COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 20, 2020

TO: Zoning Hearing Office

FROM: Planning Staff

SUBJECT: Consideration of a Coastal Development Permit, Use Permit, and Design Review, pursuant to Zoning Regulations 6328.4, 6500 and 6565.3 of the San Mateo County Zoning Regulations to construct one new 1,200 sq. ft. two-story mixed use building on a 3,500 sq. ft. legal non-conforming parcel, in the unincorporated Princeton-by-the-sea area of San Mateo County. This project is appealable to the California Coastal Commission.

County File Number: PLN 2018-00378 (Conran/Pemberton)

PROPOSAL

The applicant is proposing to construct a new two-story mixed use building on a vacant parcel in unincorporated Princeton. The two-story building would consist of storage for commercial fishing equipment on the ground floor, and a two-bedroom vacation rental (approximately 800 sq. ft.) and administrative office space incidental to the commercial fishing operation on the second floor. The total square footage of the building will be 1,200 square feet.

A Certificate of Compliance (Type A) was approved in 2016 (PLN 2016-00487) pursuant to the County Subdivision Regulations.

RECOMMENDATION

That the Zoning Hearing Officer approve the Coastal Development Permit, Use permit, and the Design Review by making the required findings and adopting the recommended conditions of approval as shown on Attachment A.

BACKGROUND

Report Prepared By: Olivia Boo, Project Planner, Telephone 650/363-1818

Applicant: Steve Conran

Owner: Don Pemberton

Location: Harvard Avenue (mid-block between Broadway and Columbia Avenue)

APN: 047-023-320

Size: 3, 500 sq. ft.
Parcel Legality: Certificate of Compliance Recorded 2016.

Existing Zoning: CCR/DR (Coastside Commercial Recreation District/Design Review)

General Plan/Local Coastal Plan Designation: Coastside Commercial Recreation

Sphere-of-Influence: Half Moon Bay

Williamson Act: Not Applicable

Existing Land Use: Undeveloped, currently used for outdoor boat and equipment storage.

Water Supply: Coastside County Water

Sewage Disposal: Granada Sanitary District

Flood Zone: Flood Zone X, Community Panel No. 06081C0138F, dated August 2, 2017.

Environmental Evaluation: Categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the construction of up to four commercial buildings not exceeding 10,000 sq. ft. in floor area on sites in an urbanized area, zoned for such use, if not involving the use of significant amounts of hazardous substances, where all necessary public services and facilities are available and the surrounding area is not environmentally sensitive.

Setting: The subject property is located mid-block of Harvard Avenue, between Broadway and Columbia Avenue within the unincorporated Princeton-by-the-Sea area. The property is undeveloped with a dirt and gravel surface and used as outdoor storage and surrounded by a chain link fence. The front right corner of the parcel is shadowed by an existing large mature Monterey cypress tree that sits on the adjacent property to the east. The subject property does not have vegetation or trees.

Land use in the surrounding area consists primarily of industrial uses mixed with some commercial and non-conforming residential uses. The Half Moon Bay Airport is approximately 2,000 feet north of the subject property. Adjacent to the west side is an outdoor storage yard, to the east is a small parking lot serving a commercial building, and vacant land is next to the parking lot. Across Harvard Avenue is a single-family residence, and industrial commercial businesses. The project site is located less than 1-mile from Pillar Point Harbor.

Chronology:

Date		Action
September 26, 2018	-	Received application.
August 9, 2019	-	Deemed Complete.
February 20, 2020	-	Zoning Hearing Officer Meeting.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

Upon review of the applicable provisions of the General Plan, staff has determined that the project complies with the General Plan policies, including the following:

Regulation of Development

Policy 2.17, (*Regulate Development to Minimize Soil Erosion and Sedimentation*) regulate development to minimize soil erosion and sedimentation; including, but not limited to, measures which consider the effects of slope, minimize removal of vegetative cover, ensure stabilization of disturbed areas and protect and enhance natural plan communicates and nesting and feeding areas of fish and wildlife.

Some grading and earthwork activities is required for construction. However, the site area has less than 5% slope, thus minimal grading is required. Upon submittal to the Building Inspection Section for building permit, the detailed construction drawings will be reviewed for compliance with the San Mateo County Grading Ordinance. The applicant shall submit an erosion and sediment control plan prior to issuance of a building permit.

Visual Quality

Policy 4.15 (*Appearance of New Development*) specifically addresses the requirement to regulate development to promote and enhance good design, site relationships and other aesthetic considerations.

The building design fits the industrial style that exists in Princeton and will blend well with the overall neighborhood appearance. The building will be an improvement to the site. The Princeton area includes a wide range of development that differs with regard to quality, building materials, colors,

and architectural styles. The surrounding properties to the east and west of the project site have a mix of uses, small and large commercial structures, residential development, outdoor storage and outdoor boat storage. The Harvard Avenue block, between Broadway and Columbia Avenue, has a handful of existing industrial buildings, including the Half Moon Bay Distillery located at the corner of Broadway and Harvard Avenue. The block is predominantly occupied by outdoor storage uses. The building proposed will use hardiboard siding (painted gray and tan) with white painted wood trim painted.

Policy 4.35, Maintain and, where possible, improve upon the appearance and visual character of development in urban areas and ensure that new development is designed and constructed to contribute to the orderly and harmonious development of the locality. The existing undeveloped parcel has minimal to no vegetation and is used for outdoor storage of crab pots used for fishing. The proposed building will introduce a well-designed structure into the neighborhood that is compatible and complimentary to the existing mix of architectural styles.

Development in the area predominantly consists of similar varying gray to blue painted one- and two-story commercial/industrial buildings. The applicant is proposing a two-story building with one staircase at the front to access the vacation rental and one staircase on the left side, at the rear of the building to access the administrative office. The building will use hardiboard siding (painted gray and tan) with wood trim painted white.

General Land Use Policies

Policy 7.15 (*Designation of Land Uses*), Table 7.1P (*General Plan Land Use Designations*) and Policy 7.16 (*Land Use Objectives for Urban Areas*) seek to apply land use designations where appropriate to urban areas and establish primary associated uses for the land use designations to meet land use objectives for urban areas that include revitalization of existing developed areas. The project parcel's General Plan land use designation, and zoning district, Coastside Commercial Recreation (CCR), supports commercial fishing and vacation rentals upon approval of a use permit.

Urban Land Use Policies

Policy 8.24 (*Land Use Compatibility*) seeks to ensure that industrial development is compatible with adjacent land uses and consistent with the applicable zoning regulations for such uses. See staff's response to Policy 7.15 above.

