**COUNTY OF SAN MATEO**
**PLANNING AND BUILDING DEPARTMENT**

**DATE:** March 6, 2025

**TO:** Zoning Hearing Officer

**FROM:** Planning Staff

**SUBJECT:** Consideration of a Coastal Development Permit (CDP) and Design Review Permit, pursuant to Sections 6328.4 and 6565.3, respectively, of the San Mateo County Zoning Regulations, to establish a kayak club on a legal 3,893 sq. ft. lot located on West Point Avenue in the unincorporated Princeton area of San Mateo County. The project includes a 584-square-foot portable modular kayak club office and storage unit with an 80 sq. ft. deck and ADA compliant entrance ramp, two onsite parking spaces, and 4-ft. tall perimeter wood fencing. The CDP is appealable to the California Coastal Commission.

County File Number: PLN2019-00386 (Seaside View, LLC/Huo)

## PROPOSAL

The applicant is seeking a Coastal Development Permit and Design Review Permit to allow the operation of a kayak club facility on an undeveloped substandard sized 3,893 sq. ft. parcel located on the east side of West Point Avenue in Princeton. The club facility will include a 584-sq.-ft. portable modular unit that will include space for office use, changing/restroom, club members, break/kitchenette area, and storage loft space. An 80 sq. ft. deck is attached to the southern end of the unit and an ADA compliant entrance ramp will be provided for primary access into the unit. An 80 sq. ft. freestanding wood kiosk, approximately 10 ft. in height is also proposed onsite for miscellaneous use for club members and/or kayak storage. Two parking spaces will be provided onsite. A water mainline extension of approximately 50 ft. along West Point Avenue is necessary to serve the project. Additionally, the applicant proposes to maintain the 4-ft. tall wood fencing installed along the site perimeter.

## RECOMMENDATION

That the Zoning Hearing Officer approve the Coastal Development Permit and Design Review Permit, County File Number PLN2019-00386, by making the required findings and adopting the recommended conditions of approval in Attachment A.

## BACKGROUND

Report Prepared By: Summer Burlison, Project Planner; sburlison@smcgov.org

Applicant: Kenneth Huo, Palo Alto Architects

Owner: Seaside View, LLC

Public Notification: Ten-day advanced notification for the hearing was mailed to property owners within 300 feet of the project parcel and a notice for the hearing posted in a newspaper (San Mateo County Times) of general public circulation on February 22, 2025.

Location: West Point Avenue, Princeton

APN: 047-034-160

Size: 3,893 sq. ft.

Parcel Legality: A Certificate of Compliance (Type A) confirming parcel legality was recorded on February 11, 2025 (Document No. 2025-005923).

Existing Zoning: W/DR/CD (Waterfront/Design Review/Coastal Development)

General Plan Designation: General Industrial

Local Coastal Plan Designation: Industrial

Sphere-of-Influence: Half Moon Bay

Existing Land Use: Undeveloped; the proposed portable modular unit has been placed on the lot.

Water Supply: Coastside County Water District. A water mainline extension of approximately 50 ft. is necessary. As a marine-related use, the proposed kayak club facility qualifies for priority water connection. See staff's discussion in Section A.1.c. (*Water Supply*).

Sewage Disposal: Granada Community Services District; the District has confirmed they can serve the proposed project.

Flood Zone: Flood Zone X (area of minimal flood hazard) and Flood Zone VE (special flood hazard area), Community Panel 06081C0138F, effective August 2, 2017.

Environmental Evaluation: The project is categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the location of new structures in an urbanized area with public utilities where the total building square footage will not exceed 2,500 sq. ft. and no hazardous substances are involved.

Setting: The project site is a flat triangular shaped bluff property along West Point Avenue and the Princeton shoreline. Adjacent parcels to the north and east are developed with three-story mixed-use developments. South of the project parcel is the Princeton beach, and west (across West Point Avenue) is a non-conforming two-story single-family residence. The site is currently being used to store the portable modular unit for the operation of the proposed kayak club.

Chronology:

| Date | | Action |
|---|---|---|
| September 23, 2019 | - | Coastal Development Permit application submitted to construct a new 3-story, 2,799 sq. ft. kayak club building with a parking exception to waive required onsite parking. Application deemed incomplete. |
| January 25, 2022 | - | Revised scope submitted for a reduced 384-sq. ft. portable modular unit with a 200-sq. ft. storage loft space to accommodate the proposed kayak club, and two onsite parking spaces. |
| January 10, 2025 | - | Application deemed complete. |
| March 6, 2025 | - | Zoning Hearing Officer public hearing. |

## DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

Staff has determined that the project complies with the applicable General Plan Policies, including:

a. Visual Quality

Policy 4.15 (*Appearance of New Development*), Policy 4.17 (*Protections for Coastal Features*), and Policy 4.36 (*Urban Area Design Concept*) seek to regulate coastal development to promote and enhance good design and site relationships, protect natural

landscape features and visual quality, and ensure new development contributes to the orderly and harmonious development of the locality.

The project parcel is located on the east side of West Point Avenue at its intersection with the Princeton beach shoreline. Surrounding developments immediately adjacent (north and east) to the project parcel include three-story mixed-use developments with brown scalloped shingle and tan and blue stucco siding. The proposed modular unit is a one to one-and-a-half story brown vertical wood sided portable modular unit with brown cylindrical downward lights. The unit's location onsite nearest the interior side property line and abutting the neighboring three-story mixed-use building minimizes its visual impacts to the area. A 4-foot tall wood privacy fence has been installed along a majority of the western bluff edge of the property before transitioning to black wire grid panels along the southern portion of the bluff facing the harbor. A small 8-foot x 10-foot wood outdoor kiosk will be used for miscellaneous club member use and storage. The proposed structures and use are compatible with the existing surrounding development in the area.

b. Urban Land Use

Policy 8.24 (*Land Use Compatibility*) and the General Development Standards Policies, including Policy 8.35 (*Zoning Regulations*), Policy 8.36 (*Uses*), Policy 8.39 (*Height, Bulk, and Setbacks*), and Policy 8.40 (*Parking Requirements*) seek to ensure development and uses are consistent with zoning and compatible with adjacent land uses, ensure the size and scale of development is compatible with parcel size, and parking needs are accommodated while discouraging over-reliance on auto travel to the exclusion of other travel modes.

The proposed kayak club facility is located on a parcel in the Waterfront (W) Zoning District of Princeton. The W District prioritizes the location of marine related trades and services that support commercial fishing and water recreation uses. Immediate adjacent land uses consist of mixed-use maritime and caretaker unit uses. The project includes a 384-sq. ft. portable modular office/storage unit on a substandard 3,893-sq. ft. lot with two onsite parking spaces to accommodate the use with the remaining parcel area to remain as outdoor open space area for picnic tables and kayak staging area for club members. It is anticipated that a majority of the club members will be local and therefore would primarily bicycle or walk to the facility. The club will also provide members the option to use the club's kayak equipment that is stored at the premises, making alternative modes of travel more convenient. The project location is appropriate for the

proposed use given the parcel's proximity to the shoreline and water access.

c. Water Supply and Wastewater

Policy 10.7 (*Park and Recreation Water Supplies*) and Policy 10.10 (*Water Suppliers in Urban Areas*) encourage coastal recreation and visitor serving facilities to provide drinking water and consider water systems as the preferred method of water supply.

The applicant proposes to connect to public water supplied by the Coastside County Water District (CCWD). The CCWD has confirmed that there are no water service connections to the project parcel and that the nearest existing available water main running down West Point Avenue ends approximately 50 feet north of the parcel. The applicant will extend the water mainline to serve the project. As a marine-related use, the proposed kayak club facility qualifies for priority water connection. Under a priority water connection and mainline extension, CCWD will be able to serve the project. Conditions of approval from CCWD have been included in Attachment A of the staff report.

Policy 11.5 (*Wastewater Management in Urban Areas*) considers sewerage systems as the appropriate method of wastewater management in urban areas.

The applicant proposes to connect to public sewer supplied by the Granada Community Services District (GCSD) for the modular office unit restroom. GCSD has confirmed a sewer mainline is available to serve the proposed project.

d. Natural Hazards

Policy 15.20 (*Review Criteria for Locating Development in Geotechnical Hazard Areas*) allows development in geotechnically hazardous areas when there is no alternative building site and when appropriate structural design measures are incorporated into the project to ensure safety and reduce hazardous conditions.

The project parcel is a substandard sized lot located on the west side of Princeton along the Princeton shoreline. As historically evidenced, the lots abutting the Princeton shoreline are subject to coastal erosion and this western side of Princeton is the most vulnerable to sea level rise according to sea level rise projections modeled by Our Coast Our Future. These hazards are considered in the project proposal through the scale and design of the proposed low-intensity development. The

proposed improvements consist of relatively small structures that are portable and easy to remove should hazard risks from erosion and sea level rise increase over time. The proposed project will allow for the property to be utilized for low-intensity supportive water recreation activity in the meantime.

e. Man-Made Hazards

Policy 16.41 (*Regulate Land Uses to Assure Airport Safety*) regulates land uses surrounding airports to assure airport safety.

According to the City/County Association of Governments of San Mateo County (C/CAG) Airport Land Use Compatibility Plan (ALUCP) for the Half Moon Bay Airport, the project site is located in the Airport Influence Area (Runway Safety Zone 7). The Airport Influence Area does not prohibit club facilities, as proposed, or require any special development restrictions for the proposed project.

2. Conformance with the Local Coastal Program

Staff has determined that the project complies with all applicable Local Coastal Program (LCP) policies, including:

a. Locating and Planning New Development

Policy 1.36 (*Half Moon Bay Airport Influence Area Requirements*) requires development within the Half Moon Bay Airport Influence Area to comply with Federal Aviation Administration standards and criteria regarding safety, flashing lights, reflective material, and land uses that minimize airplane safety hazards.

The project will comply with the applicable runway safety zone standards of the Half Moon Bay ALUCP, see staff's discussion in Section A.1.e. (*Man-Made Hazards*). No flashing lights or reflective materials are proposed and the proposed structures are no more than one-and-a-half stories in height.

b. Visual Resources

Policy 8.4.b. (*Cliffs and Bluffs*) seeks to set back bluff top development from the bluff edge sufficiently far to ensure it is not visibly obtrusive when viewed from the shoreline except in highly developed areas where adjoining development is nearer the bluff edge.

The portable office unit is located approximately 5 feet from the bluff edge at its nearest point (being an external deck) and approximately 5 feet from the interior side property line. The neighboring three-story building is located at this common interior side property line and protrudes closer to the bluff edge than the proposed modular unit. The proposed one-and-a-half story modular unit blends into the existing surrounding development and is not visibly obtrusive.

Policy 8.12 (*General Regulation*s) applies Section 6565.17 (*Design Review Districts*) of the Zoning Regulations and the design criteria set forth in the Community Design Manual for development in urban areas of the coastal zone, as discussed below:

Section 6565.17.A. requires proposed structures be situated to ensure adequate space for light and air to itself and adjacent properties.

The "W" Zoning District does not require any setbacks for development. Therefore, the adjacent developed lots to the north and east are built with three-story buildings on the common property lines to the subject parcel. The proposed unit is situated closest to the interior (east) side property line and will maintain a 5 feet setback from this common shared property line to allow space for light and air along this side. The unit's location onsite allows for ample light and air from all other sides.

Section 6565.17.I. requires structures be set back from the edge of bluffs and cliffs to protect views from scenic areas below.

The proposed structures are significantly smaller than adjacent neighboring development and are set back from the bluff edge and situated on the lot to blend into the adjacent larger buildings to maximize open space on the site and protect views from the shoreline.

Section 6565.17.K. requires varying architectural styles be made compatible through the use of similar materials and colors which blend with the natural setting and surrounding neighborhood.

The proposed development consists of simple rectangular shaped structures with low profile shed style roofs, which varies from neighboring development which includes three-story curved roof buildings. However, the proposed structures use natural colored wood siding to blend in with the harbor setting and surrounding developments in the area.

Section 6565.17.L. requires the design of structures be appropriate to the use of the property and in harmony with the shape, size and scale of adjacent buildings in the community.

The proposed development is relatively minor when compared to the surrounding three-story developments; however, is appropriately designed and sized for the use and the substandard-sized parcel. Proposed structures will cover 14 percent of the parcel, where 50 percent lot coverage is allowed under the "W" Zoning District regulations for substandard-sized parcels.

Additionally, Policy 8.13 (*Special Design Guidelines for Coastal Communities*) encourages building designs which reflect the nautical character of the harbor setting, are of wood or shingle siding, employ natural or sea colors and use pitched roofs.

