIL PETROLEUM ASPHALTUM GAS COAL AND OTHER HYDROCARBON SUBSTANCES AND WATER CONTAINED IN ON WITHIN AND UNDER SAID LANDS AND EVERY PART THEREOF PROVIDED HOWEVER THAT THIS RESERVATION SHALL NEITHER RESERVE NOR SHALL IT BE CONSTRUED AS RESERVING TO GRANTOR ITS SUCCESSORS IN INTEREST OR ASSIGNS THE RIGHT TO GO UPON OR UNDER SAID LANDS FOR THE PURPOSE OF EXTRACTING ANY OF SAID SUBSTANCES AS RESERVED IN DEEDS RECORDED OCTOBER 27 1944 IN BOOK 707 PAGE 21 AND RECORDED MARCH 16 1946 IN BOOK 716 PAGE 382 OF OFFICIAL RECORDS

ALSO EXCEPT FROM SAID LAND WHICH EXTENDS TO THE MEAN HIGH TIDE LINE ANY PORTION OF THE LAND WHICH AT ANY TIME WAS TIDE LAND WHICH WAS NOT FORMED BY THE DEPOSIT OF ALLUVIUM FROM NATURAL CAUSES AND BY IMPERCEPTIBLE DEGREES

PARCEL B.
A NON-EXCLUSIVE EASEMENT FOR THE PURPOSES OF BOTH PEDESTRIAN AND MOTOR VEHICULAR INGRESS AND EGRESS BUT NO PARKING THEREON ANY AND ALL UTILITIES ARID FOR THE MAINTENANCE REPAIR AND REPLACE-MENT THEREOF OVER UNDER THROUGH AND ACROSS THE NORTHERLY 40 FEET OF PARCELS 2 3 AND 4 OF SAID PARCEL MAP FILED IN BOOK 35 PAGE 1 OF PARCEL MAPS

PARCEL C.
AN EASEMENT FOR INGRESS AND EGRESS OVER AND ACROSS STRIPS 3 4 AND 5 LYING WITHIN PARCELS 2 3 AND 4 IN THE COUNTY OF VENTURA STATE OF CALIFORNIA AS SHOWN ON PARCEL MAP FILED IN BOOK 35 PAGE 1 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY

PARCEL D.
A NON-EXCLUSIVE EASEMENT TO BE USED SOLELY FOR PEDESTRIAN ACCESS OVER THOSE PORTIONS OF PARCELS 2 AND 3 IN THE COUNTY OF VENTURA STATE OF CALIFORNIA AS SHOWN ON A PARCEL MAP FILED IN BOOK 35 PAGE 1 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER & SAID COUNTY BEING DESCRIBED AS FOLLOWS

BEGINNING AT THE NORTHEASTERLY TERMINUS OF THAT CERTAIN COURSE SHOWN AS 'D' AND HAVING A BEARING AND DISTANCE OF NORTH 64^15'22" EAST 36 21 FEET ON SAID PARCEL MAP THENCE NORTHEASTERLY ALONG THE SOUTHEASTERLY BOUNDARY OF PARCEL 3 OF SAID PARCEL MAP

1ST NORTH 24°24'30" EAST 12.00 FEET, THENCE

2ND SOUTH 64^15 22" WEST 39 01 FEET THENCE

3RD NORTH 73°18'18" WEST 61.00 FEET, THENCE

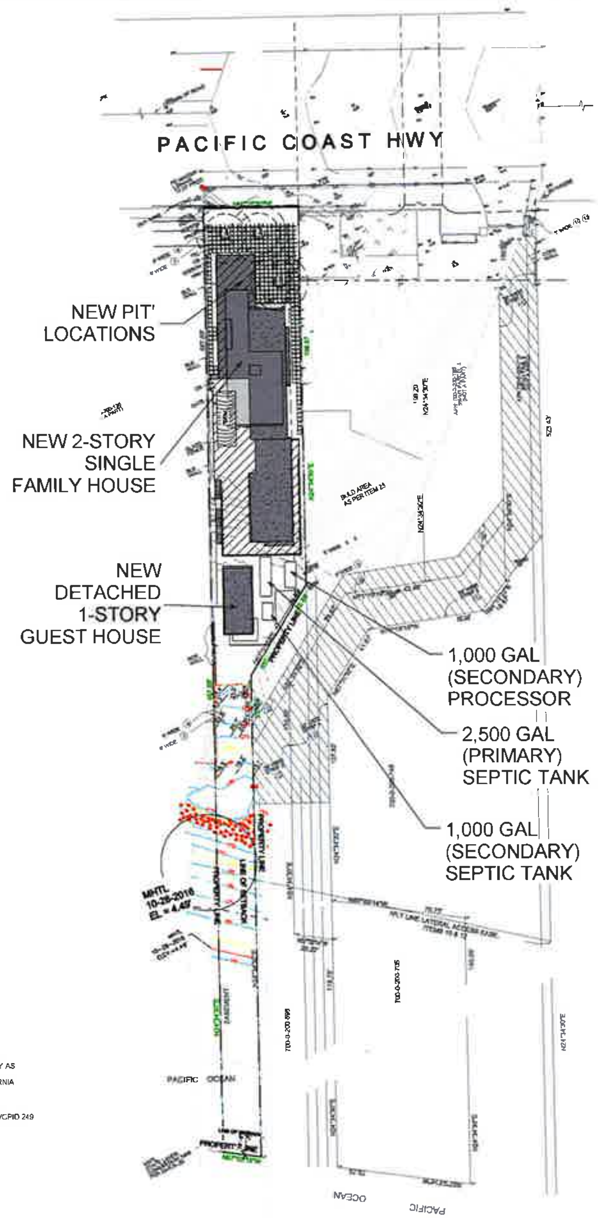
4TH SOUTH 57^01 58" WEST 92 54 FEET TO AN INTERSECTION WITH THE NORTHWESTERLY LINE OF SAID PARCEL 2 AS SHOWN ON SAID PARCEL MAP THENCE SOUTHWESTERLY ALONG SAID NORTHWESTERLY LINE

5TH SOUTH 24^34'30" WEST 11 18 FEET TO AN INTERSECTION WITH THE NORTHWESTERLY BOUNDARY OF STRIP 5 AS SHOWN ON SAID PARCEL MAP THENCE NORTHEASTERLY ALONG THE BOUNDARY OF SAID STRIP 5 AND STRIP 4 AS SHOWN ON SAID

BASIS OF BEARINGS
THE BEARING OF N 65^25'30 W ALONG THE CENTERLINE OF PACIFIC COAST HWY AS SHOWN ON PARCEL MAP FILED IN BOOK 35 PAGE 1 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER COUNTY OF VENTURA STATE OF CALIFORNIA WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY

BENCH MARK
VENTURA 32 181' 16 6 MILES SE ALONG U S HWY 1 FROM THE INTERSECTION VCPID 249
(1988) 9 809M OF WOOLEY RD AND SAVIERS RD AT OXNARD AT THE SW
CRN OF CONC BRIDGE 52-12 OVER LITTLE SYCAMORE
CREEK, IN THE TOP AND 0 4' E OF THE W END OF THE
SW CONC RETAINING WALL FOR THE S END OF THE W
CONC ABUTMENT OF THE BRIDGE 32' S OF CENTER OF
HWY AND ABOUT LEVEL WITH THE HWY
STAMPING S 583 1939, DESGN S583

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON NAVD 1988 DATUM



1 CIVIL SITE MAP
1" = 30'-0"

PROJECT LOCATION MAP

SOILS ENGINEER CERTIFICATION:
I HAVE REVIEWED AND HEREBY APPROVE THIS GRADING PLAN. IT COMPLIES WITH ALL OF THE REQUIREMENTS AND RECOMMENDATIONS OF MY SOILS REPORT DATED September 27, 2018 AND THE CURRENT UPDATE LETTER

Wayne Schick, CEG 1300

Schick Geotechnical, Inc.
7650 Haskell Ave., Suite D
Van Nuys, CA 91406
(818) 905-8011

DEPARTMENT OF PUBLIC WORKS
NOTICE TO CONTRACTOR

1 ALL WORK DETAILED ON THESE PLANS UNDER THE JURISDICTION OF THE BOARD OF PUBLIC WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND IN THE PRESENCE OF AN INSPECTOR APPOINTED BY THE BOARD OF PUBLIC WORKS
2 APPROVED HEREON IS THE WORK IN DEDICATED OR PROPOSED PUBLIC STREETS EASEMENTS AND WATERCOURSES UNDER JURISDICTION OF THE BOARD OF PUBLIC WORKS AND SLOPES ADJACENT TO SUCH STREETS SUBJECT TO THE PROVISIONS OF PERMIT "B" NO ________ NO EROSION CONTROL OR DRAINAGE DEVICES SHALL BE INSTALLED IN THE AREA COVERED BY PERMIT "B" NO ________ EXCEPT AS SHOWN HEREON OR AS APPROVED BY THE BOARD OF PUBLIC WORKS
3 THIS GRADING PLAN WHEN APPROVED BY THE DISTRICT ENGINEER AS WELL AS PERMITS FOR WORK WITHIN STATE OR COUNTY RIGHTS OF WAY SHALL BE ON THE SITE OF WORK AT ALL TIMES
4 IF AT ANY TIME DURING GRADING OPERATIONS ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED GRADING IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED
5 DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING GEOTECHNICAL SERVICES SECTION CONSTRUCTION DIVISION 2426 ALTMAN STREET LOS ANGELES CALIFORNIA 90031 (213)485-3858 SHALL BE NOTIFIED PRIOR TO COMMENCING GRADING OPERATIONS ALL FILLS SHALL BE COMPACTED TO 90% RELATIVE COMPACTION UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL SERVICES SECTION AND SPECIFIED BY THE ENGINEER
6 DRAINAGE FROM ALL LOTS SHALL BE CARRIED TO THE IMPROVED STREET GUTTER BY MEANS OF AN APPROVED DRIVEWAY OR DRAINAGE STRUCTURE
7 ALL SLOPES IN PRIVATE PROPERTY ADJOINING STREETS, DRAINAGE CHANNELS, OR OTHER PUBLIC FACILITIES SHALL BE GRADED NOT STEEPER THAN 2 TO 1 FOR CUT AND FILL
8 IF ANY GRADING OPERATIONS COVERED BY SAID PERMIT "B" NO ________ SHALL EXTEND INTO OR THROUGH OR SHALL BE COMMENCED DURING THE PERIOD OF NOVEMBER 1 TO APRIL 15, THE PERMITTEE WILL BE REQUIRED TO SUBMIT PLANS OF THE TEMPORARY EROSION CONTROL METHODS AND DEVICES HE PROPOSES TO USE IN CONNECTION WITH THE GRADING OPERATIONS TO BE PERFORMED DURING THAT PERIOD. SAID PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER ON OR BEFORE SEPTEMBER 15, OR AT LEAST 30 DAYS BEFORE COMMENCING GRADING OPERATIONS, AND SHALL BE APPROVED BY THE DISTRICT OR DIVISION ENGINEER BEFORE ANY GRADING IS PERFORMED DURING SAID PERIOD
APPROVED FOR APPROXIMATE STREET GRADE. NOT APPROVED FOR WORK IN DEDICATED OR PROPOSED PUBLIC STREETS
FINAL STREET GRADES AND ALIGNMENT MUST MEET CURRENT ESTABLISHED STANDARDS

PERMIT "BO" -

DISTRICT ENGINEER DATE
APPROVED FOR ROUGH GRADING AND APPROXIMATE STREET GRADES IN DEDICATED OR PROPOSED PUBLIC STREETS EASEMENTS WATER COURSES AND SLOPES ADJACENT TO SUCH EASEMENTS UNDER THE JURISDICTION OF THE BOARD OF PUBLIC WORKS SUBJECT TO THE PROVISIONS OF PERMIT "B" ________ AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (CURRENT EDITION AND SUPPLEMENTS)
FINAL STREET GRADES AND ALIGNMENT MUST MEET CURRENT ESTABLISHED CITY STANDARDS ONLY THE EROSION CONTROL OR DRAINAGE DEVICES SHOWN HEREON OR AUTHORIZED BY THE BUREAU OF ENGINEERING SHALL BE INSTALLED IN THE AREA COVERED BY PERMIT "B"

DISTRICT ENGINEER DATE
9 ALL GRADING SLOPES SHALL BE PLANTED AND SPRINKLERED (7012.1)
10 STANDARD 12 INCH HIGH BERM IS REQUIRED AT TOP OF ALL GRADED SLOPE (7013.3)
11 NO FILL TO BE PLACED UNTIL THE CITY GRADING INSPECTOR HAS INSPECTED AND APPROVED THE BOTTOM EXCAVATION
12 MAN-MADE FILL SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% MAX. DRY DENSITY WITHIN 40 FEET BELOW FINISH GRADE AND 93% MAX. DRY DENSITY DEEPER THAN 40 FEET BELOW FINISH GRADE, UNLESS LOWER RELATIVE COMPACTION (NOT LESS THAN 90% OF MAX. DRY DENSITY) IS JUSTIFIED BY THE SOIL ENGINEER
13 TEMPORARY EROSION CONTROL TO BE INSTALLED BETWEEN OCTOBER 1 AND APRIL 15 OBTAIN GRADING INSPECTORS AND DEPARTMENT OF PUBLIC WORKS APPROVAL OF PROPOSED PROCEDURES (>200CY) (7007.1)
THIS PLAN HAS BEEN REVIEWED AND CONFORMS TO RECOMMENDATIONS OF SOILS ENGINEERING/ GEOLOGIC REPORTS DATED
SIGNATURE AND DATED

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

Revision Schedule

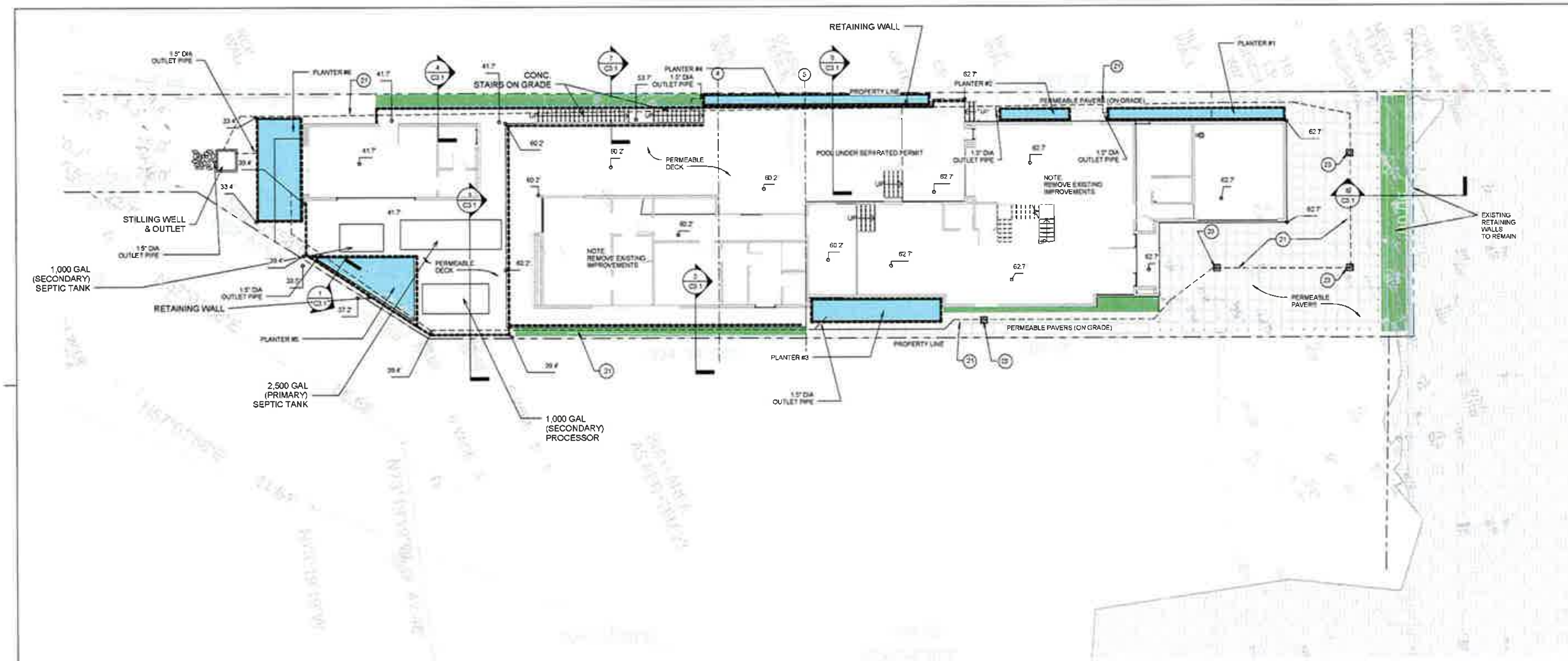
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

CIVIL NOTES

C1.0

CALIFORNIA CIVIL AND THINGS, INC.



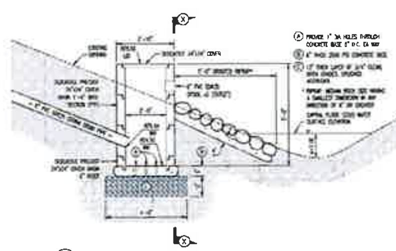
1 GRADING PLAN
1" = 10'-0"

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NOTES

1. In the case of emergency, call CONTACT INFORMATION
2. Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.
3. Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
4. Appropriate BMP's for construction-related materials, wastes, spills shall be implemented and retained on site to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
5. Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.
6. All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
7. At the end of each day of construction activity, all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
8. Construction sites shall be maintained in such a condition that an anticipated storm does not carry wastes or pollutants off the site. Discharges of material other than stormwater only when necessary for performance and completion of construction practices and where they do not cause or contribute to a violation of any water quality standard, cause or threaten to cause pollution, contamination, or nuisance, or contain a hazardous substance in a quantity reportable under Federal Regulations 40 CFR Parts 117 and 302.
9. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, glues, limes, pesticides, herbicides, wood preservatives and solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing and superchlorinated potable water line flushing.
During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.
10. Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System Permit from the respective State Regional Water Quality Control Board.
11. Graded areas on the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage is to be directed toward desilting facilities.
12. The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.
13. The permittee and contractor shall inspect the erosion control work and insure that the work is in accordance with the approved plans.
14. The permittee shall notify all general contractors, subcontractors, material suppliers, lessees, and property owners that dumping of chemicals into the storm drain system or the watershed is prohibited.
15. Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.
16. All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40%.
17. Sediment from areas disturbed by construction shall be retained on site using an effective combination of erosion and sediment controls to the maximum extent practicable.

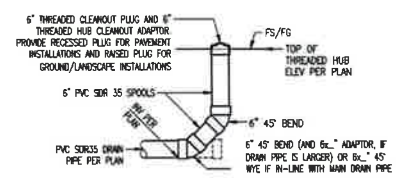
CONSTRUCTION NOTES:

(21) INSTALL 6" PVC SDR 35 DRAINAGE PIPE.
(22) INSTALL 18" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(23) INSTALL 6" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET FOR BIOFILTRATION PLANTER OVERFLOW OUTLET PURPOSES.
(24) INSTALL 6" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(25) INSTALL 4" GUTTER CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(26) CONSTRUCT 4" AREA DRAIN WALL OUTLET PER DETAIL THIS SHEET.
(27) CONSTRUCT 6" AREA DRAIN WALL OUTLET PER DETAIL THIS SHEET.
(28) INSTALL 6" CLEANOUT ASSEMBLY PER DETAIL THIS SHEET.
(28) CONSTRUCT STILLING WELL ENERGY DISSIPATOR AND OUTLET STRUCTURE PER DETAIL THIS SHEET.
(30) INSTALL 5'X5' GROUTED RIPRAP PER STILLING WELL DETAIL THIS DETAIL.
(31) ROOF AND/OR DECK DOWNDRAIN LOCATION. ALL ROOFS AND DECKS DRAIN TO BIOFILTER PLANTER VIA STRUCTURE MOUNTED GUTTERS AND DOWN DRAIN PIPES.

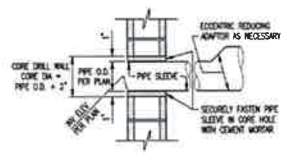


A STILLING WELL ENERGY DISSIPATOR AND OUTLET STRUCTURE

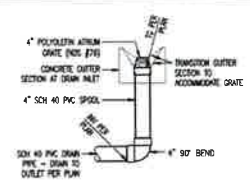
SECTION X-X



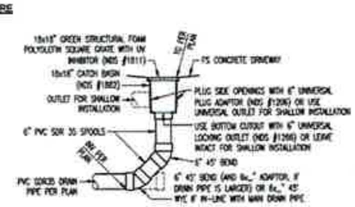
6" CLEANOUT ASSEMBLY DETAIL
NO SCALE



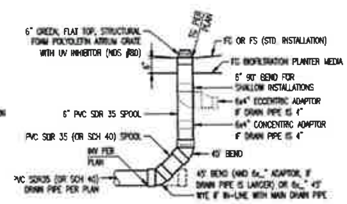
AREA DRAIN/SUBDRAIN RETAINING WALL OUTLET DETAIL
NO SCALE



4" GUTTER CATCH BASIN DETAIL
NO SCALE



18" CATCH BASIN ASSEMBLY DETAIL
NO SCALE



6" CATCH BASIN ASSEMBLY DETAIL
NO SCALE

Revision Schedule

PROGRESS

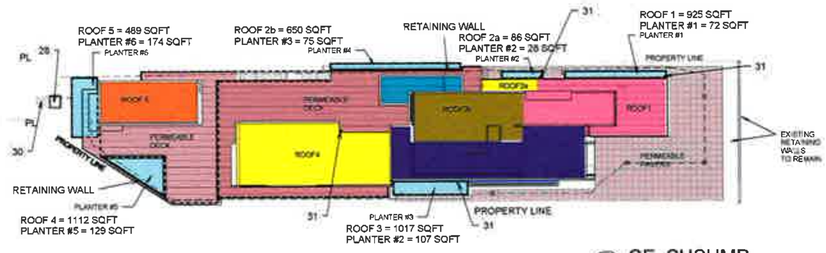
JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

CIVIL GRADING PLAN

C2.0

CALIFORNIA CIVIL AND THINGS, INC.

W:\PROJECTS (W)\15-0006 41700 PCH Malibu (Dr. Sanjay)(Shubha Jain)\3D-REVIT\15-0006_41700 PCH 3_2019.6.19.rvt



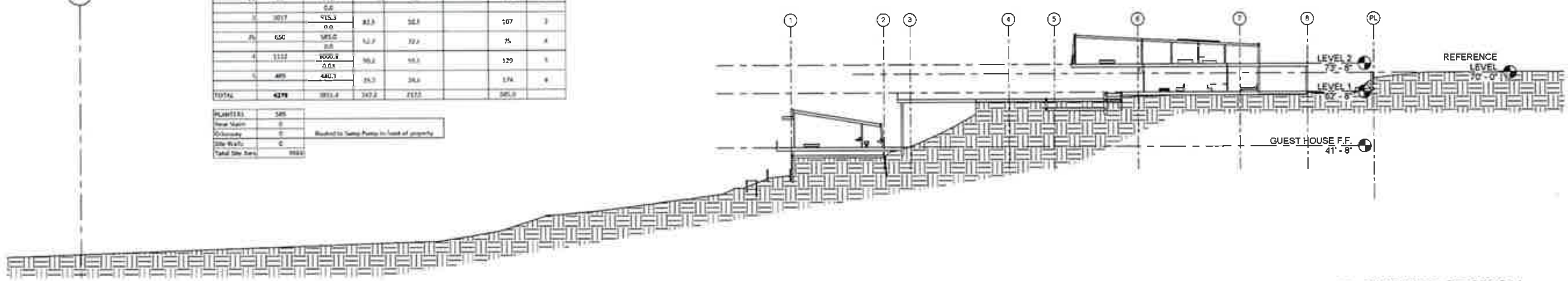
1 CE_SUSUMP
1" = 20'-0"

41700 PCH

Total Lot Area (SF)	[illegible]	Impervious Area (SF)	4279
Total Lot Area (Acres)	[illegible]	Impervious Area (Acres)	[illegible]
Design Storm Depth (IN)	[illegible]	Pervious Area (SF)	[illegible]
		Pervious Area (Acres)	[illegible]
		% Impervious	[illegible]
		% Pervious	[illegible]

DMA Designation	Square Footage (sf)	CATCH AREA (SF)	CAPTURE Vm (FT3)	PLANTER SF (REQ.) SF	PLANTER SF (REQ.) SF	PLANTER SF PROVIDED	PLANTER #
1	925	832.5	75.0	[illegible]		72	1
2a	86	[illegible]	[illegible]	4.1		28	2
		0.0					
3	1017	915.3	[illegible]	[illegible]		107	3
		0.0					
2b	650	585.0	[illegible]	[illegible]		75	4
		0.0					
4	1112	1000.8	[illegible]	[illegible]		129	5
		0.03					
5	489	440.1	[illegible]	[illegible]		174	6
TOTAL	4279	[illegible]	[illegible]	[illegible]		585.0	

PLANTERS	585	
[illegible]	0	
[illegible]	0	Routed to Sump Pump in front of property
Site Walls	0	
Total Site Area	[illegible]	

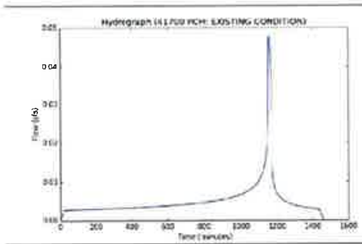


2 SUSUMP SECTION
1" = 20'-0"

PEAK FLOW HYDROLOGIC ANALYSIS

Input Parameters	
Project Name	41700 PCH
Subarea ID	EXISTING CONDITION
Area (ac)	0.35
Flow Path Length (ft)	400 0
Flow Path Slope (vft/hft)	0.115
0.75-inch Rainfall Depth (in)	0.75
Percent Impervious	0.44
Soil Type	2
Design Storm Frequency	0.75 inch storm
Fire Factor	0
LID	True

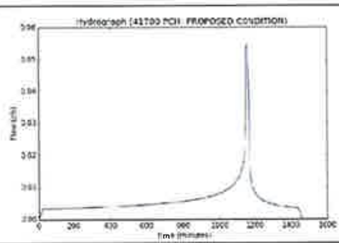
Output Results	
Modeled (0.75 inch storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.2279
Undeveloped Runoff Coefficient (Cu)	0.3613
Developed Runoff Coefficient (Cd)	0.5983
Time of Concentration (min)	21.0
Clear Peak Flow Rate (cfs)	0.0477
Burned Peak Flow Rate (cfs)	0.0477
24-Hr Clear Runoff Volume (ac-ft)	0.0101
24-Hr Clear Runoff Volume (cu-ft)	438.7156

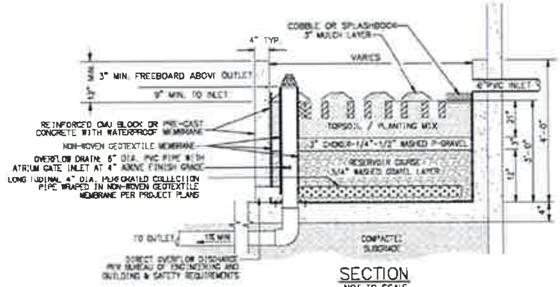


PEAK FLOW HYDROLOGIC ANALYSIS

Input Parameters	
Project Name	41700 PCH
Subarea ID	PROPOSED CONDITION
Area (ac)	0 35
Flow Path Length (ft)	400 0
Flow Path Slope (vft/hft)	0.115
0.75-inch Rainfall Depth (in)	0 75
Percent Impervious	0 58
Soil Type	2
Design Storm Frequency	0 75 inch storm
Fire Factor	0
LID	True

Output Results	
Modeled (0.75 inch storm) Rainfall Depth (in)	0 75
Peak Intensity (in/hr)	0 2332
Undeveloped Runoff Coefficient (Cu)	0 3692
Developed Runoff Coefficient (Cd)	0 6665
Time of Concentration (min)	20.0
Clear Peak Flow Rate (cfs)	0 0544
Burned Peak Flow Rate (cfs)	0.0544
24-Hr Clear Runoff Volume (ac-ft)	0.0121
24-Hr Clear Runoff Volume (cu-ft)	527.226





SECTION
NOT TO SCALE

NOTES:

1. AT LEAST 12 INCHES SHALL BE PROVIDED BETWEEN THE PLANTING SURFACE AND THE CREST OF EACH PLANTER
2. PLANTERS SHALL NOT BE LOCATED ON UNEVEN OR SLOPED SURFACE.
3. TOP SOIL/PLANTING MIX IS AT LEAST 21" DEEP.
4. TOP SOIL CONTAINS NO MORE THAN 30% COMPOST.
5. MINIMUM GRAVEL LAYER SHALL BE 12" DEEP.
6. DIRECT OVERFLOW DISCHARGE PER BUREAU OF ENGINEERING AND BUILDING AND SAFETY REQUIREMENTS.

BIOFILTRATION RAIN GARDEN DETAIL

NOT TO SCALE

CONSTRUCTION NOTES:

(21) INSTALL 6" PVC SDR 35 DRAINAGE PIPE.
(22) INSTALL 18" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(23) INSTALL 6" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET FOR BIOFILTRATION PLANTER OVERFLOW OUTLET PURPOSES.
(24) INSTALL 6" CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(25) INSTALL 4" GUTTER CATCH BASIN ASSEMBLY PER DETAIL THIS SHEET.
(26) CONSTRUCT 4" AREA DRAIN WALL OUTLET PER DETAIL THIS SHEET.
(27) CONSTRUCT 6" AREA DRAIN WALL OUTLET PER DETAIL THIS SHEET.
(28) INSTALL 6" CLEANOUT ASSEMBLY PER DETAIL THIS SHEET.
(28) CONSTRUCT STILLING WELL ENERGY DISSIPATOR AND OUTLET STRUCTURE PER DETAIL THIS SHEET.
(30) INSTALL 5'X5' GROUTED RIPRAP PER STILLING WELL DETAIL THIS DETAIL.
(31) ROOF AND/OR DECK DOWNDRAIN LOCATION. ALL ROOFS AND DECKS DRAIN TO BIOFILTER PLANTER VIA STRUCTURE MOUNTED GUTTERS AND DOWN DRAIN PIPES.

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

SUSMP

C2.3

CALIFORNIA CIVIL AND THINGS, INC.

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Proprietary Device – Alternative or proprietary treatment control devices may be considered for approval after the standard treatment control measures in the Tech. Manual have been rejected and if the device is suitable for the specific land use and pollutant to be removed. If device is not one of the devices listed in the Tech Manual (T-1 through T-11), complete the info. below:

1. Device: N/A Model #: N/A
   Manufacturer: N/A
2. Provide reasoning for rejection of the nonproprietary treatment devices (T-1 through T-11) (For assistance refer to p. 5-120 of the Tech. Manual)
   N/A
3. Provide treatment efficiency levels of proprietary device in removing the pollutants of concern (Provide info. similar to Table 2-1 of Tech. Manual, which shows removal efficiency levels of T-1 through T-11 devices; attach separately if necessary)
   N/A

SQUIMP Certifications

Regulatory Requirements

The National Pollutant Discharge Elimination System (NPDES) is a section of the Clean Water Act that applies to protection of receiving waters. This project is subject to the requirements of the California General Permit for Stormwater Discharges Associated with Construction Activity (Permit No. CAS0000002) and the Ventura Countywide Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) as required under the Ventura County Stormwater Municipal NPDES Permit No. CAS004002. Part of the NPDES program is the implementation and maintenance of post construction best management practices (BMPs). This report describes the post-construction BMPs to be implemented as part of this project.

Civil Engineer

As the Civil Engineer of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's ongoing activities on stormwater quality. The property owner is aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. I hereby certify that the SQUIMP was prepared by me, or under my supervision.

Name: Nnadozie Dike Title: P.E.

Signature: ____ Date: ____

Owner/Developer

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is true, accurate and complete. I am aware that submitting false and/or inaccurate information, failing to update the SQUIMP to reflect current conditions, or failing to properly and/or adequately implement the SQUIMP may result in revocation of permits or other sanctions provided by law.

Name: ____ Title: ____

Signature: ____ Date: ____

Acceptance or approval of this Stormwater Quality Urban Impact Mitigation Plan in no way precludes the authority of the County to require modification to the plan as conditions warrant, nor does the County take responsibility for performance of the BMPs provided for in the plan.

Page 3 of 3

General Site Design Control Measures (Refer to Table 2-3 of Tech. Manual)
Check below the general site design control measures to be applied to this project:

- X Conserve Natural Areas (G-1)
- X Protect Slopes & Channels (G-2)
- X Control Peak Runoff Rates (G-3)
- ☐ Minimize Impervious Areas (G-4)
- ☐ Minimize Effective Imperviousness (Turf Buffer of Grass-lined channel, G-5)

Site-Specific Source Control Measures (Refer to Table 2-3 of Tech. Manual)
Check below the site-specific source control measures to be applied to this project:

- X Storm Drain Message & Signage (S-1)
- ☐ Outdoor Storage Area Design (S-2)
- ☐ Trash Storage Area Design(S-3)
- ☐ Unloading Dock Area Design (S-4)
- ☐ Repair/Maint. Bay Design (S-5)
- ☐ Vehicle/Equip./Accessory Wash Area Design (S-6)
- ☐ Fueling Area Design (S-7)

Maintenance Agreement & Plan and Treatment Device Installation Certification

1. Complete and submit Maintenance Agreement on County-approved form (call (805) 662-6737 or (805) 645-1382 for agreement template or download at www.)
2. Provide a separate Maintenance Plan (minimum plan requirements include: operation plan & schedule, maint. and cleaning activities & schedule, Equipment & resource requirements necessary to operate & maintain device, responsible party for operation & maintenance. See Appendix D of Technical Manual for plan guidance.)
3. Before final acceptance of project improvements, the Developer/Engineer will also be required to certify that the device as shown on the approved plan has been constructed and installed in accordance with the approved SQUIMP.

Stormwater Quality Design Flow or Volume Calculation for Treatment Device

X Completed copy of the applicable "Design Procedure Form" for the project's treatment device from Appendix G of the Technical Guidance Manual is included in the project specific Drainage Study Report or Hydrology Report.

SQDF= 10% of the peak rate of runoff flow from the 50 yr. storm.
SQDV= Treatment of 80% of average annual runoff volume from the site.

Expected Pollutants of Concern (POCs) (Refer to Table 2-1 in Tech. Manual)
Check all pollutants likely to be present in post-construction stormwater runoff from this project:

- X Sediment
- ☐ Trash & Debris
- ☐ Nutrients (e.g. Nitrogen, Phosphorous, Ammonia)
- ☐ Oxygen Demand (e.g. Nutrients, Suspended Solids)
- ☐ Metals (e.g. Copper, Lead)
- ☐ Toxic Organics (e.g. PCBs, PAHs)
- ☐ Bacteria
- ☐ Other: ____

Does the above treatment device chosen for this project remove the pollutants of concern checked above?
YES

If not, indicate which pollutants will not be removed by this device and how removal will be obtained (secondary treatment device):

Non-Proprietary Treatment Device Selected from Ventura County Technical Guidance Manual for Stormwater Quality Mitigation (See Section 5 of the Tech. Manual).
Indicate below the device selected from the recommended devices listed in the Tech. Manual (T-1 through T-11) to treat the post-construction stormwater runoff from this project.

Type of Device (T-1 through T-11): BIOFILTRATION / RAIN GARDNER, FOSSIL FILTERS

Page 2 of 3

County of Ventura

Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) Worksheet

This SQUIMP Worksheet must be submitted with all SQUIMP-conditioned new development and/or redevelopment projects. In addition to this worksheet, all treatment devices shall also be clearly identified on the project specific site plan, grading plan, and/or storm drain plan. Also, any applicable stormwater quality design flow or volume calculations for treatment device(s) shall be provided using applicable "Design Procedure Form" for the project's treatment device from Appendix G of the Technical Guidance Manual. Completed copy of the applicable Design Procedure Form shall be included in the Drainage Study or Hydrology Report.

Prior to construction, the following documents must be completed:

- ☐ Ventura County Covenant for Maintenance of Stormwater Treatment Device Form (available at RMA Planning Division website)
- ☐ Maintenance Plan (See Appendix D of Tech. Manual for guidance)

For assistance in completing this document refer to the Ventura Countywide Technical Guidance Manual for Stormwater Quality Measures (Tech. Manual) available at www.vcstormwater.org or call (805) 650-4064 or (805) 645-1382.