Policy 8.29, (*Infill*) encourage the infilling of urban areas where infrastructure and services are available. The undeveloped parcel is located in an

established, predominantly developed neighborhood. Emergency services, roadway access, water and sewer service are available to be provided to the site.

Policy 8.36 (*Uses*), and Policy 8.40 (*Parking Requirements*) allow uses in zoning districts that are consistent with the overall land use designation and regulate minimum on-site parking requirements and standards to accommodate the parking needs of development, including convenient and safe access, preventing congestion of public streets, and establishing orderly development patterns. The crab pot storage qualifies as commercial fishing, a use allowed under the land use Boat Building, Repair, Sales and Support Establishments, which includes commercial establishments primarily engaged in the assembly, repair, storage or sales of marine vessels and support services including, but not limited to, the sale of fuel. The owner operates a commercial fishing business, operating at the harbor and is in need of a building to store crab pots during the off season, during the months November to June of each year. The second story office spaces is considered incidental to the first floor building use. The vacation rental requires one uncovered parking space and the building requires one uncovered parking space (one for each 2,000 sq. ft. of floor area). The commercial crab operation has two employees, who work off-site at the harbor and only occasionally will access the building as needed. One staff person will use the second story office space for administrative bookkeeping, only on an as needed basis. The presence of staff and workers daily at this building will be very low. The project complies with the required two uncovered parking spaces.

Waste Supply and Wastewater Management Planning

Policy 10.2 and Policy 11.2, (*Safeguarding Water Supplies*) seeks to safeguard the productive capacity of ground water aquafers and storage reservoirs, and (*Coordinate Planning*) coordinate wastewater management planning with land use assure that the capacity of sewage facilities meets the level of development in the area. The commercial fishing use is permitted in the CCR Zoning District and Planning staff has confirmed the use qualifies as a high priority water use. Coastside County Water District (CCWD) is the water provider in the area. The project requires confirmation of water service to the site from CCWD to be submitted prior to issuance of a building permit. Sewer service is available from the Granada Sanitary District.

Man-Made Hazards

Policy 16.41 (*Regulate Land Uses to Assure Airport Safety*) and 16.42 (*Limit Land Uses at Ends of Runways*) seeks to regulate land uses surrounding airports to assure airport safety, which may include restrictions on permitted

land uses and development review height criteria and limits land uses approach zones, clear zones and other areas of high accident potential at the ends of airport runways to low intensity, non-structural uses including storage.

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 Runway Safety Zone 2, Inner Approach/Departure Zone (AIDZ), which prohibits high intensity uses and requires additional airspace review for objects over 35 feet tall. The applicant proposes to use the lot for indoor storage, administrative office and vacation rental, all of which are low intensity uses. The CCR District allows a building height of 36 feet. The proposed height will be 26 feet.

Both the second and first story uses will comply. The first story use is storage for fishing equipment with no daily staff. The upper level administrative office and vacation rental. The administrative office will be occupied only as needed, for occasional book keeping. The vacation rental is restricted to tenant stays; a maximum of 90 days.

2. Conformance with the Montara-Moss Beach – El Granada Community Plan

Upon review of the applicable provisions of the Montara-Moss Beach – El Granada Community Plan, which includes Princeton, staff has determined that the project complies with this Community Plan's policies, including the following:

Industrial Land Use

Policy 2.11 (*Desired Industrial Uses*) encourages industrial uses which are in accordance with the stated objectives of the community, greenhouses, strawflower processing, fish processing, boat building, warehousing, and aviation -related activities. See staff's response to General Plan Policy 7.15.

Policy 2.12 (*Location of Industrial Development*): (a) locates industrial development in areas where it will have the lowest impact on surrounding land uses and on their environment, and (b) concentrates industrial development in areas adjacent to Half Moon Bay Airport and Pillar Point Harbor. The project site is located within the industrially developed area of Princeton. The block of Harvard Avenue, between Broadway and Columbia Avenue, is dominated by outdoor storage yards and a few industrial buildings, commercial uses (i.e., Half Moon Bay Distillery) and single-family residences. The project site is located approximately 2,000 feet south of the Half Moon Bay Airport and near Pillar Point Harbor.

3. Conformance with Local Coastal Program (LCP)

Staff has determined the project complies with all applicable LCP policies, including the following:

Locating and Planning New Development Component

Policy 1.4 (*Designation of Urban Areas*) designates as urban those lands shown inside the urban/rural boundary on the Land Use Plan Maps. Such areas include Montara, Moss Beach, El Granada, Princeton-by-the-Sea and Miramar. The project site is located in Princeton-by-the-Sea, in the urban boundary and designated for urban use.

Policy 1.18 (*Location of New Development*) directs new development to existing urban areas; (1) discourage urban sprawl, (2) maximize the efficiency of public facilities, services and utilities; and concentrate new development in urban areas by requiring the "infilling" of commercial areas. The site is located in a developed urban area and the proposed structure will utilize existing public access, utilities and services. The project will be located on a legal undeveloped parcel.

Policy 1.36 (*Half Moon Bay Airport Influence Area Requirements*) requires development to comply with all relevant Federal Aviation Administration (FAA) standards and criteria regarding (1) safety, (2) flashing lights (3) reflective material (4) land uses which might involve large concentration of birds, HVAC exhaust fans, and land uses which may generate electrical or electronic interference with aircraft communications and/or instruments. The project will comply with the applicable runway safety zone standards of the Half Moon Bay ALUCP, see staff's discussion under Man Made Hazards. Furthermore, the proposed use is limited to an indoor storage yard for fishing equipment, administrative office for the commercial fishing business and a vacation rental for limited stay.

Visual Resources Component

Policy 8.12 (*General Regulations*) requires the application of Section 6565.17 (*Design Review Districts*) of the Zoning Regulations and the design criteria set forth in the Community Design Manual for all development in the urban areas of the Coastal Zone.

The applicant proposed indoor storage which will screen the fishing equipment from public view. The site will provide two parking spaces as required, one for each use, the storage use and the vacation rental.

Natural Features-Vegetative Forms

Policy 8.10 (*Vegetative Cover*) replace vegetation removed with plant materials compatible with the surrounding vegetation and suitable to the climate, soil, ecological characteristics of the area. The site has little to no vegetation. A 4-foot wide landscaped area is required along the street frontage. This can be located along the proposed driveway apron. The landscaped area shall include vegetation native to San Mateo County and drought tolerant. The purpose of the landscaping strip is to soften the hardscape of the proposed structure and complement the architectural style.