The project proposes a 5-foot tall wood and open wire grid fence along the bluff edge. Exterior finishes on the modular unit and outdoor kiosk are of wood material with shed-style roofs. The wood color and material are compatible with surrounding development in the area.

c. Hazards

Policy 9.3 (*Regulation of Geologic Hazard Areas*), Policy 9.10 (*Geological Investigation of Building Sites*), Policy 9.11 (*Shoreline Development*), and Policy 9.12 (*Limiting Protective Shoreline Structures*) seek to regulate development in natural hazard areas, including coastal and beach erosion hazard areas (with the exception of coastal-dependent uses or public recreation facilities), and limit the need for shoreline protection. Additionally, the Hazards to Public Safety Criteria, Tsunami Inundation Area Criteria, and Slope Instability Area Criteria contained in Chapter 20A of the Zoning Ordinance seek to minimize or avoid risk to life and property by regulating the location of development relative to hazardous areas.

The project site is located on a low-lying coastal bluff of approximately 6 feet in height and in an area of low cliff stability due to coastal erosion pursuant to the Geotechnical Hazard Synthesis Maps and County LCP Hazards Map. The site is also in a tsunami hazard area. The bluff does not meet the specific definition of a "coastal bluff or cliff" pursuant to LCP Policy 9.7 due to it being below 10 feet in height and the proposed development and use are not strictly prohibited under Chapter 20A of the Zoning Ordinance.

A geotechnical study for the parcel, prepared by Sigma Prime, indicates cliff retreat of approximately 15 feet between 1969 to 1989 and no measurable retreat from 1989 to 2000. Photographic evidence shows a concrete wall along the southerly property line and extending eastward along the adjacent shoreline as early as 1972, with ice plant along the westerly property line. Riprap started to appear in front of the wall around 2013 and continued to build up to present day conditions, see Attachment F; the perimeter fence proposed under the subject property first appeared in 2016. As confirmed by Coastal Commission staff, the riprap is located in the Commission's permitting jurisdiction and as such, the applicant shall work with the Coastal Commission to remedy these unpermitted structures, which may require a permit from the Coastal Commission to legalize or removal; see condition of approval no. 21.

According to Sigma Prime, most of the property is fronted along West Point Avenue by a low bluff that is covered by ice plant (no riprap) and well-protected from wave action due to its favorable position relative to wave attack and a longer wave run-up on the fronting beach. Sigma Prime reports that water level at mean high tide does not reach the westerly property line and there has been no measurable retreat of this bluff since 1969 from a location approximately 40 feet north of the corner of Ocean Blvd. (non-existent paper street) and West Point Ave (being the southwest corner of the subject lot). Absent the unpermitted shoreline protection along the southerly property line, and factoring in sea level rise projections for the project area, this bluff property has an increased risk for erosion. Staff believes the proposed development which consists of relatively small mobile and/or easy to remove improvements to support a low intensity kayak club will allow use of the property consistent with the intent of the W Zoning District until such time physical threat from coastal hazards is evident to warrant removal, see conditions of approval nos. 17 – 20.

d. Shoreline Access

Policy 10.1 (*Permit Conditions for Shoreline Access*) and Policy 10.13 (*Commercial and Industrial Areas*) require the establishment and improvement of vertical shoreline access as a condition for obtaining a permit for commercial and industrial development along the shoreline.

The subject site is located between the ocean and Princeton Avenue, the first through road from the sea, and is therefore subject to shoreline access policies. The adjacent street-end of West Point Avenue is a relatively low bluff that currently provides vertical shoreline access to the Princeton shoreline. The County is working toward completing Plan Princeton, an effort to provide comprehensive

updates to the policies, plans, and standards regulating the Princeton area. Plan Princeton will include comprehensive strategy for shoreline management that integrates lateral and vertical access improvements to and along the Princeton shoreline. Therefore, staff is recommending project-specific compliance with this policy be deferred pursuant to condition of approval no. 4.

3. Conformance with the Zoning Regulations

a. Permitted Use

The project site is located within the Waterfront (W) Zoning District of Princeton, which prioritizes marine-related trades and services and permits marine-related clubs, as is proposed.

b. Development Standards

The proposed project complies with the applicable development standards of the Waterfront (W) Zoning District, as shown below.

| Standard | Allowed | Proposed |
|---|---|---|
| Maximum Building Height | 30 feet | 15 feet, 10 inches |
| Maximum Lot Coverage | 50% | 14% |

c. Parking

Pursuant to Chapter 3 (Parking) of the County Zoning Regulations, the proposed kayak club includes a modular unit for office and club member space and storage. Office space requires one parking space for each 200 sq. ft. of floor area. The modular building's floor area for purposes of parking regulations is 384 sq. ft., thus, requiring two on-site parking spaces. The project includes two on-site parking spaces on the north side of the modular unit. Additionally, the applicant expects that most club patrons will be local and will bicycle or walk to the facility.

d. Design Review

The project parcel is located in a Design Review overlay and therefore subject to design review. Non-residential development is required to comply with the design guidelines and criteria of the Community Design Manual and the LCP's Visual Resources Component. See Section A.2.b. (*Visual Resources Component*) for discussion on the project's compliance with these applicable design review standards.

B. MIDCOAST COMMUNITY COUNCIL

A project referral was sent to the Midcoast Community Council who stated they are in favor of the current proposal over the original proposal due to reduced building footprint and less required parking.

C. ENVIRONMENTAL REVIEW

The project is categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the location of limited numbers of new structures in an urbanized area with public utilities where the total building square footage will not exceed 2,500 sq. ft. and no hazardous substances are involved.

D. REVIEWING AGENCIES

Building Division
Civil Section
Geotechnical Section
Department of Public Works
Coastside Fire Protection District
Coastside County Water District
Granada Community Services District
California Coastal Commission
Midcoast Community Council

## ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Statement from Applicant
D. Plans
E. Geotechnical Report, by Sigma Prime
F. Site Photos

Attachment A

County of San Mateo
Planning and Building Department

## RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN2019-00386 Hearing Date: March 6, 2025

Prepared By: Summer Burlison, Project Planner For Adoption By: Zoning Hearing Officer

## RECOMMENDED FINDINGS

For Environmental Review:

1. That the project is categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the location of limited numbers of new structures in an urbanized area with public utilities where the total building square footage will not exceed 2,500 sq. ft. and no hazardous substances are involved.

For the Coastal Development Permit:

2. That the project, as described in the application and accompanying materials required by Section 6328.7 of the Zoning Regulations and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements, and standards of the San Mateo County Local Coastal Program (LCP), specifically in regard to Locating and Planning New Development, Visual Resources, Hazards, and Shoreline Access. The project complies with the applicable Half Moon Bay Airport runway safety zone criteria, the development blends in with existing surrounding development and is not visibly obtrusive, and the project consists of relatively small mobile and/or easy to remove improvements and will allow use of the property until physical threat from coastal hazards is evident to warrant removal.

3. That the project is located between the nearest public road (Princeton Avenue) and the sea; thus, is subject to public access and public recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Section 30200 of the Public Resources Code). The adjacent street end of West Point Ave. is a relatively low bluff that currently provides vertical shoreline access to the Princeton shoreline. In the interest of the County developing a comprehensive strategy for shoreline management that integrates lateral and vertical access improvements to and along the Princeton shoreline, the County is deferring

vertical access improvements as part of the subject permit pursuant to condition of approval No. 4.

4. That the project conforms to the specific findings required by the policies of the San Mateo County LCP with regard to Locating and Planning New Development, Visual Resources, Hazards, and Shoreline Access as discussed in detail in the staff report dated March 6, 2025.

For the Design Review Permit:

5. That the project complies with the design guidelines and criteria of the Community Design Manual and the LCP's Visual Resources Component as the proposed development is compatible with surrounding development in the Princeton area and is appropriately scaled for the subject substandard-sized parcel.

## RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents, and plans described in this report and approved by the Zoning Hearing Officer on March 6, 2025. The Director of Planning and Building may approve minor revisions or modifications to the project if they are consistent with the intent of, and in substantial conformance with, this approval.

2. The Coastal Development Permit and Design Review Permit approvals shall be valid for five years from the date of final approval in which time a building permit shall be issued and a completed building inspection (to the satisfaction of the Building Inspector) shall have occurred within 180 days of its issuance. Any extension to these permits shall require submittal of a request for permit extension and payment of applicable extension fees, no less than 60 days prior to expiration.

3. Any change in use or intensity not already approved shall require an amendment to the Coastal Development Permit. An amendment requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

4. The property owner shall agree in writing to participate in an area-wide shoreline management and access plan for the Princeton shoreline. This agreement shall be submitted for Planning Division review prior to the issuance of a building permit and shall commit the current and/or future property owners to contributing their fair share of the cost of designing, permitting, constructing and/or maintaining the solution. This agreement shall be recorded as a deed restriction for the parcel.

5. These permit approvals do not authorize overnight use or stay on the property by any persons.

6. The approved facility is limited for use by club members only. No walk up/drop-in equipment rental is permitted under this approval without prior County authorization.

7. Fencing along the westerly and southerly property lines shall be limited to 4 feet in maximum height (from existing grade). The approved fencing material and colors shall be maintained as approved under the subject project. Any changes to colors and materials shall be subject to review and approval by the Director of Planning and Building prior to implementation. All fencing shall be maintained in good condition for the life of the use. Any damage to fencing shall be promptly repaired.

8. Any proposed on-site signage shall be submitted to the Planning and Building Department for review and approval prior to installation and may require the need for a building permit.

9. The applicant shall be responsible for ensuring that all garbage, debris, litter and/or solid waste generated from the proposed use is properly disposed of and picked up on a daily basis.

10. All exterior lighting shall be designed and located so as to confine direct rays to the subject property and prevent glare in the surrounding area. Any proposed exterior lighting shall be reviewed and approved by the Planning Division (design manufacturer's "cut sheets") prior to the issuance of a building permit and/or installation of such fixtures.

11. Any new utilities shall be located underground from the nearest existing pole. No new poles are permitted to be installed.

12. The approved use shall maintain compliance with the noise, odor, lighting, and vibration standards of the Waterfront Zoning District.

13. All activities related to the approved use shall be conducted in accordance with the County Noise Ordinance (San Mateo County Noise Ordinance, Title 4, Chapter 4.88). Noise levels produced by activities originating on the subject premises shall not exceed the levels established in the County Noise Ordinance and the performance standards of the Waterfront Zoning District.

14. The facility shall maintain on-site a bicycle parking area that provides space for a minimum of four standard-sized bicycles, which is double the number of required parking spaces.

15. The applicant/operator shall encourage members to carpool and/or use alternative modes of transportation to the project site. Information shall be made readily available on any club website and/or to members of the club with options for alternative modes of transportation to the facility, including public transit service. This information shall include, but not be limited to, a map of bus stops and public parking lots available in the area.

16. A minimum of two onsite parking spaces, 9 feet by 19 feet, shall be maintained free and clear and available for vehicle parking at all times.

17. The applicant shall remove or relocate, in part or in whole, the development authorized by this Coastal Development Permit (CDP), including, but not limited to, the portable modular unit, fencing, and gravel in the event that any government agency with legal jurisdiction issues a final order, not overturned through any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy or use due to coastal hazards and that there are no measures that could make the structures suitable for occupancy or use without the use of a shoreline protective device; or coastal hazards eliminate access for emergency vehicles, business operators, and/or guests to the site due to the degradation and eventual failure of West Point Avenue as a viable roadway. The County of San Mateo shall not be required to maintain access and/or utility infrastructure to serve the approved development in such circumstances. Development associated with removal or relocation of the modular unit or other development authorized by this CDP shall be subject to issuance of all necessary permits required under applicable regulations, and may require review by the County of San Mateo and/or the California Coastal Commission prior to any such activities. In the event that portions of the development fall into the ocean or the beach, or to the ground, before they are removed or relocated, the Permittee shall remove all recoverable debris associated with the development from such areas, and lawfully dispose of the material in an approved disposal site, all subject to the Director of Planning and Building's approval.

18. The Permittee assumes the risks to the Permittee and the properties that are the subject of this CDP of injury and damage from such hazards in connection with this permitted development; unconditionally waives any claim of damage or liability against the County of San Mateo, its officers, agents, and employees for injury or damage from such hazards; indemnifies and holds harmless the County, its officers, agents, and employees with respect to the County's approval of the CDP against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; accepts full responsibility for any adverse effects to property caused by the permitted project; acknowledges and agrees that the boundary between public land (tidelands) and private land may shift with rising seas, the structure may eventually be located on public trust lands, and the development approval does not permit encroachment onto public trust land; and that any future encroachment must be removed unless

the County determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and any future encroachment would also be subject to the State Lands Commission's (or other trustee agency's) leasing approval.

19. Disclosure documents related to any future marketing and/or sale of the property, including but not limited to marketing materials, sales contracts, and similar documents, shall notify potential buyers of the terms and conditions of this CDP. A copy of this CDP shall be provided in all real estate disclosures.