Project Name & #: JAIN RESIDENCE
Owner Name: SHUBA AND SANJIV JAIN
Developer Name: OWNER / BUILDER

Project Location: 41700 PACIFIC COAST HWY., MALIBU, CA

Project Description: REMOVE / REPLACE NEW SINGLE FAMILY RESIDENCE

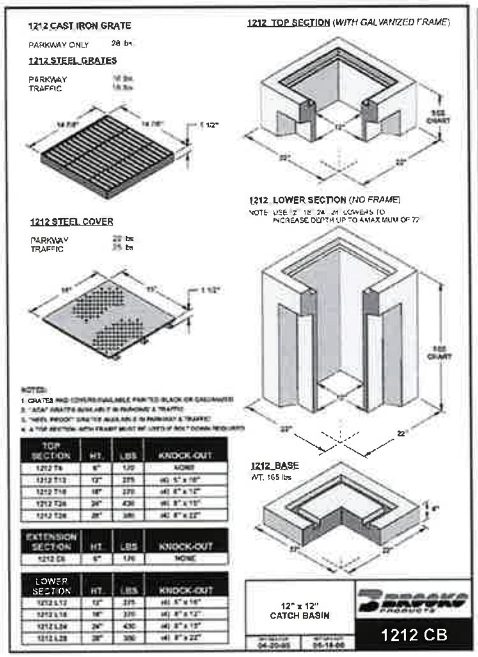
SQUIMP prepared by:
Name: CALIFORNIA CIVIL AND THINGS, INC
Date Prepared: 3/20/2019

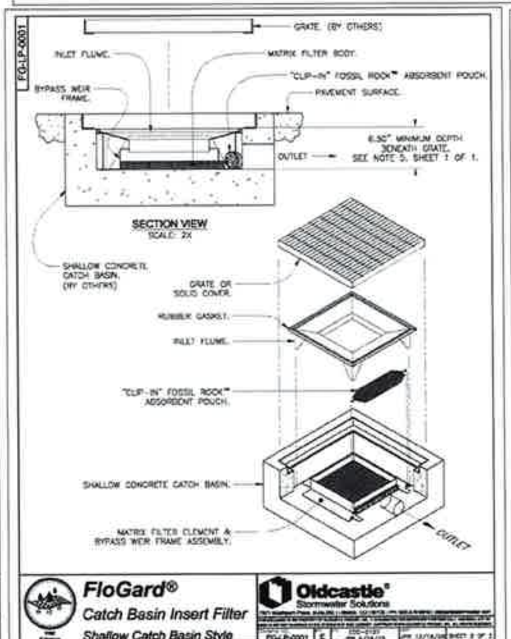
Phone #: (310) 317-0500 Email: engineering@californiacivilplans.com

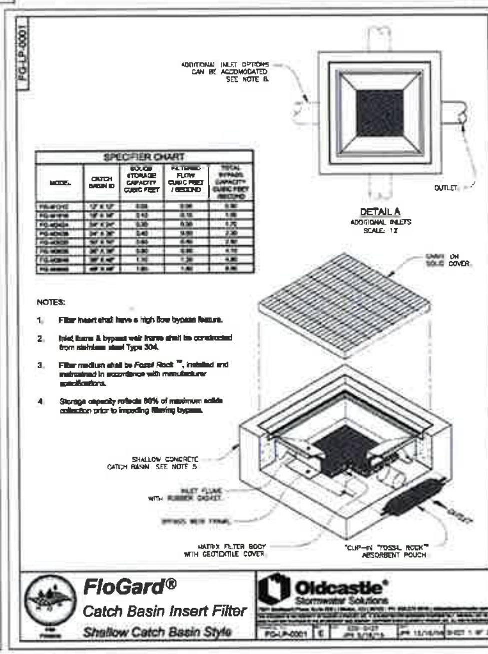
SQUIMP Category (Check all that apply)

- ☐ Commercial Development (≥100,000 SF)
- ☐ Parking Lot (≥5,000 SF or 25 spaces)
- ☐ Automotive Repair Shop
- X Hillside Single Family Residence
- ☐ Retail Gasoline Outlet
- ☐ Restaurant
- ☐ Home Subdivision(≥10 units)
- ☐ Project located within or directly adjacent to an ESA (See Appendix I of Tech. Manual)
- ☐ Redevelopment project that results in the creation or addition of 5,000 square feet of more of impervious surfaces. If the creation or addition of impervious surfaces is 50% or more of the existing impervious surface area, then stormwater runoff from the entire area (existing and additions) must be considered for purpose of stormwater mitigation. If the creation or addition is less than 50% of the existing impervious area, then stormwater runoff from only the addition area needs mitigation.

Page 1 of 3







JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

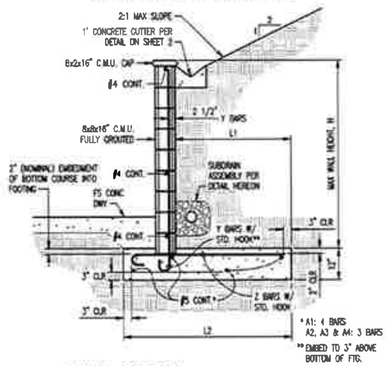
JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

SUSUMP NOTES

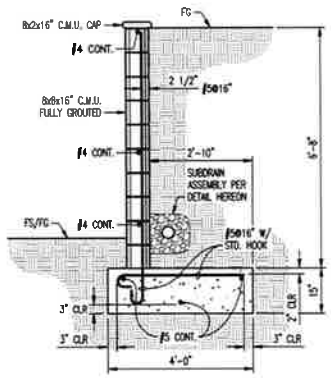
C2.5

25001 Pacific Coast Hwy Malibu, CA 90265
engineering@californiacivilplans.com
Ph. 310 317 0500
CALIFORNIA CIVIL AND THINGS, INC.

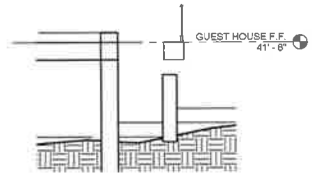
DIMENSION & REINFORCEMENT SCHEDULE					
WALL	H	L1	L2	Y BARS	Z BARS
A1	6'-0"	3'-8"	5'-4"	#5@16"	#5x56"@16"
A2	5'-4"	3'-0"	4'-8"	#5@16"	#5x48"@16"
A3	4'-8"	2'-2"	3'-10"	#5@32"	#5x38"@16"
A4	4'-0"	1'-4"	3'-0"	#5@32"	#5x28"@32"



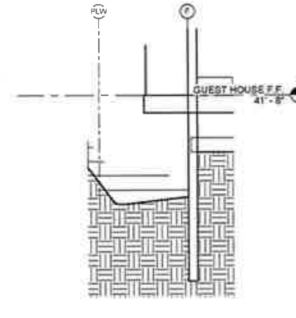
WALL DETAIL (A1) (A2) (A3) (A4)
SCALE: 1"=2'



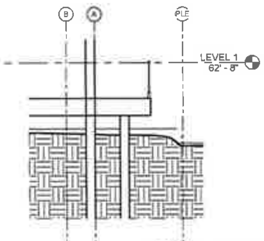
WALL DETAIL (B1)
SCALE: 1"=2'



1 RETAINING WALL1
1/4" = 1'-0"



4 RETAINING WALL 2
1/4" = 1'-0"



2 RETAINING WALL3
1/4" = 1'-0"

GENERAL NOTES:

1 Concrete shall be machine mixed, contain no less than 560 lbs (six sacks) of Type II Portland Cement per CY, exhibit a maximum slump of 5 inches, and attain a minimum ultimate compressive strength of 3000 psi in 28 days

2 Grout shall be machine mixed and shall be 1 part portland cement and 2 to 3 parts sand and 1-3/4 to 2 parts pea gravel (No. 4 concrete aggregate). Grout shall attain a minimum ultimate compressive strength of 2000 psi in 28 days

3 Mortar shall be 1 part cement mix and 2-1/2 to 3 parts sand. The cement mix shall be either: 1 part portland cement and 1/4 to 1/2 part hydrated lime or lime putty, or 1 part plastic (masonry) cement with no more than 1/10 part hydrated lime or lime putty. Mortar shall attain a minimum ultimate compressive strength of 1800 psi in 28 days

4 Water shall be clean, potable, and salt-free

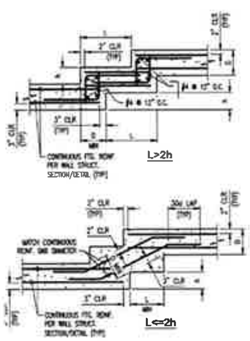
5 C.M.U. block shall be manufactured with sand-gravel aggregate and shall conform to ASTM C-90 for Type 1 units. All units shall be Grade N and of the normal weight classification (minimum oven-dry weight of concrete = 125 lbs/cf)

6 Reinforcing steel shall conform to ASTM A615, Grade 60. Lap at reinforcement splices shall be a minimum of 48 bar diameters. All horizontal bars in masonry construction shall be placed in channel or lintel blocks.

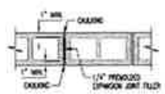
7 Wall backfill shall be free-draining, granular, nonexpansive, and inorganic material (SE>30). Backfill shall be compacted to a minimum relative compaction of 90% and shall not exceed 95% relative compaction.

8 Expansion joints shall be constructed per the Expansion Joint Detail hereon at a maximum spacing of 30 feet.

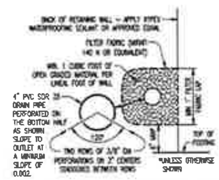
9 Efflorescence can be avoided by controlling the migration of water soluble salts to the wall face and by minimizing the presence of soluble alkali sulfates. Elimination of migratory paths for moisture to the wall face can be accomplished by waterproofing the below grade surface of the back of the wall, by consolidating the grout with mechanical vibration to reduce voids in the grout, and by using dense, tooled, mortar joints. Minimization of the presence of soluble alkali sulfates can be accomplished by using low alkali portland cement, clean washed sand, and clean, potable, salt-free water. Application of XYPEX sealant is recommended for waterproofing the back of the wall



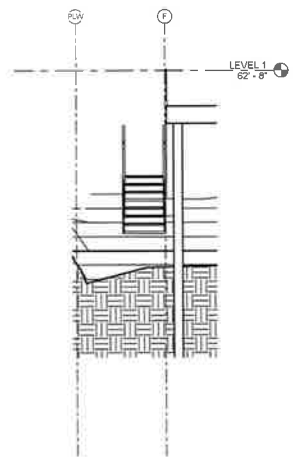
FOOTING STEP DETAIL
SCALE: 1"=2'



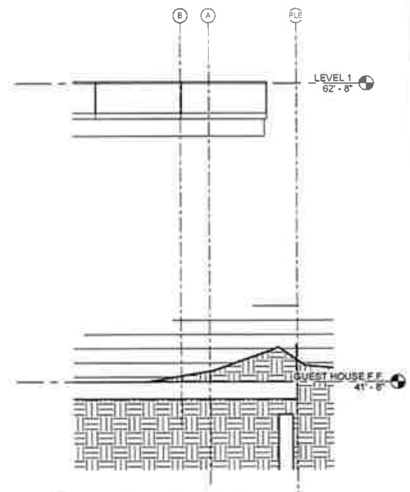
EXPANSION JOINT DETAIL



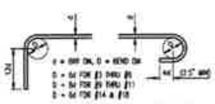
SUBDRAIN ASSEMBLY DETAIL
NO SCALE



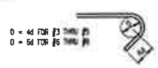
7 RETAINING WALL 7
1/4" = 1'-0"



3 RETAINING WALL4
1/4" = 1'-0"

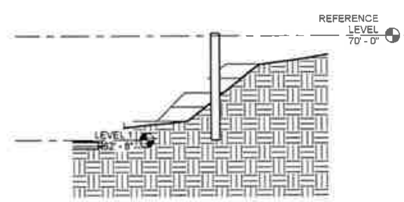


90° STD HOOK
180° STD HOOK

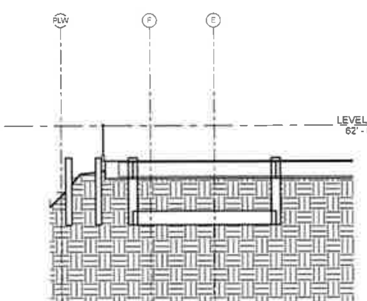


135° BEND FOR STIRRUPS AND TIE HOOKS

REINFORCEMENT HOOK DIMENSIONS
NO SCALE



6 RETAINING WALL 6
1/4" = 1'-0"



5 RETAINING WALL 5
1/4" = 1'-0"

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

Revision Schedule

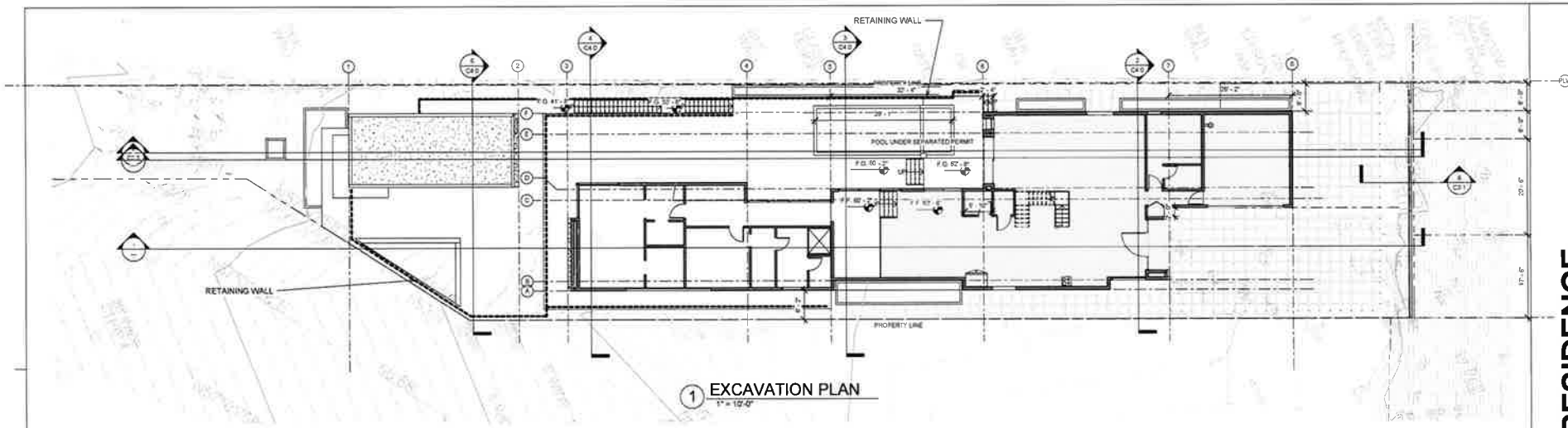
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

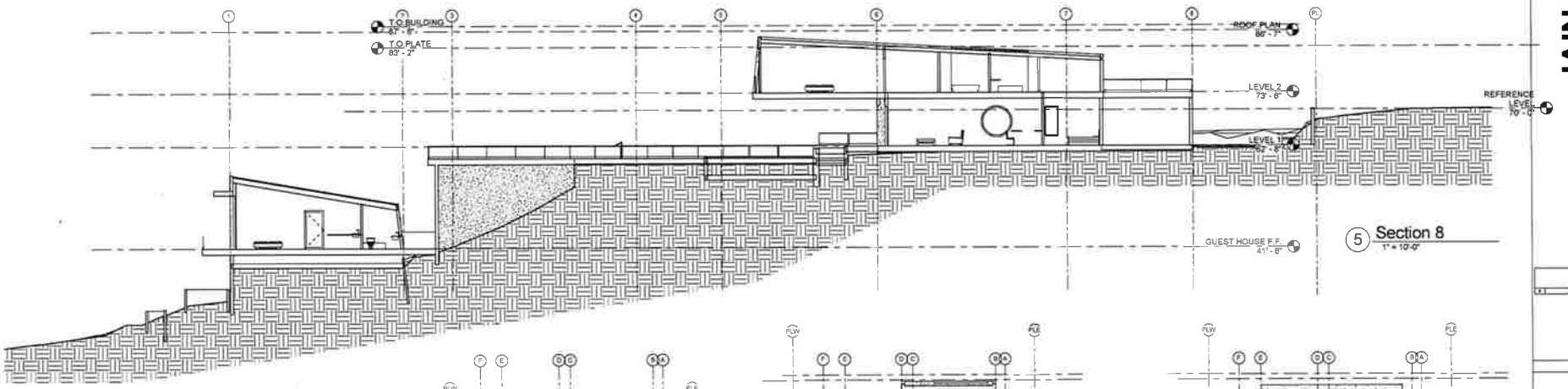
RETAINING WALLS

C3.1

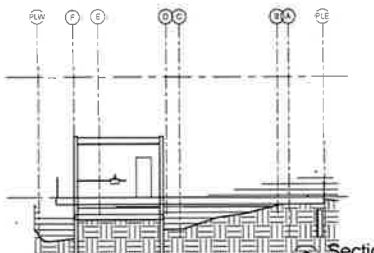
CALIFORNIA CIVIL AND THINGS, INC.



1 EXCAVATION PLAN
1" = 10'-0"



5 Section 8
1" = 10'-0"



6 Section 5
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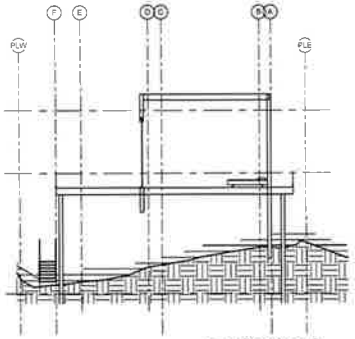
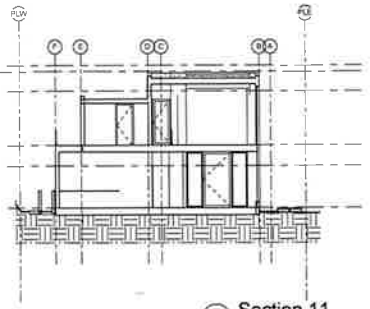
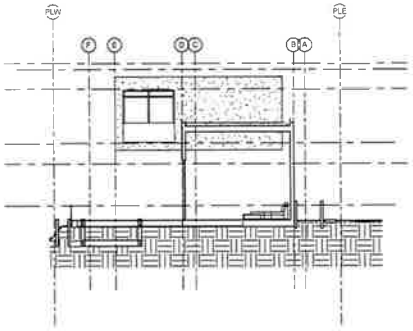


4 Section 9
1" = 10'-0"



2 Section 11
1" = 10'-0"



3 Section 10
1" = 10'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

PROGRESS

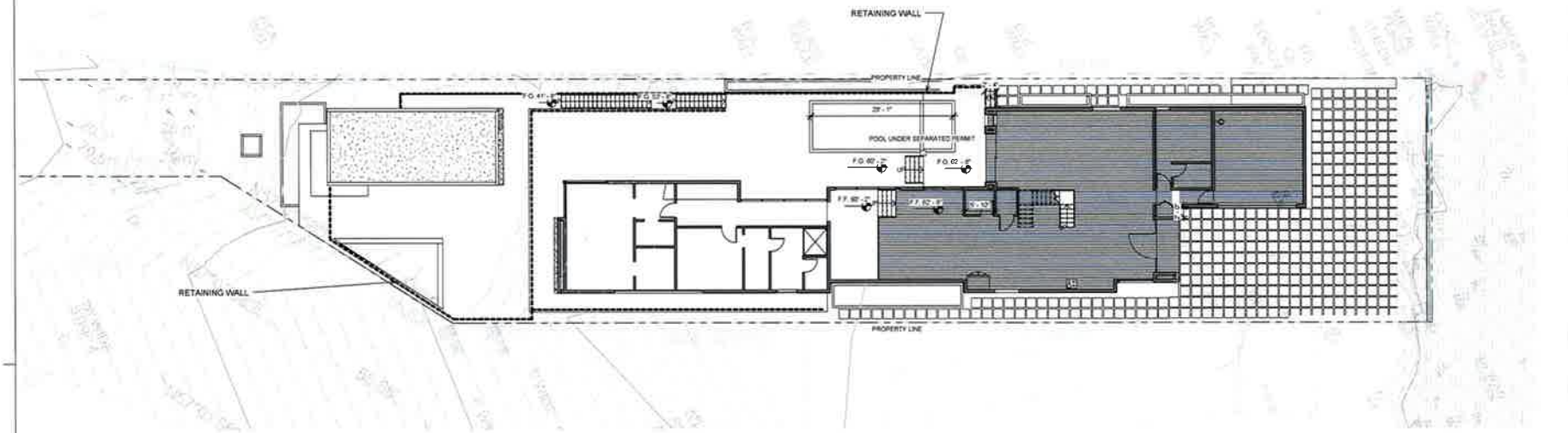
JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

EXCAVATION PLAN

C4.0

CALIFORNIA CIVIL AND THINGS, INC.

W:\PROJECTS (W)\15-0006 41700 PCH Malibu (Dr. Sanjay)\ Shubha Jain\3D-REVIT\15-0006_41700 PCH 3_2019.6.19.rvt



1 EXCAVATION PLAN
1" = 10'-0"

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

#	REVISION	DATE

PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

EROSION CONTROL

NORTH	DATE	PROJ NO	SCALE	DRAWING
	DRAWN	CKD BY	FLOOR	C4.1

CALIFORNIA CIVIL AND THINGS, INC.

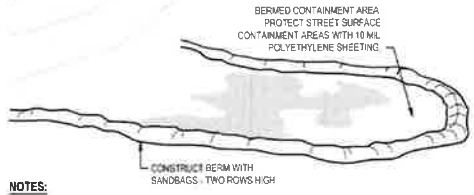
EROSION CONTROL NOTES:

(31) INSTALL 2' HIGH SILT FENCE PER ENVIRONMENTAL PROTECTION AGENCY PUBLICATION # EPA-833-F-11-008 (AVAILABLE AT www.epa.gov/npdes/pubs/siltfences.pdf).

(32) PROVIDE BERMED CONCRETE AND MORTAR WASHOUT CONTAINMENT AREA PER CONCRETE WASTE MANAGEMENT DETAIL THIS SHEET.

(33) PROTECT STOCKPILED MATERIALS FROM EROSION PER MATERIAL STORAGE DETAIL HEREON.

(34) INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL HEREON.

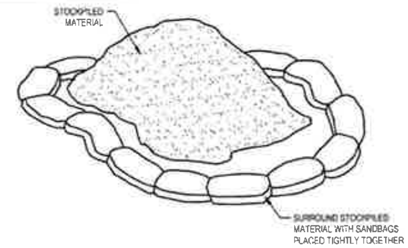


NOTES:

1. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
2. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED ON SITE.
3. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP, AND DISPOSED OF PROPERLY.

CONCRETE WASTE MANAGEMENT DETAIL

NO SCALE



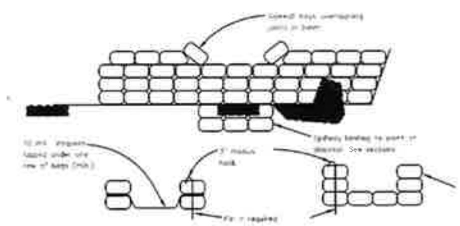
NOTES:

1. DIRT AND OTHER CONSTRUCTION RELATED MATERIALS PLACED IN THE STREET OR ON OTHER IMPERVIOUS SURFACES MUST BE CONTAINED WITH SANDBAGS OR OTHER MEASURES TO PREVENT TRANSPORT TO THE STORMDRAIN SYSTEM.
2. ANY CONSTRUCTION MATERIAL STORED OR STOCKPILED ON SITE SHALL BE PROTECTED FROM BEING TRANSPORTED BY THE FORCE OF WIND OR WATER.

MATERIAL STORAGE DETAIL

NO SCALE

TYPICAL SPILLWAY SECTIONS N.T.S.

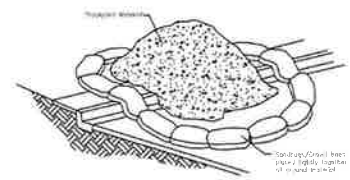


CONCRETE WASTE MANAGEMENT - WH-3

NOTES:

1. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
2. FOR WASHOUT OF CONCRETE AND MOTOR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND WASTE SHALL BE PROVIDED ON SITE.
3. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERTY.

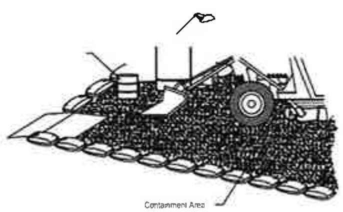
MATERIAL STORAGE - SE8



NOTES:

1. DIRT AND OTHER CONSTRUCTION RELATED MATERIALS PLACED IN THE STREET OR ON OTHER IMPERVIOUS SURFACES MUST BE CONTAINED WITH SANDBAGS OR OTHER MEASURES TO PREVENT TRANSPORT TO THE STORMDRAIN SYSTEM.
2. ANY CONSTRUCTION MATERIAL STORED OR STOCKPILED ON-SITE SHALL BE PROTECTED FROM BEING TRANSPORTED BY THE FORCE OF WIND OR WATER.

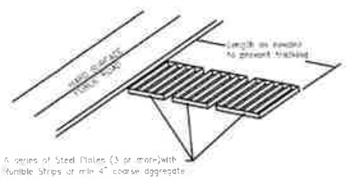
EQUIPMENT REPAIR/MAINTENANCE - NS-10



NOTES:

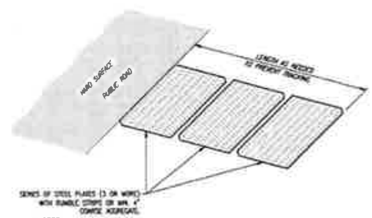
1. LEAKING VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED ON-SITE. EQUIPMENT AND VEHICLES SHALL BE INSPECTED FREQUENTLY FOR LEAKS AND SHALL BE REPAIRED IMMEDIATELY. CLEAN UP SPILLS ANDLEAKS PROMPTLY WITH ABSORBENT MATERIALS. DO NOT FLUSH WITH WATER.
2. VEHICLES AND EQUIPMENT SHALL BE MAINTAINED, AND REPAIRED ON-SITE ONLY IN DESIGNATED AREAS. PREVENT RUN-ON AND RUN-OFF FROM DESIGNATED AREAS. CONTAINMENT DEVICES SHALL BE PROVIDED AND AREAS SHALL BE COVERED IF NECESSARY.
3. DESIGNATE ON-SITE VEHICLE AND EQUIPMENT MAINTENANCE AREAS, AWAY FROM STORM DRAIN INLETS AND WATERCOURSES.
4. ALWAYS USE SECONDARY CONTAINMENT, SUCH AS A DRAIN PAN OR DROP CLOTH, TO CATCH SPILLS AND LEAKS WHEN REMOVING OR CHANGING FLUIDS.
5. LEGALLY DISPOSE OF USED OILS, FLUIDS, AND LUBRICANTS.
6. PROVIDE SPILL CONTAINMENT DIKES OR SECONDARY CONTAINMENT AROUND STORED OIL, FUEL, AND CHEMICAL DRUMS.MAINTAIN ON ADEQUATE SUPPLY OF ABSORBENT SPILL CLEANUP MATERIALS IN DESIGNATED AREA.

STABILIZED CONSTRUCTION ENTRANCE - TC-1



NOTES:

1. SEDIMENTS AND OTHER MATERIALS SHALL BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE
a. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARING AREA.
b. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN 4" COARSE AGGREGATE WITH LENGTH, WIDTH & THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTLIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.



NOTES:

1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED ONTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
   A. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.
   B. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS" AND/OR MIN. 4" COARSE AGGREGATE WITH LENGTH, WIDTH AND THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. [illegible] IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL USE THE STABILIZED CONSTRUCTION ENTRANCE(S).
5. [illegible]
   A. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
   B. [illegible]
   C. [illegible] IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

JAIN RESIDENCE

41700 PCH
MALIBU CA 90265

Revision Schedule

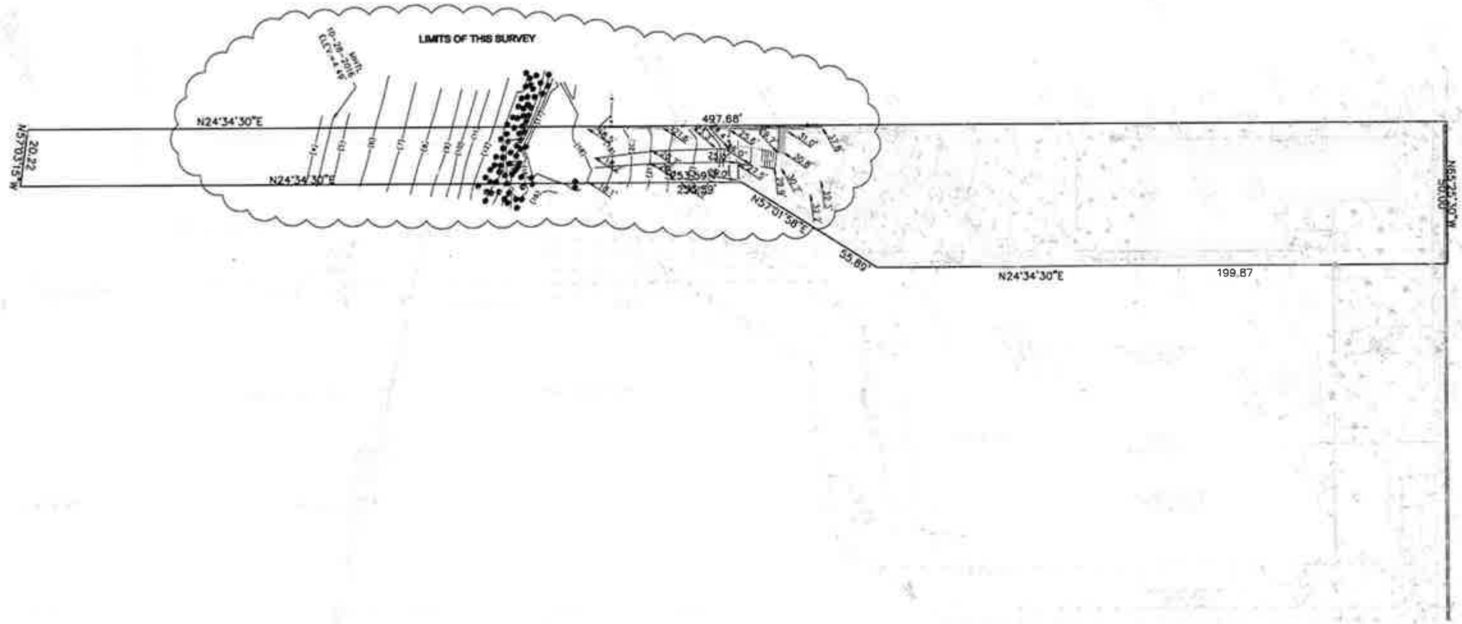
PROGRESS

JAIN RESIDENCE
41700 PCH
MALIBU CA 90265

CONSTRUCTION ACTIVITY

NORTH	DATE	PROJ NO	SCALE	DRAWING
	DRAWN	CKD BY	FLOOR	C4.2

CALIFORNIA CIVIL AND THINGS, INC.



BOUNDARY NOTE:
THIS IS NOT A BOUNDARY SURVEY. THE BOUNDARY LINES AND ANNOTATIONS SHOWN ON THIS SURVEY ARE BASED ON THE RECORDED PLATS AND MAPS AND DO NOT REPRESENT THE ACTUAL LOCATION OF BOUNDARY LINES.

PROPERTY ADDRESS:

41700 PACIFIC COAST HIGHWAY
MALIBU, CA 90265

ASSESSOR'S PARCEL NO.:

700-0-200-655 (VENTURA COUNTY)

LEGAL DESCRIPTION:

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

PARCEL A:

PARCEL 1, IN THE COUNTY OF VENTURA, STATE OF CALIFORNIA, AS SHOWN ON PARCEL MAP FILED IN BOOK 35, PAGE 1 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT ALL MINERALS OIL, PETROLEUM, ASPHALTUM, GAS, COAL AND OTHER HYDROCARBON SUBSTANCES AND WATER CONTAINED IN, ON, WITHIN AND UNDER SAID LANDS AND EVERY PART THEREOF, PROVIDED HOWEVER, THAT THIS RESERVATION SHALL NEITHER RESERVE NOR SHALL IT BE CONSTRUED AS RESERVING TO GRANTOR, ITS SUCCESSORS IN INTEREST OR ASSIGNS, THE RIGHT TO GO UPON OR UNDER SAID LANDS FOR THE PURPOSE OF EXTRACTING ANY OF SAID SUBSTANCES AS RESERVED IN DEEDS RECORDED OCTOBER 27, 1944 IN BOOK 707, PAGE 21 AND RECORDED MARCH 16, 1945 IN BOOK 716, PAGE 382 OF OFFICIAL RECORDS.

ALSO EXCEPT FROM SAID LAND WHICH EXTENDS TO THE MEAN HIGH TIDE LINE, ANY PORTION OF THE LAND WHICH AT ANY TIME WAS TIDE LAND, WHICH WAS NOT FORMED BY THE DEPOSIT OF ALLUVIUM FROM NATURAL CAUSES AND BY IMPERCEPTIBLE DEGREES.

PARCEL B:

A NON-EXCLUSIVE EASEMENT FOR THE PURPOSES OF BOTH PEDESTRIAN AND MOTOR VEHICULAR INGRESS AND EGRESS BUT NO PARKING THEREON, ANY AND ALL UTILITIES AND FOR THE MAINTENANCE, REPAIR AND REPLACEMENT THEREOF, OVER, UNDER, THROUGH AND ACROSS THE NORTHERLY 40 FEET OF PARCELS 2, 3 AND 4 OF SAID PARCEL MAP FILED IN BOOK 35, PAGE 1 OF PARCEL MAPS.

PARCEL C:

AN EASEMENT FOR INGRESS AND EGRESS OVER AND ACROSS STRIPS 3, 4 AND 5 LYING WITHIN PARCELS 2, 3 AND 4, IN THE COUNTY OF VENTURA, STATE OF CALIFORNIA, AS SHOWN ON PARCEL MAP FILED IN BOOK 35, PAGE 1 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL D:

A NON-EXCLUSIVE EASEMENT TO BE USED SOLELY FOR PEDESTRIAN ACCESS OVER THOSE PORTIONS OF PARCELS 2 AND 3, IN THE COUNTY OF VENTURA, STATE OF CALIFORNIA, AS SHOWN ON A PARCEL MAP FILED IN BOOK 35, PAGE 1 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER & SAID COUNTY, BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEASTERLY TERMINUS OF THAT CERTAIN COURSE SHOWN AS "D" AND HAVING A BEARING AND DISTANCE OF NORTH 64°15'22" EAST 36.21 FEET ON SAID PARCEL MAP; THENCE NORTHEASTERLY ALONG THE SOUTHEASTERLY BOUNDARY OF PARCEL 3 OF SAID PARCEL MAP.

1ST: NORTH 24°34'30" EAST 12.00 FEET; THENCE,

2ND: SOUTH 64°15'22" WEST 39.01 FEET; THENCE,

3RD: NORTH 73°19'19" WEST 61.00 FEET; THENCE,

4TH: SOUTH 57° 01'58" WEST 92.54 FEET TO AN INTERSECTION WITH THE NORTHWESTERLY LINE OF SAID PARCEL 2 AS SHOWN ON SAID PARCEL MAP; THENCE SOUTHWESTERLY ALONG SAID NORTHWESTERLY LINE.

5TH: SOUTH 24°34'30" WEST 11.18 FEET TO AN INTERSECTION WITH THE NORTHWESTERLY BOUNDARY OF STRIP 5 AS SHOWN ON SAID PARCEL MAP; THENCE NORTHEASTERLY ALONG THE BOUNDARY OF SAID STRIP 5 AND STRIP 4 AS SHOWN ON SAID

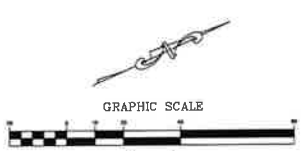
BASIS OF BEARINGS:

THE BEARING OF N 65°25'20 W ALONG THE CENTERLINE OF PACIFIC COAST HWY AS SHOWN ON PARCEL MAP FILED IN BOOK 35 PAGE 1, OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER, COUNTY OF VENTURA, STATE OF CALIFORNIA WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

BENCH MARK:

VENTURA 32.161' 16.8 MILES SE ALONG U.S. HWY 1 FROM THE INTERSECTION VCPID: 249
(1988) 8.800M OF WOOLEY RD AND SAVIERS RD AT OXNARD, AT THE SW CRN OF CONC BRIDGE 52-12 OVER LITTLE SYCAMORE CREEK, IN THE TOP AND 0.4 E OF THE W END OF THE SW CONC RETAINING WALL FOR THE S END OF THE W CONC ABUTMENT OF THE BRIDGE, 37' S OF CENTER OF HWY, AND ABOUT LEVEL WITH THE HWY.
STAMPING S 583 1939; DESGN: S583

ELEVATIONS SHOWN ON THIS MAP ARE BASED ON NAVD 1988 DATUM.