Structural and Community Features-Urban Areas and Rural Service Centers

Policy 8.12 (*General Regulations*) requires the application of Section 6565.17 (*Design Review Districts*) of the Zoning Regulations and the design criteria set forth in the Community Design Manual for all new development in urban areas of the Coastal Zone, this is as discussed below. Locate and design new development and landscaping so that ocean views are not blocked from public viewing points such as public roads and publicly owned lands. An analysis of the projects compliance with the Design Review Zoning District is discussed under Conformance with the County Zoning Regulations. The project must also comply with the general requirements to locate and design new development and landscaping so that ocean views are not blocked from public viewing points such as public roads and publicly owned lands. The property is two blocks inward from the ocean and will not block views. South, adjacent to the subject site, the property is developed with an existing two-story building. If any public view of the shoreline existed before, it is already blocked by that two-story structure. East of the project site is a paved parking lot that serves an existing commercial use. This parcel provides minimal view of the ocean and the view will not be impacted by the proposed development.

Compliance with all applicable guidelines in the Community Design Manual is discussed below.

Site Design

Siting: Structures and accessory structures should be located, designed and constructed to retain and blend with the natural vegetation and natural land forms of the site and should be complementary to adjacent neighborhood structures. The site is flat and the area does not have a distinctive architectural design. The existing buildings are primarily one- and two-story, many buildings are painted gray and light blue colors.

View Preservation: Views should be preserved by limiting structure height and limiting vegetation. Public views should be protected and enhanced.

Visual screening or increased setbacks may be used to mitigate such impacts. Structures should be located to retain views of prominent scenic features. See response to Policy 8.12 above.

Paved Areas: Should be integrated into the site, relate to the proposed structure and include landscaping to reduce visual impact and constructed of varied textured, colored or patterned materials to add visual interest. Parking areas should be screened from residential areas.

The 20 feet driveway apron will consist of a gravel driveway leading up to the proposed two story building. The building exterior requires a 4-foot landscaping strip to be installed on the property to soften the appearance of the hardscape.

Colors and Materials: The proposed exterior color will be gray with wood trim painted white, the roof will be composition shingle material and a brown color. The colors should blend with the natural setting and surrounding neighborhood. The use of natural materials and earth colors are encouraged. The overall style and character of the building fits the typical industrial appearance

Structural Shape: Simple structural shapes should be used to unify building design and maintain an uncluttered community appearance. Roofs should constructed of simple shapes, non-reflective surfaces and a simple range of materials and colors.

The proposed mixed use building is similar in size and scale with other existing buildings in the area. The roofline is gable style, the roof will be a composition shingle in a brown color and will blend with the existing buildings. The building design will be simple and constructed of non-reflective surfaces.

Scale: Structures should relate in size and sale to adjacent buildings and to the neighborhood in which they are located.

The parcel is located in an area of both one- and two-story buildings. Though the parcel size is legal non-conforming, the building is designed to fit the property and complies with the CCR development standards for height, lot coverage and setbacks. There is no floor area limit restriction.

Policy 8.13(b), Special Design Guidelines for Princeton by the Sea, Commercial Development should be designed to reflect the nautical character of the harbor setting, use wood or shingle siding, employ natural or sea colors, and use pitched roof. Industrial Development should employ architectural detailing, subdued colors, textured building materials, and

landscaping to add visual interest and soften the harsh lines of standard or stock building forms normally used in industrial districts.

The nature of the building is mixed use commercial/industrial (fishing equipment storage and vacation rental). The overall style appears to complement the coastal character of the neighborhood. The required 4-foot landscaping strip with soften the hardscape of the building at the front elevation.

Hazard Component

Policy 9.3 (*Regulation of Geologic Hazard Areas*) requires that the regulations of the Resource management (RM) Zone, specifically Section 6326.2 be applied to the designated Tsunami Inundation Areas.

The subject property is in an area designated as susceptible to tsunami inundation. The SAFFR (Science Application for Risk Reduction) Tsunami Scenario, shows a probable tsunami elevation run up of 8 meters (or 26 feet) above sea level. The flow depth is estimated to be approximately 6.5 feet. The subject property is at an elevation of approximately 20 feet above sea level (NAVD88). According to San Mateo County Zoning Regulations (January, 2018) any proposed residential floor height must be a minimum of 8.5 feet above ground level. The proposed vacation rental use will be on the second story, 12 feet above ground and meet the 8.5-foot requirement.

The geotechnical consultant states the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. The geotechnical consultant shall: (1) review the project plans and structural calculations for conformance with our report recommendations, and (2) observe and test the earthwork and foundation installation phases of construction. The applicant shall follow the construction requirements as noted by Sigma Prime Geosciences, Inc., regarding Clearing and Subgrade Preparation, Compaction, Surface Drainage, Foundations, Lateral Loads, and Construction Observations and Testing.

4. Conformance with Zoning Regulations

The project is located in the Coastside Commercial Recreation District, which allows industrial, commercial, marine related facilities and mixed uses subject to a Use Permit.

The following table indicates the project's compliance with all development standards regarding building site area, building height and lot coverage. There is no floor area ratio limit for the CCR District.

	Required Standard	Proposed
Minimum Building Site	5,000 sq. ft.	3,500 sq. ft.*
Minimum Lot Width	50 ft.	32 ft.*
Minimum Side Yard	15 ft. combined	5 ft. right side, 10 ft. left side
Maximum Building Height	36 ft.	26 ft.
Maximum Lot Coverage	50%	30%

Parking Requirements

See staff's response to General Plan policy 8.40 (*Urban Land Use Policy*).

Landscaping

The Coastside Commercial Recreation Zoning District requires landscaping for all yards abutting a street. In addition, a planter or landscaped area of at least four (4) feet wide shall be provided adjacent to all street right-of-ways with live landscaping provided and maintained within any required planter or landscaped area; however, up to 30% of the planter or landscaped area may be covered with hard surfaces such as gravel, landscaping rock, concrete, or other impervious materials. See staff's response to Vegetation Preservation and Landscaping under Site Design.