20. Prior to issuance of the building permit, the Permittee shall submit to the Director of Planning and Building for review and approval documentation demonstrating that the landowners have executed and recorded against the parcels governed by this CDP a deed restriction, in a form and content acceptable to the Director of Planning and Building: (1) indicating that, pursuant to this CDP, the County of San Mateo has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; (2) imposing the terms and conditions of this CDP as covenants, conditions and restrictions on the use and enjoyment of the property. The deed restriction shall include a legal description of all of the parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the subject property.

21. Within 60 days of this CDP final approval, the applicant shall work with the Coastal Commission to remedy the existing Coastal Act violations at the site, including the unpermitted riprap along the bluff face at the southern end of the project parcel within the Coastal Commissions retained permitting jurisdiction.

Civil/Drainage Section

22. Standard drainage review shall be required at the building permit stage. See the County's Drainage Manual, Chapter 5: https://www.smcgov.org/planning/drainage-manual.

Geotechnical Section

23. A Geotechnical Report shall be submitted with the building permit. The report shall be updated to the current adopted code.

Department of Public Works

24. Prior to the issuance of the building permit, the applicant shall submit a driveway "Plan and Profile" to the Department of Public Works showing the driveway access to the parcel complying with County Standards for driveway slopes (not to exceed 20 percent) and to County Standards for driveways (at the property line) being the same elevation as the center of the access roadway. When appropriate, as determined by the Department of Public Works, this plan and profile shall be prepared from elevations and alignment shown on the roadway improvement plans. The driveway plan shall also include and show specific provisions and details for both the existing and the proposed drainage patterns and drainage facilities.

25. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. The applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way. Any unpermitted work in the County right-of-way shall be permitted under an encroachment permit or removed.

26. Prior to the issuance of the building permit, the applicant will be required to provide payment of "roadway mitigation fees" based on the square footage (assessable space) of the proposed building per Ordinance No. 3277.

27. The applicant shall submit, for review and approval by the Department of Public Works and the appropriate Fire District, a plan and profile of both the existing and the proposed access from the nearest "publicly" maintained roadway to the proposed building site.

28. At the direction of the road inspector, the existing gravel driveway to the parcel shall be repaired and/or replaced with minimum 6-inch class II AB compacted to 95 percent or 2-inch AC over 6-inch class II AB.

29. Provide documentation of access easement for driveway encroachment onto the northern neighboring property or show its relocation on plans.

Coastside Fire Protection District

30. Address Numbers: Building identification shall be conspicuously posted and visible from the street. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON SITE). The letters/numerals for permanent address numbers shall be of 6-inch height with a minimum 1/2-inch stroke and of a color, which is contrasting with the background. Such letters/numerals shall be illuminated and facing the direction of access.

| Distance from Road | Address No. Size |
|---|---|
| 0-50 feet | 6-inch |
| 50-100 feet | 8-inch |
| 100-150 feet | 10-inch |
| 150 + feet | 12-inch with a corresponding increase in stroke width. |

31. Address numbers and directional signs may be required at the entrance to the driveway/access road, road forks, and intersections. When located on the street the numbers shall be visible from each direction of travel. This remote signage shall consist of a 6-inch by 18-inch green reflective metal sign with 3-inch reflective Numbers/Letters similar to Hy-Ko 911 or equivalent.

32. Lighting Layout – Provide the lighting layout. Show full dimensions of light fixtures.

33. An approved fire hydrant (**Clow 2065**) must be located within 500 feet measured by way of drivable access from the proposed project. The hydrant must have a minimum flow of 1,500 gallons per minute at 20-pounds-per-square-inch residual pressure for a minimum of 2 hours. If you have not already done so, please submit a site plan showing all underground piping to the San Mateo County Planning and Building Department for review and approval.

34. Exit Doors: Exit doors shall be of the pivoted type or side hinged swinging type. Exit doors shall swing in the direction of exit when serving an occupant load of 50 or more.

35. Exit Door Hardware: Exit door(s) shall be operable from the inside without the use of a key, special knowledge or effort. Exception: Main exit doors may be equipped with a keyed-locking device if there is a readily visible sign on or adjacent to the door stating “THIS DOOR TO REMAIN UNLOCKED WHENEVER THE BUILDING IS OCCUPIED”. The letters in the sign shall not be less than 1-inch in height.

36. Exit Illumination: Signs shall be internally or illuminated by two electric lamps or shall be of an approved self-luminous type.

37. Occupancy Load Sign: Any room having an occupant load of 50 or more where fixed seats are not installed, and which is used for classroom, assembly or similar purpose, shall have the capacity of the room posted in a conspicuous place.

38. As per Coastside Fire District Ordinance 2019-03, the roof covering of every new building or structure, and materials applied as part of a roof covering assembly, shall have a minimum fire rating of Class “B” or higher as defined in the current edition of the California Building Code.

39. Vegetation Management (LRA): The Coastside Fire District Ordinance 2019-03, the 2019 California Fire Code 304.1.2: A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. This is neither a requirement nor an authorization for the removal of living trees. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 ft. to adjacent trees when fully grown or at maturity. Remove that portion of any existing trees which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 ft. of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

40. Gates shall be a minimum of 2 feet wider than the access road/driveway they serve. Overhead gate structures shall have a minimum of 15 feet of vertical clearance. Locked gates shall be provided with a Knox Box or Knox Padlock. Electric gates shall have a Knox Key Switch. Electric gates shall automatically open during power failures. CFC 503.6, 506.

41. Emergency Building Access: The proposed project will require the installation of "Knox Boxes". These emergency key boxes are required when access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for life saving or fire-fighting purposes. The Chief will determine the location for the key box and provide an authorized order form. All security gate systems controlling vehicular access shall be equipped with a "Knox"; key operated emergency entry device. For application and instructions please email: cfpdfirmarshal@fire.ca.gov. If you need further assistance please contact Coastside Fire Protection District at 650-726-5213.

42. Fire Alarm System: This project is required to have installed an approved NFPA 72 Fire Alarm System throughout. The system is to monitor any flow through any required automatic fire sprinkler system, any fire sprinkler valve tamper and all heat and smoke detectors. The system will also include an exterior bell and interior horn/strobes, which are required to be wired to the alarm system and the flow switch for the fire sprinkler system. The FACP shall be protected with a smoke detector as per NFPA 72, Section 1-5.6 and a manual pull station. A wiring inspection is required to be conducted by the Fire District prior to covering walls and ceiling areas. All systems and components must be tested per manufacturer's specifications and NFPA 72. Battery backup shall meet or exceed requirements for amp-hour rating and must be tested as per manufacturer's specification and NFPA 72.

43. Fire Extinguishers: There must be at least one 2A10BC fire extinguisher for each 3,000 square feet, travel distance not to exceed 75 feet with at least one extinguisher per floor per Title 19, California Code of Regulations. Show location of extinguishers on plans.

44. Any solar equipment shall require a separate permit.

45. Provide penetration protection in all membranes through fire rated assemblies (i.e. dampers, fire caulking).

46 A Certificate of Completion for Fire Alarm is required at final.

47. A Certificate of Completion for Underground is required at final.

Coastside County Water District (CCWD)

48. The project shall comply with CCWD regulations on water service and metering.

49. CCWD shall perform inspections to verify compliance with all District regulations during construction and a final inspection when construction is completed.

50. The applicant shall purchase a priority water connection from the CCWD by paying the required storage and transmission fee.

51. A water pipeline extension on West Point Avenue is required for the new water service. The CCWD engineer shall evaluate and set requirements for the pipeline extension. Pipeline extensions can take up to six (6) months to design and receive approval.

52. The domestic and any required fire services shall be located on West Point Avenue. Pipelines shall be looped to form a grid network and dead ends shall be avoided wherever possible and at the direction of the CCWD engineer and construction standards.

53. Pipelines shall be installed within a PUE whenever possible. Easements require a minimum of a 20-foot-wide easement (10 feet on each side from the center of the pipeline) on private property.

54. CCWD infrastructure maps indicate that there may be water infrastructure on the project parcel that serves an adjacent property. A field investigation is required to confirm location(s) of existing water infrastructure to determine if any existing infrastructure needs to be relocated (including for 152 West Point Avenue). The applicant shall provide any recorded easements on the project parcel to CCWD for review.

Granada Community Services District (GCSD)

55. A sewer connection permit is required. The applicant shall submit the construction plans with a sewer permit application form, fees, and other items as required by the GCSD. The construction plans must show all sewer lines necessary for the development including sewer pipes (lateral and sewer mainline), appurtenances, manholes, cleanouts and sewer backflow devices, which must conform to GCSD standards. Upon GCSD receipt of the Building Division Pick-Up Notice and payment of the permit fees, the sewer connection permit shall be issued.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

# ATTACHMENT B

# San Mateo County

Vicinity Map


0.04 0 0.02 0.04 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere



1: 1,128

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

# ATTACHMENT C

The Seaside View Kayak Club is located in Princeton-By-the-Sea, Half Moon Bay, on the coast about 25 miles south of San Francisco. Its beautiful location on a protected harbor, coupled with cozy kayak clubhouse, sandy beach, breathtaking views and our club-owned fleets of kayaks, and paddlecraft is offered exclusively and tailored for club members.

Our target is to offer a smaller size, upscale, similar to 'Half Moon Bay Yacht Club (HMBYC)' type of club oriented but target for something similar to ' Mavericks PaddleSports' type of watercraft use, and readily available access to the harbor, surf and beyond.

We welcome club members from locally and from afar, they can bring their own watercraft or they can use the watercrafts provided to them on site.

After the most enjoyable watercraft activities, club members can come in for snacks, coffee, drinks, restrooms, and shower, and enjoy WiFi, rest on the deck and all kinds of clubhouse scheduled activities.

Club Hours Weekends & Holidays 9am - 6pm (or by appointment only for club members)

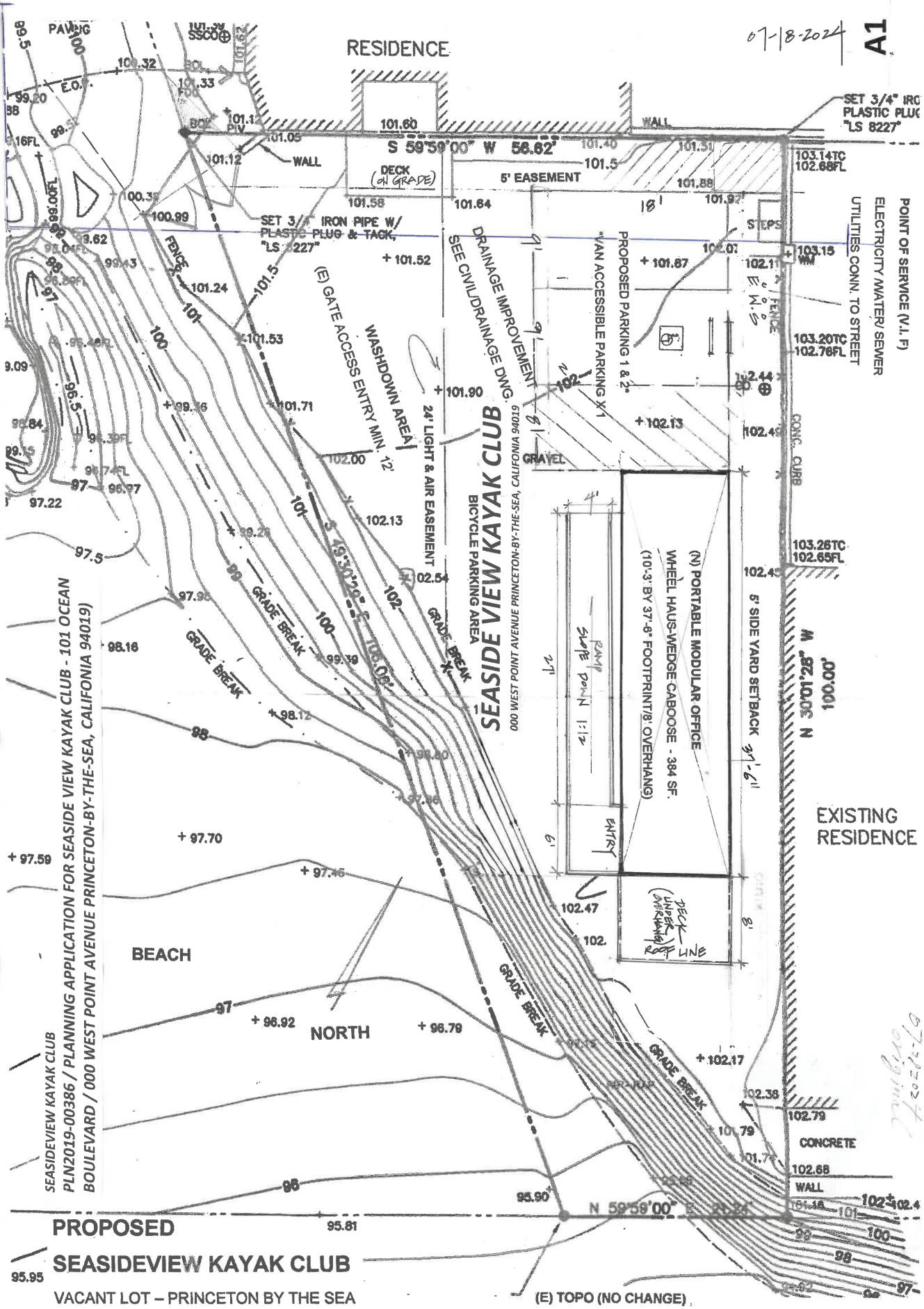
The Seaside View Kayak club members can come to enjoy on the calm waters of Pillar Point Harbor. For the more experienced kayaker paddlers, a quick paddle across the harbor takes you to the Pacific Ocean, where open ocean adventures and amazing surf await.