LIST OF ABBREVIATIONS:

AC UNIT	AIR CONDITIONING UNIT
A/C	ASPHALT
BLK	BLOCK
BRK	BRICK
CB	CATCH BASIN
CBOX	CALL BOX
CLR	CLEAR
CN	CONCRETE NAIL
CONC	CONCRETE
DI	DRAIN INLET
DO	DRAIN OUTLET
FD	FIRE HYDRANT
FH	FINISHED FLOOR
FF	FLOW LINE
FL	FINISHED SURFACE
FS	GAS METER
GM	GAS VALVE
MH	MANHOLE
MHTL	MEAN HIGH TIDE LINE
O/H	OVER HANG
PILE	CONC PILE / CAISSON
PP	POWER POLE
RRT	RAIL ROAD TIE
SP	SIGN POST
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
TB	TOP BERM
TC	TOP CURB
TEL	TELEPHONE
TW	TOP WALL
WM	WATER METER
WV	WATER VALVE

HOOSHMAND JAHANPOUR-BURKE, LS 8230 DATE

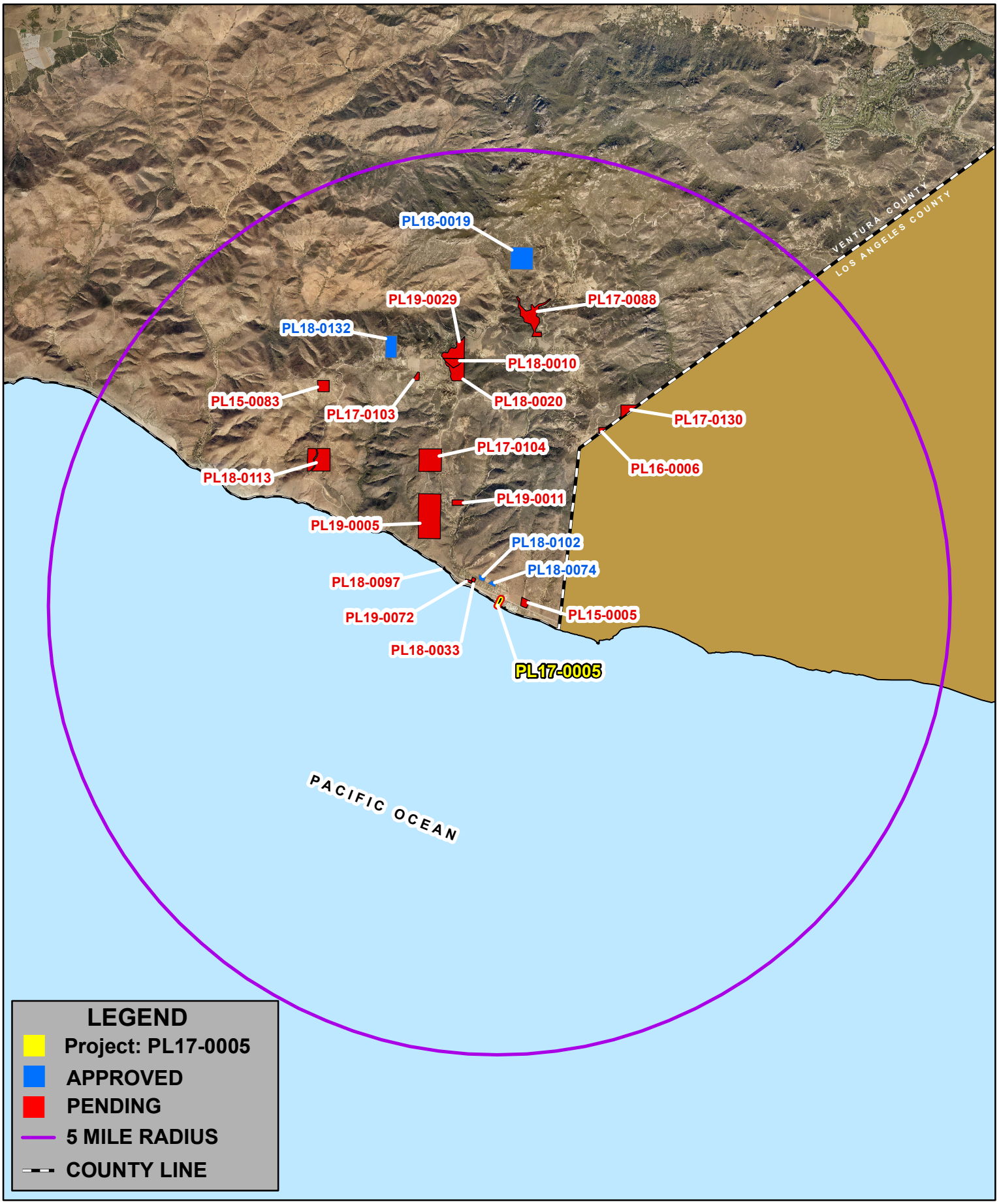
DATE	REVISIONS	APPROVED BY:

H.J. BURKE, INC.
830 S. DURANGO DR, # 100, LAS VEGAS, NEVADA 89145
T: (310) 633-1213 T: (702) 452-6763 F: (702) 852-6878 EMAIL: info@hjburke.com
DRAWN BY: JOHN DATE OF SURVEY: 11-10-16
CHECKED BY: HEIDI DWG. NAME: 41700 PACIFIC COAST

LICENSED LAND SURVEYOR · STATE OF CALIFORNIA · LS 8230

A PARTIAL TOPOGRAPHIC SURVEY
41700 PACIFIC COAST HIGHWAY
MALIBU, CALIFORNIA

SHEET:
1 OF 1



Ventura County,California
Resource Management Agency
GIS Development & Mapping Services
Map Created on 08-23-2019
This aerial imagery is under the copyrights of Pictometry
Source: Pictometry, 2018

RMAgis

County of Ventura
Initial Study
PL17-0005
Attachment 3 - Map of Pending and Approved Projects

0 0.75 1.5 Miles

Disclaimer: This Map was created by the Ventura County Resource Management Agency, Mapping Services - GIS which is designed and operated solely for the convenience of the County and related public agencies. The County does no twarrant the accuracy of this mapand no decision involving a risk of economic loss or physical injury should be made in reliance thereon.

RH

white's tree service
Lic. # 949262
ISA Certified Arborist # WE-9538A

13239 Woodcock Ave
Sylmar, CA 91342
www.whitestree.com
mike@whitestree.com

ARBORIST CONSULATION

DATE: OCTOBER 27, 2015

TO Attn: Erik Kaczelnik
Apel Design
For property located at:
41700 Pacific Coast Highway
Malibu, CA 90265

To whom it may concern,

The County of Los Angeles ordinance 22.56.2050 protects against the damage and removal of Oak trees (*Quercus spp.*). We have contracted with Apel Design to determine whether there are any protected trees present at 41700 Pacific Coast Highway.

The property at 41700 Pacific Coast Highway contains a number of established trees including:

- 3 *Syagrus romanzoffiana* (Queen Palm)
- 1 *Chamaerops humilis* (Mediterranean fan palm)
- 1 *Robinia pseudoacacia* (Black Locust)
- *Podocarpus gracilior* (Fern Pine). Hedge on property line.

There were no protected Oak trees present.

Thank you,

Michael White

ISA Certified Arborist # WE-9538A

CERTIFIED ARBORIST ISA

AMIT APEL DESIGN INC.
In Association with Michael Maclaren, AIA-Architect
25001 Pacific Coast Highway
Malibu, CA 902658
Tel: 310.317.0500
Email: apeldesign@apeldesign.com
Website: www.apeldesign.com

6/20/2019

HYDROLOGY & HYDRAULIC CALCULATIONS

The subject property is located at 41700 Pacific Coast Highway. Existing on 41700 Pacific Coast Highway is a single family residence. The Legal description and other information about the lot of the lot is as follows:

Site Address 41700 Pacific Coast Highway
ZIP Code 90265
Lot/Parcel Area (Calculated) 16,552 SQFT (0.38 Acres)
Assessor Parcel No. (APN) 700-0-200-655

Proposed is a Multi Level Single Family Dwelling building with a Street level parking. Numeric values of the proposed site and building are as follows:

AI = Impervious Area (acres) =0.097 acres

AP = Pervious Area (acres) =0.2834 acres

AU = Contributing Undeveloped Upstream Area (acres) =0.00 acres

A_{Total} = Total Area of Development =0.38 acres

The area for impervious hardscape is the sum of all the roof and deck area of the proposed building and area surrounding the building. The impervious area is being treated with a combination of 6 planter boxes adding up to 585 SF.

The foundation for the proposed building covers most of the site, and according to Project Soils Engineer, infiltration around and near the building foundation should be avoided. Therefore, the method of infiltration was ruled out for this site.

The second step in feasibility was to look at a capture and use system. The calculations attached show that lack of adequate landscape eliminates the feasibility of this BMP.

Attached landscape plan shows that other than proposed planter boxes (BMP's), other landscaping on the site includes planted pots placed throughout the site. Therefore, capture and use was ruled out for this site.

Development of the site requires the implementation of Biofiltration planters to mitigate pollutants from the project site. All of the rainfall runoff from most storm events over the project site portion of the lot is collected and transported to the Biofiltration Planter. The Planter is sized to treat the volume of runoff resulting from a 100 year storm. After approximately seven hours of percolation through the Planter's biologically active filtration media, the treated runoff exits the bottom of the Planter and sheet flows across the descending slope at a rate equal to or less than the existing rate – thereby resuming the lot's pre-development, sheet flow drainage patter. Runoff from statistically very infrequent storm events that exceed the Planter's treatment capacity is routed via planter overflow inlets and a 6" pipe to a stilling well energy dissipater located at the existing natural watercourse at the lots south westerly boundary.

Hydrology Calculations:

Hydrology calculations were prepared for purposes of sizing the catch basins and storm drain pipes for a Capital Floor (100-year frequency storm event) and for ensuring that the proposed project's development has a negligible effect on the Capital Flood water surface elevation in the natural watercourse.

Peak Flow Hydrologic Analysis

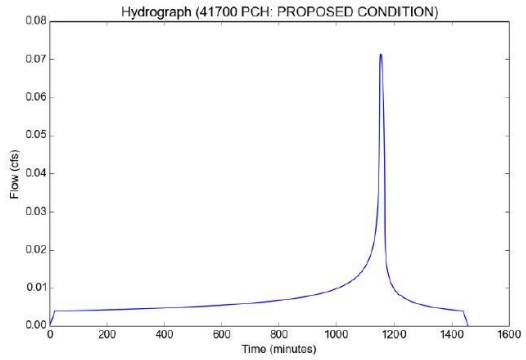
File location: W:/PROJECTS (W)/15-0006 41700 PCH. Malibu (Dr. Sanjay)(Shubha Jain)/DOCUMENTS/Sanitation Calcs/Hydrology Calcs
Version: HydroCalc 1.0.3

Input Parameters

Project Name	41700 PCH
Subarea ID	PROPOSED CONDITION
Area (ac)	0.38
Flow Path Length (ft)	400.0
Flow Path Slope (vft/hft)	0.115
50-yr Rainfall Depth (in)	0.75
Percent Impervious	0.56
Soil Type	2
Design Storm Frequency	100-yr
Fire Factor	0
LID	False

Output Results

Modeled (100-yr) Rainfall Depth (in)	0.8415
Peak Intensity (in/hr)	0.275
Undeveloped Runoff Coefficient (Cu)	0.4079
Developed Runoff Coefficient (Cd)	0.6835
Time of Concentration (min)	18.0
Clear Peak Flow Rate (cfs)	0.0714
Burned Peak Flow Rate (cfs)	0.0714
24-Hr Clear Runoff Volume (ac-ft)	0.0148
24-Hr Clear Runoff Volume (cu-ft)	645.041



Peak Flow Hydrologic Analysis

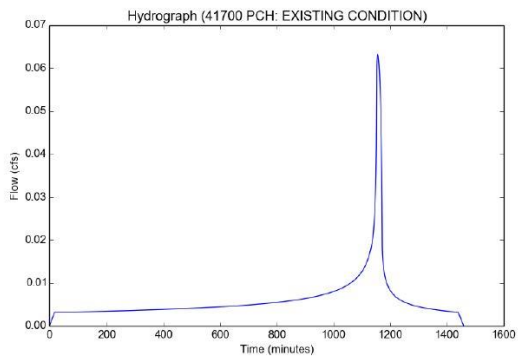
File location: W:/PROJECTS (W)/15-0006 41700 PCH. Malibu (Dr. Sanjay)(Shubha Jain)/DOCUMENTS/Sanitation Calcs/Hydrology Calcs
Version: HydroCalc 1.0.3

Input Parameters

Project Name	41700 PCH
Subarea ID	EXISTING CONDITION
Area (ac)	0.38
Flow Path Length (ft)	400.0
Flow Path Slope (vft/hft)	0.115
50-yr Rainfall Depth (in)	0.75
Percent Impervious	0.44
Soil Type	2
Design Storm Frequency	100-yr
Fire Factor	0
LID	False

Output Results

Modeled (100-yr) Rainfall Depth (in)	0.8415
Peak Intensity (in/hr)	0.2681
Undeveloped Runoff Coefficient (Cu)	0.4015
Developed Runoff Coefficient (Cd)	0.6208
Time of Concentration (min)	19.0
Clear Peak Flow Rate (cfs)	0.0632
Burned Peak Flow Rate (cfs)	0.0632
24-Hr Clear Runoff Volume (ac-ft)	0.0124
24-Hr Clear Runoff Volume (cu-ft)	538.2336



$$T_C = \frac{0.31 \text{ x } L^{0.483}}{(C_d \text{ x } I_t)^{0.519} \text{ x } S^{0.135}}$$ Equation 7.3.5

$$I_t = I_{1440}\, x\, \left(\frac{1440}{t}\right)^{0.47}$$ Equation 5.1.2

$$C_d = (0.9\, x\, IMP) + (1.0 - IMP)\, x\, C_u$$ Equation 6.3.2

$$Q = C_d\, x\, I_t\, x\, A$$

T_c = Time of concentration
L = Longest flow path length from watershed boundary to outlet
C_d = Soil specific Development Runoff Coefficient, ratio of runoff rate t rainfall intensity, in/in
I_t – Rainfall intensity at time t, in/hr
S = Slope of longest flow path, ft/ft
C_u = Soil specific Undeveloped runoff coefficient, ratio of runoff rate to rainfall intensity, in/in
A = Watershed Area, acres

Predevelopment Runoff: 0.6208 x 0.2681 x 0.38 = 0.0632 cfs
Post Development Runoff: 0.6835 x 0.275 x 0.38 = 0.0714 cfs

Difference: 0.0082 cfs

Orifice Sizing:

The Detention Basin outlet pipe uses submerged orifice methodology:

$Q = C\ A\ (2g\ h)^{1/2}$
C = 0.6 circular orifice
A = area of orifice (pipe)
G = gravity 32.2 ft/sec

Ws inv pipe = 342.0
Max ws in det basin = 346.0
h = difference in water surface elevations; 4'
Q = 100 year flow rate for runoff area, 0.0632 cfs

$A = Q / C\ (2gh)^{1/2}$

$= 0.0714$ cfs / $0.6\ (\ 2 \times 32.2 \times 3)^{1/2}$

$= 0.0714 / 8.34$
= 0.00856 sf

Orifice Diameter (max.)
$A = 3.14\ D^2 / 4$

$D = (.00856\ (4) / 3.14\ )^{1/2}$

D = 0.104 ft or 1.25 inch diameter orifice plate or a 1.5" exit pipe

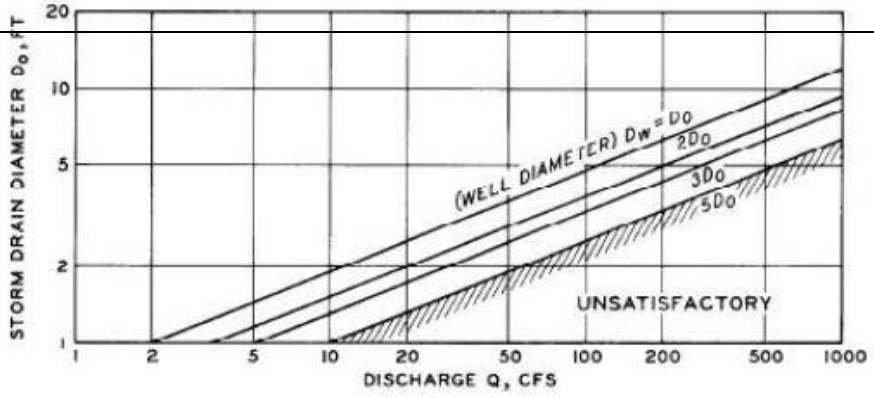
Capture & Use Calculations:

V_{Design} = 3,787.5 x (1.09/12) = 344 cu. ft.

0.0 acres of pervious area
Medium Planting Type → Planting Factor = 0.4

i. Determine the Design Volume in Gallons:

V_{Design} (gallons) = 344 cu. ft. x 7.48 gal/cu. ft. = 2,573 gal.



BASIC EQUATION

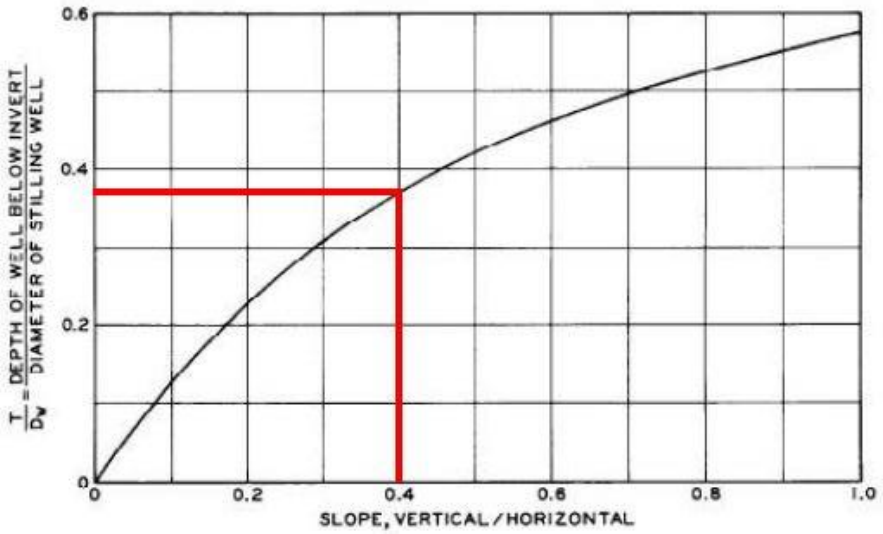
$$\frac{D_W}{D_0} = 0.53\left(\frac{Q}{D_0^{2.5}}\right) \text{ FOR } \frac{Q}{D_0^{2.5}} \leq 10$$

WHERE:
D_W = STILLING WELL DIAMETER, FT
D_0 = DRAIN DIAMETER, FT
Q = DESIGN DISCHARGE, CFS

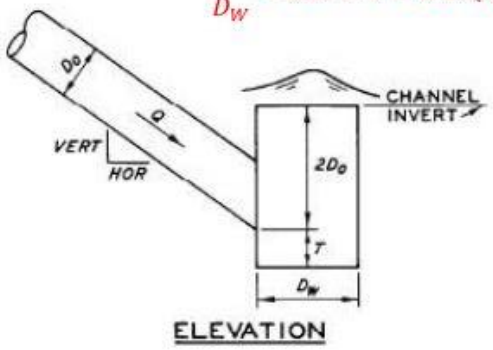
$$\frac{Q}{D_0^{2.5}} = \frac{1.45}{0.5^{2.5}} = 8.20$$

$$\therefore \frac{D_W}{D_0} = 0.53\left(\frac{Q}{D_0^{2.5}}\right) = 0.53(8.20) = 4.35$$

$$\therefore D_W = D_0(4.35) = 0.5(4.35) = 2.17'$$



$$\frac{T}{D_W} = 0.37 \therefore T = 0.37(D_W) = 0.37(2.17') = 0.80'$$



STORM DRAIN OUTLETS
ENERGY DISSAPATORS
STILLING WELL

HYDRAULIC DESIGN CHART 722-1

WES 7-73

ii. Determine Planting Area within project limits:
Planting Area (sq. ft.) = 683

iii. Determine Planter Factor (PF), sq. ft.:

Planter Factor (sq. ft.) = 0.4 x 683 = 273 sq. ft.

iv. Determine the 7-month (Oct. 1-April 30) Estimated Total Water Usage (ETWU):

$ETWU_{(7months)} = ET_{7} \times 0.62 \times PF$

$ETWU_{(7months)} = 21.7 \times 0.62 \times 133.6 = 1{,}797$ gal. $< 5{,}811$ gal.

v. $ETWU_{(7months)}$ is less than V_{Design}, therefore, Capture and Use is not feasible.

BioPlanter Box Calculations:

V_m = 344. ft. (*from previous step*)
Soil media infiltration rate, $K_{sat.\ Media}$: 5 in./hr. (Table 4.3)

Time to fill 3 feet of media (24" soil & 12" gravel) to ponding depth, T Fill = 3 hrs (Table 4.3)

Drawdown time, T (hr.) = 48 hrs (Table 4.3)
Ponding Depth = 1 ft. $_{MAX}$ (Table 4.3)

i. Determine the design volume:

V_{Design} (cu. ft.) = 1.5 x V m
V_{Design} (cu. ft.) = 1.5 x 344 = 516 cu. ft.

ii. Determine the design infiltration rate, K Sat Design

$$K_{Sat.\ Design} = K_{Sat.\ Media} / FS = 5\ (in./hr.) / 2 = 2.5\ in./hr.$$

iii. Calculate the BMP Surface Area, A min.:

$A_{min.}$ (sq. ft.) = V Design / [(T Fill x K sat. design / 12 in./ft.) + dp]
$A_{min.}$ (sq. ft.) = 516 / [(3 hrs. x 2.5 in./hr.) / 12 in./ft.) + 1 ft.]
$A_{min.}$ (sq. ft.) = 317.5 sq. ft.

Tributary Area Calcs

Total Lot Area: 16,552 SQFT
Total Lot Area: 0.38 Acres
[**D_{SD}**] Design Storm Depth (ft3): 0.75

Impervious Area (SF): 4,208 SQFT
Impervious Area (Acres): 0.0966
Pervious Area (SF): 12,344 SQFT
[P_A] Pervious Area (Acres): 0.2834

% Impervious: 25.4%
% Pervious: 74.6%

A (0.9) + (P_A) x 0.1 = Catch Area [T] =

Capture Volume (V_m)= T x D_{SD}
Required Planter SF = V_m / 1.625

41700 PCH			
Total Lot Area (SF):	16552	Impervious Area (SF)	4279
Total Lot Area (Acres):	0.3800	Impervious Area (Acres)	0.0982
Design Storm Depth (ft3)	0.0901	Pervious Area (SF)	12273
		Pervious Area (Acres)	0.2817
		% Impervious	25.9%
		% Pervious	74.1%

DMA Designation	Square Footage (sf)	CATCH AREA (SF)	CAPTURE Vm (FT3)	PLANTER SF (REQ.) SF	PLANTER SF (REQ.) SF	PLANTER SF PROVIDED	PLANTER #
1	925	832.5	75.0	46.2		72	1
2a	86	77.4	7.0	4.3		28	2
		0.0					
3	1017	915.3	82.5	50.8		107	3
		0.0					
2b	650	585.0	52.7	32.4		75	4
		0.0					
4	1112	1000.8	90.2	55.5		129	5
		0.03					
5	489	440.1	39.7	24.4		174	6
TOTAL	**4279**	3851.4	347.0	213.5		585.0	

PLANTERS	585	
Rear Stairs	0	Routed to Sump Pump in front of property
Driveway	0	
Site Walls	0	
Total Site Area	4864	

Summary Conclusion:
All Rain Water from roof areas, will be diverted to downspouts, which will lead to planters. BMPs provided are to include six (6) planter boxes for a total of 585 SQFT of planter area.

Geologic and Soils Engineering Exploration

Proposed Residence and Pool

APN 700-00-2000-655

41700 Pacific Coast Highway

Ventura County, California

For

Shubha and Sanjiv Jain

SG 8812-W **September 20, 2015**

County of Ventura
Initial Study
PL17-0005
Attachment 6 - Geologic and Soils Engineering Exploration

SCHICK GEOTECHNICAL, INC.
7650 Haskell Avenue, Suite D, Van Nuys, California 91406 Ph (818) 905-8011 Fx (818) 905-8115

Geologic and Soils Engineering Exploration

Proposed Residence and Pool

APN 700-00-2000-655

41700 Pacific Coast Highway

Ventura County, California

INTRODUCTION

The following report summarizes findings of Schick Geotechnical, Inc. geologic and soil engineering exploration update performed on a portion of the site. The purpose of this report is to evaluate the nature, distribution, engineering properties, relative stability, and nature of the earth materials underlying the site with respect to future construction of a residence and pool.

Intent

It is the intent of this report to assist in the design and completion of the proposed project. The geotechnical recommendations presented are intended to reduce geologic and soils engineering risks affecting the project. The professional opinions and geotechnical advice contained in this report are subject to the general conditions described in the "Notice" section of this report.

EXPLORATION

The scope of this exploration is based on the Preliminary Plan provided by Amit Apel. It is limited to the area of the proposed project, as shown on the enclosed Geologic Map and Cross Sections. The field exploration was conducted in July 2015 with the aid of hand labor and field geologic mapping. Downhole observation of the earth materials in the test pits was performed by the project geologist. Office tasks included engineering analysis, and the preparation of this report. The ring samples obtained from the test pits were returned to the laboratory for testing. Laboratory test results are shown in Appendix 1, which contains a discussion of the testing procedures and results. The test

pit logs are shown on the enclosed Log of Test Pits. Surface conditions and the location of the test pits are shown on the enclosed Geologic Map. Subsurface distribution of the earth materials, and the proposed project are shown on the enclosed Sections.

PROPOSED PROJECT

It is proposed to construct a single family residence and swimming pool, as shown on the enclosed Geologic Map and Sections. Formal plans have not been prepared and await the conclusions and recommendations of this exploration.

RESEARCH

The following documents were obtained from the County of Ventura:

Permit for site grading - not available;

Permit for residence, dated October 22, 1982;

Permit for retaining wall, dated November 22, 1982.

SITE DESCRIPTION

The site is located south of Pacific Coast Highway, Las Tunas Beach, of on the south flank of the Santa Monica Mountains, in the Ventura County area of Malibu, California. Past grading consists placing 5 to 9 feet of fill to create the existing level pad. The site descends below the level pad to the south the steeper portion of the slope adjacent to the beach area. Vegetation consists of non-native trees, shrubs, and ground cover. The site drainage discharges to the south to the beach. Seeps, springs, and groundwater were not encountered during the exploration.

EARTH MATERIALS

Fill

Fill was encountered in the test pits to a maximum observed depth of 9 feet. The fill was apparently compacted, however, no records for the placement and testing were available. The fill consists of

silty sand which is medium brown, mottled, slightly moist, dense, and contains occasional rock fragments.

Alluvial Terrace

Natural alluvial terrace encountered in the test pits consists of sandy clayey silt, clayey sand, and silty clayey sand, which is medium reddish brown, slightly moist, dense, and contains occasional rounded rock fragments.

SEISMIC CONDITIONS

General

The Southern California region is located within a tectonically active portion of the earth's crust which has produced both small and sizeable earthquakes throughout recorded history and before. As the earth's crust continuously adjusts itself, stresses and strains are built up along discontinuities, referred to as faults. Faults can be generally classified as active, potentially active, or inactive. Faults are considered active if they have produced seismic activity within the past 11,000 years. Faults are considered potentially active if there has been seismic activity along the fault between 11,000 and 1,000,000 years. Inactive faults have not produced any seismic activity within the past 1,000,000 years. In an effort to better inform the public regarding seismic risk, the State of California passed the Alquist-Priolo Special Studies Act in 1972 following the 1971 San Fernando Earthquake. Active faults within the state were identified anxd zones were established limiting construction within the zones.

Following the damaging 1989 Loma Prieta Earthquake, the state enacted the Seismic Hazard Mapping Act (SHMA) in 1990. The Department of Conservation was empowered to prepare a set of maps designating areas within Los Angeles and a portion of Ventura Counties which are susceptible to seismic slope instability and liquefaction. Recently, real estate disclosure laws have been modified to require disclosure if a property is affected by the Alquist-Priolo Earthquake Fault

Zoning Act and the Seismic Hazard Mapping Act. As of March 1, 1998, either the Local Option Real Estate Transfer disclosure Statement or The Natural Hazard Disclosure Statement is required for disclosures.

Site Specifics

The site is not located within any special study zone (Alquist-Priolo Act, 1972) and no known active fault crosses the site. Active and potentially active faults in the vicinity of the subject property are listed in the following Table I. Following the 1994 Northridge Earthquake, the Department of Conservation, Division of Mines and Geology established areas which are considered to be susceptible to seismically-induced slope failure and liquefaction. These seismic safety zones were published as a series of maps, initially released in 1996. Strong ground motion associated with large earthquakes can cause natural and manufactured slopes to become unstable and experience slumping, landsliding or block failure.

The following table lists known active faults within the southern California area which could theoretically produce a sizable earthquake during the expected occupancy period of the property. UBC categories have been established for active faults in accordance with Table 16-U in the 1997 UBC. Faults within category A exhibit magnitudes greater than or equal to 7.0 and slip rates greater than or equal to 5mm/year and have a high rate of seismic activity. Category B faults exhibit magnitudes up to magnitude 7.0, but with slip rates less than 5mm/year. Category C faults exhibit magnitudes less than 6.5 and slip rates less than 2mm/year and have a low rate of seismic activity.

The following fault distances were obtained using GPS Visualizer and EQFault.

(Latitude = 34.1031; Longitude = -118.3726)

Fault	UBC Category	Distance from Site (miles)	Maximum Credible Earthquake (Richter Magnitude)*	Risk of Earthquake during Occupancy
San Andreas	A	46.3	8.0	moderate
Newport-Inglewood	B	18.3	6.9	low to moderate
Malibu Coast	B	0.3	6.9	low
Santa Monica	B	3.2	6.7	low
Hollywood	B	16.5	6.4	low
Raymond	B	27.6	6.7	low to moderate
Sierra Madre	B	23.8	6.5	moderate
Santa Susana	B	21.8	6.9	low to moderate
Simi-Santa Rosa	B	19.5	6.5	low
Verdugo	B	23.9	6.7	low
Elysian Park Thrust	B	27.3	6.5	moderate
Palos Verdes	B	9.0	6.5	low
Anacapa Dume	B	2.7	6.7	low
San Cayetano	B	28.0	7.4	low
Unknown fault	?	?	?	moderate

Table I - Active Faults within the Los Angeles - Ventura County area

* Data obtained from Los Angeles County Seismic Safety Element, 1990 and Annual Technical Report, July, 1994, Southern California Earthquake Center.

HISTORIC EARTHQUAKES

1971 San Fernando Earthquake

On February 9, 1971 a Richter Magnitude 6.4 earthquake occurred along a frontal fault system of the San Gabriel Mountains. Local characteristics of the underlying soils played a significant role in structural performance during the earthquake.

1994 Northridge Earthquake

The subject property is located approximately 17.3 miles southwest of the epicenter of the January 17, 1994 Northridge earthquake which measured 6.7 on the Richter magnitude scale.

Seismic Design

The seismic factors listed in the following table can be used in the structural design. The seismic factors were determined based on the findings of the field exploration and in accordance with the U.S.G.S. Design Maps.

Seismic Factors	Value	Reference
Site Class	D	Chapter 20 of ASCE 7
Mapped Spectral Response Acceleration at 0.2 second Period (Ss)	2.314g	Figure 1613.3.1 (1)/ CBC
Mapped Spectral Response Acceleration at 1.0 second Period (S_1)	0.835g	Figure 1613.3.1 (2)/ CBC
Site Coefficient Fa	1.0	Table 1613.3.3 (1)/CBC
Site Coefficient Fv	1.5	Table 1613.3.3 (2)/CBC
Maximum Considered Earthquake Spectral Response Acceleration at 0.2 second Period (Sms)	2.314g	Equation 16-37/CBC
Maximum Considered Earthquake Spectral Response Acceleration at 1.0 second Period (Sm_1)	1.252g	Equation 16-38/CBC
Design Spectral Response Acceleration at 0.2 second Period (Sds)	1.543g	Equation 16-39/CBC
Design Spectral Response Acceleration at 1.0 second Period (Sd_1)	0.835g	Equation 16-40/CBC
Seismic Design Category	E	Section 1613.3.5/CBC

Due to the nature and density of the earth materials underlying the subject property, liquefaction and significant earthquake-induced consolidation or differential settlement are not likely to occur.

SLOPE STABILITY

Gross Stability

The area of the proposed development is grossly stable with a factor of safety in excess of 1.5. The calculations are based upon shear tests of samples believed to represent the weakest alluvial terrace encountered during exploration.

Section 111

Based upon the proposed development plan and the field exploration, the area of the proposed residence and pool is free of any potential geologic hazard such as landslides, mudflows,

liquefaction, active faults and excessive settlement. Construction will not adversely affect the subject property or any of the adjoining properties.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration and review of the referenced development plans, it is the finding of SGI that construction of the proposed project is feasible from a geologic and soils engineering standpoint provided the advice and recommendations contained in this report are included in the plans and are implemented during construction.

The recommended bearing material is the competent alluvial terrace which can be reached with a deepened foundation system. Due to the lack of documentation for the existing fill, it is not suitable for foundation or slab support.

SWIMMING POOL AND SPA

The proposed swimming pool and spa may be constructed using a free-standing shell design. The pool walls should be designed for an inward pressure of 60 pounds per cubic foot. The pool and spa must derive support entirely from the dense alluvial terrace, which will require the use of a deepened foundation system. If the spa is to be attached to the pool, the spa must be founded at the same depth as the portion of the pool it adjoins.

FOUNDATION DESIGN

Deepened Foundations - Friction Piles

Friction piles should be a minimum of 24 inches in diameter and a minimum of 10 feet into alluvial terrace. Piles may be assumed fixed at 3 feet into alluvial terrace. The piles may be designed for a skin friction of 500 pounds per square foot for that portion of pile in contact with the alluvial terrace.

Lateral Design

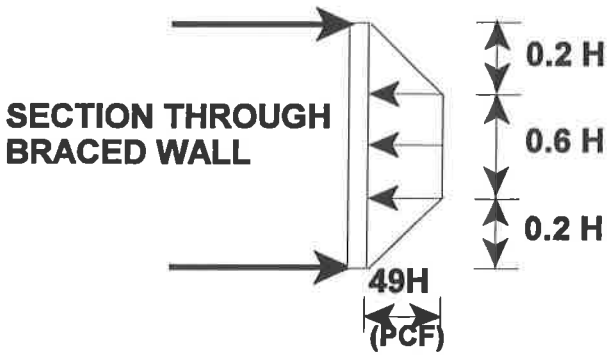
Grading records were not available for the existing fill which was placed to create the level pad and rear yard terraces. Pile shafts are subject to lateral loads due to the creep forces. Pile shafts should be designed for a lateral load of 1,000 pounds per linear foot for each foot of shaft exposed to the existing fill. The friction value is for the total of dead and frequently applied live loads and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Resistance to lateral loading may be provided by passive earth pressure within the bedrock. Passive earth pressure may be computed as an equivalent fluid having a density of 350 pounds per cubic foot. The maximum allowable earth pressure is 3,500 pounds per square foot. For design of isolated piles, the allowable passive earth pressure may be increased by 100 percent. Piles spaced more than 3 pile diameters on center may be considered isolated.

RETAINING WALLS

Retaining walls up to 12 feet high are proposed for the proposed residence. The retaining walls may be designed for an equivalent fluid pressure of 77 pounds per cubic foot. Retaining walls must be provided with a subdrain covered with a minimum of 12 inches of 3/4 inch crushed gravel. Subdrains should rest on a bed of gravel about 6 inches thick. Retaining walls are designed to deflect up to 1% their total height upon loading. The deflection can affect nearby hard scape.

Restrained Retaining Wall

Subterraneous basement retaining walls which are restrained at both the top and bottom may be designed for trapezoidal loading, per the diagram. 'H' is the total design height. The equivalent fluid pressure is 49H.



Waterproofing

Walls located below grade are susceptible to moisture penetration and no waterproofing system can guarantee 100% protection. The most effective means of providing protection against moisture penetration is application of a waterproofing system on the backside of the retaining wall, prior to backfilling. It is recommended that the foundation contractor provide recommendations for proven waterproofing systems to be utilized.

Retaining Wall Backfill

Retaining wall backfill should be compacted to a minimum of 90 percent of the maximum density as determined by ASTM D 1557-12 or equivalent. Where access between the retaining wall and the temporary excavation prevents the use of compaction equipment, retaining walls should be backfilled with 3/4-inch crushed gravel to within 2 feet of the ground surface. Where the area between the wall and the excavation exceeds 24 inches, the gravel must be vibrated or wheel-rolled, and tested for compaction. The upper 2 feet of backfill above the gravel should consist of a compacted fill blanket to the surface.

Temporary Retaining Wall Excavations

Temporary excavations will be required to construct the proposed retaining walls. The excavations will be up to 12 feet in height. Excavations may be made up to 5 feet high, then trimmed to a 1:1

gradient (45 degrees). Vertical excavations removing lateral support from any adjacent site will require the use of slot cutting. The slot cutting method uses the earth as a buttress and allows the excavation to proceed in phases.

The slot cuts shall be made in the following sequence:

1. Excavate banks to a 1:1 gradient (45 degrees)
2. Excavate the vertical slots, using the A-B-C-A-B-C sequence, first excavating the "A" slots. Slot cuts may be excavated to a maximum of 8 feet in width.
3. Construct the wall sections in the "A" slots. Provide proper waterproofing and backfill between the wall sections and the bank with gravel or approved compacted fill.
4. Excavate the "B" slots after the wall sections in the "A" slots have been constructed and backfilled.
5. Excavate the "C" slots after the wall sections in the "B" slots have been constructed and backfilled.
6. Backfill the "C" slots with compacted fill.

The geologist should be present during grading to see temporary slopes. All excavations should be stabilized within 30 days of initial excavation.

Foundation Settlement

Settlement of the foundation system is expected to occur on initial application of loading. A settlement of ¼ to ½ inch may be anticipated. Differential settlement should not exceed ¼ inch.

Foundation Setback

The Building Code requires that foundations be a sufficient depth to provide horizontal setback from a descending slope. The required setback is 1/3 the height of the slope with a minimum of five feet and a maximum of 40 feet measured horizontally from the base of the foundation to the slope face. The setback for the proposed pool is 1/6 the height of the descending slope, to a maximum of 20 feet.

Excavation Characteristics

The test pits did not encounter any hard to excavate materials.

FLOOR SLABS AND DECKING

Decking, slabs and walkways are likely to experience cracking as the result of the curing process of the concrete. Shrinkage cracks are very difficult to prevent from occurring. Expansion joints are commonly installed within exterior decks in an effort to control the location of the inevitable cracks. Interior slabs however are typically not provided with expansion joints, making cracking more random. The recommended steel reinforcement is intended to reduce the severity of cracking and must be properly installed to ensure proper performance. Rigid or brittle floor coverings, such as tile or marble may also experience cracking during the curing process of the concrete slab underneath and/or minor settlement. Providing a slip sheet between the slab and floor covering will help to reduce cracking of the floor covering.