Uses within the Coastside Commercial Recreation (CCR) District are subject to a series of performance standards per the determination of the Community Development Director. Staff has determined that the proposed mixed use marine storage office and vacation rental building will also meet these required performance standards.

a. *Noise: No use will be permitted which exceeds the following sound levels more than thirty minutes in any hour:*

	Level (in dBA) Not To Be Exceeded		
Time of Day	**More than 30 Minutes in any Hour**	**More than 30 Minutes in any Hour**	**At any Moment**
7:00 a.m. – 10:00 p.m.	60	70	80
10:00 p.m. – 7:00 a.m.	55	65	75

Given the low intensity nature of the land use (fishing equipment storage and a vacation rental) noise generation is anticipated to meet these provisions. A condition has been added to address temporary noise impacts as a result of construction.

b. *Odor: No use will be permitted which emits an odor or air pollutant, detectable without instruments, beyond the boundaries of the "CCR" District.*

Given the low intensity nature of the land use (fishing equipment storage and a vacation rental) odor and/or air pollutant generation is anticipated to be nominal.

c. *Lighting: All lighting, exterior and interior, must be designed and located so as to confine direct rays to the premises.*

A condition has been added requiring that a detailed lighting plan be submitted clearly reflecting that all on-site lighting is down lit, non-intrusive and does not produce excessive spillover onto neighboring properties.

d. *Vibration: No use will be permitted that causes vibration perceptible without instruments on adjoining property, except for a temporary construction operation.*

Given the low intensity nature of the land use (fishing equipment storage and a vacation rental) long-term vibration generation is anticipated to be nominal.

e. *Enclosed Uses: All commercial and office uses and their related products must be contained entirely within an enclosed structure, except for outdoor uses, such as boat storage expressly permitted by an approved use permit.*

A condition has been added that all uses (and storage of their related products) shall be conducted indoors and screened from public views.

f. *Trash and Storage: All storage of cartons, containers and trash must be enclosed by a building or wall not less than six (6) feet in height. Trash and stored materials may not be located in front yard setback areas.*

The plans shall include an area designated for trash collection, remain enclosed, screened and located beyond the 20-foot front yard area.

5. Conformance with Design Review Standards

This project is located in the Design Review District (DR) and is, therefore, subject to Section 6565.7 of the Zoning Regulations. The following are the applicable Design Standards followed by staff's response:

a. *Proposed structures are designed and situated so as to retain and blend with the natural vegetation and landforms of the site and to ensure adequate space for light and air to itself and adjacent properties.*

The subject site is a level parcel with minimal vegetation. The parcel is currently bordered by a chain link fence. The building will be constructed with a 20-foot front setback, a 10-foot left side yard setback and a 5-foot right side yard setback which will provide adequate space, light and air around the structure and between adjacent properties.

b. *Where grading is necessary for the construction of structures and paved areas, it blends with adjacent landforms through the use of contour grading rather than harsh cuts or terracing of the site and does not create problems of drainage or terracing of the site and does not create problems of drainage or erosion on its site or adjacent properties.*

The site is level with a 2% slope, minimal grading is expected. No harsh cutting is proposed. The drainage plan has been reviewed by Building Inspection Section staff and has been conditionally approved. There will be no change to the overall topography of the parcel.

c. *Streams or other natural drainage systems are not altered so as to affect their character and thereby causing problems of drainage, erosion or flooding.*

Upon staff's review of the San Mateo County Geographic Information System, there is no known stream or natural drainage system on the property.

d. *Structures are located outside flood zones, drainage channels and other areas subject to inundation.*

The project is located in a tsunami inundation zone. The second story vacation rental is a residential use proposed for the site. The County has a tsunami warning system to mitigate the hazard of constructing industrial/commercial buildings within this zone. The subject property is in an area designated as susceptible to tsunami inundation. The SAFFR (Science Application for Risk Reduction) Tsunami Scenario, shows a probable tsunami elevation run up of 8 meters (or 26 feet) above sea level. The flow depth is estimated to be approximately 6.5 feet. The subject property is at an elevation of approximately 20 feet above sea level (NAVD88). According to San Mateo County Zoning Regulations (January, 2018) any proposed residential floor

height must be a minimum of 8.5 feet above ground level. The proposed residential use will be on the second story, 12 feet above ground and meet the 8.5-foot requirement.

The geotechnical consultant states the site is suitable for the proposed construction, provided the recommendations presented in this report are followed during design and construction. The geotechnical consultant shall: (1) review the project plans and structural calculations for conformance with our report recommendations, and (2) observe and test the earthwork and foundation installation phases of construction. The applicant shall follow the construction requirements as noted by Sigma Prime Geosciences, Inc., regarding Clearing and Subgrade Preparation, Compaction, Surface Drainage, Foundations, Lateral Loads, and Construction Observations and Testing.

e. *Trees and other vegetation land cover are removed only where necessary for the construction of structures or paved areas in order to reduce erosion and impacts on natural drainage channels, and maintain surface runoff at acceptable levels.*

There is minimal to no vegetation existing on the site. There is a large mature cedar tree existing on the adjacent parcel that overshadows the front right corner of the property. No vegetation removal is proposed.

f. *A smooth transition is maintained between development and adjacent open areas through the use of natural landscaping and plant materials that are native or appropriate to the area.*

The project will be required to install a 4-foot wide landscaping strip on the project site.

g. *Views are protected by the height and location of structures and through the selective pruning or removal of trees and vegetative matter at the end of view corridors.*

The proposed height of the building will be 26 feet. The property behind the subject site (on Princeton Avenue) is developed with a two-story structure, so there is minimal ocean view from the subject property. The project site is located midblock, and not at the end of a view corridor.

h. *Construction on ridgelines blends with the existing silhouette by maintaining natural vegetative masses and landforms and does not extend above the height of the forest or tree canopy.*

The project site is not on a ridgeline.

i. *Structures are set back from the edge of bluffs and cliffs to protect views from scenic areas below.*

The project site is not adjacent to a beach, bluff or cliffs.

j. *Public views to and along the shoreline from public roads and other public lands are protected.*

There are minimal public views to the shoreline from the project site. A view corridor exists on the adjacent property to the east, which is a paved parking lot that serves an existing commercial use. The paved parking lot provides some and will not be affected by the proposed project. Another view corridor is further east on Broadway.

k. *Varying architectural styles are made compatible through the use of similar materials and colors that blend with the natural setting and surrounding neighborhoods.*

The project proposes hardiboard siding painted light gray and tan and wood trim will be painted white. The colors will be compatible with other structures in the area as well as the natural environment.

l. *The design of the structure is appropriate to the use of the property and is in harmony with the shape, size and scale of the adjacent buildings in the community.*

The style of the building is of a typical building industrial building. The building's proposed gray and tan paint color will blend with surrounding structures, appropriate for an area dominated by industrial and commercial uses.

m. *Overhead utility lines are placed underground where appropriate to reduce the visual impact in open and scenic areas.*

The County will require undergrounding utilities as a condition of the project within the Design Review District.

n. *The number and location, size, design, lighting, materials, and use of colors in signs are compatible with the architectural style of the structure they identify and harmonize with their surroundings.*

No sign is proposed at this time. Should a sign be proposed, it shall comply with these requirements, be compatible with surroundings and be authorized by a building permit.

o. *Paved areas are integrated into the site, relate to their structure, and are landscaped to reduce visual impact from residential areas and from roadways.*

Proposed paved areas are for the two-car driveway at the front of the property. A 4-foot landscaping strip shall be included. Any trees and plants proposed shall be drought tolerant and native to San Mateo County.