Our facility includes a wide selection of kayaks, paddleboards; direct access to the water; indoor and outdoor heated shower; changing rooms; and staff here to help with everything from wetsuit fittings to kayak and paddle lessons.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

# ATTACHMENT D

07-18-2024 A1




**PROPOSED**

**SEASIDEVIEW KAYAK CLUB**

VACANT LOT – PRINCETON BY THE SEA

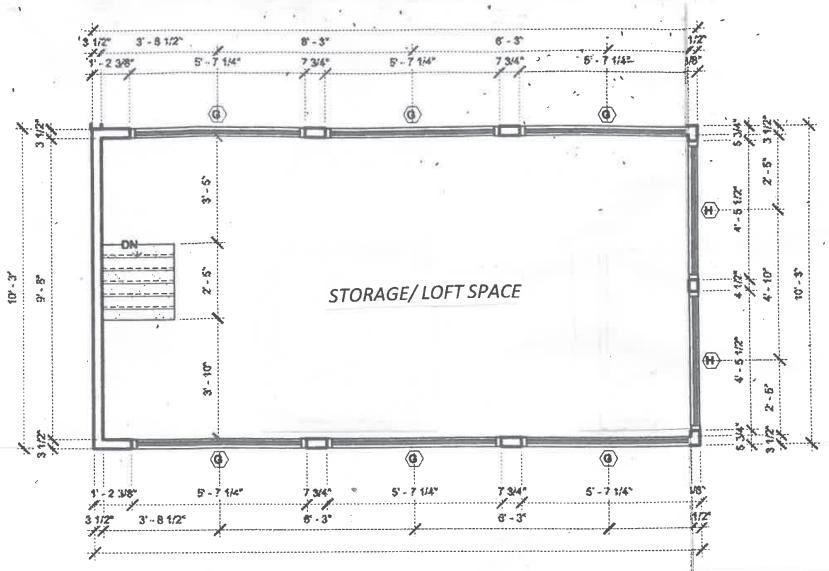
A.P.N. 047-034-160

LOT 24, BLOCK 3, 6 MAPS 32

(E) TOPO (NO CHANGE)

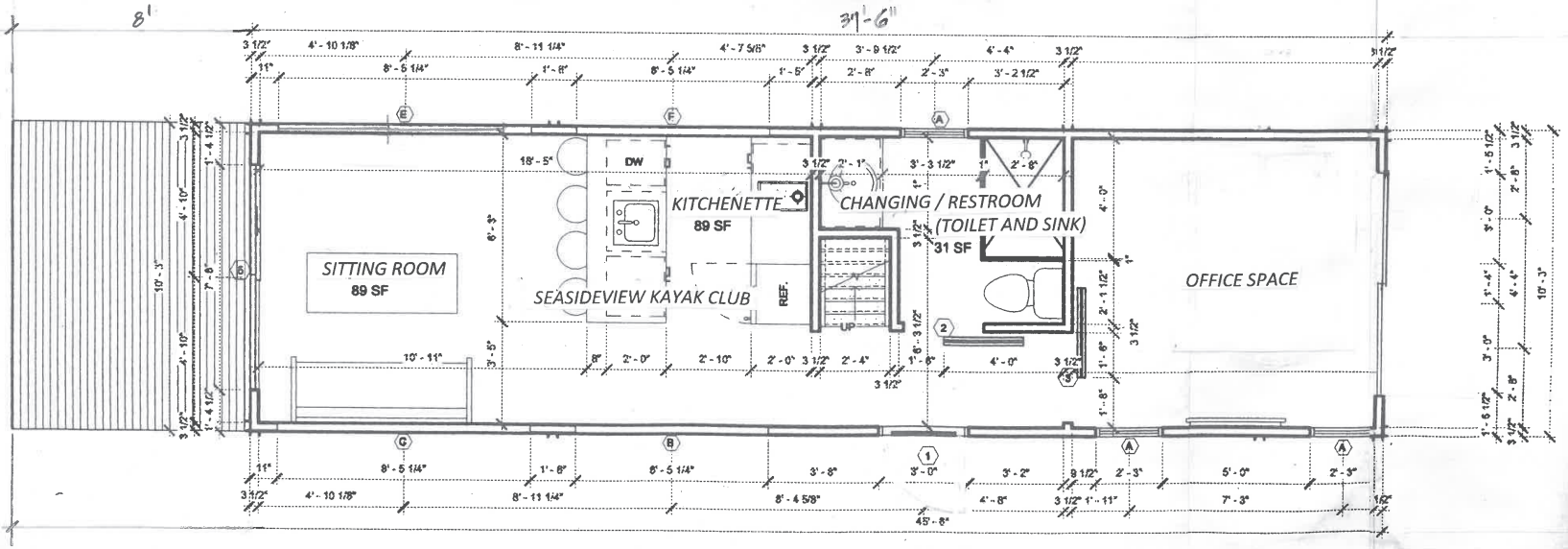
**SITE PLAN**

SCALE 1/8"=1'




PORTABLE MODULAR OFFICE BUILDING

PRE-FAB 10'-3" X 37'-6" (384 SQ. FT) WHEELHAUS / PARK MODEL RV



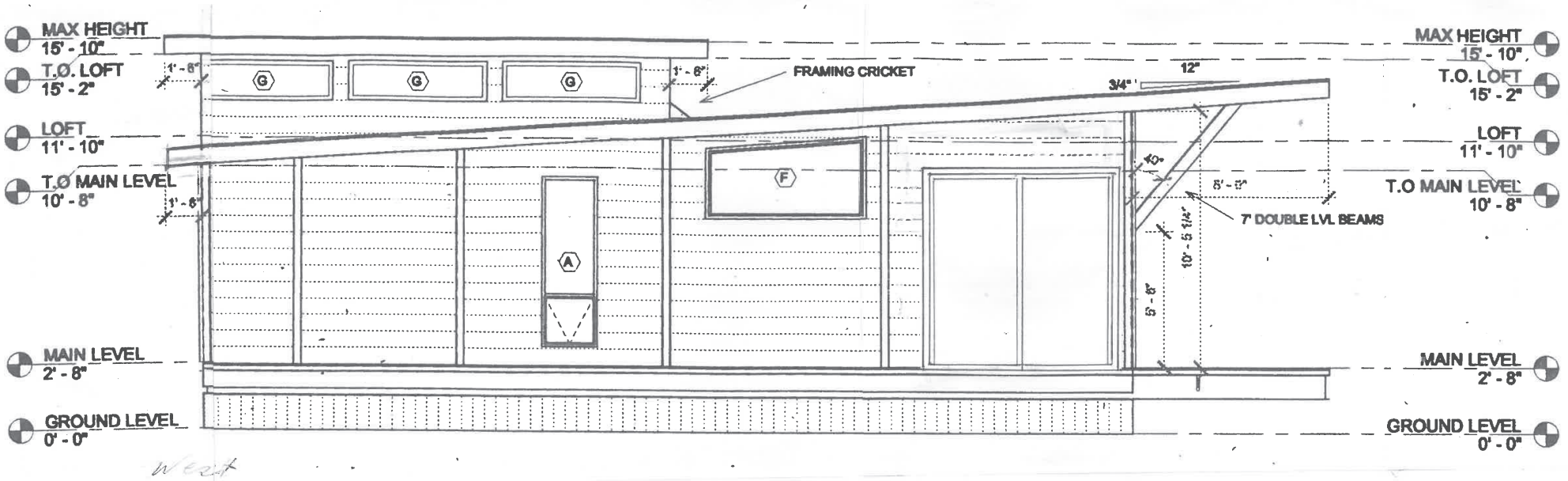

**FLOOR PLAN**

**1/4" =1'-0"**

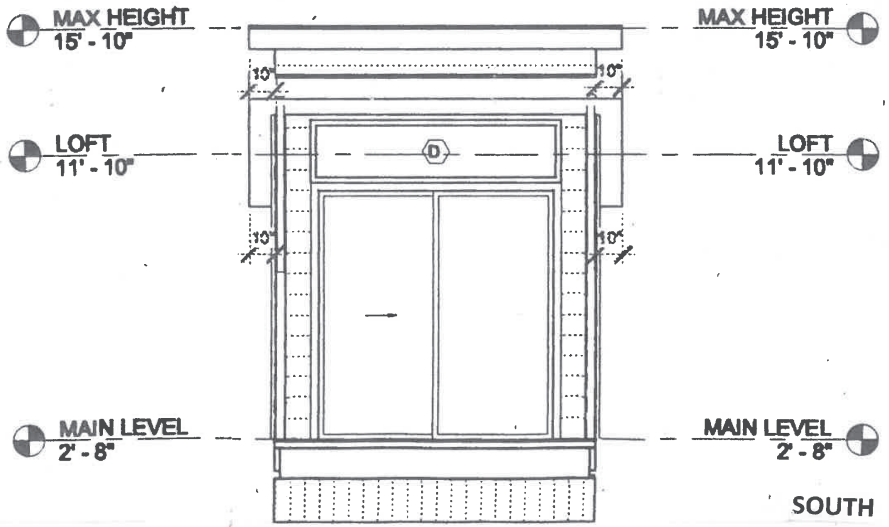
# SEASIDE VIEW KAYAK CLUB

*000 WEST POINT AVENUE PRINCETON-BY-THE-SEA, CALIFONIA 94019*

**A2**




WEST



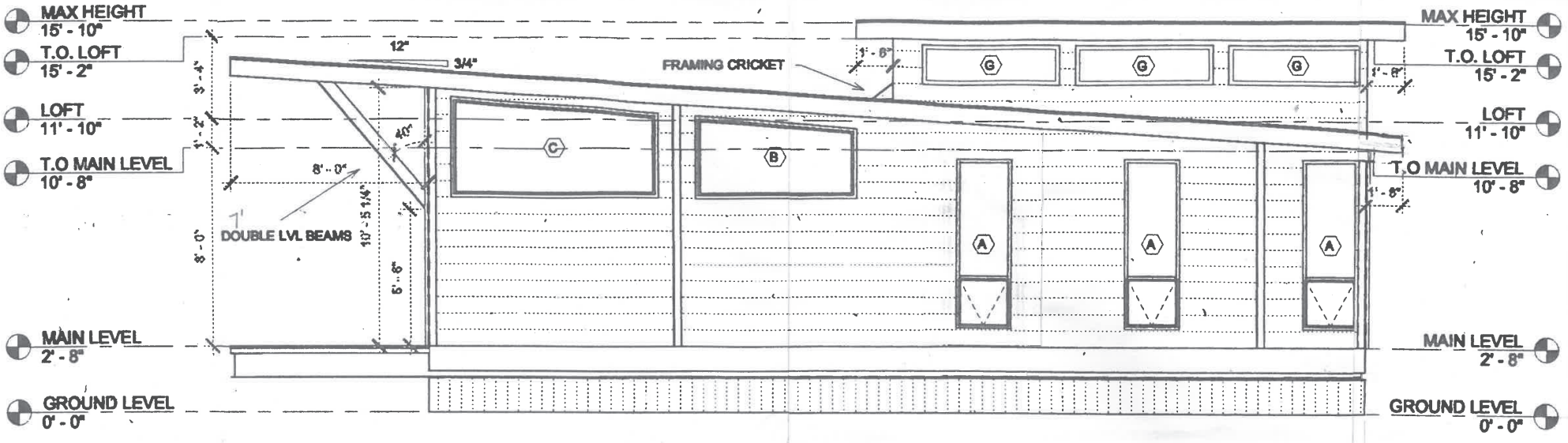

SOUTH

ELEVATIONS
1/4" =1'-0"