Floor Slabs

Floor slabs must be cast over the dense alluvial terrace or supported entirely by the deepened foundation system. The slab must be a minimum of 4 inches thick and reinforced with a minimum of #4 bars on 16 inch centers, each way. Slabs which will be provided with a floor covering should be protected by a polyethylene plastic vapor barrier. The barrier should be sandwiched between two one-inch layers of sand to prevent punctures and aid in the concrete cure.

Decking

Prior to placing decking, the existing fill and soil should be removed, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 90 percent of the maximum dry density, as determined by ASTM D 1557-12. Decking should be reinforced with a minimum of #4 bars placed 16 inches on center, each way.

DRAINAGE

Roof gutters and downspouts are required for the entire residence. Pad and roof drainage must be collected and transferred to the street or approved location in non-erosive drainage devices. Drainage must not be allowed to pond on the pad or against any foundation or retaining wall. The level pad should be provided with numerous area drains and the drainage conducted to a suitable location. Drainage must not be allowed to flow uncontrolled across the site. The slopes should be provided with erosion resistant vegetation.

PLAN REVIEW

Formal plans ready for submittal to the Building Department should be reviewed by SGI. Any change in scope of the project may require additional geotechnical work.

SITE OBSERVATION

It is required that all foundations excavations and the swimming pool excavation be observed by the geologist prior to placing forms, concrete, or steel. Temporary wall excavations must be observed by the geologist. Should the observations reveal any unforeseen hazard, the geologist will provide additional recommendations. Any fill that is placed must be approved, tested, and verified if used for engineered purposes. The entire length of subdrain behind retaining walls must be observed by a representative of this office. All gravel backfill above the subdrain must be observed by a representative of SGI prior to placing a minimum of two feet of controlled fill as a cap. Please advise SGI at least 24 hours prior to any required site visit. All approved plans and permits must be at the site.

CONSTRUCTION SITE MAINTENANCE

It is the responsibility of the contractor to maintain a safe construction site, per OSHA requirements.

Please call this office with any questions. This report and the exploration are subject to the following NOTICE. Please read the Notice carefully, as it limits our liability.

NOTICE

In the event of any changes in the design or location of any structure, as outlined in this report, the conclusions and recommendations contained herein may not be considered valid unless the changes are reviewed by us and the conclusions and recommendations are modified or reaffirmed after such review. The subsurface conditions described, excavation characteristics, and the earth materials described herein and shown on the enclosed geologic map and cross section have been projected from the previous and recent excavations on the site as indicated and should in no way be construed to reflect the typical variations that may occur between these excavations or that may result from changes in subsurface conditions. Fluctuations in the level of groundwater may occur due to typical variations in rainfall, temperature, irrigation, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can be extremely hazardous. Saturation of earth materials can cause subsidence of the site.

If conditions encountered during construction appear to differ from those disclosed herein, notify us immediately so we may consider the need for modifications. Compliance with the design concepts, specifications or recommendations during construction requires the review of the engineering geologist and geotechnical engineer during the course of construction.

THIS EXPLORATION WAS PERFORMED ONLY ON A PORTION OF THE SITE, AND CANNOT BE CONSIDERED AS INDICATIVE OF THE PORTIONS OF THE SITE NOT EXPLORED.

This report is issued and made for the sole use and benefit of the client, is not transferable and is as of the exploration date. Any liability in connection herewith shall not exceed the fee for the exploration. No warranty, expressed or implied, is made or intended in connection with the above exploration or by the furnishing of this report or by any other oral or written statement.

THIS REPORT WAS PREPARED ON THE BASIS OF THE PRELIMINARY PLOT PLAN FURNISHED. FINAL PLANS MUST BE REVIEWED BY THIS OFFICE AS ADDITIONAL GEOTECHNICAL WORK MAY BE REQUIRED.

SGI has reviewed, concurs with, and accepts responsibility for the laboratory testing performed by C. Y. Geotech, Inc. The laboratory test results included in Appendix I were used in the preparation of this report.

Respectfully submitted,

CERTIFIED ENGINEERING GEOLOGIST
WAYNE SCHICK
E.G. 1300
Exp. 4-30-2016
STATE OF CALIFORNIA

WAYNE SCHICK
C.E.G. 1300

REGISTERED PROFESSIONAL ENGINEER
TZE-TZONG TSAO
No. C 046886
Exp. 06-30-
CIVIL
STATE OF CALIFORNIA

JOHN TSAO
P.E. 46886

Enc: Appendix I
Vicinity Map
Test Pit Logs
Geologic Map and Sections
Calculations

xc: (4) Addressee

TABLE 1 - LOG OF TEST PITS

Test Pit Number	Depth (Feet)	Description
1	0 - 9	FILL: silty sand, medium brown, mottled, moist, medium dense, contains occasional rock fragments
	9 - 14	ALLUVIAL TERRACE: Sandy clayey silt, clayey sand, and silty clayey sand, medium reddish brown, slightly moist, dense, contains occasional rounded rock fragments
		End at 14 feet; No Water; No Caving
2	0 - 5	FILL: silty sand, medium brown, mottled, moist, medium dense, contains occasional rock fragments
	5 - 12	ALLUVIAL TERRACE: Sandy clayey silt, clayey sand, and silty clayey sand, medium reddish brown, slightly moist, dense, contains occasional rounded rock fragments
		End at 12 feet; No Water; No Caving
3	0 - 9	FILL: silty sand, medium brown, mottled, moist, medium dense, contains occasional rock fragments
	9 - 13	ALLUVIAL TERRACE: Sandy clayey silt, clayey sand, and silty clayey sand, medium reddish brown, slightly moist, dense, contains occasional rounded rock fragments
		End at 13 feet; No Water; No Caving

C. Y. GEOTECH, INC.

Engineering Geology and Geotechnical Engineering

9428 Eton Avenue, Unit M, Chatsworth, California 91311
Tel: (818) 341-1899 Fax: (818) 341-1897 Email: cygeotech@sbcglobal.net

August 28, 2015

P. N. CYG-15-7638

LABORATORY TESTING SERVICES

As requested by Mr. Wayne Schick of Schick Geotechnical (SG), Inc., C. Y. Geotech (CYG) , Inc. has performed the laboratory tests as listed in Table 1 for SG project SG 8812-W, at 41700 Pacific Coast Highway, Malibu, California. The testing procedures of ASTM (American Society for Testing and Materials) Standards were followed in the laboratory tests. The laboratory of CYG is certified by the City of Los Angeles Department of Building and Safety.

Client Name:	Schick Geotechical, Inc.
Project Name:	SG/Jain
SG Project No:	SG 8812-W
Project Address:	41700 Pacific Coast Highway, Malibu, California

The type and quantity of laboratory tests are listed in Table 1. The results of laboratory tests are summarized in Table 2, Plates DS-1 and DS-2, Plates SDC-1 and SDC-2, and Plates CS-1 to CS-4. If you have any questions regarding the laboratory testing, please do not hesitate to call us.

Very truly yours,
C. Y. Geotech, Inc.

John T. Tsao
RCE 46886

TEST PROCEDURES

Moisture-Density Test

Moisture contents are performed in general accordance with ASTM Test Designation D2216. Unit weights were determined in general accordance with ASTM Test Designation D2937. The results of moisture-density tests are listed in Table 2.

Direct Shear Test

Two direct shear tests were performed on selected ring and bulk samples to determine the shear strength parameters of soils. The direct shear tests were performed in accordance with ASTM Standard D-3080 by using a strain control type direct shear machine and under an artificially saturated condition. The samples were submerged into water for one or two days to saturate the samples prior to testing. The samples were tested under the following procedures: 1) the sample is placed in the shear box and then a selected normal stress is applied to the specimen, 2) the sample is compressed by the normal stress until an equilibrium state is reached, 3) the sample is sheared under a constant rate of shear displacement of 0.004 inches per minute, 4) the peak value of shear strength during shearing was recorded as the peak shear strength, 5) back-shear the sample to the original position and then reshear the sample to record the peak value as the ultimate shear strength, and 6) repeat step 5 to repeatedly reshear sample a minimum of 5 times and until a steady shear strength was recorded as a residual shear strength. Three samples were tested with different normal loads following the abovementioned testing procedures. The results were plotted on a normal-stress vs. shearing strength diagram to determine the shear strength parameters: cohesion and angle of internal friction. The results of direct shear tests are presented in Plates DS-1 and DS-2 and Plates SDC-1 and SDC-2.

Consolidation Test

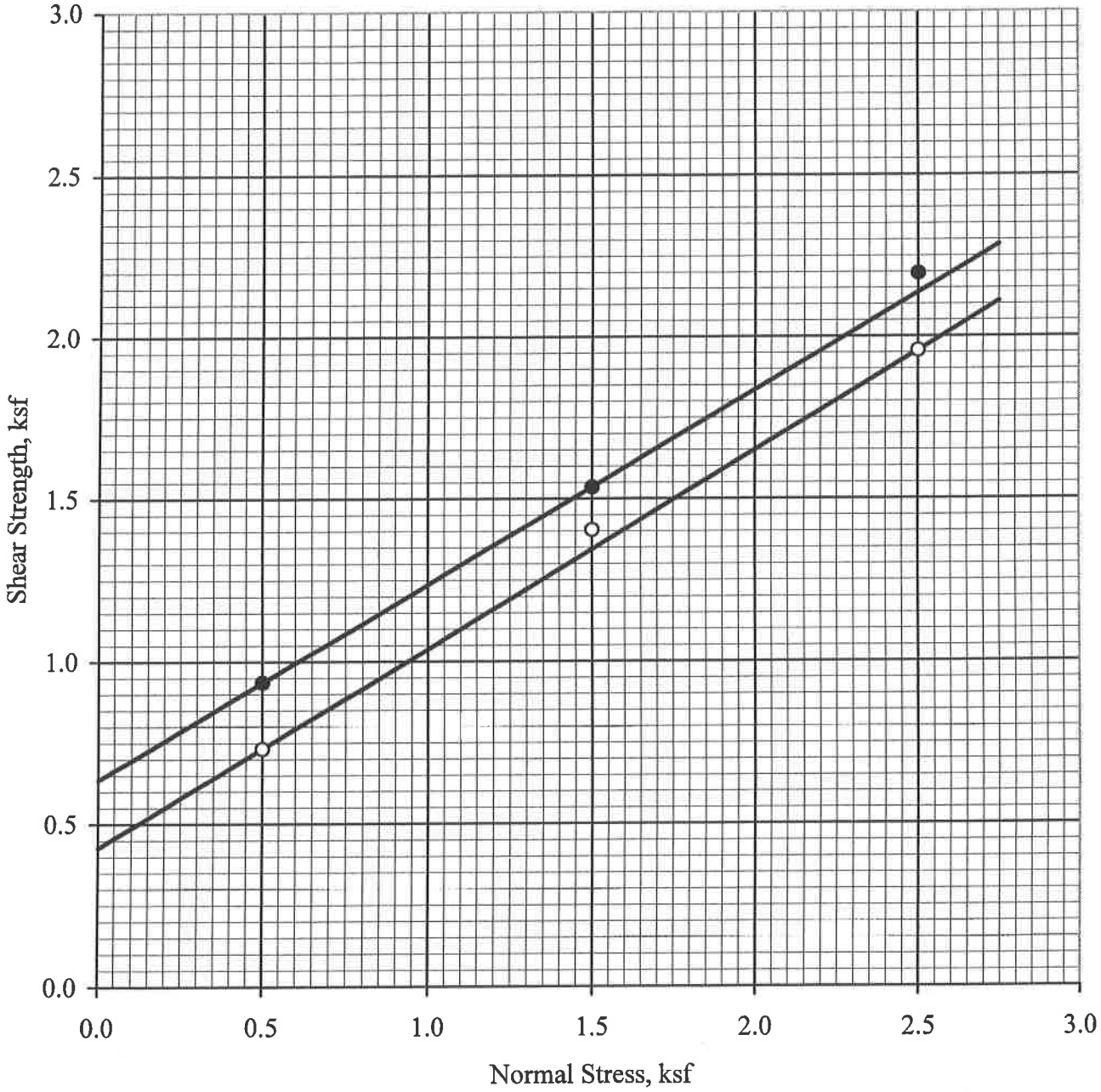
Four consolidation tests were performed on selected ring samples to determine the compressibility and hydroconsolidation potential of soils. The consolidation tests were performed in general accordance with ASTM Standard D-2435. The ring sample was contained in a 2.4-inch-diameter and 1.0-inch-high sampling ring. This test was performed primarily on materials which would be most susceptible to consolidation under anticipated foundation loading. The sample was tested under the following procedures: 1) the sample is placed in a loading frame under a seating pressure of 200 psf, 2) apply vertical loads to the sample in several geometric increments and record the resulting deformations at selected time intervals, 3) adds water to the test cell and records the vertical consolidation when the applied stress reaches a simulated foundation pressure (often 2000 psf) and the sample has consolidated under that pressure, 4) repeat step 2 until a loading pressure of 4000 psf or 8000 psf and record the equilibrium consolidation, 5) unload the sample to an applied stress of 1000 psf and record the rebound of the sample. The results of consolidation tests are presented in terms of percent volume change versus applied vertical stress. The results of consolidation tests are presented in Plates CS-1 to CS-4.

Table 1. Type and Quantity of Laboratory Test

Laboratory Test	Quantity	ASTM Standard
Density and Moisture Content	6	D-2216 & D-2937
Direct Shear Test	2	D-3080
Consolidation Test	4	D-2435

Table 2. Results of the Dry Density-Moisture Content Test

Location	Depth ft	Soils Description	Dry Density pcf	Moisture Content %
TP-2	5	Reddish brown sandy clayey silt	112	17
TP-2	6	Reddish brown sandy clayey silt	109	17
TP-2	7	Reddish brown clay silt	105	20
TP-2	9	Reddish brown clayey sand with rock fragments	113	15
TP-2	11	Reddish brown gravelly clayey sand	110	17
TP-2	13	Reddish brown silty clayey sand	110	19



● Peak - At Saturation Moisture Content C = 630 psf ϕ = 31 °

○ Residual - At Saturation Moisture Content C = 420 psf ϕ = 31 °

Field Dry Density = 112 pcf
Field Moisture Content = 17 %
Saturation Moisture Content = 18 %

Test Pit : TP-2
Depth : 5 feet
Description : Reddish brown sandy clayey silt

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SG/Jain

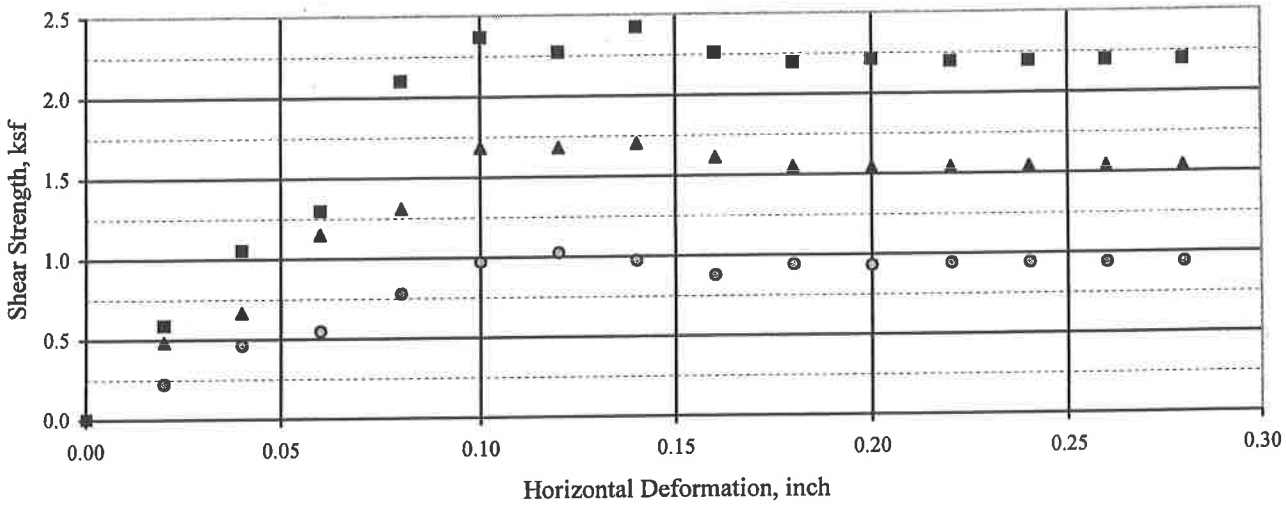
Date : 08-2015

P.N. No.: CYG-15-7638

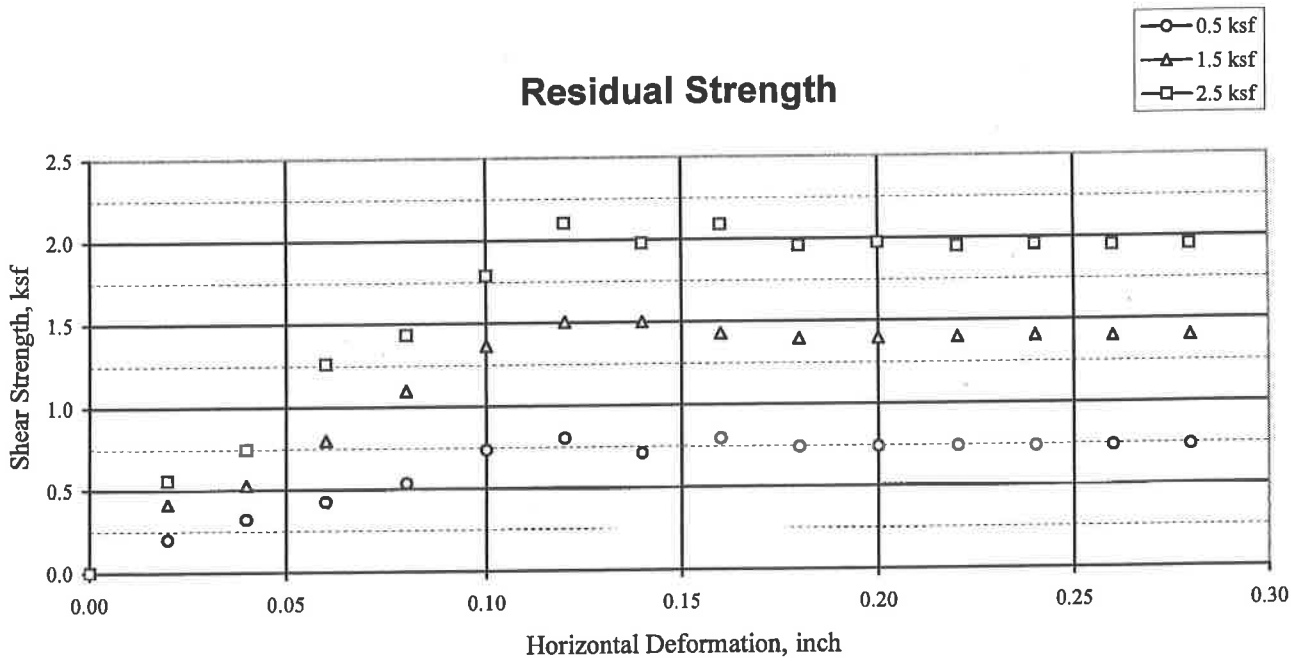
Shear Diagram

Plate DS - 1

Peak Strength



Residual Strength



● Peak - At Saturation Moisture Content C = 630 psf ϕ = 31 °

○ Residual - At Saturation Moisture Content C = 420 psf ϕ = 31 °

Field Dry Density = 112 pcf
Field Moisture Content = 17 %
Saturation Moisture Content = 18 %

Test Pit : TP-2
Depth : 5 feet
Description : Reddish brown sandy clayey silt

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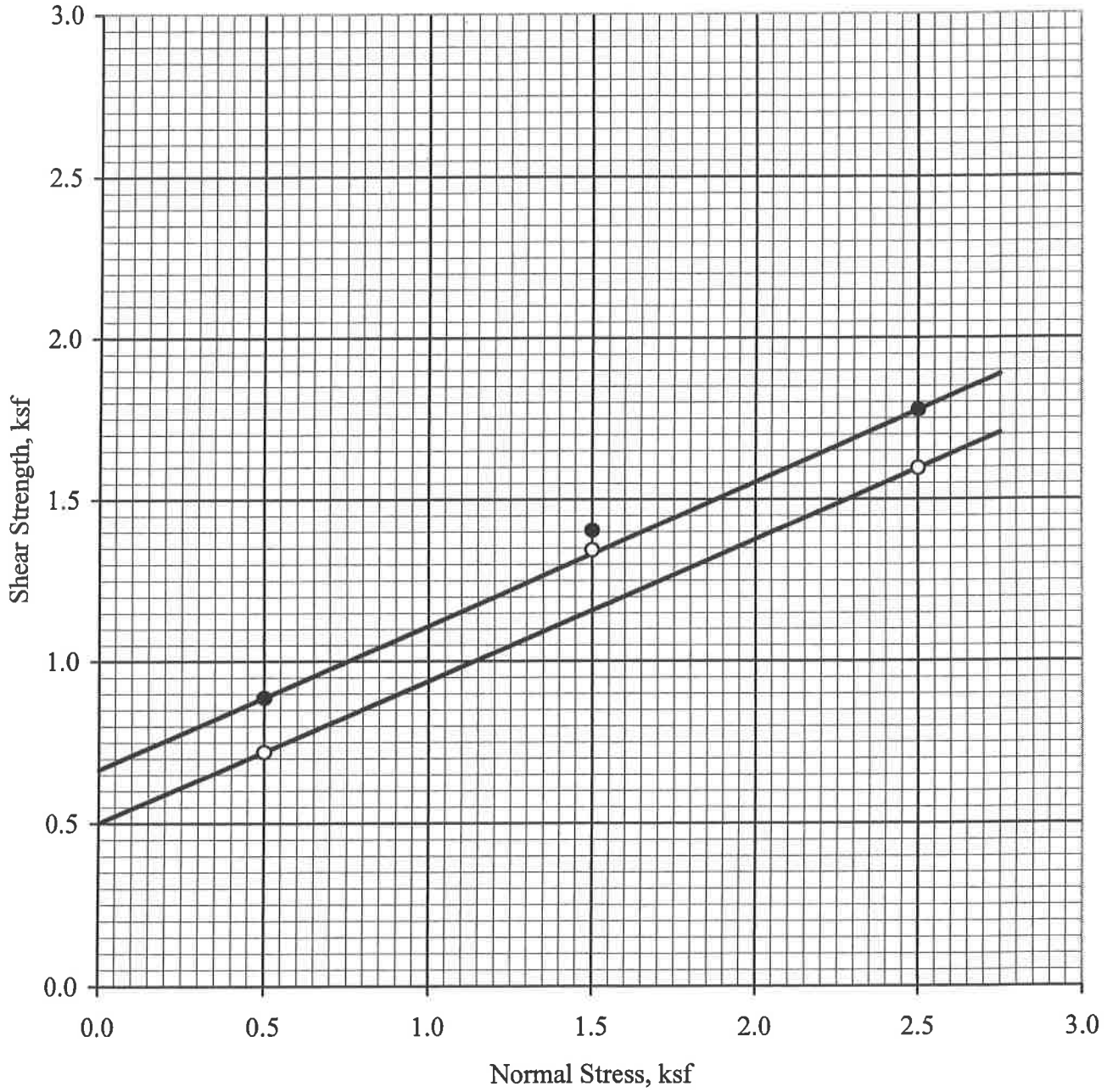
Stress-Displacement Curve

Plate SDC - 1



● Peak - At Saturation Moisture Content C = 660 psf ϕ = 24 °

○ Residual - At Saturation Moisture Content C = 500 psf ϕ = 24 °

Field Dry Density = 105 pcf
Field Moisture Content = 20 %
Saturation Moisture Content = 22 %

Test Pit : TP-2
Depth : 7 feet
Description : Reddish brown clayey silt

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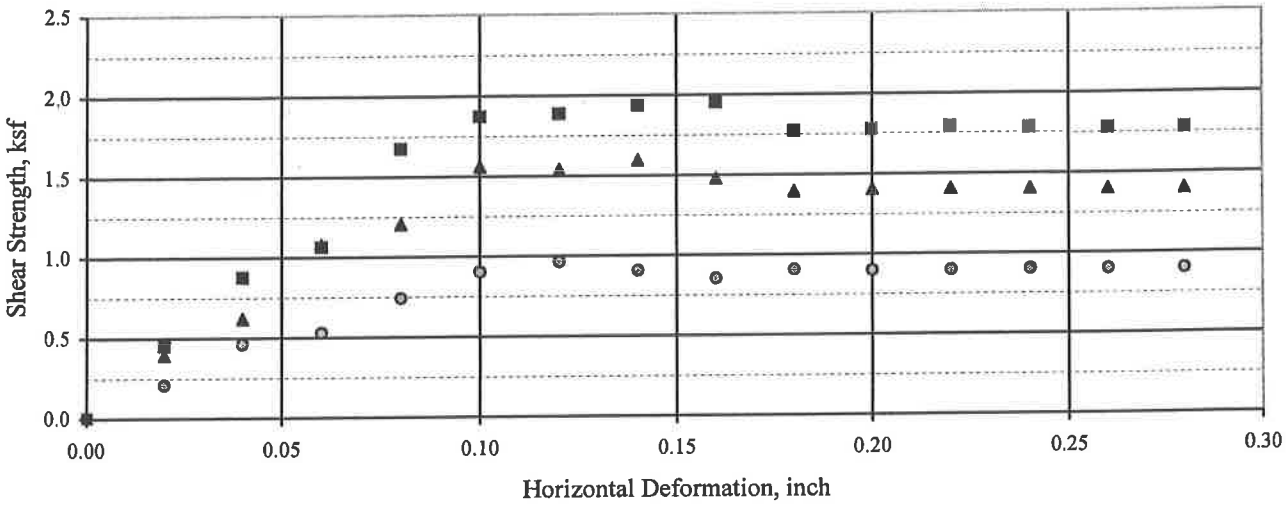
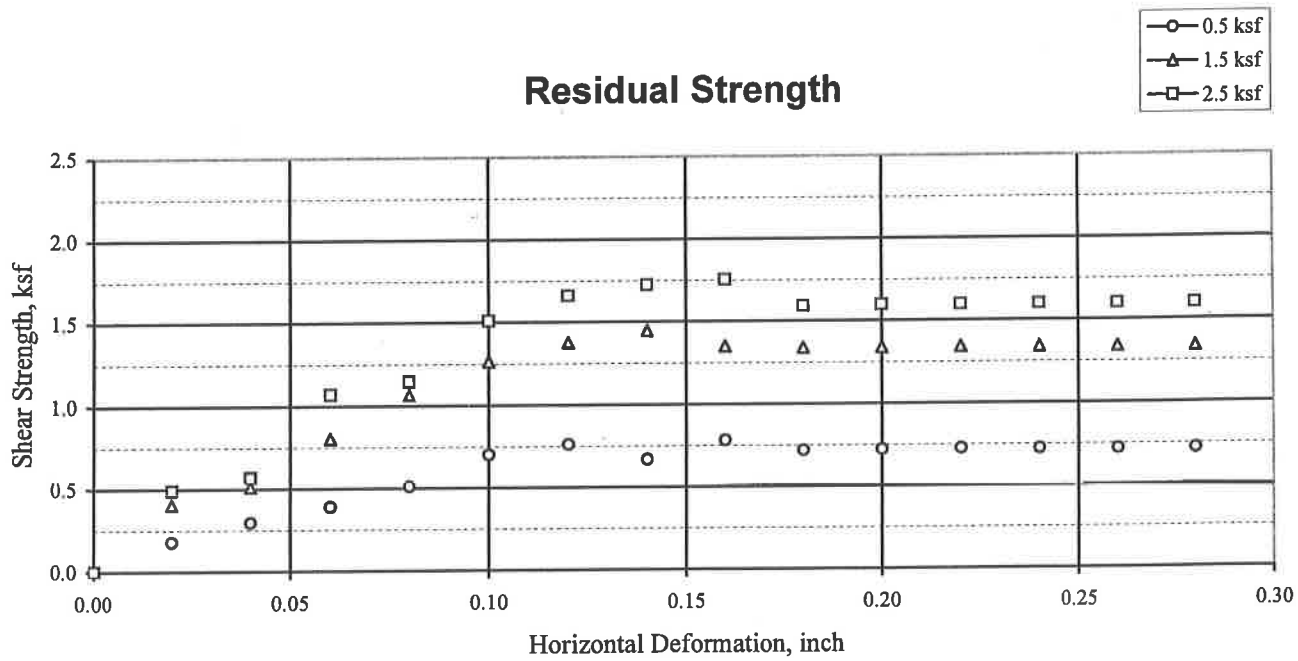
Shear Diagram

Plate DS - 2

Peak Strength



Residual Strength



● Peak - At Saturation Moisture Content C = 660 psf ϕ = 24 °

○ Residual - At Saturation Moisture Content C = 500 psf ϕ = 24 °

Field Dry Density = 105 pcf
Field Moisture Content = 20 %
Saturation Moisture Content = 22 %

Test Pit : TP-2
Depth : 7 feet
Description : Reddish brown clayey silt

C. Y. GEOTECH, INC.

Geotechnical Engineering
and Engineering Geology

SG/Jain

Date : 08-2015

P.N. No.: CYG-15-7638

Stress-Displacement Curve

Plate SDC - 2

C. Y. GEOTECH, INC.

Geotechnical Engineering and Engineering Geology

SG/Jain

Date : 08-2015 | P.N. No: CYG-15-7638

Consolidation Test

Test Pit	Depth (feet)	Water Content (%) Before	After	Height (inches)	Diameter (inches)
TP-2	5	17	18	1.0	2.4

Classification : Reddish brown sandy clayey silt

Swelling = 0 %

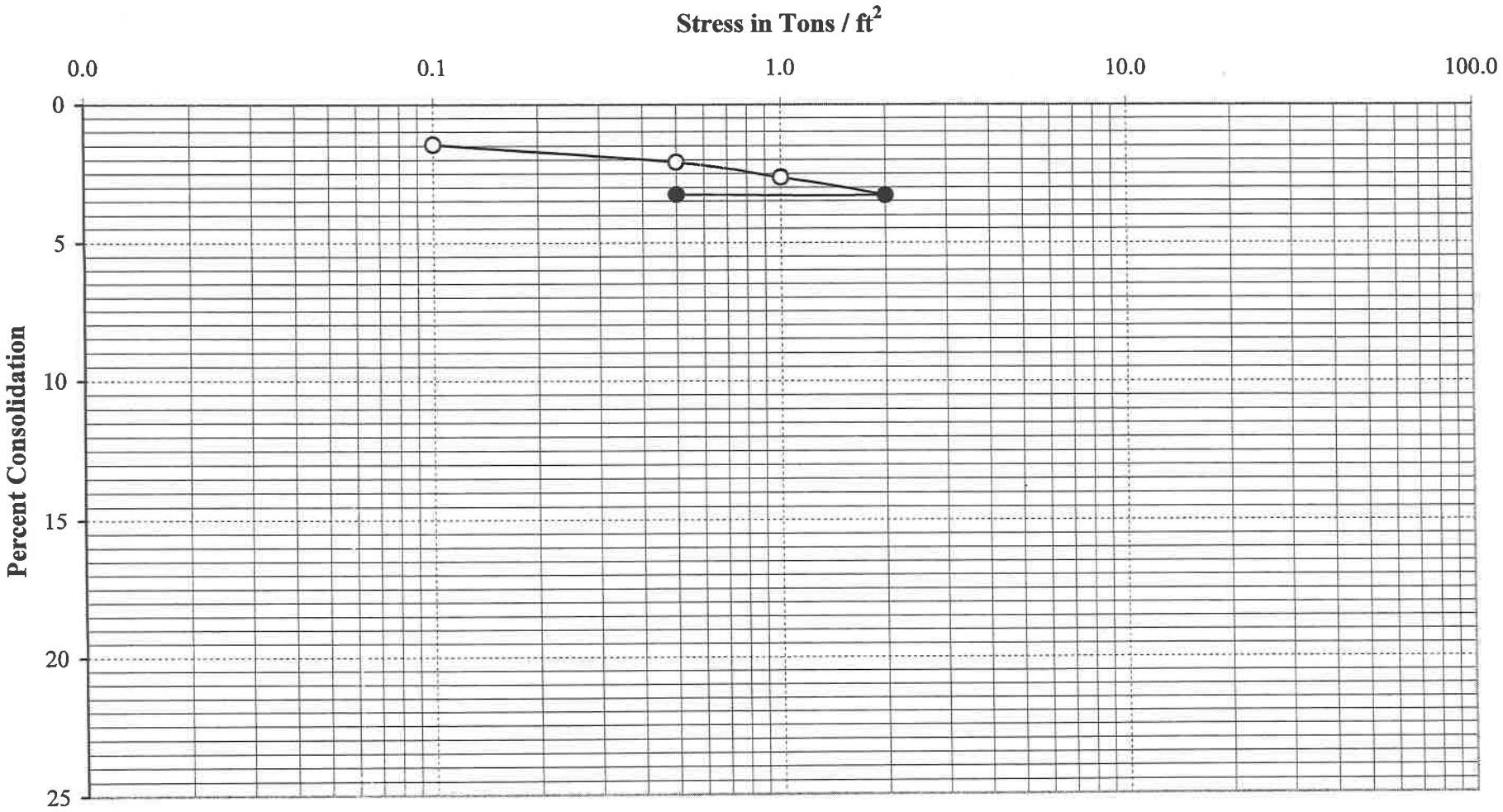


Plate CS - 1

C. Y. GEOTECH, INC.

Geotechnical Engineering and Engineering Geology

SG/Jain

Date : 08-2015

P.N. No: CYG-15-7638

Consolidation Test

Test Pit	Depth (feet)	Water Content (%) Before	Water Content (%) After	Height (inches)	Diameter (inches)
TP-2	6	17	21	1.0	2.4

Classification : Reddish brown sandy clayey silt

Hydroconsolidation = 0.4 %

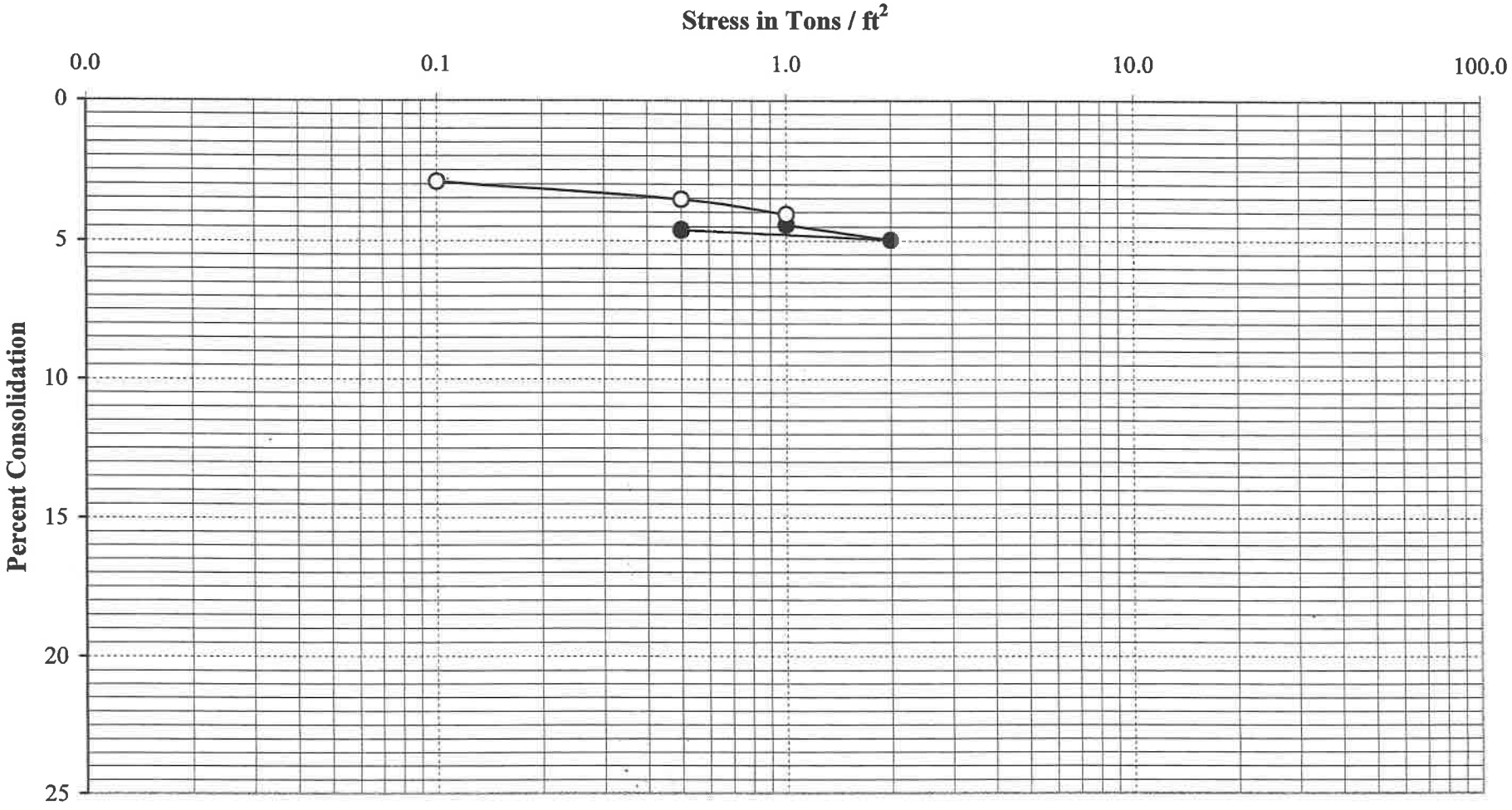


Plate CS - 2

C. Y. GEOTECH, INC.

Geotechnical Engineering and Engineering Geology

SG/Jain

Date : 08-2015 | P.N. No: CYG-15-7638

Consolidation Test

Test Pit	Depth (feet)	Water Content (%) Before	After	Height (inches)	Diameter (inches)
TP-2	9	15	18	1.0	2.4