6. Conformance with Use Permit Requirements

The applicant is seeking a use permit to allow a building to store fishing equipment associated with a crab pot commercial operation with an office and a vacation rental on the second floor. All uses subject to a use permit within the CCR District must demonstrate compliance with the required findings of Chapter 24 "Use Permit" of the San Mateo County Zoning Regulations, as well as two additional findings as outlined within the CCR Regulations. The Zoning Hearing Officer must make the following required findings in order to grant approval (each finding is followed by a statement of compliance):

For the CCR District

a. *That the design and operation of the proposed use will further the purpose of this Chapter as stated in Section 6265.*

The purpose of the Coastside Commercial Recreation District is to limit and control the use and development of land and establish areas which are primarily oriented toward: (1) meeting the service and recreational needs of Coastside visitors and residents seeking recreation that is active and pedestrian-oriented, while meeting the need for safe and efficient automobile access and parking; (2) an intimate, human scale, having a unified design theme appropriate to their location; (3) a balanced diversity of uses, within the limits; and (4) provide public access to nearby coastal areas and protect coastal resources.

The proposed use of a small hostelry/vacation rental will directly serve the need of a Coastside recreational uses. The proposed indoor storage of fishing equipment will be an improvement over the current outdoor storage use. The proposed building will comply with CCR development standards. The project site is within walking distance to other commercial visitor-serving businesses, primarily along Capistrano Road, is within walking distance to shoreline access points to Princeton Beach, and will not impact coastal resources or public views.

b. *That the design and operation of the proposed use will conform with the development standards stated in Section 6269.*

The project will comply with lot coverage, yard requirements, height and landscaping, and parking requirements and design standards.

c. *That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources or be detrimental to the public welfare or injurious to property or improvements in the said neighborhood.*

Given the urban infill location of the project, the lack of any sensitive coastal habitat or species in the vicinity and the relatively low intensity of a mixed use hostelry and indoor storage building, the project will not result in a significant adverse impact to coastal resources or be detrimental to public welfare or the neighborhood.

B. REVIEW BY CALIFORNIA COASTAL COMMISSION, MIDCOAST COMMUNITY COUNCIL AND PRINCETON CITIZEN ADVISORY COUNSEL

The project was referred to the California Coastal Commission with no comments received to date. A referral has been sent to the Midcoast Community Council and Princeton Citizen Advisory Counsel.

One comment was been received from the Midcoast Community Counsel, inquiring if vacation rental is an allowed use in the CCR District. Under the CCR Zoning District, vacation rental is categorized under small hostelries, facilities that rent five or fewer rooms for overnight accommodations of paying guests including, but not limited to, rooming houses, boarding houses, tourist homes, country inns, small hotels and motels, and bed and breakfast establishments. The project qualifies as a tourist home.

C. ENVIRONMENTAL REVIEW

Categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the construction of up to four commercial buildings not exceeding 10,000 sq. ft. in floor area on sites in an urbanized area, zoned for such use, if not involving the use of significant amounts of hazardous substances, where all necessary public services and facilities are available and the surrounding area is not environmentally sensitive.

D. REVIEWING AGENCIES

Building Inspection Section
Department of Public Works

Coastside Fire Protection District
Granada Sanitary District
Coastside County Water District
California Coastal Commission
Princeton Citizen Advisory Committee
Princeton-by-the-Sea Homeowner's Association
Midcoast Community Council

ATTACHMENTS

A. Attachment A
B. Vicinity Map
C. Site Plan/Roof Plan
D. Elevations
E. Floor Plan
F. Site Photos
G. Sigma Prime Geosciences Geotechnical Report

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT A

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2018-00378 Hearing Date: February 20, 2020

Prepared By: Olivia Boo, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. Categorically exempt from the California Environmental Quality Act (CEQA), pursuant to Section 15303, Class 3, for the construction of up to four commercial buildings not exceeding 10,000 sq. ft. in floor area on sites in an urbanized area, zoned for such use, if not involving the use of significant amounts of hazardous substances, where all necessary public services and facilities are available and the surrounding area is not environmentally sensitive. The mixed use building does not exceed 10,000 sq. ft. in floor area and is located in an urban area zoned for building use. Sewer and water will be provided by Granada Sanitary District and Coastside County Water District. The commercial fishing and incidental storage is considered a high priority use in the Coastside Commercial Recreation (CCR) District.

Regarding the Coastal Development Permit, Find:

2. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms with the plans, policies, requirements and standards of the San Mateo County Local Coastal Program, since it complies with all applicable Visual Resources Component policies regarding preservation of views and design standards through appropriate structure height and designed to blend with the existing commercial/industrial buildings in the area.

3. Where the project is located between the nearest public road and the sea, or the shoreline of Pescadero Marsh, that the project is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act of 1976 (commencing with Section 30200 of the Public Resources Code), since adequate access to the shoreline exists nearby, on Broadway. The project is located two blocks inland of Ocean Boulevard.

4. That the project conforms to specific findings required by policies of the San Mateo County Local Coastal Program since the proposed building will use exterior siding, natural colors and pitched roofs.

Regarding the Use Permit, Find:

5. That the design and operation of the proposed use, as conditioned, will further the purpose of the Coastside Commercial Recreation District as stated in Section 6265, since it will meet the service and recreational needs of Coastside visitors and residents by providing a visitor serving use (vacation rental).

6. That the design and operation of the proposed use will conform with the development standards stated in Section 6269 since the project complies with coastal access, building height, lot coverage, landscaping, and development standards.

7. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood. The project will not result in a significant adverse impact to coastal resources.

Regarding the Design Review, Find:

8. That proposed structures are designed and situated so as to retain and blend with the natural vegetation and landforms of the site and to insure adequate space for light and air to itself and adjacent properties, since all setbacks are met and appropriate landscaping is proposed.

9. That where grading is necessary for the construction of structures and paved areas, it blends with adjacent landforms through the use of contour grading rather than harsh cutting or terracing of the site and does not create problems of drainage or erosion on its site or adjacent property, since the lot is level and minimal grading is proposed.

10. That streams and other natural drainage systems are not altered so as to affect their character and thereby causing problems of drainage, erosion or flooding, since no streams are adjacent to the subject parcel.