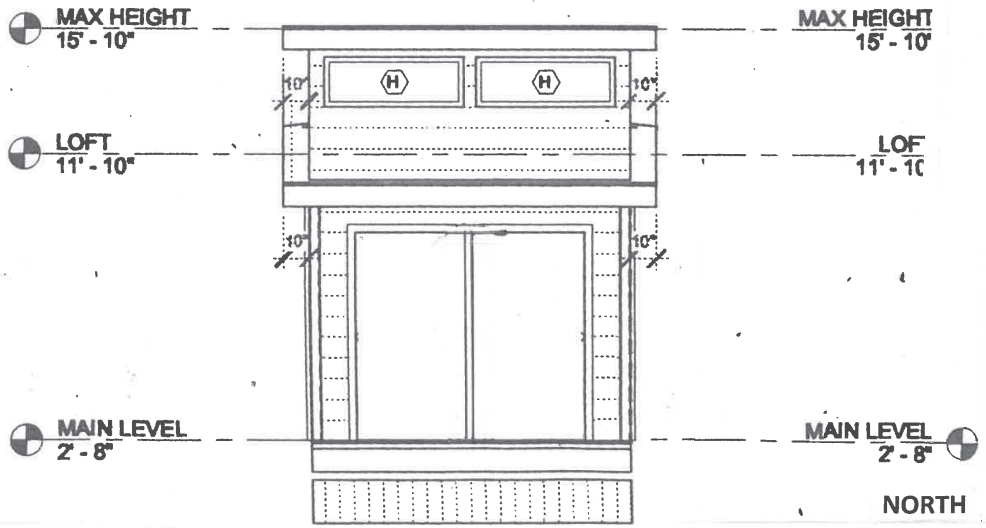
***SEASIDE VIEW KAYAK CLUB***

*000 WEST POINT AVENUE PRINCETON-BY-THE-SEA, CALIFONIA 94019*

A3




EAST




NORTH

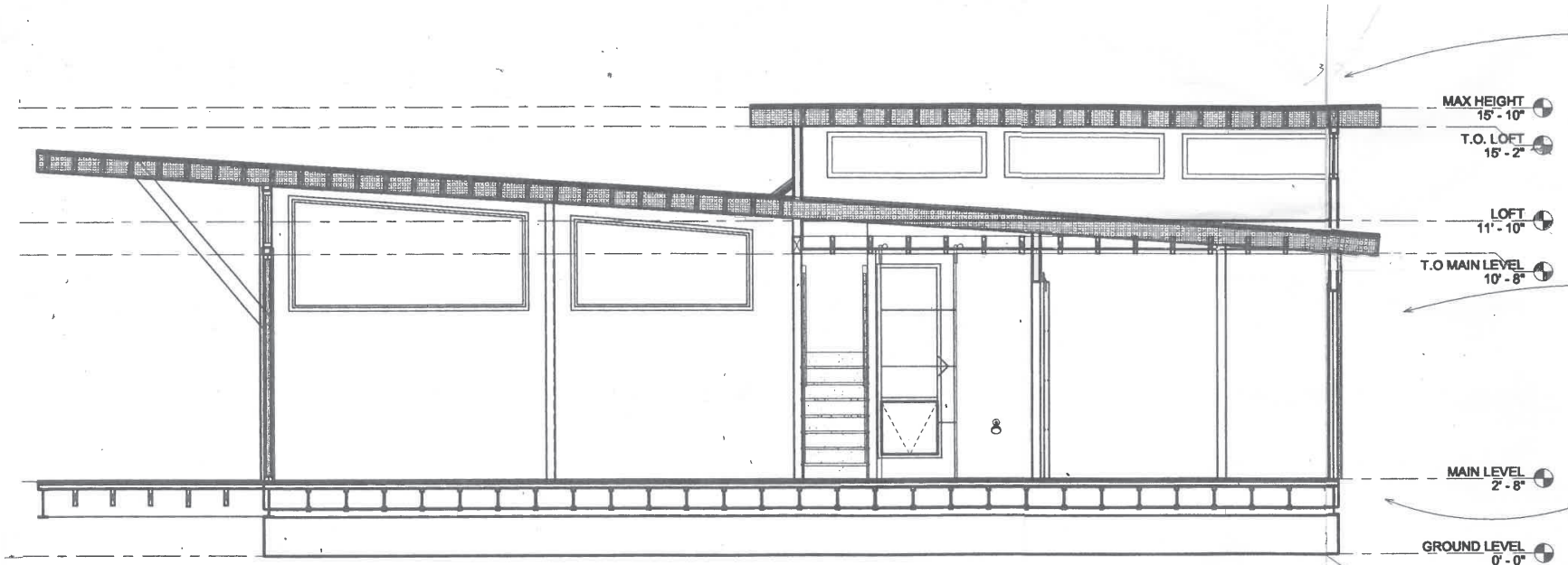
ELEVATIONS

1/4" =1'-0"

# *SEASIDE VIEW KAYAK CLUB*

*000 WEST POINT AVENUE PRINCETON-BY-THE-SEA, CALIFONIA 94019*

A4




**ROOF FRAMING:**
-membrane/duradeck roof
-3/4 OSB on
-2X6 joists @ 12" o.c.
-4X8 sistered to exterior
-with batt insulation
-and 1/2" gyp bd

**WALL FRAMING:**
-exterior finish (see elevs)
-1/2" OSB plywood
-2X4 Studs @ 16" OC
-batt insulation
-vapor barrier
-1/2" gyp bd

**FLOOR FRAMING:**
-3/4" T&G plywood on
-9 1/2" TJI @ 16" OC hung on
-2X4 plate
-with foam insulation

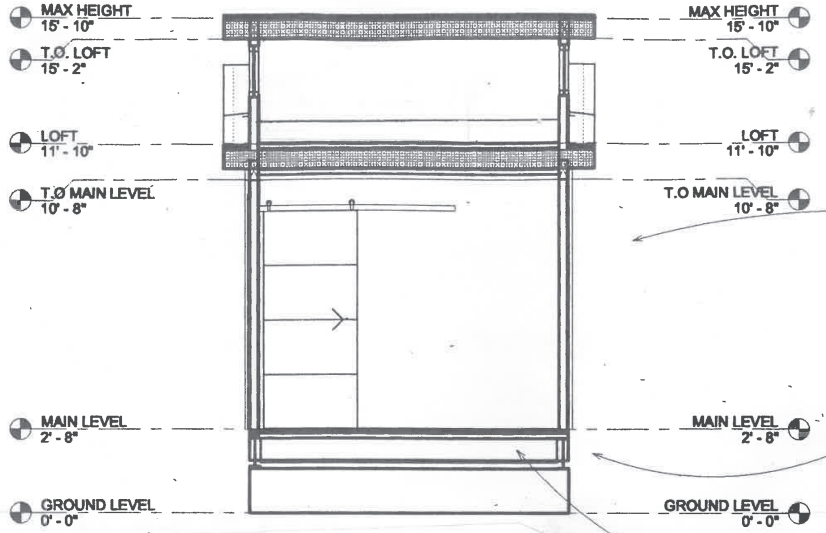
**SILL PLATE:**
-bolt 2X4 plate at 6" or less interval to chassis

1 **Section 1**
SCALE: 3/8" = 1'-0"

SECTION
1/4" =1'-0"

***SEASIDE VIEW KAYAK CLUB***
*000 WEST POINT AVENUE PRINCETON-BY-THE-SEA, CALIFONIA 94019*

A5

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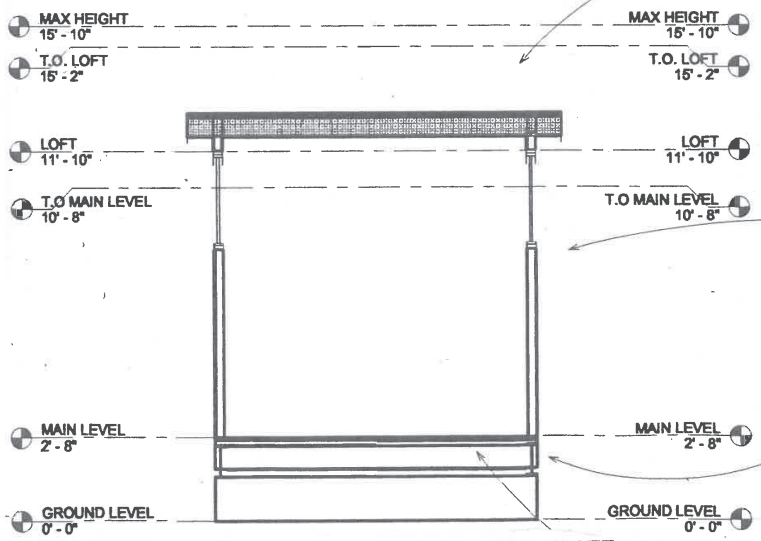


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**FLOOR FRAMING:**
-3/4" T&G plywood on
-9 1/2" TJI @ 16" OC hung on
-2X4 plate
-with foam insulation

**SILL PLATE:**
-bolt 2X4 plate at 6" or less interval to chassis

SECTION
1/4" =1'-0"

## SEASIDE VIEW KAYAK CLUB

000 WEST POINT AVENUE PRINCETON-BY-THE-SEA, CALIFONIA 94019

A6

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

# ATTACHMENT E

Sigma Prime Geosciences, Inc.
Effective Solutions

# GEOTECHNICAL STUDY

## LHUILLIER PROPERTY
## 101 OCEAN BOULEVARD
## PRINCETON, CALIFORNIA
## APN 047-034-160

PLN2019-00386



**PREPARED FOR:**
**JEAN HENRI LHUILLIER**

**PREPARED BY:**
**SIGMA PRIME GEOSCIENCES, INC.**
**332 PRINCETON AVENUE**
**HALF MOON BAY, CALIFORNIA 94019**

**AUGUST, 2019**

Sigma Prime Geosciences, Inc.
Effective Solutions

August 28, 2019

Jean Henri Lhuillier

Subject: Geotechnical Report: 101 Ocean Boulevard, Princeton, California (APN:047-034-160)
Sigma Prime Job No. 19-138

Dear Mr. Lhuillier:

As per your request, we have performed a geotechnical study for your proposed building at 101 Ocean Boulevard, Princeton, California. The accompanying report summarizes the results of our field study, laboratory testing, and engineering analyses, and presents geotechnical recommendations for the planned structure.

Thank you for the opportunity to work with you on this project. If you have any questions concerning our study, please call.

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.


332 Princeton Avenue, Half Moon Bay, CA 94019 (650) 728-3590 fax 728-3593

# GEOTECHNICAL STUDY
# 101 OCEAN BOULEVARD
# PRINCETON, CALIFORNIA
# APN 047-034-160

**PREPARED FOR:**
**JEAN HENRI LHUILLIER**

**PREPARED BY:**
**SIGMA PRIME GEOSCIENCES, INC.**
**332 PRINCETON AVENUE**
**HALF MOON BAY, CALIFORNIA 94019**

**AUGUST 28, 2019**

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# 1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed building at 101 Ocean Boulevard in Princeton, California, at the location shown in Figure 1. Note that Ocean Boulevard is no longer in existence, as the waters of the harbor have encroached inland since the road was established over 100 years ago. Access to the property will be from West Point Avenue or Princeton Avenue. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

## 1.1 PROJECT DESCRIPTION

We understand that you plan to construct a two story building at 101 Ocean Boulevard in Princeton. Figure 2 shows the approximate location of the building site. The building is expected to be of wood frame construction. Structural loads are expected to be relatively light as is typical for this type of construction.

## 1.2 SCOPE OF WORK

In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Geologic site reconnaissance;
- Subsurface study, including 2 soil borings at the site;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed structure.

## 2. FINDINGS

### 2.1 GENERAL

The site reconnaissance and subsurface study were performed on June 18, 2019. The subsurface study consisted of advancing 2 soil borings with continuous drive sampling. Borings B-1 and B-2 were advanced to a depths of 12 and 14.5 feet, respectively. The approximate locations of the borings are shown in Figure 2, Site Plan. The boring logs and the results of laboratory tests are attached in Appendix A.

### 2.2 SITE CONDITIONS

At the time of our study, the site was undeveloped. The lot is nearly level and mostly covered with gravel and weeds. The property is bordered by coastal bluffs on two sides, up to about 5 feet tall, protected with large rip-rap boulders.

### 2.3 REGIONAL AND LOCAL GEOLOGY

Based on Brabb et al (1998), the site vicinity is underlain by Pleistocene age older alluvial fan and stream terrace deposits. This unit is described as coarse grained, poorly consolidated sand, silt, and gravel.

### 2.4 SITE SUBSURFACE CONDITIONS

Based on the soil borings, the subsurface conditions at the site consist of 1.5 to 4 feet of loose silty sand fill over 2 inches to 2.5 feet of dune sand, over stiff clay or very stiff sandy clay. Boring B-2 encountered hard, partially cemented sand at a depth of 13 feet. The upper clay has very low plasticity, with a plasticity index of 5. The fill and dune sand are thin farthest away from the coastal bluff and thicken toward the bluff.