Classification : Reddish brown clayey sand with rock fragments

Swelling = 0.4 %

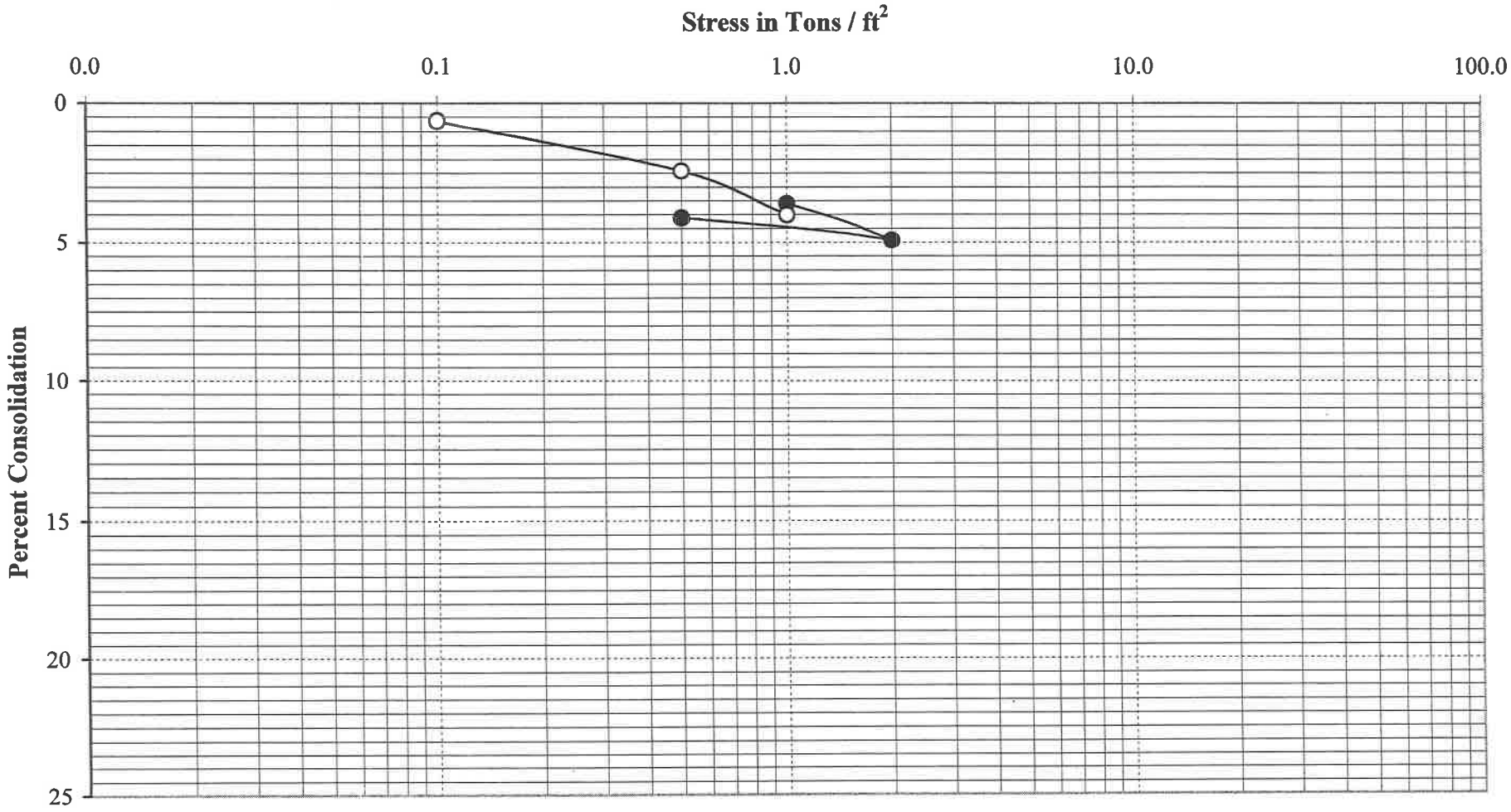


Plate CS - 3

C. Y. GEOTECH, INC.

Geotechnical Engineering and Engineering Geology

SG/Jain

Date : 08-2015 | P.N. No: CYG-15-7638

Consolidation Test

Test Pit	Depth (feet)	Water Content (%) Before	After	Height (inches)	Diameter (inches)
TP-2	11	17	19	1.0	2.4

Classification : Reddish brown gravelly clayey sand

Swelling = 0.4 %

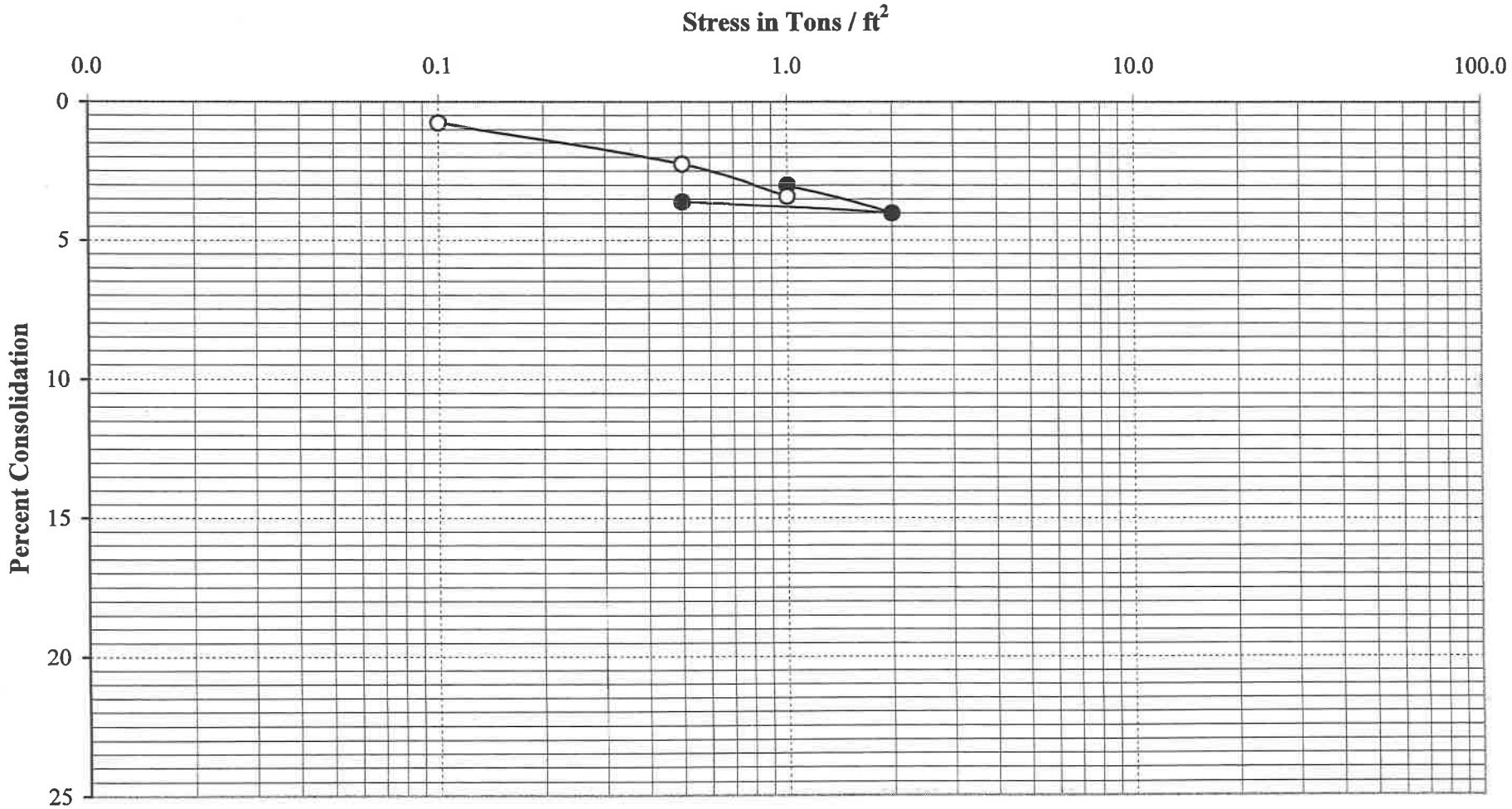


Plate CS - 4

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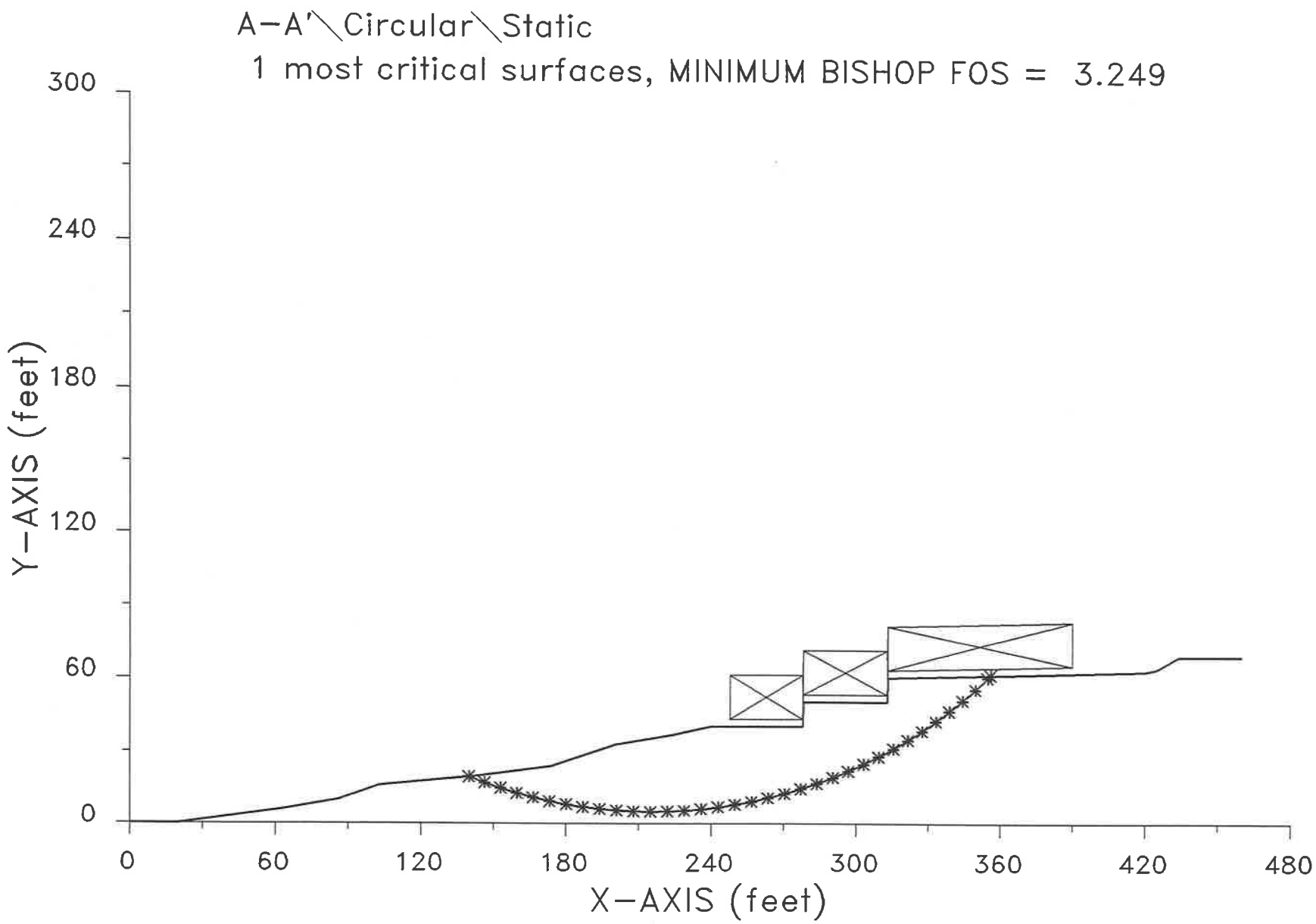

Problem Description : A-A'\Circular\Static

SEGMENT BOUNDARY COORDINATES

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17 SURFACE boundary segments

Segment No.	x-left (ft)	y-left (ft)	x-right (ft)	y-right (ft)	Soil Unit Below Segment
1	.0	.0	20.0	.0	1
2	20.0	.0	63.0	6.0	1
3	63.0	6.0	86.0	10.0	1
4	86.0	10.0	103.0	16.0	1
5	103.0	16.0	144.0	20.0	1
6	144.0	20.0	174.0	24.0	1
7	174.0	24.0	201.0	33.0	1
8	201.0	33.0	224.0	37.0	1
9	224.0	37.0	240.0	40.5	1
10	240.0	40.5	278.0	40.5	1
11	278.0	40.5	278.1	50.5	1
12	278.1	50.5	313.0	50.5	1
13	313.0	50.5	313.1	60.5	1
14	313.1	60.5	420.0	63.0	1
15	420.0	63.0	425.0	64.0	1
16	425.0	64.0	434.0	69.0	1
17	434.0	69.0	460.0	69.0	1

ISOTROPIC Soil Parameters

---

1 Soil unit(s) specified

Soil Unit No.	Unit Weight Moist (pcf)	Unit Weight Sat. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Parameter Ru	Pore Pressure Constant (psf)	Water Surface No.
1	129.0	129.0	500.0	24.00	.000	.0	0

BOUNDARY LOADS

1 load(s) specified

Load No.	x-left (ft)	x-right (ft)	Intensity (psf)	Direction (deg)
1	248.0	390.0	200.0	.0

NOTE - Intensity is specified as a uniformly distributed force acting on a HORIZONTALLY projected surface.

A critical failure surface searching method, using a random technique for generating CIRCULAR surfaces has been specified.
5000 trial surfaces will be generated and analyzed.
500 Surfaces initiate from each of 10 points equally spaced along the ground surface between x = 20.0 ft
and x = 200.0 ft
Each surface terminates between x = 240.0 ft
and x = 460.0 ft
Unless further limitations were imposed, the minimum elevation at which a surface extends is y = .0 ft

Factors of safety have been calculated by the :

* * * * * SIMPLIFIED BISHOP METHOD * * * * *

The most critical circular failure surface
is specified by 35 coordinate points

Point No.	x-surf (ft)	y-surf (ft)
1	140.00	19.61
2	146.54	17.12
3	153.16	14.85
4	159.86	12.81
5	166.62	11.01
6	173.45	9.44
7	180.32	8.10
8	187.23	7.01
9	194.18	6.15
10	201.15	5.53
11	208.14	5.15
12	215.14	5.02
13	222.14	5.12
14	229.13	5.47
15	236.10	6.06
16	243.06	6.88
17	249.97	7.95
18	256.85	9.26
19	263.68	10.80
20	270.45	12.57
21	277.16	14.58
22	283.79	16.82
23	290.34	19.28
24	296.80	21.97
25	303.17	24.88
26	309.43	28.01
27	315.58	31.36
28	321.61	34.91
29	327.52	38.67
30	333.29	42.63
31	338.92	46.78
32	344.41	51.13
33	349.74	55.67
34	354.91	60.38
35	356.06	61.50

**** Simplified BISHOP FOS = 3.249 ****

The following is a summary of the TEN most critical surfaces
Problem Description : A-A'\Circular\Static

	FOS (BISHOP)	Circle Center x-coord (ft)	Circle Center y-coord (ft)	Radius (ft)	Initial x-coord (ft)	Terminal x-coord (ft)	Resisting Moment (ft-lb)
1.	3.249	215.58	208.02	203.01	140.00	356.06	8.417E+07
2.	3.256	217.96	190.74	188.06	140.00	354.50	8.209E+07
3.	3.259	220.50	203.70	200.92	140.00	362.55	9.224E+07
4.	3.261	220.56	193.94	192.04	140.00	359.71	8.852E+07
5.	3.264	215.93	184.28	181.34	140.00	349.19	7.581E+07
6.	3.264	215.03	185.67	182.23	140.00	348.19	7.465E+07
7.	3.265	211.73	198.87	193.08	140.00	347.20	7.353E+07
8.	3.268	212.41	191.95	186.94	140.00	346.06	7.218E+07
9.	3.269	206.36	230.10	229.32	120.00	361.95	1.120E+08
10.	3.270	221.19	183.87	183.23	140.00	357.60	8.595E+07

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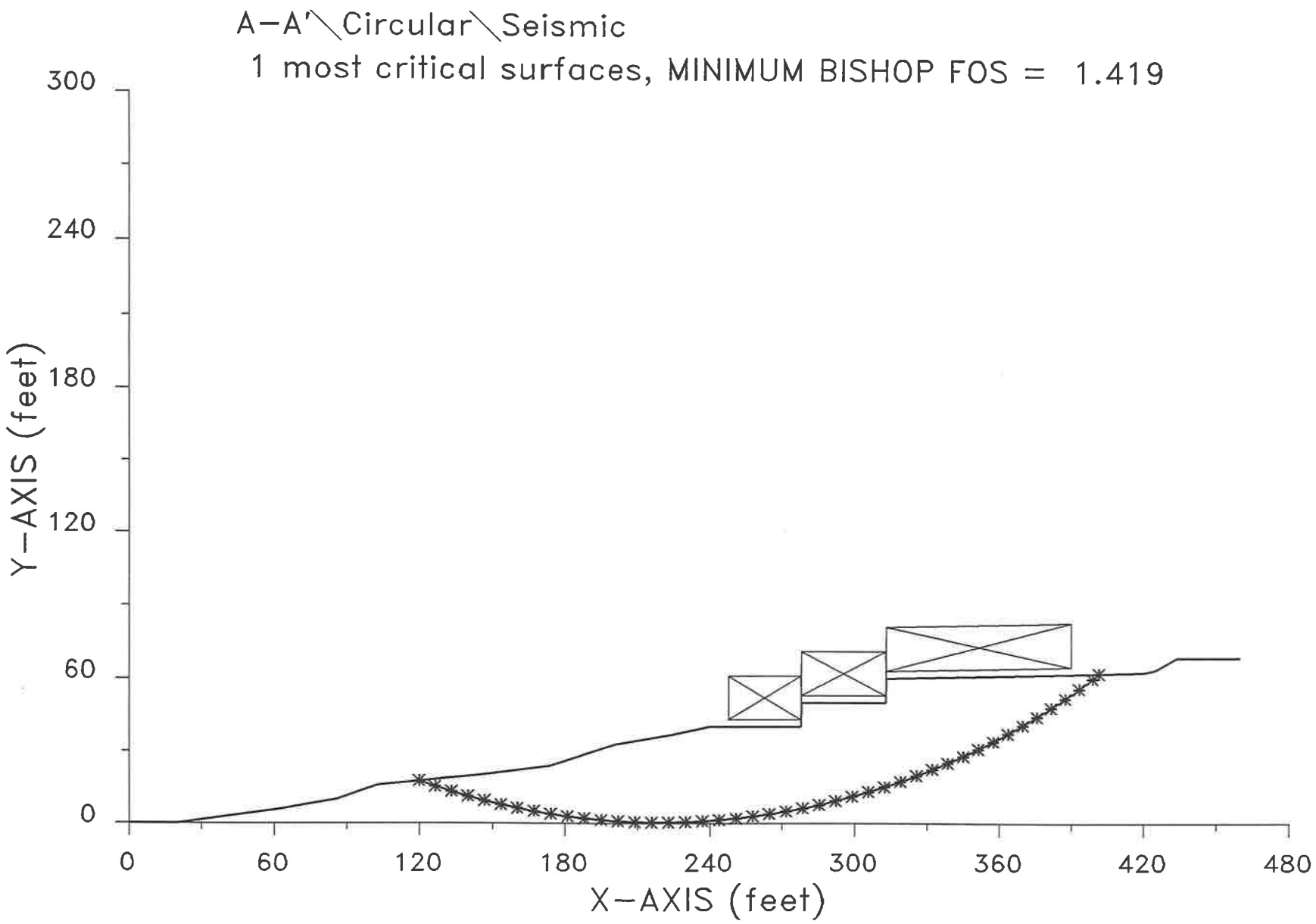


Problem Description : A-A'\Circular\Seismic

SEGMENT BOUNDARY COORDINATES

17 SURFACE boundary segments

Segment No.	x-left (ft)	y-left (ft)	x-right (ft)	y-right (ft)	Soil Unit Below Segment
1	.0	.0	20.0	.0	1
2	20.0	.0	63.0	6.0	1
3	63.0	6.0	86.0	10.0	1
4	86.0	10.0	103.0	16.0	1
5	103.0	16.0	144.0	20.0	1
6	144.0	20.0	174.0	24.0	1
7	174.0	24.0	201.0	33.0	1
8	201.0	33.0	224.0	37.0	1
9	224.0	37.0	240.0	40.5	1
10	240.0	40.5	278.0	40.5	1
11	278.0	40.5	278.1	50.5	1
12	278.1	50.5	313.0	50.5	1
13	313.0	50.5	313.1	60.5	1
14	313.1	60.5	420.0	63.0	1
15	420.0	63.0	425.0	64.0	1
16	425.0	64.0	434.0	69.0	1
17	434.0	69.0	460.0	69.0	1

ISOTROPIC Soil Parameters

1 Soil unit(s) specified

Soil Unit No.	Unit Weight Moist (pcf)	Unit Weight Sat. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Parameter Ru	Pore Pressure Constant (psf)	Water Surface No.
1	126.0	129.0	660.0	24.00	.000	.0	0

A horizontal earthquake loading coefficient
of .305 has been assigned
A vertical earthquake loading coefficient
of .000 has been assigned

BOUNDARY LOADS

1 load(s) specified

Load No.	x-left (ft)	x-right (ft)	Intensity (psf)	Direction (deg)
1	248.0	390.0	200.0	.0

NOTE - Intensity is specified as a uniformly distributed force acting on a HORIZONTALLY projected surface.

A critical failure surface searching method, using a random technique for generating CIRCULAR surfaces has been specified.
5000 trial surfaces will be generated and analyzed.

500 Surfaces initiate from each of 10 points equally spaced along the ground surface between x = 20.0 ft
and x = 200.0 ft

Each surface terminates between x = 240.0 ft
and x = 460.0 ft
Unless further limitations were imposed, the minimum elevation at which a surface extends is y = .0 ft

* * * * * DEFAULT SEGMENT LENGTH SELECTED BY XSTABL * * * * *

7.0 ft line segments define each trial failure surface.
Factors of safety have been calculated by the :
* * * * * SIMPLIFIED BISHOP METHOD * * * * *

The most critical circular failure surface
is specified by 44 coordinate points

Point No.	x-surf (ft)	y-surf (ft)
1	120.00	17.66
2	126.62	15.39
3	133.29	13.27
4	140.01	11.31
5	146.78	9.51
6	153.58	7.87
7	160.43	6.39
8	167.30	5.07
9	174.20	3.92
10	181.13	2.93
11	188.08	2.10
12	195.05	1.43
13	202.03	.93
14	209.03	.60
15	216.02	.42
16	223.02	.42
17	230.02	.58
18	237.02	.90
19	244.00	1.39
20	250.97	2.04
21	257.92	2.86
22	264.85	3.84
23	271.76	4.98
24	278.63	6.29
25	285.48	7.75
26	292.29	9.38
27	299.05	11.17
28	305.78	13.12
29	312.45	15.22
30	319.08	17.48
31	325.65	19.90
32	332.16	22.47
33	338.61	25.19
34	344.99	28.07
35	351.30	31.09
36	357.54	34.26
37	363.71	37.58
38	369.79	41.04
39	375.79	44.65
40	381.71	48.39
41	387.53	52.28
42	393.26	56.30
43	398.89	60.45
44	401.63	62.57

**** Simplified BISHOP FOS = 1.419 ****

The following is a summary of the TEN most critical surfaces
Problem Description : A-A'\Circular\Seismic

	FOS (BISHOP)	Circle Center x-coord (ft)	Circle Center y-coord (ft)	Radius (ft)	Initial x-coord (ft)	Terminal x-coord (ft)	Resisting Moment (ft-lb)
1.	1.419	219.79	297.53	297.13	120.00	401.63	1.876E+08
2.	1.419	173.87	509.46	509.23	80.00	418.74	3.514E+08
3.	1.420	223.42	313.78	313.66	120.00	411.53	2.087E+08
4.	1.420	223.89	316.20	316.11	120.00	412.91	2.118E+08
5.	1.422	223.19	321.69	321.06	120.00	413.14	2.130E+08
6.	1.422	207.86	400.41	400.27	100.00	424.63	2.848E+08
7.	1.423	214.46	281.59	280.33	120.00	389.03	1.632E+08
8.	1.423	199.75	359.43	358.64	100.00	400.95	2.269E+08
9.	1.423	233.23	380.70	380.29	120.00	451.06	2.926E+08
10.	1.424	195.98	318.81	318.67	100.00	384.87	1.888E+08

Equivalent Fluid Pressure (Free Body Diagram Method)

Program Made by C. Y. Geotech, Inc. (Version 15.4)

Project Name:

SG 8812-W 10 feet Subterraneous Wall / Level / Static (Alluvium)

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of the Subterraneous Wall	=	10 feet
Angle of Slope Above Subterraneous Wall	=	0 degree
Dip Angle of Critical Wedge	=	56 degree

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	133 pcf
Cohesion	=	420 psf
Friction Angle	=	31 degree
Mobilized Cohesion	=	280 psf
Mobilized Friction Angle	=	21.8 degree

REQUIRED FACTOR OF SAFETY = 1.5

RESULTS

Dip Angle of Critical Slip Surface	= 56 degree
Total Weight of Active Wedge	= 4485 lbs
Frictional Resistance (Cm * L)	= 3377 lbs
Required External Force for Wall	= -744 lbs
Required Equivalent Fluid Pressure	= -14.9 psf/ft
Triangular-Distributed EFP (Using Jaky Formula)	= 133 x [1 - sin (31)] = 65 psf/ft

RECOMMENDED EFP AND LF :

Triangular-Distributed EFP	= 65 psf/ft
Trapezoidal-Distributed LF	= [EFP(Tri) / 1.6] x H = 41 H psf/ft

WEDGE SLOPE STABILITY FOR LATERAL FORCE

Program Made by C. Y. Geotech, Inc.

Project Name:
SG 8812-W 10 feet Basement Wall / Level / Seismic (Alluvium)

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of Retaining Wall	=	10 feet
Angle of Slope Above Retaining Wall	=	0 degree
Dip Angle of Critical Wedge	=	55 degree
Length of Slip Surface	=	12.21 ft

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	131 pcf
Cohesion (C)	=	630 psf
Friction Angle (ϕ)	=	31 degree
Mobilized Cohesion (Cm)	=	630 psf
Mobilized Friction Angle (ϕm)	=	31.0 degree

Required Factor of Safety = 1.0

Seismic Coefficient = 0.319
(Half of $S_{DS}/2.5$)

Calculations:

Dip Angle of Critical Slip Surface = 55 degree

Total Weight of Critical Wedge = 4586 lbs

Frictional Resistance (Cm × L) = 630×12.21 = 7691 lbs

Unbalanced Lateral Force (Static + Seismic)

= [4586 - 7691 × Cos(35)] × Tan(55 - 31) - 7691 × Sin(35) + 4586 × 0.319 x 1
= -3711 lbs

Stabilization Force for Seismic Stability < 0
EFP for Static + Seismic Stability with FS of 1.0 < 0
(EFP Recommended for Static Stability = 65 psf/ft)

EFP recommended for static stability is more critical than seismic stability

Equivalent Fluid Pressure (Free Body Diagram Method)

Program Made by C. Y. Geotech, Inc. (Version 15.4)

Project Name:

SG 8812-W 10 feet Subterraneous Wall / Level / Static (Alluvium)

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of the Subterraneous Wall	=	10 feet
Angle of Slope Above Subterraneous Wall	=	0 degree
Dip Angle of Critical Wedge	=	53 degree

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	129 pcf
Cohesion	=	500 psf
Friction Angle	=	24 degree
Mobilized Cohesion	=	333 psf
Mobilized Friction Angle	=	16.5 degree

REQUIRED FACTOR OF SAFETY = 1.5

RESULTS

Dip Angle of Critical Slip Surface	= 53 degree
Total Weight of Active Wedge	= 4860 lbs
Frictional Resistance (Cm * L)	= 4174 lbs
Required External Force for Wall	= -1383 lbs
Required Equivalent Fluid Pressure	= -27.7 psf/ft
Triangular-Distributed EFP (Using Jaky Formula)	= 129 x [1 - sin (24)] = 77 psf/ft

RECOMMENDED EFP AND LF :

Triangular-Distributed EFP	= 77 psf/ft
Trapezoidal-Distributed LF	= [EFP(Tri) / 1.6] x H = 49 H psf/ft

WEDGE SLOPE STABILITY FOR LATERAL FORCE

Program Made by C. Y. Geotech, Inc.

Project Name:
SG 8812-W 10 feet Basement Wall / Level / Seismic (Alluvium)

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of Retaining Wall	=	10 feet
Angle of Slope Above Retaining Wall	=	0 degree
Dip Angle of Critical Wedge	=	52 degree
Length of Slip Surface	=	12.69 ft

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	126 pcf
Cohesion (C)	=	660 psf
Friction Angle (ϕ)	=	24 degree
Mobilized Cohesion (Cm)	=	660 psf
Mobilized Friction Angle (ϕm)	=	24.0 degree

Required Factor of Safety = 1.0

Seismic Coefficient = 0.319
(Half of $S_{DS}/2.5$)

Calculations:

Dip Angle of Critical Slip Surface = 52 degree

Total Weight of Critical Wedge = 4922 lbs

Frictional Resistance (Cm × L) = 660×12.69 = 8376 lbs

Unbalanced Lateral Force (Static + Seismic)

= [4922 - 8376 × Cos(38)] × Tan(52 - 24) - 8376 × Sin(38) + 4922 × 0.319 x 1
= -4479 lbs

Stabilization Force for Seismic Stability < 0
EFP for Static + Seismic Stability with FS of 1.0 < 0
(EFP Recommended for Static Stability = 77 psf/ft)

EFP recommended for static stability is more critical than seismic stability

Equivalent Fluid Pressure (Free Body Diagram Method)

Program Made by C. Y. Geotech, Inc.

Project Name:

SG 8812-W 5' Temporary Cut with 7' High 1:1 Ascending Slope Above

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of the Temporary Cut	=	5 feet
Height of the Slope Above Cut	=	7 feet
Slope Angle of Retained Slope	=	45 degree
Dip Angle of Critical Wedge	=	52 degree

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	131 pcf
Cohesion	=	630 psf
Friction Angle	=	31 degree
Mobilized Cohesion	=	504 psf
Mobilized Friction Angle	=	25.7 degree

REQUIRED FACTOR OF SAFETY = 1.25

Change of Weight for Irregular Geometry	=	0 lbs
Additional Lateral Resistance From Front Wedge	=	0 lbs

RESULTS

Dip Angle of Critical Slip Surface	=	52 degree
Total Weight of Active Wedge	=	4160 lbs
Frictional Resistance (Cm * L)	=	7675 lbs
Required External Force for FS = 1.25	=	-5660 lbs
Required Equivalent Fluid Pressure	=	-452.8 psf/ft

** Rankine Wedge is not the most critical wedge **

Equivalent Fluid Pressure (Free Body Diagram Method)

Program Made by C. Y. Geotech, Inc.

Project Name:

SG 8812-W 5' Temporary Cut with 7' High 1:1 Ascending Slope Above

GEOMETRY OF CRITICAL ACTIVE WEDGE:

Height of the Temporary Cut	=	5 feet
Height of the Slope Above Cut	=	7 feet
Slope Angle of Retained Slope	=	45 degree
Dip Angle of Critical Wedge	=	49 degree

SHEAR STRENGTH PARAMETERS:

Unit Weight	=	126 pcf
Cohesion	=	660 psf
Friction Angle	=	24 degree
Mobilized Cohesion	=	528 psf
Mobilized Friction Angle	=	19.6 degree

REQUIRED FACTOR OF SAFETY = 1.25

Change of Weight for Irregular Geometry	=	0 lbs
Additional Lateral Resistance From Front Wedge	=	0 lbs

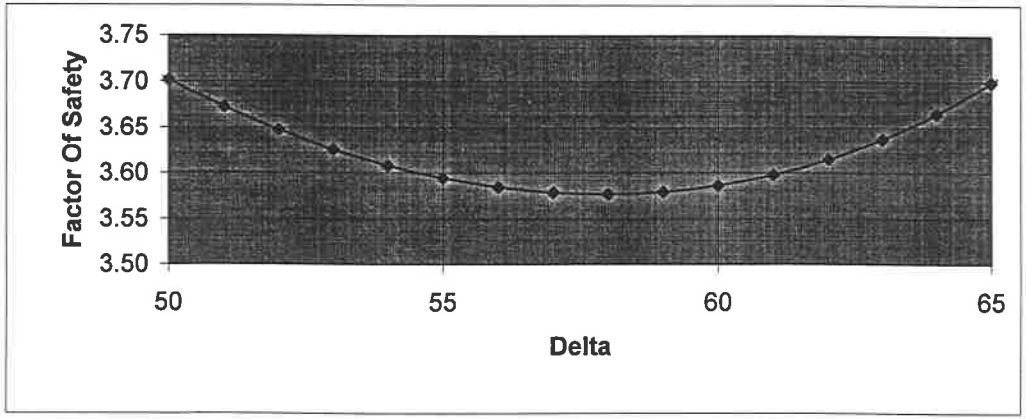
RESULTS

Dip Angle of Critical Slip Surface	=	49 degree
Total Weight of Active Wedge	=	4799 lbs
Frictional Resistance (Cm * L)	=	8395 lbs
Required External Force for FS = 1.25	=	-6374 lbs
Required Equivalent Fluid Pressure	=	-509.9 psf/ft

** Rankine Wedge is not the most critical wedge **

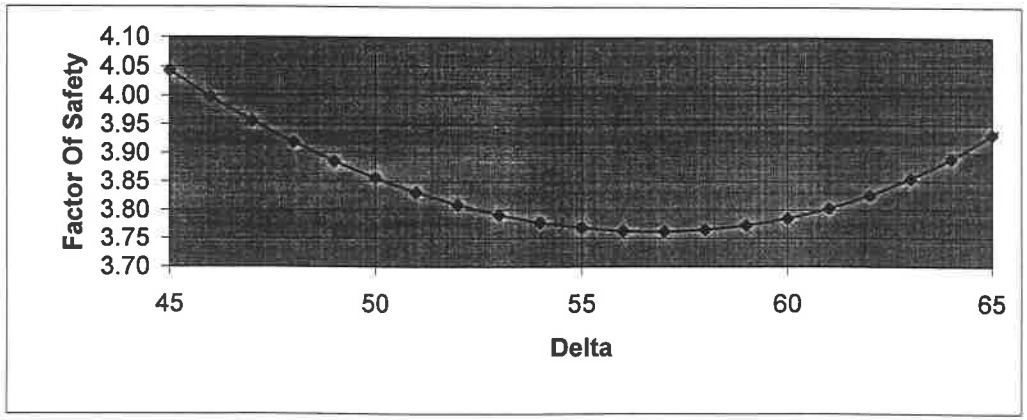
SG 8812-W **12 ft high / 8 ft wide / 0 lbs/ft surcharge / A-B-C Slot Cut** **Minimum Factor of Safety = 3.58**

Height	Spacing	Surcharge	Unit Wt.	Cohesion	Friction Angle	Delta	Length	Weight	Sliding Force	RF1	RF2	RF3	FS
H = ft	*S = ft*	*q = lbs/ft*	*pcf*	*C = psf*	*ϕ = degree*	*δ = degree*	*L = ft*	*W = lbs*	*SF = lbs*	*lbs*	*lbs*	*lbs*	
12	8	0	131	630	31	45	17.0	75456	53355	32059	85532	90720	3.90
12	8	0	131	630	31	46	16.7	72867	52416	30414	84077	87607	3.86
12	8	0	131	630	31	47	16.4	70364	51461	28834	82696	84598	3.81
12	8	0	131	630	31	48	16.1	67941	50490	27316	81384	81685	3.77
12	8	0	131	630	31	49	15.9	65593	49504	25857	80137	78862	3.73
12	8	0	131	630	31	50	15.7	63315	48502	24454	78951	76123	3.70
12	8	0	131	630	31	51	15.4	61103	47486	23105	77823	73464	3.67
12	8	0	131	630	31	52	15.2	58953	46455	21808	76750	70878	3.65
12	8	0	131	630	31	53	15.0	56860	45411	20561	75729	68362	3.63
12	8	0	131	630	31	54	14.8	54822	44352	19362	74757	65912	3.61
12	8	0	131	630	31	55	14.6	52835	43280	18209	73832	63523	3.59
12	**8**	**0**	**131**	**630**	**31**	**56**	**14.5**	**50896**	**42194**	**17101**	**72952**	**61191**	**3.58**
12	**8**	**0**	**131**	**630**	**31**	**57**	**14.3**	**49002**	**41096**	**16036**	**72114**	**58914**	**3.58**
12	**8**	**0**	**131**	**630**	**31**	**58**	**14.2**	**47150**	**39986**	**15013**	**71317**	**56688**	**3.58**
12	**8**	**0**	**131**	**630**	**31**	**59**	**14.0**	**45339**	**38863**	**14031**	**70558**	**54510**	**3.58**
12	8	0	131	630	31	60	13.9	43565	37728	13088	69836	52377	3.59
12	8	0	131	630	31	61	13.7	41826	36582	12184	69150	50287	3.60
12	8	0	131	630	31	62	13.6	40121	35424	11318	68498	48237	3.61
12	8	0	131	630	31	63	13.5	38447	34256	10488	67878	46224	3.64
12	8	0	131	630	31	64	13.4	36802	33078	9694	67290	44247	3.67
12	8	0	131	630	31	65	13.2	35186	31889	8935	66732	42303	3.70
12	8	0	131	630	31	66	13.1	33595	30691	8210	66204	40391	3.74
12	8	0	131	630	31	67	13.0	32029	29483	7520	65703	38508	3.79
12	8	0	131	630	31	68	12.9	30486	28266	6862	65230	36653	3.85
12	8	0	131	630	31	69	12.9	28965	27041	6237	64783	34824	3.91
12	8	0	131	630	31	70	12.8	27464	25807	5644	64361	33019	3.99
12	8	0	131	630	31	71	12.7	25982	24566	5083	63965	31237	4.08
12	8	0	131	630	31	72	12.6	24517	23317	4552	63592	29477	4.19
12	8	0	131	630	31	73	12.5	23069	22061	4053	63243	27736	4.31
12	8	0	131	630	31	74	12.5	21637	20798	3583	62917	26014	4.45