11. That trees and other vegetation land cover are removed only where necessary for the construction of structures or paved areas in order to reduce erosion and impacts on natural drainage channels, and maintain surface runoff at acceptable levels the parcel has no trees and minimal vegetation, an erosion control plan is required as conditions of approval.

12. That a smooth transition is maintained between development and adjacent open areas through the use of natural landscaping and plant materials which are native

or appropriate to the area, since landscaping appropriate for this urban setting is required.

13. That views are protected by the height and location of structures and through the selective pruning or removal of trees and vegetative matter at the end of view corridors, since the project complies with the applicable height limit.

14. That construction on ridgelines blends with the existing silhouette by maintaining natural vegetative masses and landforms and does not extend above the height of the forest or tree canopy, since the subject parcel is not on a ridgeline.

15. That structures are set back from the edge of bluffs and cliffs to protect views from scenic areas below, since the subject parcel is not adjacent to a cliff or bluff.

16. That public views to and along the shoreline from public roads and other public lands are protected, since the project complies with the applicable height limit.

17. That varying architectural styles are made compatible through the use of similar materials and colors which blend with the natural setting and surrounding neighborhoods, since earth tone siding and hardy board siding proposed.

18. That the design of the structure is appropriate to the use of the property and is in harmony with the shape, size and scale of adjacent building in the community, since the proposed building uses siding and pitched roofs similar to other development in the vicinity.

19. That overhead utility lines are placed underground where appropriate to reduce the visual impact in open and scenic areas, as required by conditions of approval.

20. That the number, location, size, design, lighting, materials, and use of colors in signs are compatible with the architectural style of the structure they identify and harmonize with their surroundings, as required by conditions of approval.

21. That paved areas are integrated into the site, relate to their structure, and are landscaped to reduce visual impact from residential areas and from roadways, since gravel material is proposed for the driveway.

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 February 20, 2020. The Community Development Director 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 one (1) year 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 365 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 sixty (60) days prior to expiration. An extension of these approvals will be considered upon written request and payment of the applicable fees sixty (60) days prior to the expiration of the approvals.

3. The term of the use permit shall be five (5) years from the date of the effective final decision. Thereafter, the applicant, if desiring to continue the use at this site, shall submit an application to the Planning and Building Department for use permit renewal six (6) months prior to expiration of this permit. If the proposed building has not received a Certificate of Occupancy during the 5-year term of this use permit, the use permit shall be permanently expired and not eligible for renewal.

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

5. Any change in use shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

6. Any uses on the project site which are not approved will be found in violation of codes. The applicant shall remove any items that are considered a public nuisance and/or an illegal residence or be subject to violation fees.

7. A detailed exterior lighting plan shall be submitted for review and approval by the Community Development Director prior to installation. This lighting plan shall include detail on the proposed wattage of all lighting, glass/design specifications for both street-lights and wall lights. The exterior lighting for the project shall be primarily down lit, with the exception of some up-lighting for landscaping purposes. All lighting shall be designed such that illumination is focused and directed in a manner that provides for circulation and security while reducing the incidence of spillover light onto adjacent properties. If necessary to minimize intrusive light and glare effects, the exterior light fixtures shall be equipped with lenses or hoods or equivalent spillover light and glare control equipment.

8. No site disturbance shall occur until a valid building permit has been issued.

9. 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. All proposed exterior lighting shall be reviewed and approved by the Planning Department

(design manufacturer's "cut sheets") prior to the issuance of a building permit. Prior to Planning final of the building permit for this project, the applicant shall submit photos verifying the installation of any approved exterior light fixtures.

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

11. The exterior building color shall require review and approval by the Planning and Building Department prior to implementing.

12. A 4-foot wide landscape area consisting of native plant species shall be provided for any areas not developed along the street frontage of the parcel. Landscaping plans, including size, species, and location, for all proposed landscaping shall be submitted as part of the building permit for review and approval. No landscape species shall exceed 4-feet in height at full maturity, for property visibility purposes. Prior to building inspection final and certificate of occupancy, the Planning Department shall verify that the approved landscaping has been installed.

13. All approved landscaping shall be maintained in a healthy condition for the life of the use. Any dead or dying landscape shall be removed and replaced with the same or similar species.

14. The applicant shall adhere to Best Management Practices for erosion and sediment control throughout the duration of project construction. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:

    a. Stabilizing any denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

    b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

    c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

d. Using sediment controls or filtration to remove sediment when dewatering the site and obtaining all necessary permits.

e. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

f. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees and drainage courses.

g. Protecting adjacent properties, buildings, and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

h. Performing earth-moving or ground disturbing activities only during dry weather.

i. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.

j. Limiting construction access routes and stabilizing designated access points.

k. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

l. The contractor shall train and provide instructions to all employees and subcontractors regarding the construction best management practices.

15. To reduce the impact of construction activities on neighboring properties and/or the public roadways, comply with the following:

a. All debris shall be contained on-site; a dumpster or trash bin shall be provided on-site during construction to prevent debris from blowing onto adjacent properties. The applicant shall monitor the site to ensure that trash is picked up and appropriately disposed of daily.

b. The applicant shall remove all construction equipment from the site upon completion of the use and/or need of each piece of equipment which shall include but not be limited to tractors, back hoes, cement mixers, etc.

c. The applicant shall ensure that no construction-related vehicles will impede through traffic along any public right-of-way. All construction vehicles shall be parked on-site outside of any public right-of-way. There shall be no storage of construction vehicles, equipment, or materials in any public right of-way or shared driveway.

16. The applicant shall ensure that during construction, noise, light, dust, odor and other interference with persons and property off the development site is minimized. Furthermore, no hazardous materials shall be stored on-site.

17. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving and Christmas (San Mateo Ordinance Code Section 4.88.360).

18. Colors and material samples shall be submitted to the Planning Department at the time of application for a building permit. Approved colors and materials shall be confirmed prior to a final inspection for the building permit.

19. The applicant shall apply for and be issued a building permit prior to the start of construction and develop in accordance with the approved plans as well as install all structures to current building codes.

20. The applicant shall be responsible for compliance with all Performance Standards as outlined in Section 6270, of the San Mateo County Zoning Regulations.

21. Prior to the Current Planning Section's approval of the building permit for the proposed vacation rental unit, the applicant shall record a deed restriction specifying the following:

    a. The vacation rental unit is a visitor-serving use exclusively available to the general public and visitor length of stays shall be limited to no more than 29 consecutive days and no more than 90 days per year. The deed restriction shall be recorded with the County recorder to run with the land, free and clear of all prior liens and encumbrances.

    b. Conversion of any portion of the vacation rental use, to a non-public, private, or member only use, or the implementation of any program to allow extended or exclusive use or occupancy of such facilities by an individual or limited group or segment of the public, shall require an amendment to applicable permits.