### 2.5 GROUNDWATER

Groundwater was not encountered in Boring B-1, but was first encountered in the sand at a depth of 13 feet in Boring B-2. The groundwater level rose to a depth of 8 feet after about an hour.

### 2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Gregorio-Seal Cove fault, located about 650 feet to the west. Other faults most likely to produce

significant seismic ground motions include the San Andreas, Hayward, Rodgers Creek, and Calaveras faults. Selected historical earthquakes in the area with an estimated magnitude greater than 6-1/4, are presented in Table 1 below.

**TABLE 1**
**HISTORICAL EARTHQUAKES**

| Date | Magnitude | Fault | Locale |
|---|---|---|---|
| June 10, 1836 | 6.5[1] | San Andreas | San Juan Bautista |
| June 1838 | 7.0[2] | San Andreas | Peninsula |
| October 8, 1865 | 6.3[2] | San Andreas | Santa Cruz Mountains |
| October 21, 1868 | 7.0[2] | Hayward | Berkeley Hills, San Leandro |
| April 18, 1906 | 7.9[3] | San Andreas | Golden Gate |
| July 1, 1911 | 6.6[4] | Calaveras | Diablo Range, East of San Jose |
| October 17, 1989 | 7.1[5] | San Andreas | Loma Prieta, Santa Cruz Mountains |

(1) Borchardt & Toppozada (1996)
(2) Toppozada et al (1981)
(3) Petersen (1996)
(4) Toppozada (1984)
(5) USGS (1989)

## 2.7 2016 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2016 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition D (stiff soil) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

**Table 2**
**CBC SEISMIC DESIGN PARAMETERS**

| $S_S$ | $S_1$ | $S_{MS}$ | $S_{M1}$ | $S_{DS}$ | $S_{D1}$ |
|---|---|---|---|---|---|
| 2.183 | 0.894 | 2.183 | null | 1.455 | null |

Because the $S_1$ value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values in the table above were obtained from a software program by the Structural Engineers Association of California which provides the values based on the latitude and longitude of the site and the Site Class Definition. The latitude and longitude were measured at 37.5023 and –122.4928, respectively, and were accurately obtained from Google Earth™.

## 3. CONCLUSIONS AND RECOMMENDATIONS

### 3.1 GENERAL

It is our opinion that, from a geotechnical standpoint, the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. Detailed recommendations are presented in the following sections of this report.

Because subsurface conditions may vary from those encountered at the location of our borings, and to observe that our recommendations are properly implemented, we recommend that we be retained to 1) review the project plans for conformance with our report recommendations and 2) observe and test the earthwork and foundation installation phases of construction.

### 3.2 GEOLOGIC HAZARDS

We reviewed the potential for geologic hazards to impact the site, considering the geologic setting, and the soils encountered during our investigation. The results of our review are presented below:

- Fault Rupture - The site is just east of the nearest Alquist-Priolo special studies area or zone where fault rupture is considered likely (California Division of Mines and Geology, 1974). Active faults are not believed to exist beneath the site, and the potential for fault rupture to occur at the site is low, in our opinion.

- Ground Shaking - The site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30 to 50 year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards.

- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the variable thickness of loose fill on the site, the likelihood of some damage to the structure from differential compaction is high.

- Slope Stability – The site and surrounding areas have very gentle topography with slopes of 1 percent or less. However, the property is

bordered by a coastal bluff on two sides. The bluff is up to 5 feet high and protected with large rip-rap boulders. The buried soil immediately behind the rip-rap is mostly loose fill. Given the relatively small height of the bluff and the rip-rap boulders, the stability, in terms of landslide potential, of the bluffs is high.

- Settlement - Total and differential settlements due to differential compaction is estimated to be 1-inch and 1/2-inch, respectively, based on Tokimatsu and Seed (1987). Our foundation recommendation will mitigate the potential settlement.

- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose, saturated silty sands were not encountered at the site and are not expected at depth. The groundwater table is present in a partially cemented and hard sand layer. Therefore, in our opinion, the likelihood structure damage due to liquefaction is low.

- Tsunami Inundation - The subject property lies is in an area designated as susceptible to tsunami inundation. The SAFFR (Science Application for Risk Reduction) Tsunami Scenario, shows a probable tsunami runup elevation of 7 meters or approximately 21 feet above sea level (NAVD 88), (Figure 7), for a water depth of about 8 feet. The water depth is estimated to be approximately 2.5 meters, or about 8 feet, per Figure 8. The subject property is at an elevation of approximately 13 feet above sea level (NAVD88). According to San Mateo County Zoning Regulations (January, 2018) any proposed residential floor height must be a minimum of 9 feet above ground level or an elevation of 22 feet.

### 3.2.1 Coastal Erosion

As discussed above, the property is flat and is bordered on the south and west by a 5-foot high sea cliff that is currently protected by riprap, as shown in Figure 3, which also shows the history of bluff retreat. Figures 4,5, and 6 show aerial views of the property in 1972, 2005, and 2018, respectively. In Figure 5, the property is indicated by the dirt lot just in front of the building under construction. Referring to Figure 5, the riprap extends back to the north, under some brown grass, and to the dark green area, which is a gentle slope of ice plant. The riprap ends at the ice plant. Figure 6 shows very little change since 2005.

We conducted a review of stereo pairs of aerial photographs from 1969 to 2000, with the intention of plotting the top of the sea cliff at various years. Based on the review of the aerial photographs, as shown on Figure 3, the sea cliff did retreat

perhaps as much as 28 feet between 1969 and 1989, but only in front of the adjacent property near Romeo Pier. In front of the subject property, the sea cliff appears to have retreated about 15 feet. There was no measurable retreat of the sea cliff from 1989 to 2000.

The abrupt halt in the retreat of the sea cliff along the short southerly property line was certainly a result of the placement of the concrete riprap and the presence of the concrete wall behind the riprap. As the aerial photograph from 1972 (Figure 4) shows, there was a wall at the back of the beach, probably made of poured concrete. The 1989 aerial photograph shows a wall at the same location. But there were also dunes and vegetation in front of this wall. The stereo pair of aerial photographs that we used to draw the line on Figure 3 indicated the top of the sea cliff at the south end of the dunes. Since 1969, the dunes have been washed away, resulting in the sea cliff retreat that we measured between 1969 and 1989. This is most likely due to the construction of the outer breakwater for the harbor, and the subsequent shutting off of the supply of beach sand. Before the breakwater, the sand traveled downcoast via littoral drift and came around Pillar Point to keep the beach supplied with sand. Now, there is less sand. This is apparent by comparing the photographs in Figures 4 and 5, although the photographs were probably not taken at equal tide levels. Around Romeo Pier and the adjacent shed, it is clear that there is much less sand on the beach in 2005.

Without the riprap, the low bluff along the southerly property line may be expected to erode into the property fairly rapidly. However, most of the subject property is fronted along West Point by a low bluff that is well-protected from wave action due to its favorable position relative to wave attack and a longer wave run-up on the sand. Water level at mean high tide does not reach the long bluff along the westerly property line. As Figure 3 shows, there has been no measurable retreat of the cliff even since 1969 from a location about 40 feet north of the corner of Ocean and West Point, under the ice plant.

The effect of the lower wave energy at the back of the property leads us to conclude that the proposed building itself should remain safe from any further coastal erosion for the next 50 years. In 30 years, there has been no measurable retreat of the sea cliff. Also, since the construction of the breakwater, the waves are relatively small in size, and less able to damage the exposed bluff.

## 3.3 EARTHWORK

### 3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including topsoil, roots, vegetation, designated utility lines, etc., should be cleared from building and driveway areas. The actual stripping depth required will depend on site usage prior to construction, and should

be established by the Contractor during construction. Conventional earthmoving equipment can be used for all earthwork.

### 3.3.2 Fills

There are no new fills planned for the site, except for utility trench fills. Compaction is discussed below

### 3.3.3 Compaction

Scarified surface soils should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1157-78 in loose lifts not exceeding 6 inches. All trench fills should be placed in loose lifts not exceeding 6 to 8 inches in height, and compacted to at least 92% of the maximum dry density, as determined by ASTM D1157-78.

### 3.3.4 Surface Drainage

The finish grades should be designed to drain surface water away from foundations and slab areas to suitable discharge points. For permeable surfaces, slopes of at least 5 percent within 10 feet of the structures are recommended. For impermeable surfaces, slopes of at least 2 percent within 10 feet of the structures are recommended. Ponding of water should not be allowed adjacent to the structure.

## 3.4 FOUNDATIONS

Because of the variable fill thickness and potential for settlement due to differential compaction, pier-and-grade-beam type of foundation is recommended. Piers should be drilled and cast-in-place, and be a minimum of 16 inches in diameter, with the minimum depth determined by the structural engineer.

Per CBC 2016 Section 1705.8, a representative of Sigma Prime shall conform to the following special inspection requirements:

1. Inspect drilling operations and maintain complete and accurate records for each element.
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.

The piers may gain support in skin friction acting along the sides of the piers. A skin friction of 500 pounds per square foot (psf) between the piers and the soil

should be used in design to calculate the allowable downward capacity. The uplift capacity of the piers may be based on a skin friction value of 350 psf acting below a depth of 2 feet. The skin friction value may be increased by 1/3 for seismic loads and wind loads. Because of the difficulty in cleaning the bottoms of the pier holes, end bearing should be neglected. However, the pier holes should be kept as clean as possible.

Drilled piers should have a center-to-center spacing of not less than three pier diameters. Our representative should be present during pier drilling operations to assure that piers holes are sufficiently deep and that pier holes are kept free of loose soil. Pier excavations should be poured as soon as practical after drilling. If there is water in the pier holes, it should be pumped out prior to pouring concrete, or the concrete should be tremied into the hole, thereby displacing the water. The concrete should not be allowed to free-fall more than 5 feet.

### 3.4.1 Lateral Loads

Resistance to lateral loads may be provided by passive pressure acting against the piers, neglecting the upper 2 feet of the pier, and acting across two pier diameters. We recommend that an equivalent fluid weight of 300 pcf be used to calculate the passive resistance against the upper 8 feet of the piers. No passive resistance should be considered in design below a depth of 8 feet.

### 3.4.2 Slabs-on-Grade

Slabs-on-grade should be constructed as free-standing slabs, structurally isolated from surrounding grade beams. We recommend that the slab-on-grade be underlain by at least 6 inches of non-expansive fill. The upper 4 inches of this fill should consist of ½- to ¾-inch clean crushed rock. Where floor wetness would be detrimental, a vapor barrier, such as Stego wrap or equivalent may be used.

## 3.5 CONSTRUCTION OBSERVATION AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.

## 4. LIMITATIONS

This report has been prepared for the exclusive use of the owner for specific application in developing geotechnical design criteria, for the currently planned mixed use building located at 101 Ocean Boulevard in Princeton, California (APN 047-034-160). We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of our investigation; the currently planned improvements; review of previous reports relevant to the site conditions; and laboratory results. In addition, it should be recognized that certain limitations are inherent in the evaluation of subsurface conditions, and that certain conditions may not be detected during an investigation of this type. Changes in the information or data gained from any of these sources could result in changes in our conclusions or recommendations. If such changes do occur, we should be advised so that we can review our report in light of those changes.