SG 8812-W **12 ft high / 8 ft wide / 0 lbs/ft surcharge / A-B-C Slot Cut** **Minimum Factor of Safety = 3.76**

Height	Spacing	Surcharge	Unit Wt.	Cohesion	Friction Angle	Delta	Length	Weight	Sliding Force	RF1	RF2	RF3	FS
H = ft	*S = ft*	*q = lbs/ft*	*pcf*	*C = psf*	*ϕ = degree*	*δ = degree*	*L = ft*	*W = lbs*	*SF = lbs*	*lbs*	*lbs*	*lbs*	
12	8	0	126	660	24	45	17.0	72576	51319	22849	89605	95040	4.04
12	8	0	126	660	24	46	16.7	70086	50416	21676	88081	91779	4.00
12	8	0	126	660	24	47	16.4	67678	49497	20550	86634	88626	3.96
12	8	0	126	660	24	48	16.1	65348	48563	19468	85259	85574	3.92
12	8	0	126	660	24	49	15.9	63089	47614	18428	83953	82617	3.89
12	8	0	126	660	24	50	15.7	60898	46651	17428	82711	79748	3.86
12	8	0	126	660	24	51	15.4	58771	45674	16467	81529	76962	3.83
12	8	0	126	660	24	52	15.2	56703	44682	15543	80405	74253	3.81
12	8	0	126	660	24	53	15.0	54690	43677	14654	79335	71618	3.79
12	8	0	126	660	24	54	14.8	52730	42659	13799	78317	69051	3.78
12	8	0	126	660	24	55	14.6	50818	41628	12978	77348	66548	3.77
12	**8**	**0**	**126**	**660**	**24**	**56**	**14.5**	**48953**	**40584**	**12188**	**76426**	**64105**	**3.76**
12	**8**	**0**	**126**	**660**	**24**	**57**	**14.3**	**47131**	**39528**	**11429**	**75548**	**61720**	**3.76**
12	8	0	126	660	24	58	14.2	45351	38459	10700	74713	59388	3.77
12	8	0	126	660	24	59	14.0	43608	37379	10000	73918	57106	3.77
12	8	0	126	660	24	60	13.9	41902	36288	9328	73162	54871	3.79
12	8	0	126	660	24	61	13.7	40230	35186	8684	72443	52682	3.80
12	8	0	126	660	24	62	13.6	38589	34072	8066	71760	50534	3.83
12	8	0	126	660	24	63	13.5	36979	32949	7475	71111	48425	3.85
12	8	0	126	660	24	64	13.4	35398	31815	6909	70494	46354	3.89
12	8	0	126	660	24	65	13.2	33843	30672	6368	69910	44318	3.93
12	8	0	126	660	24	66	13.1	32313	29519	5852	69356	42315	3.98
12	8	0	126	660	24	67	13.0	30807	28358	5359	68832	40342	4.04
12	8	0	126	660	24	68	12.9	29323	27187	4891	68336	38399	4.11
12	8	0	126	660	24	69	12.9	27859	26009	4445	67868	36482	4.18
12	8	0	126	660	24	70	12.8	26416	24822	4022	67426	34592	4.27
12	8	0	126	660	24	71	12.7	24990	23628	3622	67011	32725	4.37
12	8	0	126	660	24	72	12.6	23581	22427	3244	66621	30880	4.49
12	8	0	126	660	24	73	12.5	22189	21219	2888	66255	29057	4.63
12	8	0	126	660	24	74	12.5	20811	20005	2554	65913	27252	4.78



Calculation of Allowable Skin Friction

Program Made by C.Y. Geotech, Inc. (Version 15.1)

Field Density	(γ) =	131	psf	Depth of Overlying Soil	=	0	feet
Cohesion	(C) =	630	psf	Depth to Fixed Point	=	3	feet
Friction Angle	(ϕ) =	31	degrees				

Skin Friction at Depth D_t = $(\gamma \times D_t \times \text{Tan}(\phi) + C) \times P$

Total Skin Friction = $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P$

Allowable Skin Friction
= $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P / FS$

Average Allowable Skin Friction Per Unit Area
= $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P / (FS \times D_e \times P)$

where: D_e: Embedment Depth (ft)
D_t: Total Pile Depth (ft)
D_f: Overburden Depth (Depth of Overlying Soil + Depth to Fixed Point)
P: Perimeter of Pile (ft^2)

Minimum Embedment Depth = 8 feet
Overburden Depth = 3 feet below ground surface
Factor of Safety (F.S.) = 2 is used

While Embedment Depth = 8 feet
Total Pile Length = 8 + 3 = 11 feet
Total Skin Friction = (0.5 x 131 x (11^2 - 3^2) x Tan(31) + 630 x 8) x P = 9448 x P
Average Allowable Skin Friction per Unit Area = 9448 x P / (2 x 8 x P) = 591 psf > 550 psf O.K

While Embedment Depth = 10 feet
Total Pile Length = 10 + 3 = 13 feet
Total Skin Friction = (0.5 x 131 x (13^2 - 3^2) x Tan(31) + 630 x 10) x P = 12597 x P
Average Allowable Skin Friction per Unit Area = 12597 x P / (2 x 10 x P) = 630 psf > 550 psf O.K

While Embedment Depth = 12 feet
Total Pile Length = 12 + 3 = 15 feet
Total Skin Friction = (0.5 x 131 x (15^2 - 3^2) x Tan(31) + 630 x 12) x P = 16061 x P
Average Allowable Skin Friction per Unit Area = 16061 x P / (2 x 12 x P) = 669 psf > 550 psf O.K

While Embedment Depth = 14 feet
Total Pile Length = 14 + 3 = 17 feet
Total Skin Friction = (0.5 x 131 x (17^2 - 3^2) x Tan(31) + 630 x 14) x P = 19840 x P
Average Allowable Skin Friction per Unit Area = 19840 x A / (2 x 14 x A) = 709 psf > 550 psf O.K

Calculation of Allowable Skin Friction

Program Made by C.Y. Geotech, Inc. (Version 15.1)

Field Density	(γ) =	126 psf	Depth of Overlying Soil	=	0 feet
Cohesion	(C) =	660 psf	Depth to Fixed Point	=	3 feet
Friction Angle	(ϕ) =	24 degrees			

Skin Friction at Depth D_t = $(\gamma \times D_t \times \text{Tan}(\phi) + C) \times P$

Total Skin Friction = $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P$

Allowable Skin Friction
= $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P / FS$

Average Allowable Skin Friction Per Unit Area
= $(0.5 \times \gamma \times (D_t^2 - D_f^2) \times \text{Tan}(\phi) + C \times D_e) \times P / (FS \times D_e \times P)$

where: D_e: Embedment Depth (ft)
D_t: Total Pile Depth (ft)
D_f: Overburden Depth (Depth of Overlying Soil + Depth to Fixed Point)
P: Perimeter of Pile (ft^2)

Minimum Embedment Depth = 8 feet
Overburden Depth = 3 feet below ground surface
Factor of Safety (F.S.) = 2 is used

While Embedment Depth = 8 feet
Total Pile Length = 8 + 3 = 11 feet
Total Skin Friction = (0.5 x 126 x (11^2 - 3^2) x Tan(24) + 660 x 8) x P = 8422 x P
Average Allowable Skin Friction per Unit Area = 8422 x P / (2 x 8 x P) = 526 psf > 500 psf O.K

While Embedment Depth = 10 feet
Total Pile Length = 10 + 3 = 13 feet
Total Skin Friction = (0.5 x 126 x (13^2 - 3^2) x Tan(24) + 660 x 10) x P = 11088 x P
Average Allowable Skin Friction per Unit Area = 11088 x P / (2 x 10 x P) = 554 psf > 500 psf O.K

While Embedment Depth = 12 feet
Total Pile Length = 12 + 3 = 15 feet
Total Skin Friction = (0.5 x 126 x (15^2 - 3^2) x Tan(24) + 660 x 12) x P = 13979 x P
Average Allowable Skin Friction per Unit Area = 13979 x P / (2 x 12 x P) = 582 psf > 500 psf O.K

While Embedment Depth = 14 feet
Total Pile Length = 14 + 3 = 17 feet
Total Skin Friction = (0.5 x 126 x (17^2 - 3^2) x Tan(24) + 660 x 14) x P = 17094 x P
Average Allowable Skin Friction per Unit Area = 17094 x A / (2 x 14 x A) = 611 psf > 500 psf O.K

PASSIVE EARTH PRESSURE CALCULATION

Shear Strength Parameters of Earth Material:

Effective Density	=	131 psf
Cohesion	=	630 psf
Friction Angle	=	31 degrees
Surrounding Ground	=	Level Ground
Depth of Overlying Soil	=	0 ft
Depth to Fixed Point	=	3 ft
Kp	=	3.124
$Kp^{1/2}$	=	1.767
Recommended Passive Earth Pressure	=	350 psf/ft
Recommended Maximum Passive Earth Pressure	=	3500 psf/ft

Passive Earth Pressure from the Passive Wedge above Fixity Point
= $0.5 \times 131 \times 3 \times 3 \times 3.124 + 2 \times 630 \times 3 \times 1.767 = 8521$ psf/ft

Embedment Depth = 1 ft Passive Earth Pressure = 350 psf/ft
Overburden = 1 + 0 + 3 = 4 ft
Pp = $0.5 \times 131 \times 4 \times 4 \times 3.124 + 2 \times 630 \times 4 \times 1.767 = 12180$ lbs/ft
Net Total Lateral Resistance = 12180 - 8521 = 3659 lbs/ft
Recommended Lateral Resistance = $0.5 \times 350 \times 1 \times 1 = 175$ lbs/ft
F.S. for Recommended Lateral Resistance = 3659 / 175 = 20.91 O.K.

Embedment Depth = 8 ft Passive Earth Pressure = 2800 psf/ft
Overburden = 8 + 0 + 3 = 11 ft
Pp = $0.5 \times 131 \times 11 \times 11 \times 3.124 + 2 \times 630 \times 11 \times 1.767 = 49250$ lbs/ft
Net Total Lateral Resistance = 49250 - 8521 = 40729 lbs/ft
Recommended Lateral Resistance = $0.5 \times 350 \times 8 \times 8 = 11200$ lbs/ft
F.S. for Recommended Lateral Resistance = 40729 / 11200 = 3.64 O.K.

Embedment Depth = 15 ft Passive Earth Pressure = 3500 psf/ft
Overburden = 15 + 0 + 3 = 18 ft
Pp = $0.5 \times 131 \times 18 \times 18 \times 3.124 + 2 \times 630 \times 18 \times 1.767 = 106373$ lbs/ft
Net Total Lateral Resistance = 106373 - 8521 = 97852 lbs/ft
Recommended Lateral Resistance = $0.5 \times 350 \times 10 \times 10 + 3500 \times 5 = 35000$ lbs/ft
F.S. for Recommended Lateral Resistance = 97852 / 35000 = 2.8 O.K.

Embedment Depth = 16 ft Passive Earth Pressure = 3500 psf/ft
Overburden = 16 + 0 + 3 = 19 ft
Pp = $0.5 \times 131 \times 19 \times 19 \times 3.124 + 2 \times 630 \times 19 \times 1.767 = 116171$ lbs/ft
Net Total Lateral Resistance = 116171 - 8521 = 107650 lbs/ft
Recommended Lateral Resistance = $0.5 \times 350 \times 10 \times 10 + 3500 \times 6 = 38500$ lbs/ft
F.S. for Recommended Lateral Resistance = 107650 / 38500 = 2.8 O.K.

Embedment Depth = 17 ft Passive Earth Pressure = 3500 psf/ft
Overburden = 17 + 0 + 3 = 20 ft
Pp = $0.5 \times 131 \times 20 \times 20 \times 3.124 + 2 \times 630 \times 20 \times 1.767 = 126377$ lbs/ft
Net Total Lateral Resistance = 126377 - 8521 = 117856 lbs/ft
Recommended Lateral Resistance = $0.5 \times 350 \times 10 \times 10 + 3500 \times 7 = 42000$ lbs/ft
F.S. for Recommended Lateral Resistance = 117856 / 42000 = 2.81 O.K.

REGIONAL GEOLOGIC MAP

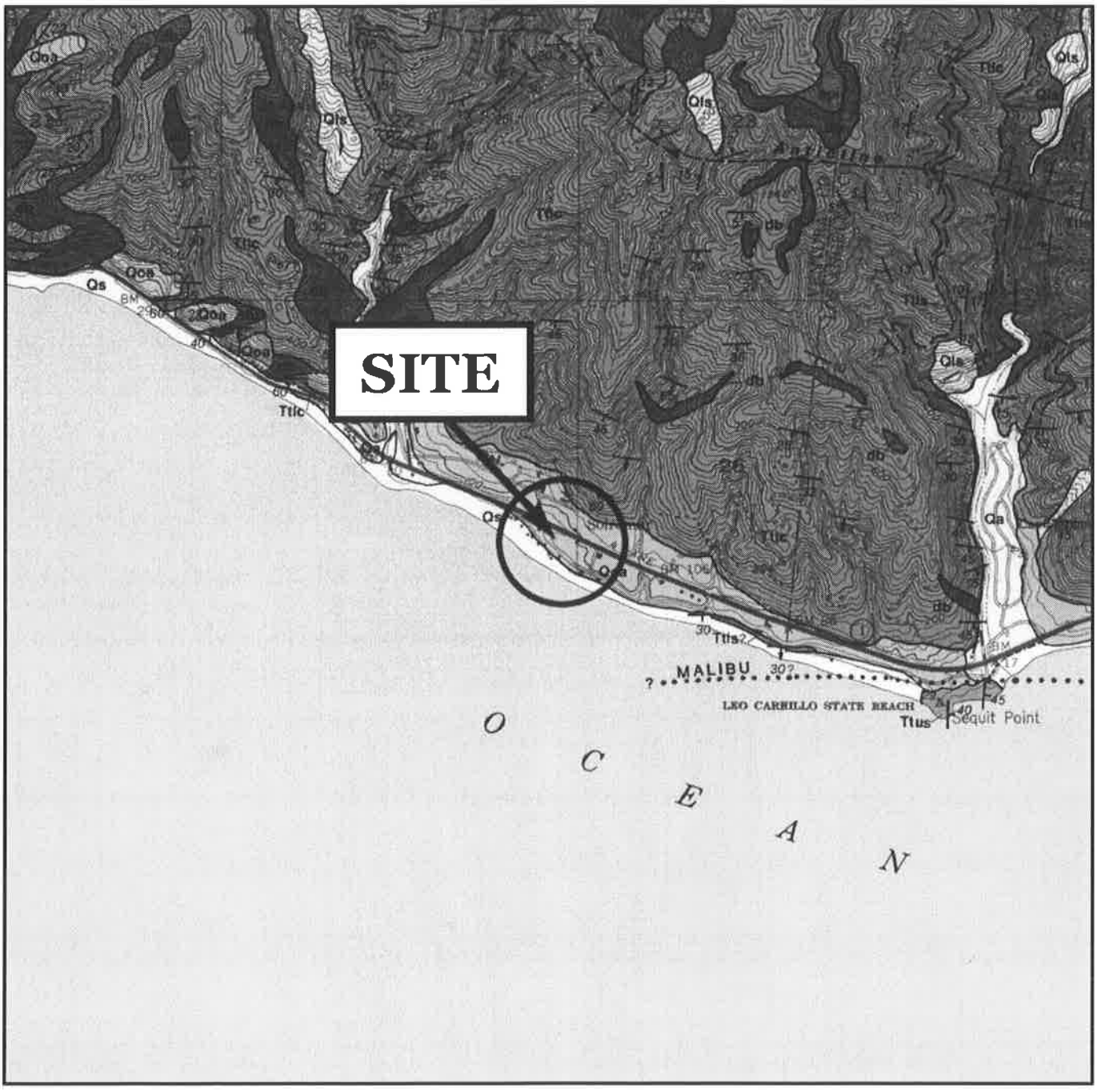
GEOTECHNICAL, INC.
Schick

REFERENCE: Geologic Map of the Triunfo Pass Quadrangle, Los Angeles, California, by Thomas W. Dibblee, Jr., 1990.

ADDRESS: 41700 Pacific Coast Highway

CLIENT: Jain

JOB: SG 8812-W



SEISMIC HAZARD MAP

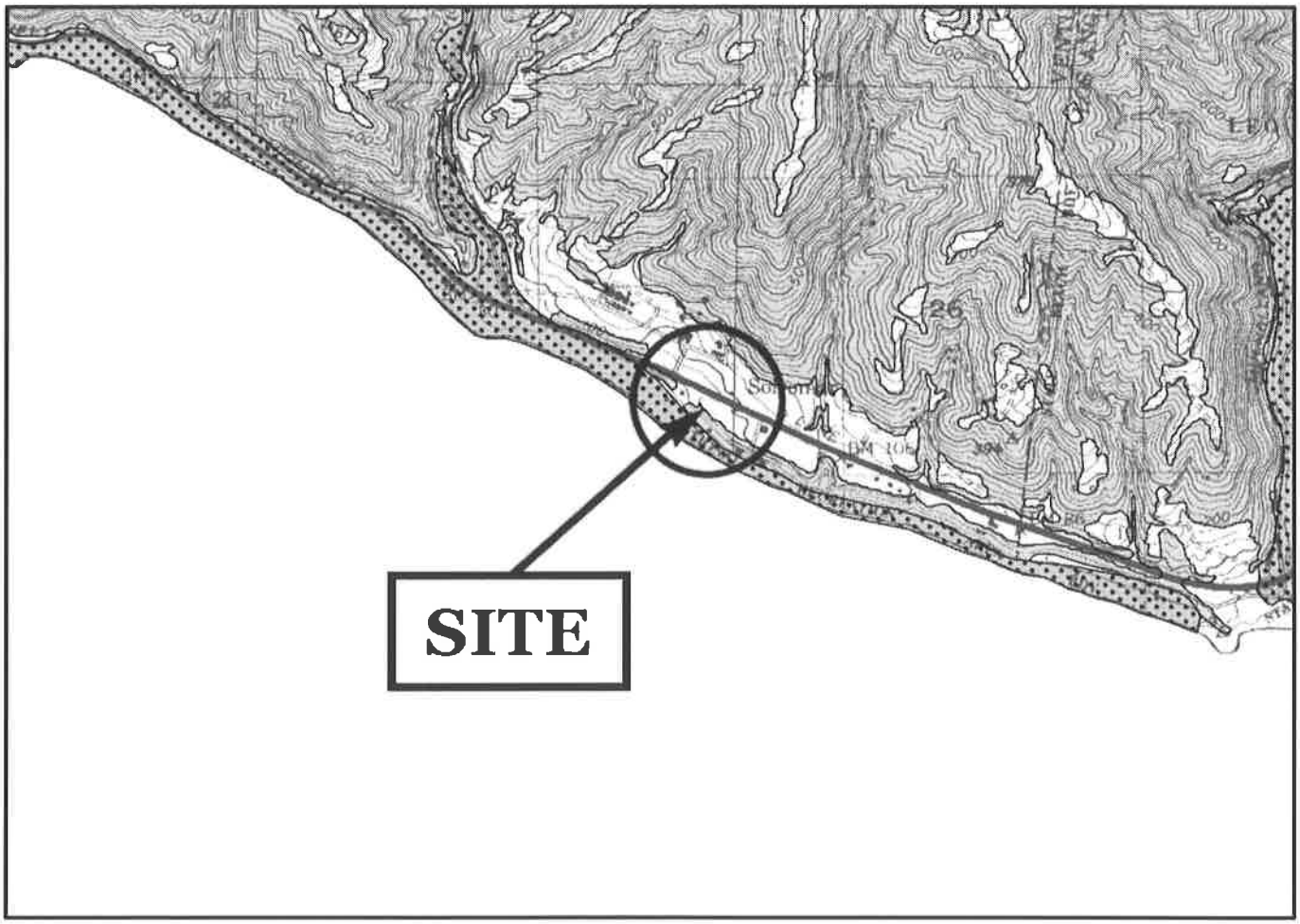
GEOTECHNICAL, INC.
Schick

REFERENCE: State of California, Seismic Hazard Zones, Triunfo Pass Quadrangle, California Department of Conservation, Division of Mines and Geology, 2002

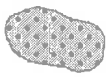
ADDRESS: 41700 Pacific Coast Highway

CLIENT: Jain

JOB: SG 8812-W



ZONES OF REQUIRED INVESTIGATION



LIQUEFACTION
Areas where historic occurrences of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693 would be required.

EARTHQUAKE-INDUCED LANDSLIDES
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693 would be required.

VICINITY MAP

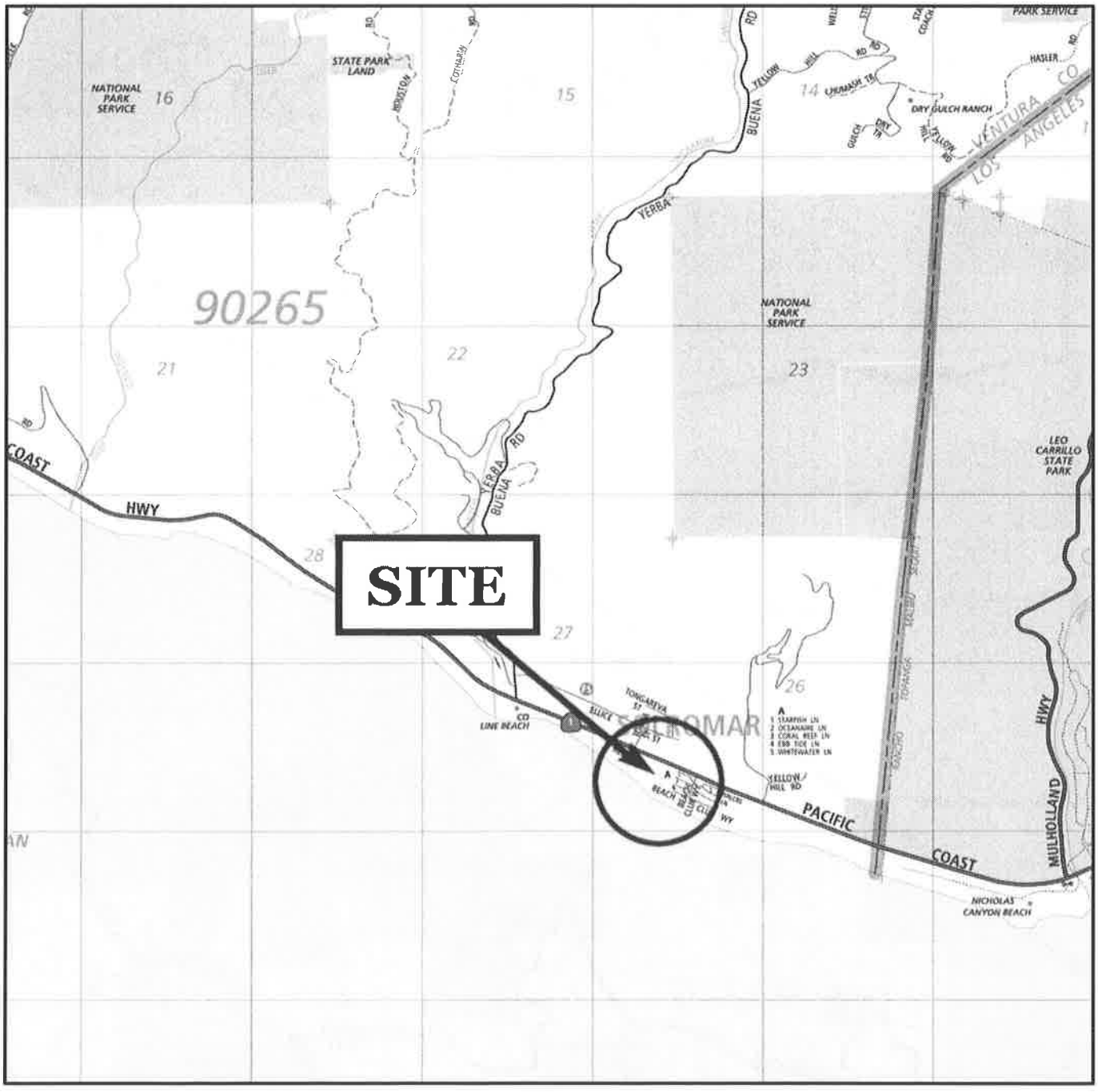
GEOTECHNICAL, INC.
Schick

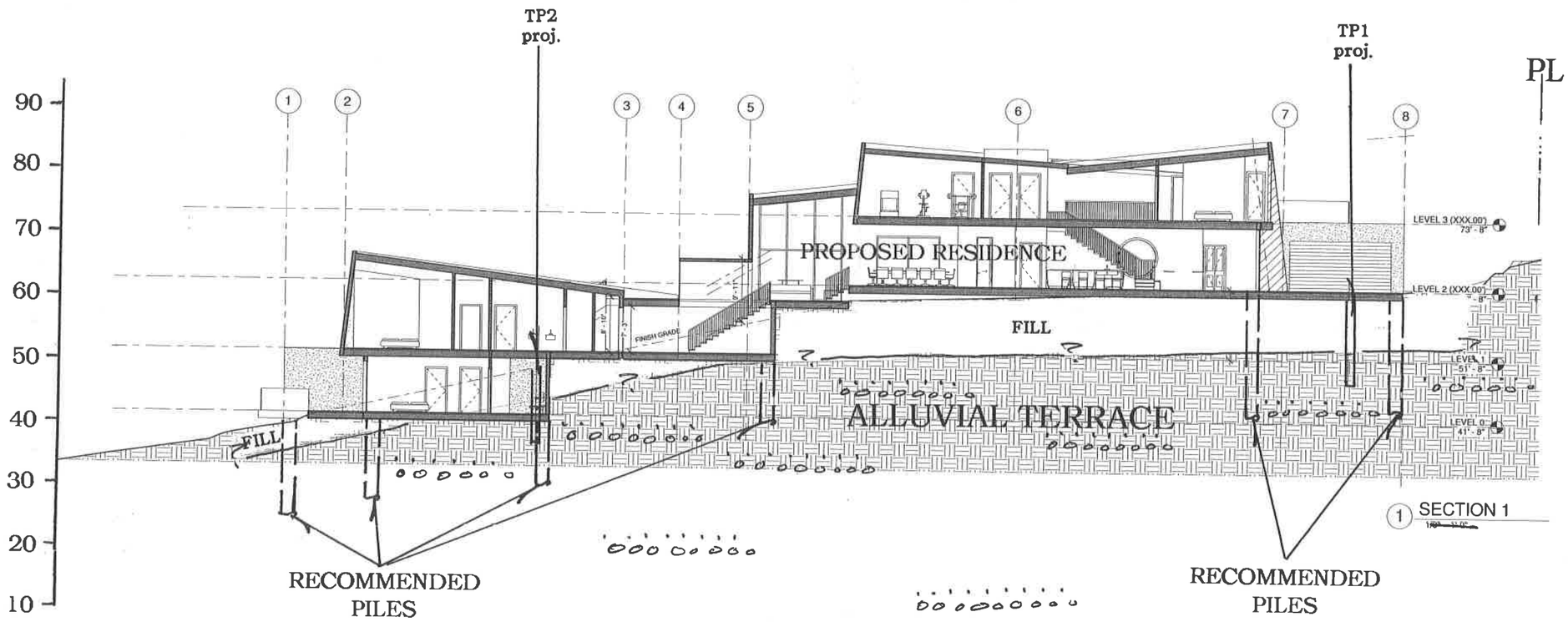
REFERENCE: Thomas Bros. Maps, 2010, Page 625, Section F5.
SCALE: 1" = 2400'

ADDRESS: 41700 Pacific Coast Highway

CLIENT: Jain

JOB: SG 8812-W





SECTION A–A

SCHICK GEOTECHNICAL, INC.
Geology and Soils Engineering

DATE: SEP 2015
SCALE: 1"=20'
JOB: JAIN

SG 8812–W

DAVID C. WEISS
Structural Engineer & Associates, Inc.

Coastal Engineering Report

August 11, 2017

Dr. Sanjiv & Shubha Jain
c/o Amit Apel Design, Inc.
6411 Independence Ave.
Woodland Hills, CA 91367

Subject: Coastal Engineering Report for
41700 Pacific Coast Hwy
Malibu, California

References:

Number One
City of Malibu General Plan
Figure S-11
Tsunami Run-up Map for 100 Year & 500 Year Reoccurrence and
Page 5-25 Tsunamis & Seiches

Number Two
Reconnaissance Report
Malibu/Los Angeles County Coast Line
Los Angeles County, California
By: U. S. Army Corps of Engineers
Los Angeles, district
Dated: April 1994

Number Three
ITS 2001 Proceedings
NTHMP Session, Paper R4
Inundation Maps for the State of California
By: Richard K. Eisner, Jose C. Borrero and Costas E. Synolakis

Number Four
VOID

Number Five
Evaluation of Tsunami Risk to Southern California Coastal Cities
By: Mark R. Legg, Jose C. Borrero and Costas E. Synolakis
Dated: January 2003

24372 Vanowen Street ● Suite 104 ● W[illegible]8) 227-8040 ● Fax: (818) 227-8041

Number Six
City of Malibu General Plan
Figure "A"
Mean Annual Shoreline Change Rate
1938 – 1988

Number Seven
Profiles at 41300 and 41800 Pacific Coast Hwy
Provided by Pacific Engineering Group
Dates: September 2004 & August 2004

Number Eight
The Probability of Sea level Rise – EPA Report # 230-R-95-008
By: The United States Environmental Protection Agency
Office of Planning and Evaluation
Dated: September 1995

Number Nine
2015 DRAFT
California Coastal Commission
Seal Level Rise Policy Guidance

Number Ten
U.S. Army Corps of Engineers, Shore Protection Manual, Vols. I & II
Dated 1984

Number Eleven
Corps of Engineers Manual

Number Twelve
Lot Survey of 41700 Pacific Coast Hwy
Malibu, CA
By: Land and Air Surveying, Inc. Dated: October 21, 2014
MHTL Updated by: H.J. Burke, Inc. Dated: October 28, 2016

Number Thirteen
Architectural Site Plan
41700 Pacific Coast Highway
Malibu, CA
By: Amit Apel Designs, Inc.
Dated: November 14, 2016

Our Job Number: JAI1.116

Dear Dr. & Mrs. Jain,

SECTION 1: TASKS

At your request, Ms. Janelle Lau, P.E. of this office has performed the following services for the subject project:

1. Reviewed the above referenced documents in order to gather information to prepare this report.

2. Performed wave uprush calculations and plotted the design beach profile for critical storm generated waves as set forth by the Los Angeles County Building Department and considered the design standards for this part of Malibu, California.

3. Analyzed possible storm wave damage to proposed structures and gave recommendations to protect those structures.

The purpose of this report is to establish coastal engineering parameters for the project site, a proposed new four-story Single Family Dwelling (SFD) and any required changes to the existing onsite sewage disposal system that might be required for this project. The recommendations are made so that structures in the surf zone will be able to resist the effects of waves of magnitude encountered in the winter 1983, January 1988 and January/February 1998 storm events that battered this section of the California coastline.

SECTION 2: SITE DESCRIPTION

The site is a long partially graded beach front property located at the west end of Malibu. The lot is 50 ft. wide at the north property line and approximately 20' wide at the south property line. There is currently a 4551 sq. ft., two-story SFD located on the north end of the property off of Pacific Coast Hwy. The site drop approximately 67 ft. in elevation from Pacific Coast Hwy to the most landward Mean High Tide Line as surveyed in Reference Number Seven above. There is rip rap located approximately 321 ft. seaward of the right-of-way line at Pacific Coast Hwy.

SECTION 3: DEFINITIONS

The following terms, used in this report, are defined below:

Design Shoreline is the line on the beach where the **Stillwater Level** intersects the **Design Beach Profile.**

DESIGN BEACH PROFILE is the lowest profile at a site that the beach is expected to reach under the action of waves of magnitude used for design in this geographic area.

Mean High Tide (Elevation) is the average of all the daily high tide elevations measured over a period of 10 years. This 19 year period over which a particular Mean High tide elevation is used is referred to as a "Tidal Epoch". This geographic area has two high tides and two low tides in a given 24 hrs. Period. Therefore, for this geographic area two daily high tides are included in the 19 year average.

Mean High Tide Line is the contour line on the beach that identifies the elevation of the plane of the Mean High tide as it intersects the beach. This is an ambulatory line. It is not stationary, it moves seaward of landward almost hourly depending upon the wave climate at any particular time.

Mean Lower Low Water (MLLW) is the average height of the **Lower Low Waters** measured and averaged over a period of approximately 19 years.

North American Vertical Datum (NAVD) is the national datum attempting to place the entire United States on a common datum plane. This is the datum plane upon which your survey and elevations should be based.

Proposed Elevations are those taken from information on project plans, if available during the preparation of this report.

Recommended Elevations are those obtained as a result of the attached calculations and profiles, and are the lowest elevations that would be allowed for the itemized structural elements as a result of calculated data, the requirements of the controlling governmental agency, or good engineering practice. The tops of structures shall be at the **Recommended Elevations** or higher as project criteria dictates. The bottom of bulkheads or piles should be at the **Recommended Elevation** or lower.

Stillwater Level is the elevation that the surface of the water would assume, absent any wave action. The elevation of the **Stillwater Line** used in this report is +8.0 MLLW (+7.8' NAVD). That elevation was arrived at by considering that +6.0' MLLW represents the elevation of the highest 1% of the tides in this area and adding a total of 2 ft. for possible ocean level rise due to the melting of the Polar Ice Cap over the next ninety to one-hundred years. More will be said about how this elevation is arrived at in SECTION X of this report.

Storm Surge is the rise above normal water level on the open coast due to the action of wind stress on the water surface. If one were to consult the NOAA Storm Surge Maps one would find that storm surge is not a problem in this geographic

area. Because of the low probability of significant storm surge, storm surge is not considered a problem is this geographic area.

TSUNAMI is an ocean wave caused by a large underwater disturbance such as an earthquake, landslide or volcanic eruption.

SECTION 4: STILL WATER LEVEL

Of all the elements that contribute to the coastal engineering parameters of a site, the most important one is the Still Water Level. As defined in Section Three above, it is the elevation of the surface water absent any wave action. The Still Water Line at a site, or if you will the Design Shore Line is where the still water intersects the land, or in coastal engineering parlance, where it intersects the beach profile. What makes this so important is that the depth of water dictates where a given size wave will break. There is a relationship between the height of a wave and the depth of water in which breaks. Larger waves will break in deeper water. The tidal elevation at any given time plus storm surge, when applicable, is the Still Water Elevation at any given time. The elevation of the tide is an oscillating occurrence. If one studies tide charts one will see tidal elevations oscillate between a variable high elevation and a variable low elevation over a given period of time. In this geographic area, there are two high and two low tide elevation in any twenty-four hour period. The object, or course, is to find the highest credible tide, and thus Still Water Line, for design purposes. I use the term credible because, while anything can happen, we do not usually design for the most absolute event. We design for the event that that has a reasonable chance of occurrence. In the case of possible tidal heights, it is the standard of practice in this area when designing for private residential and commercial structures to design to the lowest 99% of the tides i.e., only 1% of the recorded tides are higher. If one studies the tide charts for this geographic area (the Santa Monica Bay) one would find that only 1% of the tide elevations in a given year exceed +6.0' MLLW. To this elevation we add certain factors that are discussed below.

Storm Surge: Storm Surge is the set-up or increase in the water elevation due to wind blowing over the water surface. While storm surge might add many feet to the water elevation in many areas around the world (for example, the eastern and Gulf coasts of the United States), it does not seem to be a problem in this geographic area, particularly the Santa Monica Bay. Research of NOAA records reveals almost no data for this area. Therefore, the effects of storm surge on water elevations is mentioned here for informational purposes only.