22. The applicant and contractors employed on-site must be prepared to carry out the requirements of California State law with regard to the discovery of historic, cultural or archaeological resources during the course of project construction. In the event that any article of historical or cultural significance is encountered, all ground disturbing work must cease and County Planning notified so that the articles may be suitably protected or flagged for future research. A qualified archaeologist and/or the Native American Heritage Commission may be consulted to recommend subsequent measure for the protection and disposition of significant artifacts.

Building Inspection Section

23. The proposed project requires a building permit.

24. The structural engineer will consider the findings of the tsunami analysis included in the geotechnical report (drainage condition).

Department of Public Works

25. All work in the public right-of-way will require encroachment permit.

26. Prior to the issuance of the building permit or planning permit (if applicable), the applicant shall submit a driveway "Plan and Profile," to the Department of Public Works, showing the driveway access to the parcel (garage slab) complying with County Standards for driveway slopes (not to exceed 20%) 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.

27. 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. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

28. 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.

Geotechnical Section

29. The tsunami inundation analysis shall be updated at the building permit stage as necessary to provide all required design information.

Coastside Fire Protection District (CFPD)

30. Fire Department access shall be to within 150 feet of all exterior portions of the facility and all portions of the exterior walls of the first story of the buildings as measured by an approved access route around the exterior of the building or facility. Access shall be a minimum of 20 feet wide, all weather capability, and able to support a fire apparatus weighing 75,000 lbs. Where a fire hydrant is located in the access, a minimum of 26 ft. is required for a minimum of 20 feet on each side of the hydrant. This access shall be provided from a publicly

maintained road to the property. Grades over 15% shall be paved and no grade shall be over 20%. When gravel roads are used, it shall be Class 2 base or equivalent compacted to 95%. Gravel road access shall be certified by an engineer as to the material thickness, compaction, all weather capability, and weight it will support.

31. All buildings that have a street address shall have the number of that address on the building, mailbox, or other type of sign at the driveway entrance in such a manner that the number is easily and clearly visible from either direction of travel from the street. New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. An address sign shall be placed at each break of the road where deemed applicable by the San Mateo County Fire Department. Numerals shall be contrasting in color to their background and shall be no less than 4 inches in height, and have a minimum 1/2-inch stroke. Remote signage shall be a 6-inch by 18-inch green reflective metal sign.

32. Building plans shall include the proper exiting system (panic hardware and exit signs), including listing of hardware, as per the current California Building and Residential Codes. The system must be installed and inspected, prior to Fire's final approval of the building permit.

33. Contact the Fire Marshal's Office to schedule a Final Inspection prior to occupancy and Final Inspection by a building inspector. Allow for a minimum 72-hour notice to the Fire Department at 650/573-3846.

34. A fire alarm system shall be installed meeting California Fire and Building Codes and NFPA 72.

35. Portable fire extinguishers with a minimum rating of 2A-10BC are required to be placed throughout your project. Contact a licensed/certified fire extinguisher company for proper placement of the required extinguishers. Documentation is required on building plans at the building permit application stage. Proper installation is required prior to Fire's final approval for the building permit.

36. A fire flow of 1,000 gallons per minute (gpm) for 2 hours with a 20-pounds per square inch (psi) residual operating pressure must be available as specified by additional project conditions to the project site. The applicant shall provide documentation including hydrant location, main size, and fire flow report at the building permit application stage. Inspection required prior to Fire's final approval of the building permit or before combustibles are brought on site.

37. The applicant shall install the proper occupancy separations, as per current California Building and Residential Codes. Plans at the building permit application

stage shall include listing and construction details. Inspections will occur throughout construction and prior to Fire's final approval of the building permit.

38. Smoke alarms and carbon monoxide detectors shall be installed in accordance with the California Building and Residential Codes. This includes the requirement for hardwired, interconnected detectors equipped with battery backup and placement in each sleeping room in addition to the corridors and on each level of the residence.

39. An approved Automatic Fire System meeting the requirements of NFPA-13 shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Inspection Section for review and approval by the San Mateo County Fire Department.

40. An interior and exterior audible alarm activated by automatic fire sprinkler system water flow shall be required to be installed in all residential systems. All hardware must be included on the submitted sprinkler plans.

41. An approved Automatic Fire Sprinkler System meeting the requirements of NFPA-13R shall be required to be installed for your project. Plans shall be submitted to the San Mateo County Building Inspection Section for review and approval by the San Mateo County Fire Department.

42. A statement that the building will be equipped and protected by automatic fire sprinklers must appear on the title page of the building plans.

Coastside County Water District

43. The applicant shall submit confirmation of water service to the site from Coastside County Water District (District) to be submitted prior to issuance of a building permit.

44. The applicant shall comply with the required water connection requirements.

45. All non-residential developments require approved backflow protection per District regulations on the domestic service and fire service.

46. Fire sprinklers are served from an independent and dedicated water service connection with a separate fire meter.

47. Coastside County Water District does not allow passive purge systems to be installed on fire protection services.

48. A full set of the most recent plans and drawings for the project (fire sprinkler, architectural, plumbing, mechanical, green building, structural, civil, utility, and

landscape/irrigation) must be submitted to the District for review and approval. Existing and new utilities must be clearly marked on the drawings.