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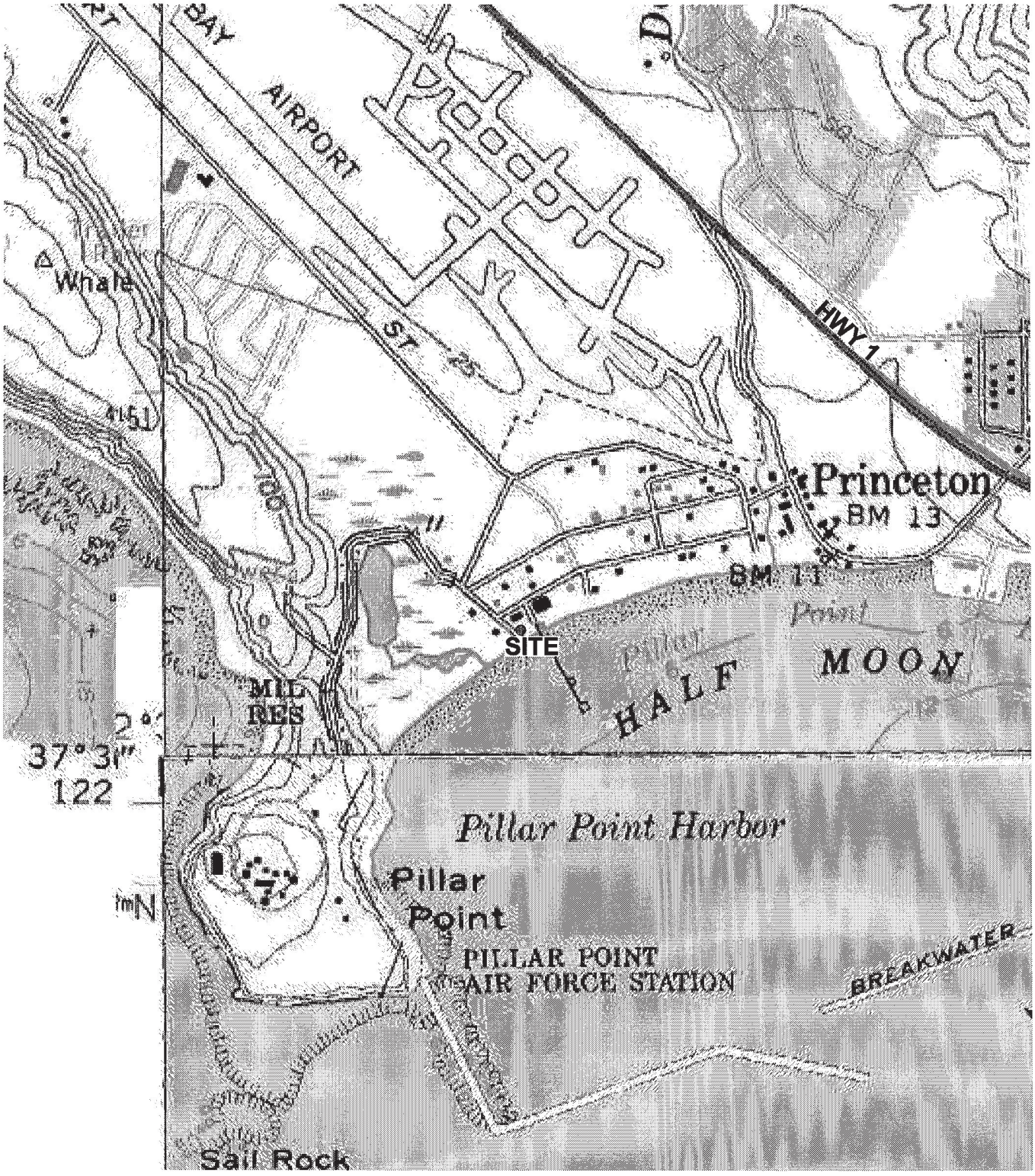
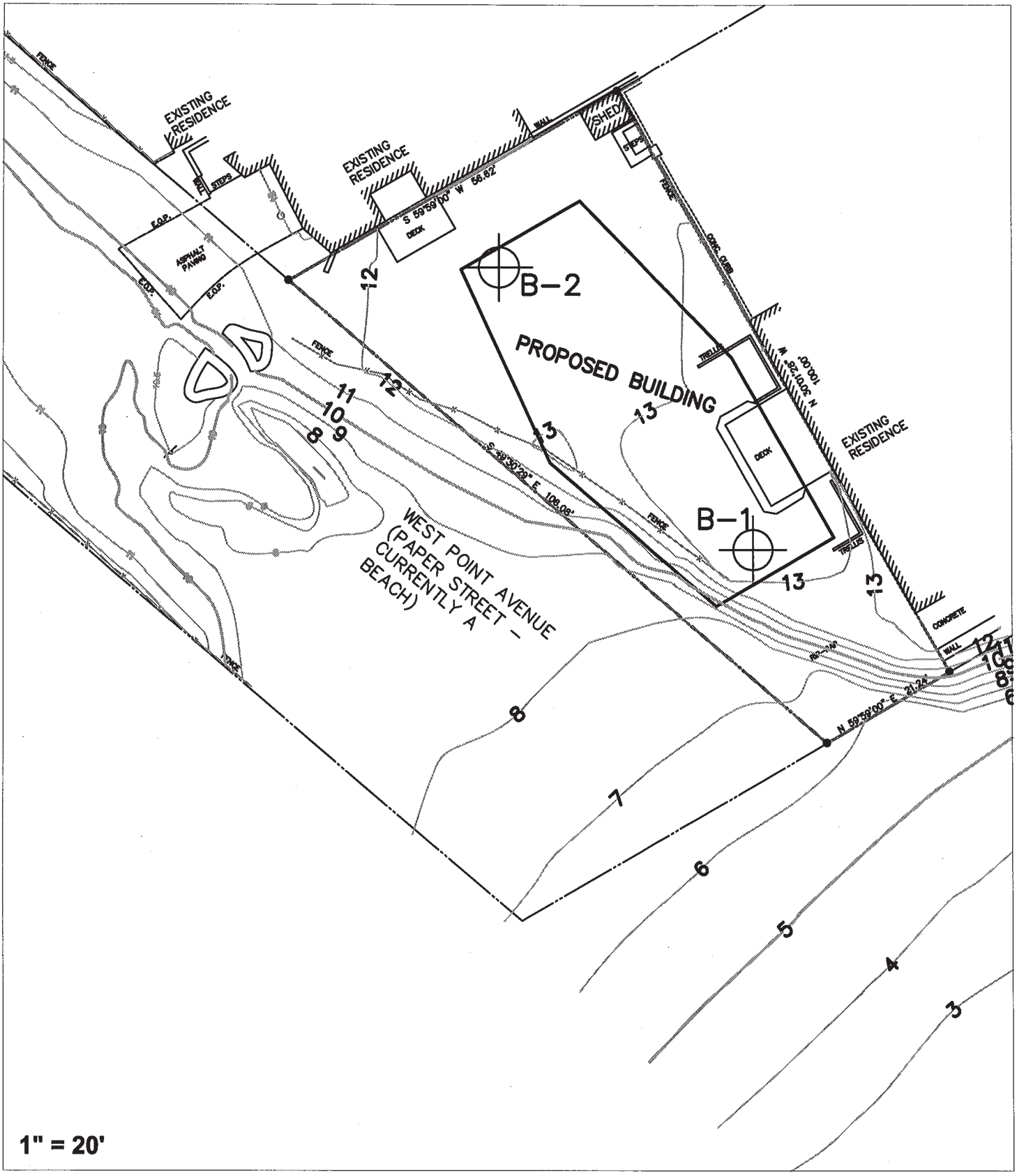



| | |
|---|---|
| Sigma Prime Geosciences, Inc. | Figure 1 |
| | Date: 8/27/19 |
| | Job No.: 19-138 |

**Location Map**

Lhuillier Property, 101 Ocean Blvd., Princeton




1" = 20'

## Explanation

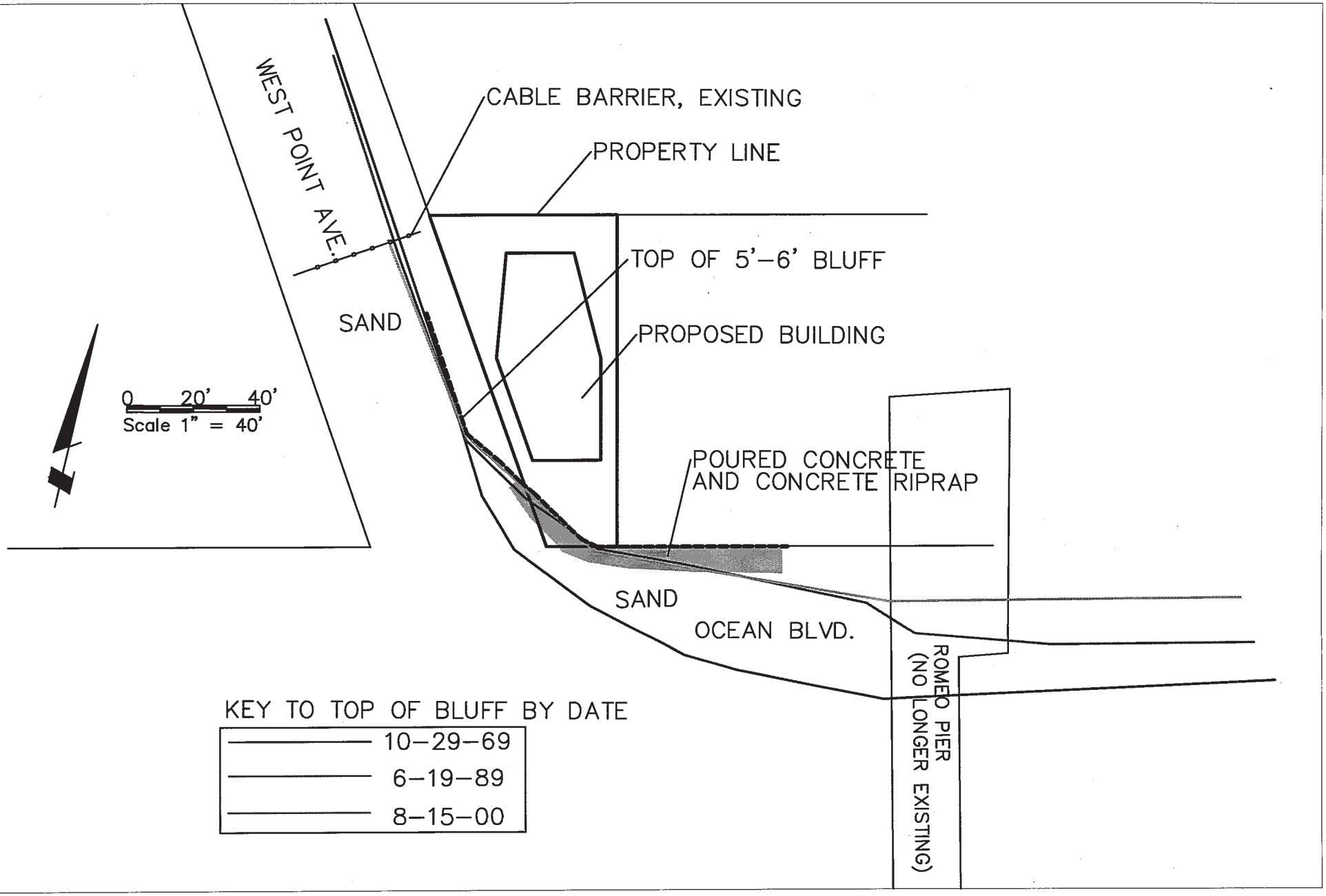
B-1
Soil Boring Drilled 6-18-19

Sigma Prime Geosciences, Inc.

| | |
|---|---|
| Figure | 2 |
| Date: | 8/27/19 |
| Job No.: | 19-138 |

**Site Map**

Lhuillier Property, 101 Ocean Blvd., Princeton




Sigma Prime Geosciences, Inc.

| | |
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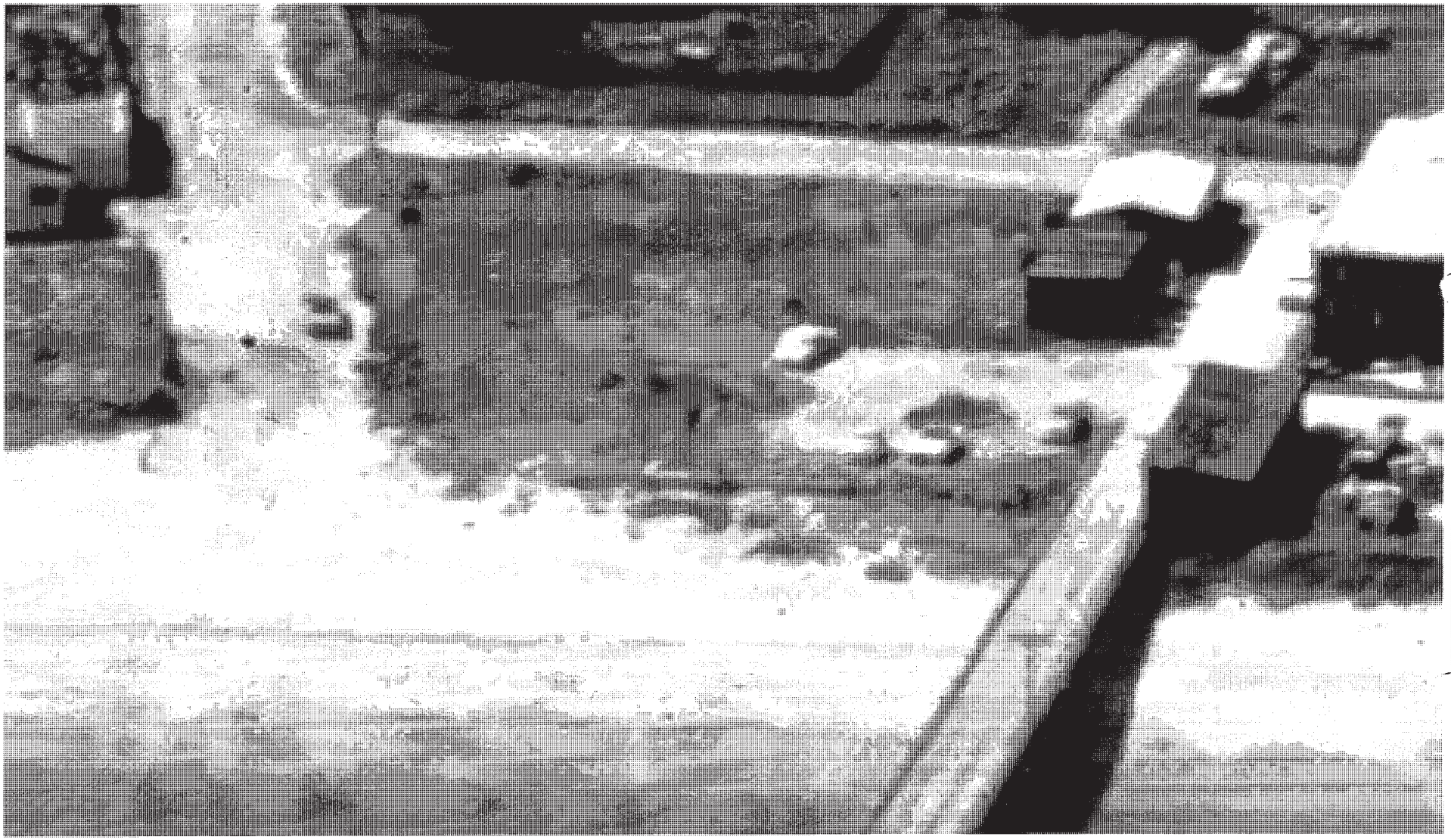
| Figure | 3 |
| Date: | 8/28/19 |
| Job No.: | 19-138 |