Sea Level Rise: Global warming is a given. How fast global temperatures are rising is open to argument and definitely beyond the scope of this report. However, because of it, the polar ice caps are melting and the temperature of the water in the oceans is rising. This increases the volume of water in the oceans and, along with

some other factors such as local tectonic rise (or conversely subsidence) affects sea level elevation. Again, how much and how fast sea level is rising is defiantly open to argument. In its Draft 2015 Sea Level Rise Guidance Policy, the California Coastal Commission (CCC) has chosen to use the 2012 National Research Council (NRC) 2012 report projections for the California coast. The California coast is divided into two regions, that north and that south of Cape Mendocino. Attached is a graph showing the maximum and minimum projections from 2000 to the year 2100. The red line is the maximum projection (66" of sea level rise by 2100), the green line the minimum (17" of sea level rise by 2100) and the gray line is the average of the two (41.5" of sea level rise by 2100). The blue line is this office's projection of sea level rise by the year 2100, 10.13", based upon NOAA's sea level rise measurements to date and increasing the rate of rise commensurate with the average rates shown on the graph (the gray line). As one can see, there is a tremendous spread between those projections. There are no calculations or explanations given in NRC2012 or CCC2015 guidelines as to how they reached these sea level rise values. One can only assume that the maximum and minimum projections are made based on some statistical model (that has not been provided in either report) of sea level rise based on different factors such as global warming and climate change with or without resolution to remedy these major contributing factors from all countries throughout the world.

The prevailing wisdom is to assume the economic life of a residential structure on the beach as seventy-five years. With this in mind, the effects of sea level rise on that structure over its life span must be considered. To use the minimum sea level rise projection might be an underestimation. To use the maximum projected sea level rise might be an overestimation and would definitely make the vast majority of the beach lots in this area unbuildable. Given the spread between the projections, picking a "reasonable" projection is a bit like throwing a dart at a dart board. After much discussion, and bit of soul searching, among the majority of consultants, who prepare coastal engineering reports for this geographic area, and officials who review those reports, the agreed upon projection for sea level rise over the next seventy-five years is 24". Further, it was felt that because the science of sea level rise projection is still evolving, it was also agreed that sea level rise measurements for this geographic area should be monitored and the 24" number reviewed periodically as new measurements might dictate.

The agreement on 24" of sea level rise over the next seventy-five years makes sense for the following reasons:

1. It is approximately three times that of the NOAA projection and almost twice that of the minimum NRC projection.
2. Sea level rise is not something that will occur suddenly without warning (such as an earthquake), so occupants of a residential or commercial structure will have time to "get out of" a structure if the projection is too low.

3. In light of reason number 2 above, there is no immediate danger to life or limb, should the prediction be too low and there is time to make adjustments to an existing structure to accommodate an under projection, should they be warranted.

SECTION 5: DESIGN BEACH PROFILE

Investigation of historical and statistical shoreline conditions establishes a design beach profile. Such a profile is critical in the determination of wave uprush and subsequent wave damage from storm generated waves. In determining the design beach profile for this project, surveys obtained from nearby sites of Reference Number Seven was used in conjunction with information obtained from other items referenced at the beginning of this report and this writer's own engineering judgment.

A statistical investigation of the beaches in Malibu, performed by the Los Angeles county Department of County Engineer, established a maximum foreshore slope oscillation of approximately 40 ft. landward of the most landward measured Mean High Tide Line. The design beach profile is established at this position and is shown on attached sheets P-2 and P-3. Such a foreshore slope position is produced by storm-generated waves (seas) superimposed on high tides. Such conditions are present during winter months, but have occurred during summer months (such as existed in 1983 and 1998), but much less frequently. This shoreward movement of the foreshore slope is not considered erosion. The sand displaced simply moves offshore and creates a sand bar. This creates a condition that protects the foreshore slope and backshore beach from larger waves (such a condition is illustrated on sheets P-2 and P-3). As seasonal conditions change during the spring and early summer, the sand from the offshore bar propagates back to the shoreline. Any permanent sand loss that may occur during this seasonal oscillation process is erosion

The Design Beach Profile is based on the following assumptions:

1. As the beach scours in a design storm, it fairly well replicates itself further and further land ward until it scours back to a non-scourable surface other than beach sand such as very hard packed earth or a rock surface, or the storm even just ends.

2. The sandy beach portion of the profile will scour to a slope of approximately ten percent.

3. Since the most landward MHTL has now migrated forty feet landward on a slope of ten percent, the scour depth under the most landward measured MHTL is four feet.

The plot of the Design Beach Profile for this site is shown on the attached sheets P-2 and P-3.

At the subject Site, the maximum measured distance from the right-of way line to the Mean High Tide Line was 497.6 ft., which was measured by the county engineer for the State Lands Commission in 1956 as shown on the of Reference Number Twelve and plotted on the site map on sheet P-1. The minimum measured distance of 372.2 ft. (low beach profile) as shown on the survey Reference Number Twelve as well was also plotted on the site map on sheet P-1. Site evidence suggests that this has not been the most extreme shoreward foreshore slope movement; however, this possibility is covered with the assumption that there might be an approximately forty feet landward movement of a most landward MHTL as discussed above. In the case of this site, the slope used for the Design Beach Profile was the (6.7:1). Thus, the Design Beach Profile used for this site is located an assumed MHTL approximately 26.5 ft. landward of the most landward measured MHTL.

SECTION 6: DESIGN WAVE & TIDAL CONDITIONS

Various wave conditions were investigated and two (2) conditions were found to present the most hazardous situation for this section of beach (see calculations). Both of these waves have been superimposed on a design tide of 8.0' M.L.L.W.

The first wave condition investigated is an 11.7 ft. wave, with a period of 10 seconds. Such a wave is shown to break approximately 381.5 ft. seaward of the design shoreline when superimposed on the design Stillwater Line. This wave has minimal effect on coastal structures and property due to energy loss. The second wave condition and the most serious, is a wave with a height of 4.0 ft., and a period of 18 seconds. This wave has a breaking wave depth of 7.76 ft. and is shown to break approximately 86.2 ft. seaward of the design shoreline when superimposed on the design Stillwater Line (see Design Beach Profile Sheet P-2). As this 4.0 ft. wave approaches its breaking wave depth, its height increases to a breaking wave height at an elevation of 16.35' M.L.L.W. datum (+16.16' NAVD). This wave presents an extreme hazard when the foreshore slope is at its maximum shoreward position (Design Beach Profile), and the wave uprush can reach an extreme shoreward position. The calculated projected position of this 4.0 ft. wave's uprush location on the design beach profile is approximately 246.3 ft. seaward of the Pacific Coast Highway right-of way line.

SECTION 7: RECOMMENDATIONS

1. Based upon these coastal engineering calculations, sheet P-1 the plot of the Design Beach Profile and my fifty plus years of experience on this beach, it is my opinion that the proposed finish first floor elevation of 41.67' NAVD (41.89' MLLW) is adequate to prevent overtopping by ocean waves.

2. The Design Beach Profile indicates that the beach will not scour any closer than 246.3 ft. from the north right-of-way line at Pacific Coast Hwy. Therefore, bottom of any proposed new piles should be founded in the bearing stratum and at depths recommended by you project geotechnical engineer.

3. The purpose of a shoreline protection device (SPD) on a site is to protect the onsite sewage disposal system (OWTS). The site plan for the proposed addition shows an existing "rip rap" section spanning across the site located approximately 120 ft. seaward of the most southern extent of the proposed SFD and approximately 321 ft. seaward of the Pacific Coast Hwy right-of-way line. Without further investigation one cannot tell how deep it extends and therefore if it is being used to protect the current OWTS. As long as the existing or new OWTS is located north of the wave uprush limit for the H'o=4.0', T=18 sec wave, an SPD is not required. However, if the OWTS is located more than 246 ft. seaward of the Pacific Coast Hwy right-of-way line a SPD is required. According to the Design Beach Profile, the beach could scour to an elevation of +8.5' NAVD (+8.69' MLLW), approximately 8.7 ft. below the top of the revetment. If the OWTS is located south of the H'o=4.0', T=18 sec wave uprush limit I recommend that an exploratory excavation be made in the vicinity of the most seaward rip rap location to try to determine the depth of the bottom of the rip rap. If it is found that the toe of the rip rap is at +6.5' NAVD (+6.69' MLLW), it can be considered adequate to protect the OWTS from a depth point of view. One more excavation should be made (say on the easterly one-half of the wall) to be able to determine the condition of the wall(s). If the bottom of the wall is found to be higher than the above elevations, it should be deepened to the elevations considered deep enough and noted above.

4. The new piles or foundation will not be subject to ocean wave forces. However, analysis regarding the rate of erosion of the various earth materials located on this site is beyond the expertise of this office. Geotechnical considerations should be taken into account and recommendations for depths of foundations shall be made by your geotechnical consultant.

5. The CLIENT should realize that there will always be certain risks associated with living on the beach. Although the probability is low, there still if the possibility that this site could experience larger waves than assumed for this

report. The greatest unknown, of course, is sea level rise. As pointed out in Section 4 of this report, it is not known at this time what the magnitude or rate of sea level is going to be in the foreseeable future. The results and recommendations as set forth in this report meet current minimum County standards. Because of the unpredictability of the ocean environment, these results are meant to minimize storm wave damage and not to eliminate it. Tsunami or hurricane generated waves were not analyzed in this report because of the extreme low probability of these events happening to this part of the California coast. However, the possibility of those major events producing damage to the subject property does exist, and hence no warranties are provided in the event that those events occur. Additionally, the owner should take precautions to avoid minor damage (window breakage, water on deck, etc.) when there exists the extreme conditions of high tides, (tides above +5.0' MLLW datum) and storm generated waves.

6. A final approved set of plans for the proposed residence and pool must be submitted to David C. Weiss, Structural Engineer & Associates, so that we may verify that there are no changes in the conditions or parameters assumed for the purpose of this report.

SECTION 8: TSUNAMI

In an effort to determine whether or not the subject site is within a tsunami inundation zone, I have researched a number of web sites. Although the sites discuss the California Office of Emergency Service Inundation Maps, none of them seem to have them. As best I can determine, the maps are not yet available to the public. Therefore, I am basing my response to the subject review mainly upon information obtained from the above noted references.

With regard to the reconnaissance report of Reference Number Two above, there is almost no mention of tsunamis. That is because of the present, or probably up until recent philosophy that the probability of a damaging tsunami occurring along this section of the coast is very low.

According to the information in the article of Reference Number Three, there have been about twenty tsunamis that have impacted the California Coast in the last two-hundred years; nine of them have been from "near source" events, i.e., faults or underwater landslides in the immediate area of the California Coast. The rest are from "far field" events, or sources far away such as Alaska, Japan or Chile. The near source zones have ranged from Crescent City in Northern California to the Channel Islands in Southern California. The highest local tsunamis generated seem to have been from the source zones of Monterey to Point Arguello and Point Arguello to Los Angeles (in the Channel Islands area) zones. Both of those events were in 1812 and generated tsunami heights of between 3-4 meters. That is between ten

and thirteen feet. That is reasonably within the range of the H'o = 11.7', T=10 Sec. wave that we now consider in our wave uprush reports. The tsunami is subject to the same physical principals that govern the wind driven waves that we presently consider, i.e., it will break down in a depth of water about equal to the breaking height of the wave.

The section of the City of Malibu General Plan on Tsunamis and Seiches (page 5-22) discusses the phenomena of tsunamis. The general plan states that displacement of faults immediately offshore of Malibu could generate local waves that could run-up to elevations of +5' to +7' above MLLW for the 100 year occurrence and +12 feet above Mean Lower Low Water (+11.4' NAVD, +9.2' NGVD'29) for a 500 year occurrence. As a matter of fact, Figure S-11 of that document shows that the run-up north of the Leo Carillo Beach area to be R_{100} = 5.1', R_{500} = 8.7 for the one hundred and five hundred year events respectively. Based on the text referring to that figure, one could assume that these are run-up above Mean Lower Low Water. Even if they are above +2.61' NAVD (+2.8' MLLW), they are less than the +19.53' NAVD, (+19.72' MLLW) maximum uprush elevation plotted for the H'o = 4.0', T = 18 Sec. wave plotted on sheets P-2 & P-3 of this report.

The report of Reference Number Five is the most detailed study covering local tsunamis that I could find. This study models the effects of an earthquake along the San Diego Trough-Catalina Fault Zone. This fault traverses from below the California/Mexican Border northwest to the west of and past Catalina Island. While the Palos Verdes and Newport/Inglewood faults might be closer to the Los Angeles area, the authors felt that the San Diego Trough-Catalina Fault would "move" more water because of the large "restraining bend pop-up" (i.e., Catalina Island) along the Southern California Coast. The larger the restraining bend, the more energy that will be released during an earthquake along that fault, etc. etc. etc. The earthquake modeled is equivalent to a seismic event of magnitude Mw = 7.0 to 7.4. The modeled portion of the fault, about 140 Km, was divided into seven segments. Various earthquake scenarios for tsunami generation were performed by modeling the effects of different combinations of the segments of the fault slipping (i.e., segments 1-7 slipping, segments 1-4 only or segments 5-7 only, etc.). The results were plotted as figures 10 and 14 in that report. I have attached a copy of those figures for your review. Figure 10 shows that the highest run-up (uprush) for the Malibu area is approximately .5 meters for the initial wave and a maximum of .5 meters to possibly even .75 meters maximum above the Still Water Line for all combinations of segment slip. Observations have shown researchers that run-up calculations for "elastic dislocation models" (such as the ones used in the Report of Reference Number Seven), from large earthquakes around the world, don't always match real-life occurrences and may under estimate the actual peak run-up values by as much as a factor of two. Therefore, the results shown on the two figures should be multiplied by a factor of two giving 1 meter and 1.5 meters above the Still Water Line respectively. Considering a +8.0' MLLW Still Water Line, this equates to

a maximum 1.5 x 3.28 + 8.0 = +12.92' MLLW (+12.73' NAVD). Again, these wave heights and uprushes are still lower than we calculate for our H'0=4.0', T=18 sec. and very close to that for the H'o=11.7', T = 10 sec. waves.

Based on the small body of information that we have for tsunamis on this section of beach, it is my opinion that the probability of a damaging tsunami in the vicinity of the subject address is very low. I base this opinion on the following:

1. Despite scary movies, old wives tales and actual damage, tsunamis are waves subject to the physical limitations and restrictions such as diffraction and refraction. As such, this area of beach is fairly well sheltered from tsunamis outside of the island chain by the off shore islands.

2. Tsunamis within the island chain, approaching from the north and west, would suffer great energy loss due to refraction.

3. Not every seismic event of underwater landslide causes a tsunami.

It is further my opinion that the wave heights used in this report adequately represent the wave sizes and wave force system(s) for which this project should be designed.

SECTION 9: SUMMARY

In an effort to comply with the submittal requirements of Section 10.5 of the **City of Malibu LCP Local Implementation Plan** the following summary of subjects is submitted:

A. The Design Beach Profile, Sheet P-1 for this site is submitted with this writing. The proposed development will have no adverse impact on the beach profile. The proposed development is a new four-story Single Family Dwelling. Structural plans for this project have not been completed and await the results of this report. The new foundation will have no adverse effect on the beach profile, since the house is extremely far landward of the Design Beach Profile.

B. All of the locations of the Historic Mean High Tide Lines available to this office have been plotted on the 1" =30' scale site plan on sheet P-1. The most landward mean High Tide Line of record available to this office is the October 21, 2014 Mean High Tide Line taken from the survey of Reference Number Twelve above. That tide line is located 372.2'

seaward of the Pacific Coast Highway right of way line, well seaward of the proposed project.

C. The availability of public access to the beach is beyond the purview of this office and will be discussed by others.

D. The majority of the site is not subject to wave uprush. The location of the maximum wave uprush lines for the two design waves considered in this report have been plotted on the 1' = 30' scale site plan on sheet P-1. The existing sewage disposal system on the site has been adequately protected to date. It is not known whether the rip rap located approximately 321' from the Pacific Coast Hwy right-of-way line was originally used as a shoreline protection device. If so, an investigation can be performed to assure that it is presently deep enough to conform to the standards of present day design. See Recommendation Number 3 above.

E. Foundation design for this proposed new four-story SFD is not affected by the wave uprush. Recommendations should be made by the project Geotechnical engineer.

F. The location of the new or existing on-site sewage disposal system was not provided to this office. The shoreline protective device, i.e., the rip rap, will be needed to protect the on-site sewage disposal system if it is located more than 246 ft. seaward of the Pacific Coast Hwy right-of-way line. The new proposed SFD is located well landward of the wave uprush limits and, therefore, needs no protective device(s).

G. The location of the OWTS should be provided to further assess if any viable alternatives are required for the shoreline protection device (rip rap).

H. There are no long-term effects of this development on the sand supply. This beach receives it sand from various inland areas "upstream" from the site. The amount of sand that is received from "on shore" sources is almost minuscule.

I. According to the FEMA Base Flood Elevation Map for this area (Panel 1140 of 1275), this property is in the X flood zones. The proposed development is in Zone X, the southern portion of the property is in Zone VE with a base flood elevation of +14 NAVD '88.

J. Presently there is a lot of disagreement on how much and how fast the sea level is rising and what's causing it. According to one of the

methodologies presented in the report of Reference Number Ten above, there is a one percent chance that sea level in the Santa Monica Area will rise about 39" by the year 2100 and a fifty/fifty chance that it will rise 13" by the year 2100. The calculations of this wave uprush study are based on a sea level rise of 24" between now and the year 2085. When you read assumptions and caveats in the EPA report, you can bet my guess is as good as theirs.

K. This project has no impact on public access. The most landward Mean High Tide Line of public record available to this office is located 246.3 ft. from the Pacific Coast Highway right of way line or approximately 120' seaward of the seaward edge of the most southern extent of the proposed house. That leaves more than adequate room for lateral public access, even after the most severe storms.

This report has been prepared for the subject property and its owner only. This report has not been prepared for use by other parties or for other purposes not mentioned above, and may not contain sufficient information for other than the intended use.

The professional services performed by this office for the subject property were conducted in a manner consistent with current building department standards, sound engineering principles, and this writer's own professional judgment. No other warranties are expressed or implied.

Thank you for allowing **David C. Weiss, Structural Engineer & Associates, Inc.** to be of service to you on this project. If you have any questions, please contact me.

Very truly yours,

Janelle Lau, P.E.
Project Coastal Engineer
C.E. 62531

REGISTERED PROFESSIONAL ENGINEER
Janelle L.W. Lau
No. C62531
Civil
EXP. 12.31.17
STATE OF CALIFORNIA

Reviewed by
David C. Weiss, President
S.E. 1867

REGISTERED PROFESSIONAL ENGINEER
David C. Weiss
No.1867
Structural
EXP. 3.31.19
STATE OF CALIFORNIA

Encl: Wave Uprush & Design Beach Profile Sheet P-1, P-2 & P-3
Wave Study Calculations, 1 Sheets
Figures 10 & 14
Sea Level Rise Graph
Portion of FIRM Panel 1440
Tsunami Inundation Map

David C. Weiss
Structural Engineer & Associates, Inc.
24372 Vanowen Street, Ste. 104
West Hills, CA 91307
818-227-8040(P) 818-227-8041(F)

Client : Dr. Sanjiv & Shubha Jain
Job Add.: 41700 Pacific Coast Hwy
Malibu, CA
Job Num.: JAI1.116
File: JAI1.116 Coastal Calcs
Date: 12-Dec-16

COASTAL ENGINEERING CALCULATIONS - Breaking Wave Height, Depth & Uprush

Station Numbers: N/A g= 32.2 ft./sec/sec

WAVE NUMBER-->	**1**	**2**	**3**	**4**	**5**
Design Wave: Ho'=	11.70	4.00			
Design Tide: (6' Tide+1.25'Polar+.75'Surge	8.00	8.00			
Period T (Sec.) =	10.00	18.00			
Hgt of Breaking Wave : Hb=Hb/Ho' x Ho'					
I. Breaking Wave Height					
Ho'/gT^2 =	0.00363354	0.00038341			
m = Bott Slope At Breaking Wave =	0.036	0.15			
From Fig. 7-3 S.P.M., Hb/Ho' =	1.275	2.675			
Hgt. of Brkng Wave, Hb=	14.9175	10.7			
Hgt. Above Dsgn Tide, Hc=.78 xHb=	11.64	8.35			
Breaking Wave Elevation, MLLW=	19.64	16.35			
Xp(FT.) = (4.0-(9.25 x m)) x Hb =	54.70	27.95			
II. Breaking Wave Depth					
Hb/gT^2 =	0.00463276	0.00102561			
From Fig. 7 - 2 S.P.M., db/hb(min) =	1.16	0.73			
Brk'ng Wave D'pth db = db/hb x Hb=	17.34	7.76			
From Fig. 7 - 2 S.P.M., db/hb(max) =	1.525	1.475			
Brk'ng Wave D'tdh db = db/Hb x hb=	22.75	15.78			
III. Breaking Wave Velocity					
Vmax (fps) = (gdbmin)^.5 =	23.63	15.80			
IV. Breaking Wave Uprush Limit					
Assume Uprush to (M.L.L.W. Elev.) =	12.10	19.72			
Dist. from Breaking Wave to Uprush=	408.552	163.75521			
Uprush Slope(ratio)=	0.05248	0.119			
From Fig. 7-11, S.P.M. R/ho =	0.35	2.80			
From Fig. 7-13, S.P.M. K =	1.00	1.05			
Above SWL, R = R/Ho' x Ho' x K =	4.10	11.72			
Uprush El. MLLW, R + Des. Tide =	12.10	19.72			
Uprush El. MSL, MLLW- 2.8'=	9.30	16.92			
Uprush El. NAVD, MLLW- 0.19'=	11.91	19.53			

GENERAL NOTES

DATUM PLANE: MEAN LOWER LOW WATER [MLLW] = 0'
NORTH AMERICAN VERTICAL DATUM [NAVD] = + 0.19'
MEAN SEA LEVEL [MSL] = + 2.8'
MEAN HIGH TIDE [MHTL] = + 4.7 M.L.L.W.
STILL WATER LINE [SWL] = +8.0' M.L.L.W.

COMPOSITE SLOPE USED IN DETERMINING WAVE UPRUSH.

LEGEND

- SEEPAGE PIT PER SITE PLAN PREPARED BY AMIT APEL DESIGN DATED JANUARY 19, 2017 AND SOILS ENGINEERING INVESTIGATION PREPARED BY HEATHCOTE GEOTECHNICAL DATED NOVEMBER 23, 2016
- B.W. UPRUSH LIMIT FOR H'o= 4.0' T=19 SEC.
- B.W. UPRUSH LIMIT FOR H'o= 11.7' T=10 SEC.

B.W. UPRUSH @ +19.72' MLLW (+19.53' NAVD)
H'o= 4.0' T=19 SEC.

B.W. UPRUSH @ +11.60' MLLW. (+11.41' NAVD)
H'o= 11.7' T=10 SEC.

MAP OF HISTORICAL MHT LINES

NOTE: ORIGINAL SURVEY BY LAND & AIR, INC. DATED OCTOBER 21, 2014. UPDATED MHTL SURVEYED BY H.J. BURKE, INC. DATED NOVEMBER 10, 2015

SCALE: 1" = 30'

David C. Weiss
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24372 VANOWEN ST., SUITE 104
WEST HILLS, CA 91307
TEL. (818) 227-8040
FAX. (818) 227-8041
www.dcwse.com

PROJECT:

WAVE UPRUSH STUDY

41700 PACIFIC COAST HWY
MALIBU, CALIFORNIA 90265

OWNER:

DR. SANJIV & SHUBHA JAIN

C/O AMIT APEL DESIGN, INC.
6411 INDEPENDENCE AVE.
WOODLAND HILLS, CA 91367

PLAN ISSUE / REVISION

12 / 12 / 2016	Wave Uprush Study
08 / 11 / 2017	Planning Rev. Corr.

STAMP:

REGISTERED PROFESSIONAL ENGINEER
David C. Weiss
No.1867
Structural
EXP. 3.31.17
STATE OF CALIFORNIA

ENG. BY:	DRAWN BY:
JL	JL

JOB NO.: JAI1.116

SCALE: AS NOTED

OWNER: JAIN

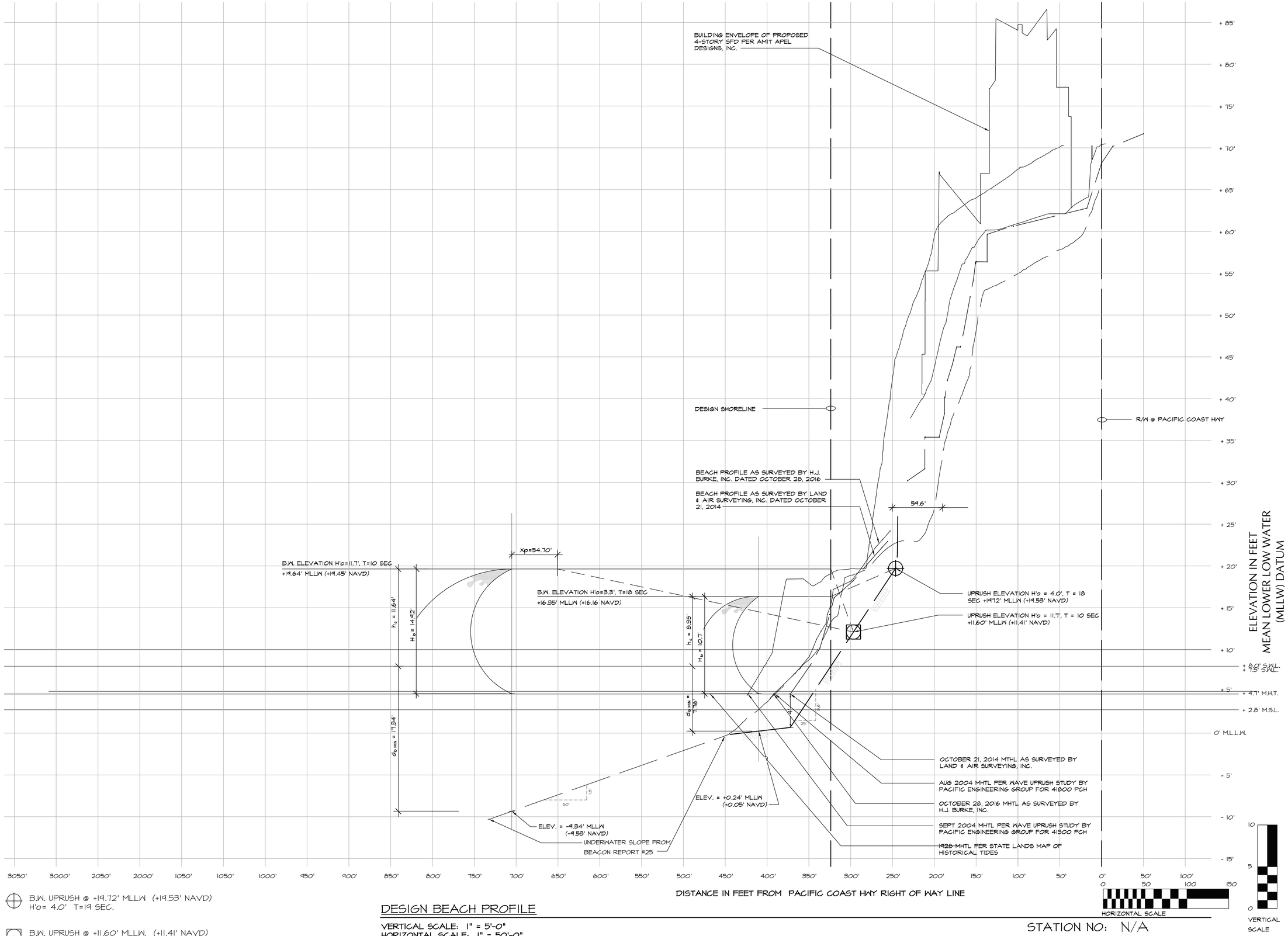
SHEET TITLE:

SURVEY & MAP OF HISTORIC MEAN HIGH TIDE LINES

SHEET NUMBER:

P-1

OF 3



B.W. UPRUSH @ +19.72' MLLW (+19.53' NAVD)
H'o= 4.0' T=19 SEC.

B.W. UPRUSH @ +11.60' MLLW. (+11.41' NAVD)
H'o= 11.7' T=10 SEC.

DESIGN BEACH PROFILE

VERTICAL SCALE: 1" = 5'-0"
HORIZONTAL SCALE: 1" = 50'-0"

STATION NO: N/A

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EXP. 3.31.17
STATE OF CALIFORNIA

ENG. BY:	DRAWN BY:
JL	JL

JOB NO.: JAI1.116

SCALE: AS NOTED

OWNER: JAIN

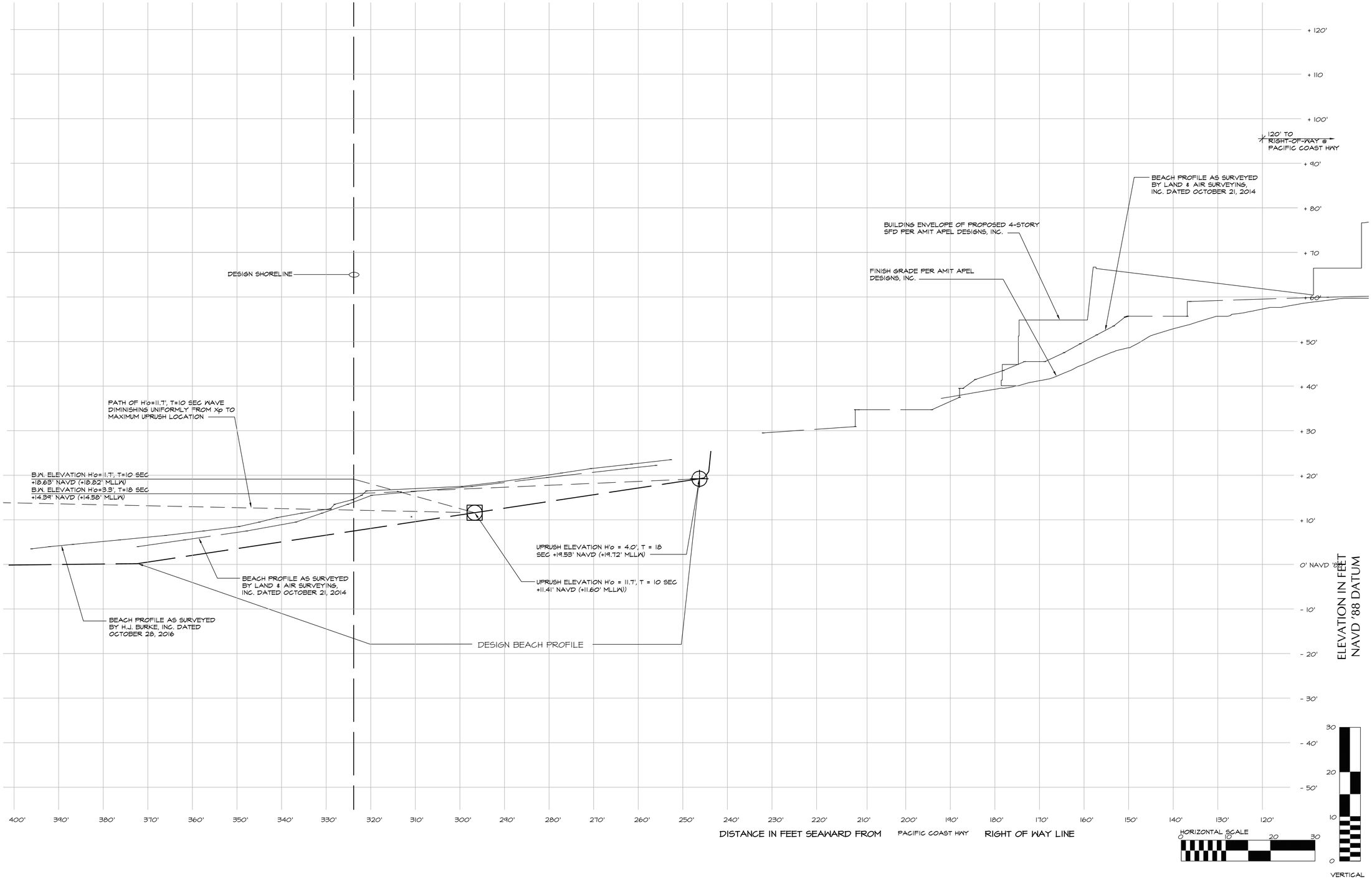
SHEET TITLE:

WAVE UPRUSH & DESIGN BEACH PROFILE

SHEET NUMBER:

P-2

OF 3



B.W. UPRUSH @ +19.72' MLLW (+19.53' NAVD)
H'o= 4.0' T=19 SEC.

B.W. UPRUSH @ +11.60' MLLW. (+11.41' NAVD)
H'o= 11.7' T=10 SEC.

EXPANDED BEACH PROFILE

SCALE: 1" = 10'-0"

David C. Weiss
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PROJECT:

WAVE UPRUSH STUDY

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David C. Weiss
No.1867
Structural
EXP. 3.31.17
STATE OF CALIFORNIA

ENG. BY:	DRAWN BY:
JL	JL

JOB NO.: JA11.116

SCALE: AS NOTED

OWNER: JAIN

SHEET TITLE:

EXPANDED DESIGN BEACH PROFILE

SHEET NUMBER:

P-3

OF 3

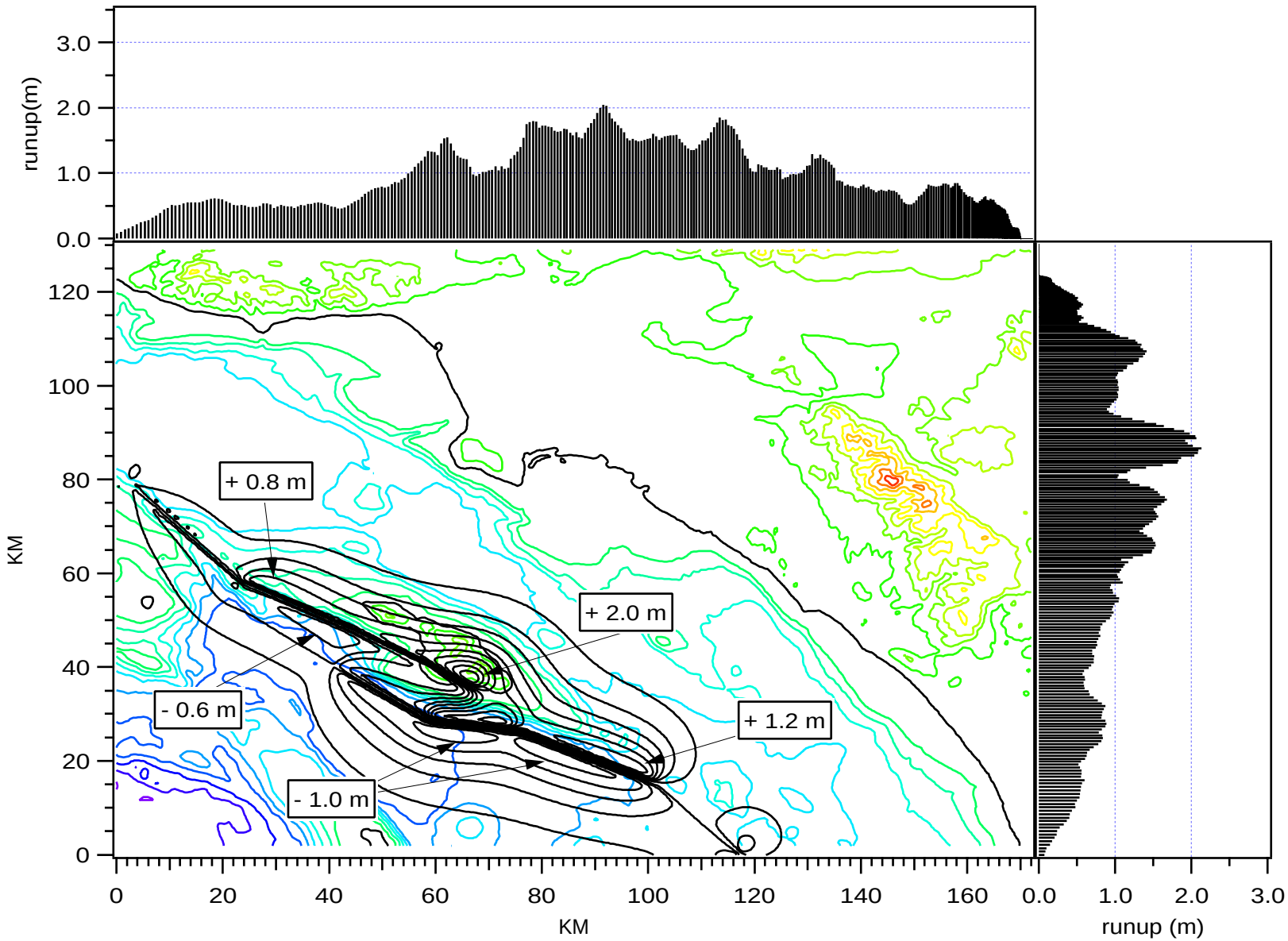


Figure 10. Map showing initial wave height for the full seven segment Catalina fault model with graphs of run-up along the south-facing and west-facing shorelines.