**Blufftop History**

LHUILLIER PROPERTY, 101 OCEAN BLVD., PRINCETON



| Sigma Prime Geosciences, Inc. | Figure 4 |
|---|---|
| | Date: 8/28/19 |
| | Job No.: 19-138 |

Aerial View - 1972

Lhuillier Property, 101 Ocean Blvd., Princeton

| | |
|---|---|
| Sigma Prime Geosciences, Inc. | Figure 5 |
| | Date: 8/28/19 |
| | Job No.: 19-138 |

Aerial View - 2005

Lhuillier Property, 101 Ocean Blvd., Princeton

| | |
|---|---|
| Sigma Prime Geosciences, Inc. | Figure 6 |
| | Date: 8/28/19 |
| | Job No.: 19-138 |

Aerial View - 2018

Lhuillier Property, 101 Ocean Blvd., Princeton

## APPENDIX A

## FIELD INVESTIGATION

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the investigation. The samples were taken to our laboratory where they were carefully observed and classified in accordance with the Unified Soil Classification System. The logs of our borings, as well as a summary of the soil classification system, are attached.

Several tests were performed in the field during drilling. The standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. The standard penetration resistance is the number of blows required to drive the sampler the last 12 inches of an 18-inch drive. Because the sampler was driven 24 inches instead of 18 inches, the blow counts are a modification of a standard penetration test. Accordingly, we use engineering judgment when evaluating the soils. The results of these field tests are presented on the boring logs.

The boring logs and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and ground water levels at other locations may differ from conditions at the locations where sampling was conducted. The passage of time may also result in changes in the subsurface conditions.

| Project Name | Project Number |
|---|---|
| Lhuillier | 19-138 |

Location: South side of Lot

Sigma Prime Geosciences, Inc.

| Drilling Method | Hole Size | Total Depth | Soil Footage | Rock Footage | Elevation | Datum |
|---|---|---|---|---|---|---|
| Continuous | 4" | 12' | 12' | 0' | 13.1' | NAVD88 |

| | |
|---|---|
| Boring No. | B-1 |
| Page | 1 of 1 |
| Date(s) | 6-18-19 |

Drilling Company: Access Soil Drilling
Logged By: CMK
Type of Drill Rig:
Type of Sampler(s): Mod Cal, 2½, SPT
Hammer Weight and Fall: 140 lb, 30"

| Depth (feet) | Description | Graphic Log | Class | Blow Count | Sample No. | Sample Type | Comments |
|---|---|---|---|---|---|---|---|
| 0 | 0' - 4': Silty Sand (Fill): moderate brown; loose; moist. | | SM | 8<br>3<br>3<br>4 | | MC | |
| | | | | | 1 | | |
| | | | | 3<br>2<br>3<br>5 | | MC | |
| | | | | | 2 | | Lab, Sample #2:<br>Moisture%=10.7%<br>Dry Density=116.4 pcf |
| 5 | 4' - 6.5': Sand (NATIVE): olive-gray; loose to medium dense; moist. (Medium grained dune sand.) | | SP | 5<br>7<br>12<br>11 | 3 | 2½" | |
| | 6.5' - 12': Sandy Clay: orange- brown; very stiff; moist. ~30% to 40% coarse sand. | | CL | 9<br>11<br>16<br>18 | 4 | 2½" | |
| 10 | | | | 13<br>20<br>18<br>18 | 5 | SPT | |
| | | | | 18<br>12<br>13<br>11 | 7 | SPT | |
| 15 | Bottom of Hole 12' below ground surface.<br>No groundwater encountered. | | | | | | |
| 20 | | | | | | | |

| Project Name | Project Number |
|---|---|
| Lhuillier | 19-138 |

Location: North side of Lot

Sigma Prime Geosciences, Inc.

| Drilling Method | Hole Size | Total Depth | Soil Footage | Rock Footage | Elevation | Datum | Boring No. | B-2 |
|---|---|---|---|---|---|---|---|---|
| Continuous | 4" | 14.5' | 14.5' | 0' | 12.2' | NAVD88 | | |

| Drilling Company | Logged By | Page |
|---|---|---|
| Access Soil Drilling | CMK | 1 of 1 |

| Type of Drill Rig | Type of Sampler(s) | Hammer Weight and Fall | Date(s) |
|---|---|---|---|
| | Mod Cal, 2½, SPT | 140 lb, 30" | 6-18-19 |

| Depth (feet) | Description | Graphic Log | Class | Blow Count | Sample No. | Sample Type | Comments |
|---|---|---|---|---|---|---|---|
| 0 | 0' - 1.5': Silty Sand (Fill): moderate brown; loose; moist. | | SM | 9<br>4<br>6 | | MC | |
| | 1.5' - 4': Clay (NATIVE): dark brown; stiff; moist. (2" dune sand on top of this unit.) | | CL | 4<br>11<br>10<br>11<br>10 | 1<br>2 | MC | Lab, Sample #1:<br>Moisture%=9.1%<br>Dry Density=117.5 pcf<br>LL=22, PL=17, PI=5 |
| 5 | 4' - 13': Sandy Clay: orange- brown; very stiff; moist. ~30% to 40% coarse sand. | | CL | 9<br>9<br>14<br>23 | 3 | 2½" | |
| | | | | 18<br>20<br>22<br>30 | 4 | 2½" | ▽ Rose to @8' |
| 10 | | | | 10<br>10<br>12<br>13 | 5 | SPT | |
| | | | | 13<br>10<br>9<br>11 | 7 | SPT | |
| | | | | 9<br>13<br>21<br>40 | 8 | SPT | ▽ 1st GW @13' |
| | 13' - 14.5': Sand: orange-brown; very dense; saturated. | | SP | 60/6 | 9 | SPT | Refusal |
| 15 | Bottom of Hole 14.5' below ground surface.<br>Groundwater encountered at 13', rose to 8'. | | | | | | |
| 20 | | | | | | | |

# UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

| MATERIAL TYPES | CRITERIA FOR ASSIGNING SOIL GROUP NAMES | | | GROUP SYMBOL | SOIL GROUP NAMES & LEGEND |
|---|---|---|---|---|---|
| COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE | GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | CLEAN GRAVELS < 5% FINES | Cu > 4 AND 1 < Cc < 3 | GW | WELL-GRADED GRAVEL |
| | | | Cu < 4 AND/OR 1 > Cc > 3 | GP | POORLY-GRADED GRAVEL |
| | | GRAVELS WITH FINES > 12% FINES | FINES CLASSIFY AS ML OR CL | GM | SILTY GRAVEL |
| | | | FINES CLASSIFY AS CL OR CH | GC | CLAYEY GRAVEL |
| | SANDS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | CLEAN SANDS < 5% FINES | Cu > 6 AND 1 < Cc < 3 | SW | WELL-GRADED SAND |
| | | | Cu < 6 AND/OR 1 > Cc > 3 | SP | POORLY-GRADED SAND |
| | | SANDS WITH FINES > 12% FINES | FINES CLASSIFY AS ML OR CL | SM | SILTY SAND |
| | | | FINES CLASSIFY AS CL OR CH | SC | CLAYEY SAND |
| FINE-GRAINED SOILS > 50% PASSING NO. 200 SIEVE | SILTS AND CLAYS LIQUID LIMIT < 50 | INORGANIC | PI > 7 AND PLOTS > "A" LINE | CL | LOW-PLASTICITY CLAY |
| | | | PI > 4 AND PLOTS < "A" LINE | ML | LOW-PLASTICITY SILT |
| | | ORGANIC | LL (oven dried)/LL (not dried)<0.75 | OL | ORGANIC CLAY OR SILT |
| | SILTS AND CLAYS LIQUID LIMIT > 50 | INORGANIC | PI PLOTS > "A" LINE | CH | HIGH-PLASTICITY CLAY |
| | | | PI PLOTS < "A" LINE | MH | HIGH-PLASTICITY SILT |
| | | ORGANIC | LL (oven dried)/LL (not dried)<0.75 | OH | ORGANIC CLAY OR SILT |
| HIGHLY ORGANIC SOILS | | PRIMARILY ORGANIC MATTER, DARK COLOR, ORGANIC ODOR | | PT | PEAT |

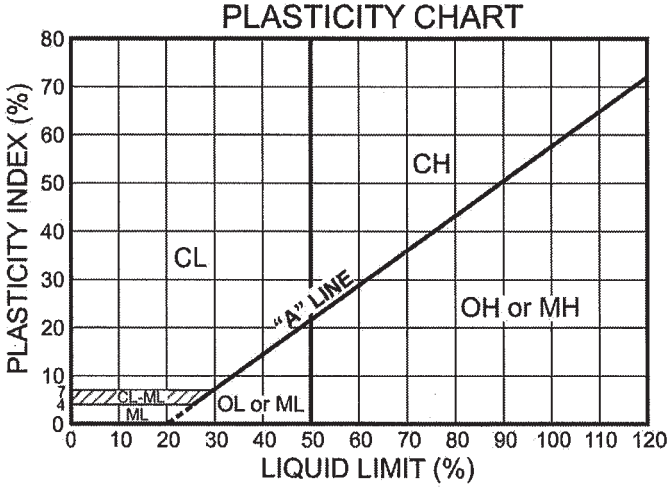
NOTE: $Cu=D_{60}/D_{10}$

$Cc=(D_{30})^2/(D_{10}+D_{60})$

## BLOW COUNT

THE NUMBER OF BLOWS OF THE HAMMER REQUIRED TO DRIVE THE SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE. THE NOTATION 50/4 INDICATES 4 INCHES OF PENETRATION ACHIEVED IN 50 BLOWS.

## PLASTICITY CHART




## SAMPLE TYPES

| | |
|---|---|
| B | BULK SAMPLE |
| ST | PUSHED SHELBY TUBE |
| SPT | STANDARD PENETRATION |
| MC | MODIFIED CALIFORNIA |
| P | PITCHER SAMPLE |
| C | ROCK CORE |

## ADDITIONAL TESTS

CA - CHEMICAL ANALYSIS
CN - CONSOLIDATION
CP - COMPACTION
DS - DIRECT SHEAR
PM - PERMEABILITY
PP - POCKET PENETROMETER
Cor. - CORROSIVITY
SA - GRAIN SIZE ANALYSIS
(20%) - (PERCENT PASSING #200 SIEVE
SW - SWELL TEST
TC - CYCLIC TRIAXIAL
TU - CONSOLIDATED UNDRAINED TRIAXIAL
TV - TORVANE SHEAR
UC - UNCONFINED COMPRESSION
WA - WASH ANALYSIS
▽ - WATER LEVEL AT TIME OF DRILLING AND DATE MEASURED
▼ - LATER WATER LEVEL AND DATE MEASURED

# LEGEND TO SOIL DESCRIPTIONS

Sigma Prime Geosciences, Inc.

FIGURE A-1

## APPENDIX B

## LABORATORY TESTS

Samples from the subsurface study were selected for tests to establish some of the physical and engineering properties of the soils. The tests performed are briefly described below.

The natural moisture content and dry density were determined in accordance with ASTM D 2216 on selected samples recovered from the borings. This test determines the moisture content and density, representative of field conditions, at the time the samples were collected. The results are presented on the boring logs, at the appropriate sample depth.

The plasticity of selected clayey soil samples was determined on one soil sample in accordance with ASTM D 422. The results are presented on the boring log, at the appropriate sample depth.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

# ATTACHMENT F