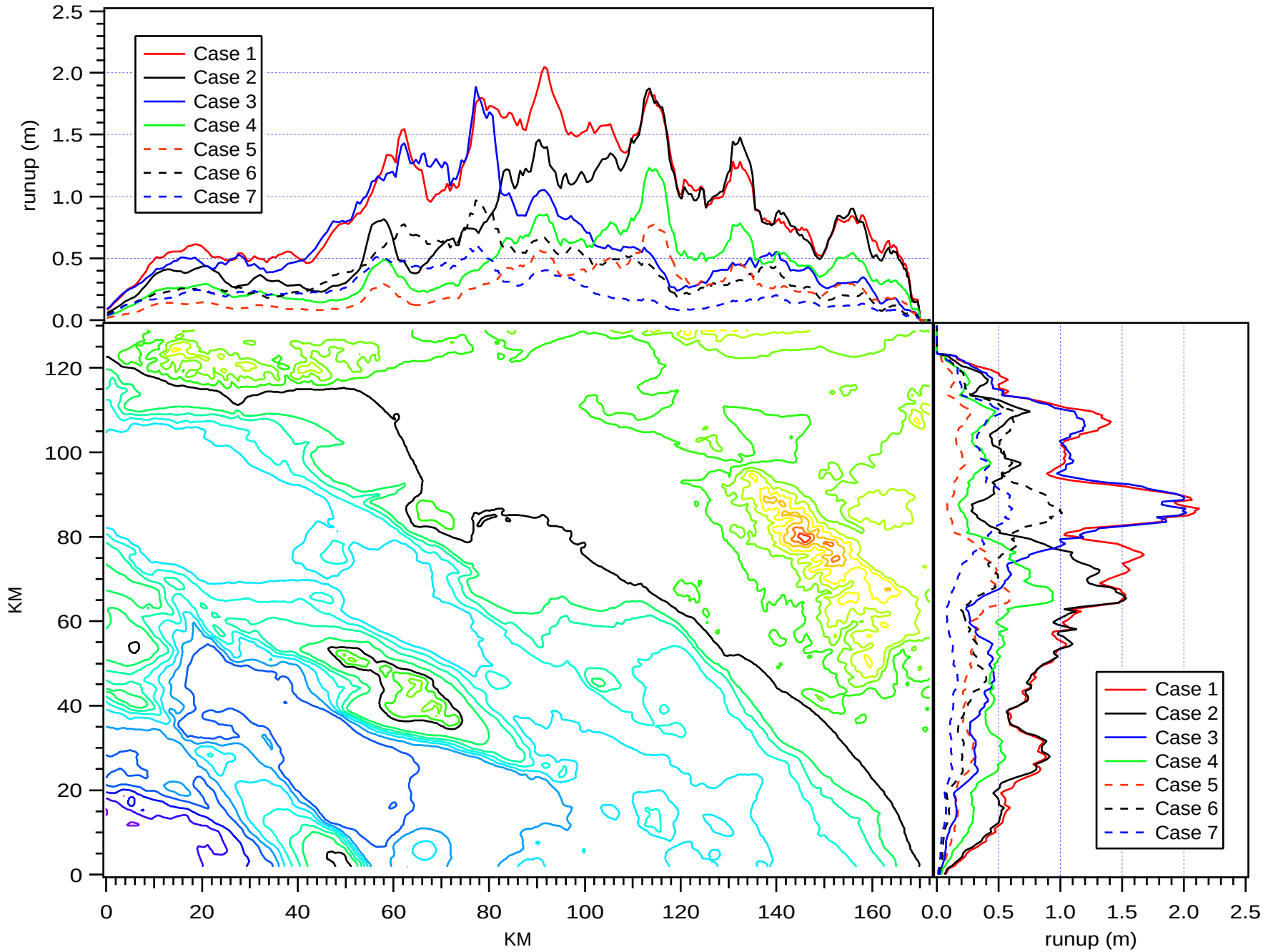
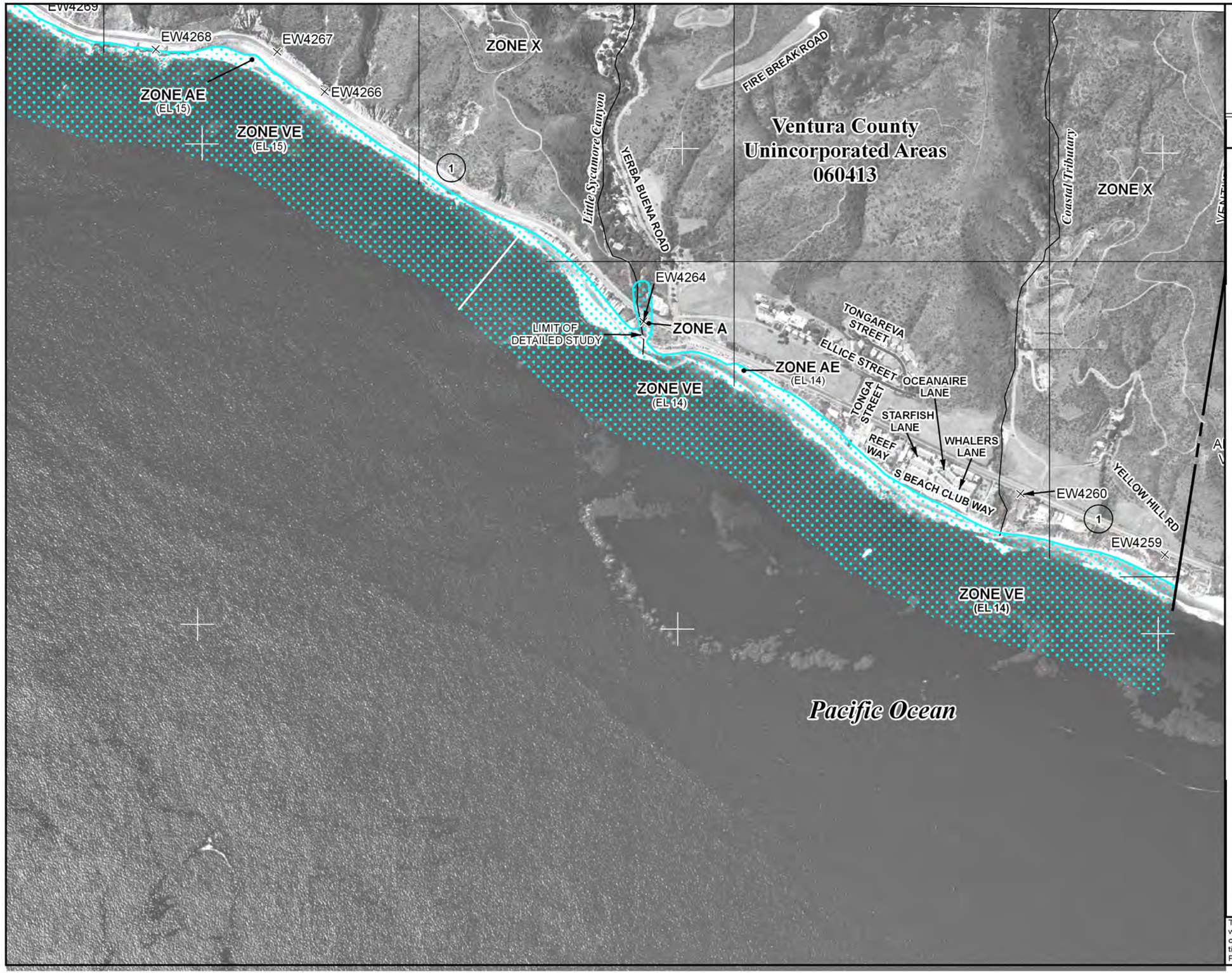


Figure 14. Map showing maximum run-up for each of the seven Catalina fault tsunamigenic earthquake scenarios modeled in this study (see Table 4 for fault parameters).



MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

METE

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1140E

FIRM

FLOOD INSURANCE RATE MAP

VENTURA COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1140 OF 1275
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
VENTURA COUNTY	060413	1140	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06111C1140E

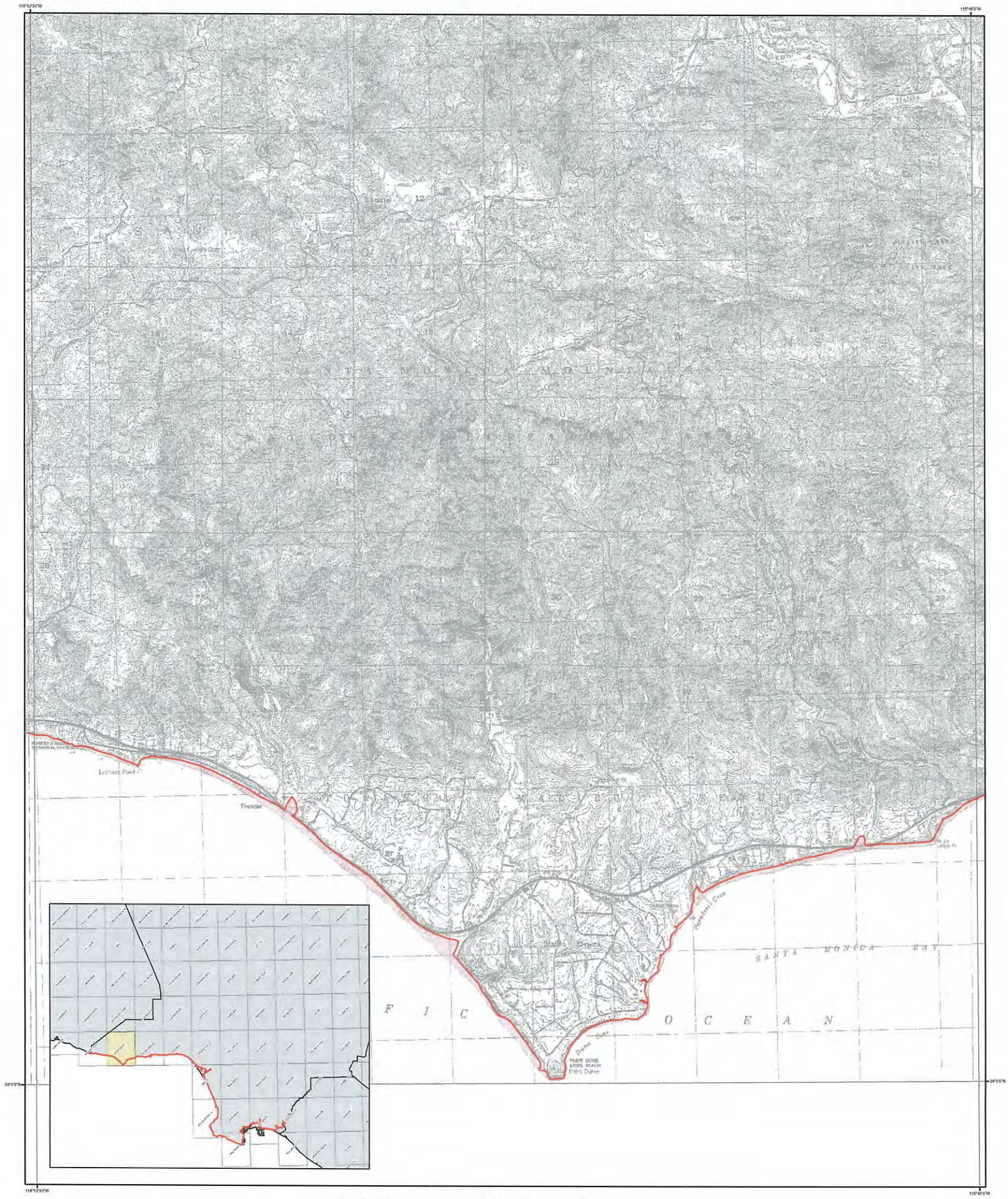
EFFECTIVE DATE
JANUARY 20, 2010

Federal Emergency Management Agency

California Emergency Management Agency
California Geological Survey
University of Southern California

Tsunami Inundation Map for Emergency Planning
Point Dume Quadrangle

State of California
County of Los Angeles



TSUNAMI INUNDATION MAP FOR EMERGENCY PLANNING

State of California ~ County of Los Angeles
POINT DUME QUADRANGLE

March 1, 2009

SCALE 1:24,000

0.5 0.25 0 0.5 1 Miles

1,000 500 0 1,000 2,000 3,000 4,000 5,000 Feet

0.5 0.25 0 0.5 1 Kilometers

METHOD OF PREPARATION

Initial tsunami modeling was performed by the University of Southern California (USC) Tsunami Research Center funded through the California Emergency Management Agency (CalEMA) by the National Tsunami Hazard Mitigation Program. The tsunami modeling process utilized the MOST (Method of Splitting Tsunamis) computational program (Version 0), which allows for wave evolution over a variable bathymetry and topography used for the inundation mapping (Titov and Gonzalez, 1997; Titov and Synolakis, 1998).

The bathymetric/topographic data that were used in the tsunami models consist of a series of nested grids. Near-shore grids with a 3 arc-second (75- to 90-meters) resolution or higher, were adjusted to "Mean High Water" sea-level conditions, representing a conservative sea level for the intended use of the tsunami modeling and mapping.

A suite of tsunami source events was selected for modeling, representing realistic local and distant earthquakes and hypothetical extreme undersea, near-shore landslides (Table 1). Local tsunami sources that were considered include offshore reverse-thrust faults, restraining bends on strike-slip fault zones and large submarine landslides capable of significant seafloor displacement and tsunami generation. Distant tsunami sources that were considered include great subduction zone events that are known to have occurred historically (1960 Chile and 1964 Alaska earthquakes) and others which can occur around the Pacific Ocean "Ring of Fire."

In order to enhance the result from the 75- to 90-meter inundation grid data, a method was developed utilizing higher-resolution digital topographic data (3- to 10-meters resolution) that better defines the location of the maximum inundation line (U.S. Geological Survey, 1993; Intermap, 2003; NOAA, 2004). The location of the enhanced inundation line was determined by using digital imagery and terrain data on a GIS platform with consideration given to historic inundation information (Lander, et al., 1993). This information was verified, where possible, by field work coordinated with local county personnel.

The accuracy of the inundation line shown on these maps is subject to limitations in the accuracy and completeness of available terrain and tsunami source information, and the current understanding of tsunami generation and propagation phenomena as expressed in the models. Thus, although an attempt has been made to identify a credible upper bound to inundation at any location along the coastline, it remains possible that actual inundation could be greater in a major tsunami event.

This map does not represent inundation from a single scenario event. It was created by combining inundation results for an ensemble of source events affecting a given region (Table 1). For this reason, all of the inundation region in a particular area will not likely be inundated during a single tsunami event.

References:

Intermap Technologies, Inc., 2003, Intermap product handbook and quick start guide: Intermap NEXTmap document on 5-meter resolution data, 112 p.

Lander, J.F., Lockridge, P.A., and Kozuch, M.J., 1993, Tsunamis Affecting the West Coast of the United States 1806-1992: National Geophysical Data Center Key to Geophysical Record Documentation No. 29, NOAA, NESDIS, NGDC, 242 p.

National Atmospheric and Oceanic Administration (NOAA), 2004, Interferometric Synthetic Aperture Radar (IfSAR) Digital Elevation Models from GeoSAR platform (EarthData): 3-meter resolution data.

Titov, V.V., and Gonzalez, F.I., 1997, Implementation and Testing of the Method of Tsunami Splitting (MOST): NOAA Technical Memorandum ERL PMEL – 112, 11 p.

Titov, V.V., and Synolakis, C.E., 1998, Numerical modeling of tidal wave runup: Journal of Waterways, Port, Coastal and Ocean Engineering, ASCE, 124 (4), pp 157-171.

U.S. Geological Survey, 1993, Digital Elevation Models: National Mapping Program, Technical Instructions, Data Users Guide 5, 48 p.

Table 1: Tsunami sources modeled for the Los Angeles County coastline.

Sources (M = moment magnitude used in modeled event)		Areas of Inundation Map Coverage and Sources Used		
		Malibu	Santa Monica	Los Angeles Harbor
Local Sources	Anacapa-Dume Fault	X	X	
	Catalina Fault	X	X	X
	Channel Island Thrust Fault		X	
	Newport-Inglewood Fault			X
	Santa Monica Fault	X	X	
	Palos Verdes Landslide #1		X	X
	Palos Verdes Landslide #2			X
Distant Sources	Cascadia Subduction Zone #2 (M9.2)		X	X
	Central Aleutians Subduction Zone#1 (M8.9)		X	X
	Central Aleutians Subduction Zone#2 (M8.9)		X	X
	Central Aleutians Subduction Zone#3 (M9.2)	X	X	X
	Chile North Subduction Zone (M9.4)	X	X	X
	1960 Chile Earthquake (M9.3)		X	X
	1964 Alaska Earthquake (M9.2)	X	X	X
	Japan Subduction Zone #2 (M8.8)		X	X
	Kuril Islands Subduction Zone #2 (M8.8)		X	X
	Kuril Islands Subduction Zone #3 (M8.8)		X	X
	Kuril Islands Subduction Zone #4 (M8.8)		X	X

MAP EXPLANATION

Tsunami Inundation Line

Tsunami Inundation Area

PURPOSE OF THIS MAP

This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, is not a legal document and does not meet disclosure requirements for real estate transactions nor for any other regulatory purpose.

The inundation map has been compiled with best currently available scientific information. The inundation line represents the maximum considered tsunami runup from a number of extreme, yet realistic, tsunami sources. Tsunamis are rare events; due to a lack of known occurrences in the historical record, this map includes no information about the probability of any tsunami affecting any area within a specific period of time.

Please refer to the following websites for additional information on the construction and/or intended use of the tsunami inundation map:

State of California Emergency Management Agency, Earthquake and Tsunami Program:
http://www.oes.ca.gov/WebPage/oeswebsite.nsf/Content/B1EC51BA215931768825741F005E8D80?OpenDocument

University of Southern California – Tsunami Research Center:
http://www.usc.edu/dept/tsunamis/2005/index.php

State of California Geological Survey Tsunami Information:
http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/index.htm

National Oceanic and Atmospheric Agency Center for Tsunami Research (MOST model):
http://nctr.pmel.noaa.gov/time/background/models.html

MAP BASE

Topographic base maps prepared by U.S. Geological Survey as part of the 7.5-minute Quadrangle Map Series (originally 1:24,000 scale). Tsunami inundation line boundaries may reflect updated digital orthophotographic and topographic data that can differ significantly from contours shown on the base map.

DISCLAIMER

Cal EMA

CGS California Geological Survey

USC University of Southern California

SCHICK GEOTECHNICAL, INC.

~

Specializing in Residential
Hillside Properties

September 27, 2018
SG 8812-W

Shubha and Sanjiv Jain
41700 Pacific Coast Highway
Ventura County, California

Subject
Geologic Report
Proposed Seepage Pit(s)
41700 Pacific Coast Highway
Ventura County, California

References:
"Geologic and Soils Engineering Exploration, Proposed Residence and Pool, APN 700-00-2000-655 41700 Pacific Coast Highway, Ventura County, California," dated September 20, 2015;
County of Ventura, Determination of Application Incompleteness, dated March 6, 2017.
County of Ventura, Second Determination of Application Incompleteness, dated October 11, 2017;
"Geologic and Soils Engineering, Response to County of Ventura, Determination of Application Incompleteness, 41700 Pacific Coast Highway, Ventura County, California," dated November 2, 2017;
"Pit Performance Testing Report for a Seepage Pit Dispersal System, APN 700-0-200-655, 41700 Pacific Coast Highway, Malibu, CA 90265,"performed by EDP Consultants, dated September 12, 2018.

Dear Mr. and Mrs. Jain:

Per your request, SGI is providing the following recommendations for the proposed seepage pit. The site was visited on July 31, 2018 and August 2, 2018 to observe the boring drilled in the driveway area north of the residence, as shown on the enclosed Map. The boring was visually logged utilizing the samples obtained at 5 feet intervals, as downhole logging equipment was not provided and the boring considered unsafe.

The seepage pit is to be located north of the residence, as shown on the enclosed Geologic Map. The test boring encountered groundwater at 44 feet. The natural alluvial terrace was encountered to a the total boring depth of 60 feet. Bedrock was not encountered.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the referenced exploration, it is the finding of SGI that the proposed seepage pit(s) are feasible from a geologic standpoint, provided the advice and recommendations contained in this report and referenced report prepared by EDP Consultants.

Provided the recommendations in this report and the referenced report are properly incorporated into design and implemented during construction, the proposed single family residence will be safe from future geologic hazards such as landsliding, settlement or slippage, the proposed development will not adversely affect the geologic stability of adjacent properties.

PRIVATE SEWERAGE SYSTEM

A private sewerage disposal system, consisting of a septic tank and seepage pit(s) is proposed and shown on the enclosed Geologic Map. The pits should be sealed in the upper portion to provide the required minimum 15-foot horizontal setback from the soil/bedrock contact or a minimum of 5 feet below existing grade. Based upon the nearly level area south of the proposed pit, the required 15-foot setback may be achieved with a 5-foot cap depth. The cap depth will be verified in the field during drilling.

The seepage pit(s) should be designed per the recommendations contained in the referenced report prepared by EDP Consultants.

The use of a private sewerage disposal system on the subject property will not adversely affect the stability of the site or adjoining properties, due to the competent nature of the dense alluvium. The system should be designed per the recommendations contained in the referenced report. Seepage pits should be observed by the project geologist prior to bricking and prior to placing the cap. A private sewerage disposal system will require periodic maintenance and pumping to remain effective.

Respectfully submitted,

WAYNE SCHICK
C.E.G. 1300

Enc:
Geologic Map and Section
Boring Log

xc: (3) Addressee

Boring #1

PROJECT: Jain DRILLING DATE : August 1, 2018

Sample Depth (feet)	Blow Count (SPT)	Moisture Content (%)	Dry Unit Weight (pcf)	Depth (feet)	Description
				0 --	**Fill**: SM, Silty sand, medium brown, mottled, moist, medium dense
				--	
				2 --	**Alluvial Terrace**: SM, Silty sand with clay binder, contains numerous angular and rounded pebble and gravel size bedrock fragments, medium reddish brown, moist, dense
2.5				--	
				4 --	
5				--	SM, Silty sand with clay binder, contains numerous angular and rounded gravel and pebble and gravel size bedrock fragments, medium reddish brown, moist, medium dense
				6 --	
				--	
7.5				8 --	
				--	
10				10 -	SM, Silty sand with minor clay binder, contains numerous angular and rounded pebble and gravel size fragments, medium brown, moist, dense
				--	
				12 -	
12.5				--	
				14 -	
15				--	SM, Silty sand with clay binder, contains angular and rounded pebble and gravel size bedrock fragments, medium brown, moist, dense
				16 -	
				--	
17.5				18 -	
				--	SM, Silty sand with clay binder, contains numerous angular and rounded gravel and pebble size bedrock fragments, medium brown, moist, dense
20				20 -	

Boring #1

PROJECT: Jain DRILLING DATE : August 1, 2018

Sample Depth (feet)	SPT Blow Count (N Values)	Moisture Content (%)	Dry Unit Weight (pcf)	Depth (feet)	**Description**
20				20 --	SM, Silty sand with clay binder, contains numerous angular and rounded gravel and pebble-size bedrock fragments, medium brown, moist, dense
				--	
				22 --	
22.5				--	
				24 --	
25				--	SM, Silty sand with clay binder, contains numerous angular and rounded gravel and pebble-size bedrock fragments, medium/dark reddish brown, moist, dense
				26 --	
				--	
27.5				28 --	
				--	
30				30 -	SM, Silty sand with clay binder, contains numerous angular and rounded gravel and pebble-size bedrock fragments, medium/dark brown, moist, dense
				--	
				32 -	
32.5				--	
				34 -	
35				--	SC, clayey silty sand, contains occasional angular and rounded gravel and pebble-size bedrock fragments, dark grayish brown, wet, dense
				36 -	
				--	
37.5				38 -	
				--	SC, clayey silty sand, contains occasional angular and rounded gravel and pebble-size bedrock fragments, dark grayish brown and dark brown, wet, dense
40				40 -	

Boring #1

PROJECT: Jain DRILLING DATE : August 1, 2018

Sample Depth (feet)	SPT Blows Count (N Values)	Moisture Content (%)	Dry Unit Weight (pcf)	Depth (feet)	**Description**
40				40 ––	SC, clayey silty sand, contains occasional angular and rounded gravel and pebble size bedrock fragments, dark grayish brown and dark brown, wet, dense
				––	
				42 ––	
42.5				––	
				44 ––	groundwater at 44feet
45				––	ML, clayey silt, contains occasional angular and rounded gravel and pebble size bedrock fragments, medium reddish brown, wet, dense
				46 ––	
				––	
47.5				48 ––	
				––	
50				50 –	ML, clayey silt, contains occasional angular and rounded gravel and pebble size bedrock fragments, reddish brown, wet, dense
				––	
				52 –	
52.5				––	ML, clayey silt, contains occasional angular and rounded gravel and pebble size bedrock fragments, reddish brown, wet, dense
				54 –	
				––	
55					SP, sand, medium reddish brown, wet, dense
				56 –	
				––	
57.5				58 –	
				––	SP, sand, medium reddish brown, wet, dense
60				60 –	Boring terminated at 60'; Groundwater at 44'

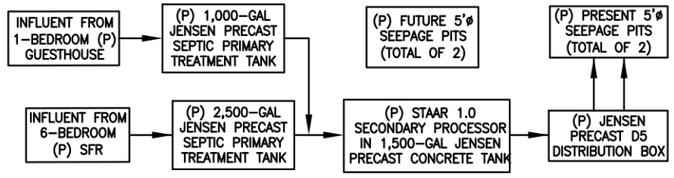
SCHICK GEOTECHNICAL, INC.

LEGEND:

- PROPERTY LINE
- (E) WATER SERVICE (VIF)
- (E) RESIDENCE
- (P) RESIDENCE
- (P) SS PIPES (GRAVITY)
- (P) SS PIPES (PRESSURE)
- (P) SS PIPES (VENTILATION)
- (P) SS PIPES (AIR)
- (P) SS PIPES (ELECTRICAL)
- GEOLOGIC TEST BORING (B–X) APPROXIMATE PER SCHICK GEOTECHNICAL
- (P) SEEPAGE PIT (PRESENT)
- (P) SEEPAGE PIT (FUTURE)

ABBREVIATIONS:

ABS.	ABSORPTION
BI	BELOW INLET
(E)	EXISTING
EG	EXISTING GRADE
FF	FINISHED FLOOR
FS	FINISHED SURFACE
ISDS	INDIVIDUAL SEWAGE DISPOSAL SYSTEM
MFR	MANUFACTURER
OWS	ONSITE WASTEWATER SYSTEM
(P)	PROPOSED
SFR	SINGLE FAMILY RESIDENCE
SS	SANITARY SEWER
VCoEHD	VENTURA COUNTY ENVIRONMENTAL HEALTH DIVISION
VIF	VERIFY IN FIELD
VPC	VENTURA COUNTY PLUMBING CODE



1 ONSITE WASTEWATER SYSTEM PROCESS FLOW SCHEMATIC

Scale: N.T.S.

1. JENSEN PRECAST MODEL JS2500 2,500–GALLON CONCRETE PRIMARY SEPTIC TREATMENT TANK, W/ CORRUGATED PVC LIDS/RISERS PROVIDED PREASSEMBLED BY THE MANUFACTURER, 2–CHAMBERED, SPECIFIED GAS & WATERTIGHT. VENT TO ROOF PER VPC.
2. JENSEN PRECAST MODEL JS1000 1,000–GALLON CONCRETE PRIMARY SEPTIC TREATMENT TANK, W/ CORRUGATED PVC LIDS/RISERS PROVIDED PREASSEMBLED BY THE MANUFACTURER, 2–CHAMBERED, SPECIFIED GAS & WATERTIGHT. VENT TO ROOF PER VPC.
3. SEPTITECH STAAR 1.0UV SECONDARY PROCESSOR HOUSED IN JENSEN PRECAST MODEL JS1500 CONCRETE TREATMENT TANK PROVIDED PREASSEMBLED BY THE MANUFACTURER W/ CUSTOM BAFFLE PENTETRATIONS, DUPLEX LOW HEAD DISCHARGE PUMPS, INTEGRATED UV DISINFECTION, SPECIFIED GAS & WATERTIGHT, VENT TO ROOF PER VPC.
4. SEPTITECH TELEMETRY CONTROL PANEL W/ DUPLEX EFFLUENT PUMPS CONTROL OPTION. REQUIRES DEDICATED PHONE LINE, OR I.P. ADDRESS, AND POWER TO PANEL.
5. (P) GRAVITY CLEANOUT TO GRADE. CONSTRUCT EVERY 100' OF DRAINAGE PIPE, PER VPC.
6. (P) PRESSURE CLEANOUT TO GRADE. CONSTRUCT EVERY 100' OF DRAINAGE PIPE, PER VPC.
7. PRESSURE TO GRAVITY CLEANOUT.
8. JENSEN PRECAST MODEL D5 DISTRIBUTION BOX. NUMBER OF OUTLETS PER PLAN.
9. TWO (2) (P) 5'ø X 29' BI PRESENT SEEPAGE PITS W/ 5–FT CAP DEPTHS.
10. TWO (2) (P) 5'ø X 29' BI FUTURE SEEPAGE PITS W/ 5–FT CAP DEPTHS.
11. 3"ø SCH 40 AIR VENT TO ROOF PER VPC.
12. AIR VENT INTAKE.

2 ONSITE WASTEWATER SYSTEM KEYNOTES

Scale: N.T.S.

TOTAL BEDROOMS:	7
TOTAL DRAINAGE FIXTURE UNITS (DFU):	81
PEAK DESIGN DAILY FLOWRATE (GPD):	1,200
AVERAGE DESIGN DAILY FLOWRATE (GPD):	600
STRENGTH OF SEPTIC TANK EFFLUENT (mg/L BOD):	≤200
MIN SEPTIC TANK CAPACITY (VPC APPENDIX H–2): (BASED UPON BEDROOM COUNT ONLY)	1,650–GAL
MIN SEPTIC TANK CAPACITY (VPC APPENDIX H–2): (BASED UPON DFU COUNT ONLY)	3,000–GAL
MIN SEEPAGE PIT REQUIRED CAPACITY (PRESENT & FUTURE): (BASED UPON OVERALL BEDROOM COUNT)	2,650–GAL
MIN SEEPAGE PIT REQUIRED CAPACITY (PRESENT & FUTURE): (BASED UPON OVERALL DFU COUNT)	3,000–GAL

EFFLUENT DISPERSAL

MEASURED ABSORPTION RATE:	(11.9 GPD/SF)
(P) DESIGN ABS. RATE PRESENT:	P–1 = 2,278 GPD/5'ø PIT (5.0 GPD/SF) P–2 = 2,278 GPD/5'ø PIT (5.0 GPD/SF) TOTAL = 4,555 GPD/(2–5'ø PIT)
(P) DESIGN ABS. RATE FUTURE:	F–1 = 2,278 GPD/5'ø PIT (5.0 GPD/SF) F–2 = 2,278 GPD/5'ø PIT (5.0 GPD/SF) TOTAL = 4,555 GPD/(2–5'ø PIT)

(EPD CONSULTANTS, INC. 9/12/18 PIT PERFORMANCE TEST REPORT)

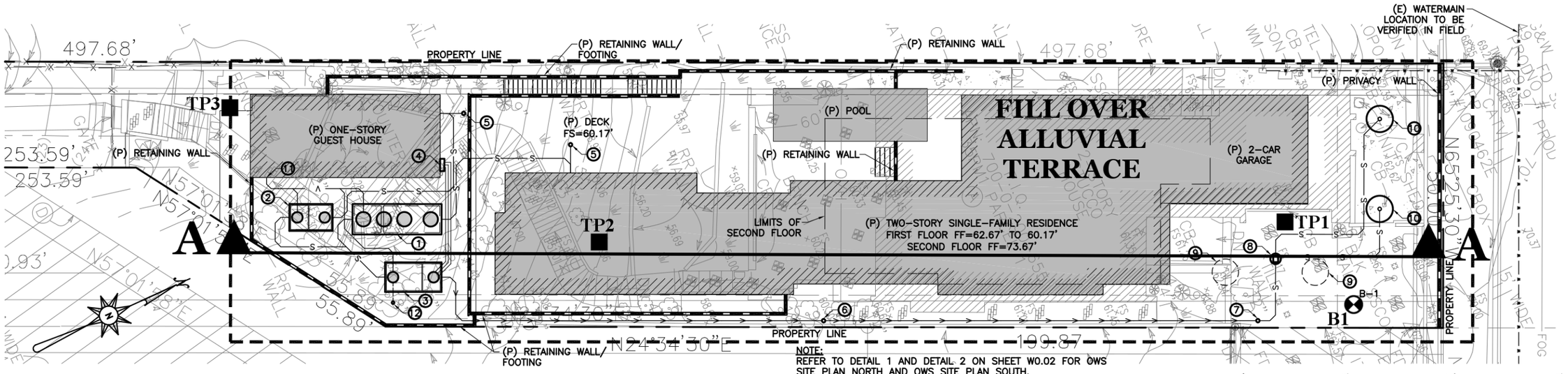
(P) PRESENT SEEPAGE PITS: 2 TOTAL (5'ø X 29' BI PIT W/ 5' CAP FROM EG)

(P) FUTURE SEEPAGE PITS: 2 TOTAL (5'ø X 29' BI PIT W/ 5' CAP FROM EG)

PEAK DESIGN DISPERSAL LOADING RATE:	1.48 GPD/SF
AVERAGE DESIGN DISPERSAL LOADING RATE:	0.74 GPD/SF

3 ONSITE WASTEWATER SYSTEM CALCULATIONS

Scale: N.T.S.



4 ONSITE WASTEWATER SYSTEM OVERALL SITE PLAN

Scale: 1"=20'

GEOLOGIC MAP

TP3 ■ LOCATION AND NUMBER OF HAND-DUG TEST PITS

B1 ⊗ LOCATION AND NUMBER OF BORINGS

PRELIMINARY - NOT FOR CONSTRUCTION

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REGISTERED PROFESSIONAL ENGINEER
KEVIN L. POFFENBARGER
Exp 06–30–20
No. 69089
CIVIL
STATE OF CALIFORNIA

▽ NO.	REVISIONS:	DATE:	BY:

ADDRESS:

APN 700-0-020-655
41700 PACIFIC COAST HIGHWAY
MALIBU, VENTURA COUNTY, CA 90265

SHEET TITLE: ONSITE WASTEWATER SYSTEM (OWS) SITE PLAN

PROJECT: 41700 PACIFIC COAST HIGHWAY

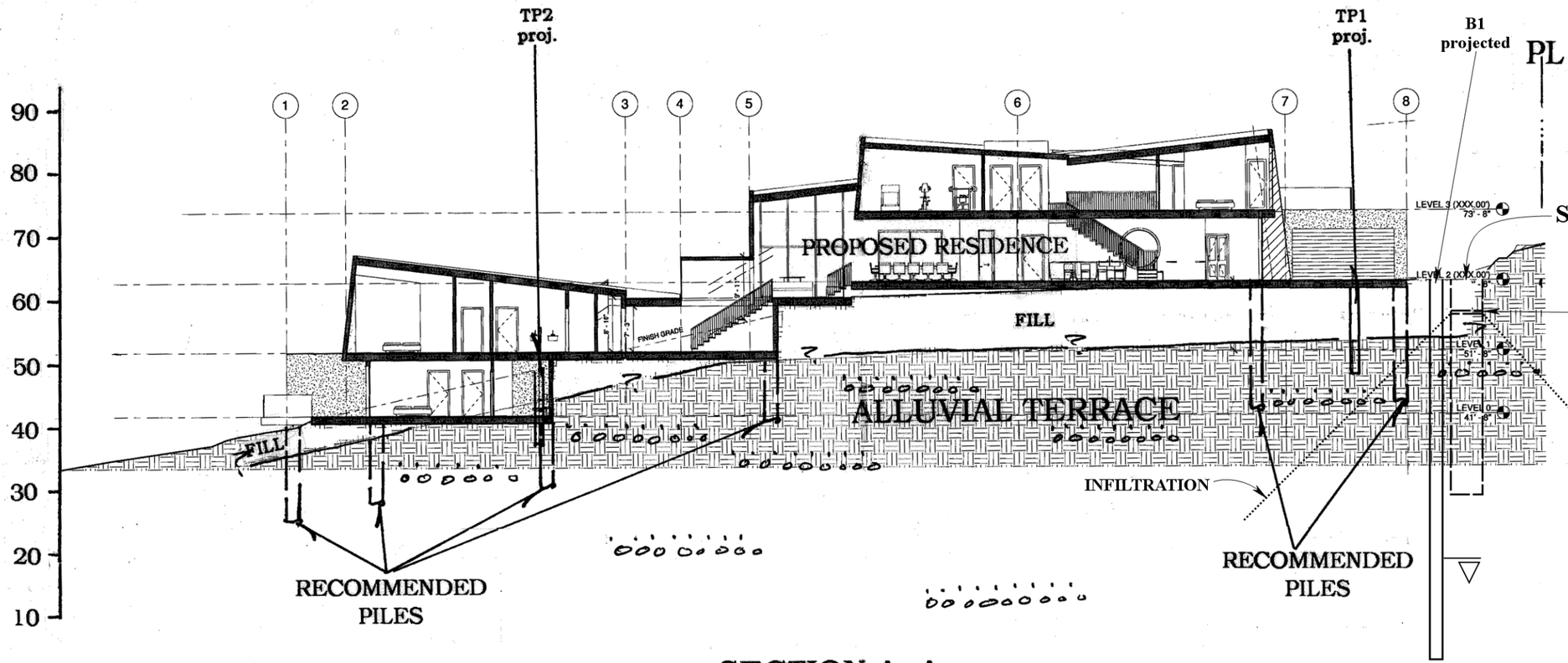
DATE	SCALE	DRAWN BY
9/13/18	AS SHOWN	WHA

PROJECT NO. W464

DRAWING NO. W0.01

SHEET 2 OF 3 SHEETS

Sep 2018 Jain **SG 8812-W**



SCHICK GEOTECHNICAL, INC.

Geology and Soils Engineering

SECTION A–A

REVISED
SEP 2018

DATE: SEP 2015
SCALE: 1"=20'
JOB: JAIN

SG 8812–W

ATTACHMENT 9 - WORKS CITED

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