Granada Sanitary District

49. The applicant shall comply with the required sanitary connection requirements.

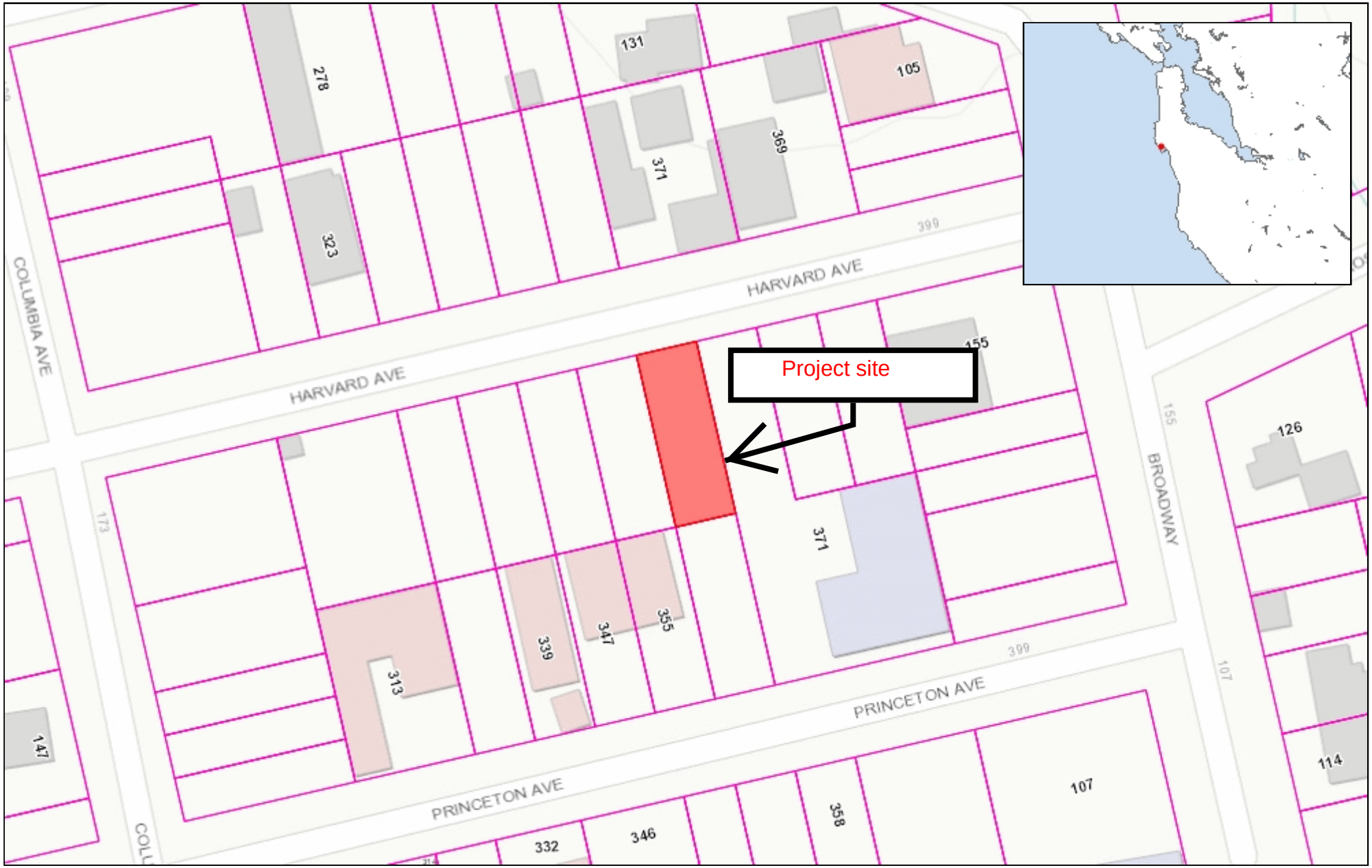
OB:pac - OSBEE0079_WPU.DOCX

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

San Mateo County

County San Mateo, CA



0.04 0 0.02 0.04 Miles

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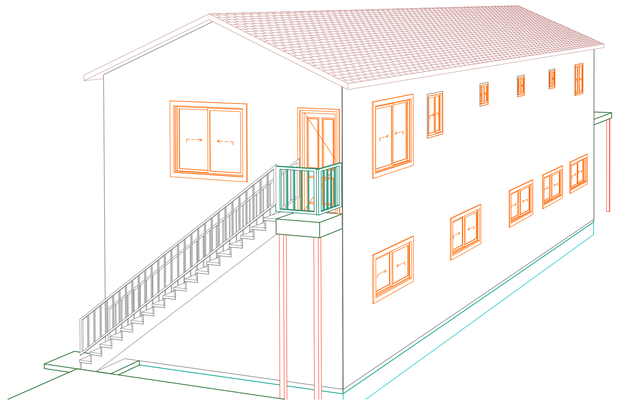
COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C



Perspective

Project Data

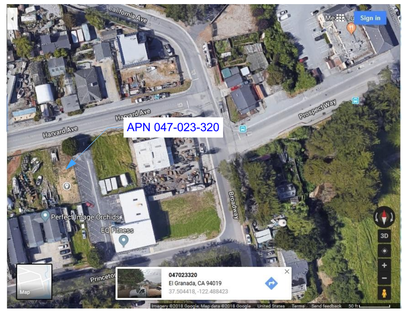
Project Name: Pemberton Fishing Building
Project Description: New Vacation Rental/Office/Commercial Fishing Storage
Project Status: Schematic Design
Zoning: CCR
Building Slab Area: 1200 Sq Ft
Site Gross Area: 3500 Sq Ft
Lot Coverage: 34%

Sheet Index

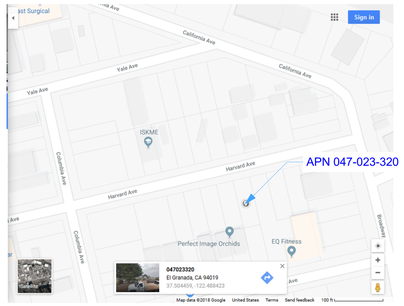
Layout ID	Layout Name	Revision	Issued	Published	Remark
A.1	Site Plan		☐	☒	
A.2	Floor Plan		☐	☒	
A.3	Section Elevation		☐	☒	
A.4	Schedule		☐	☒	

047-023-320 Vicinity Map Street View 2

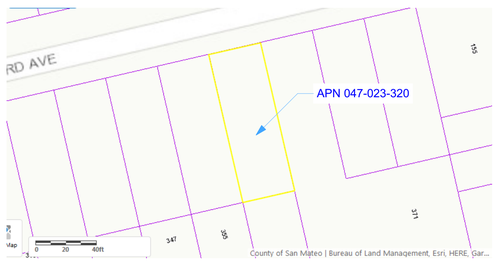
047-023-320 Vicinity Map Street View 1



047-023-320 Vicinity Map (Satellite)



047-023-320 Vicinity Map



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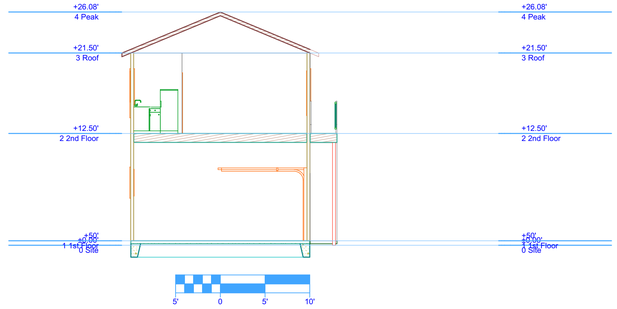
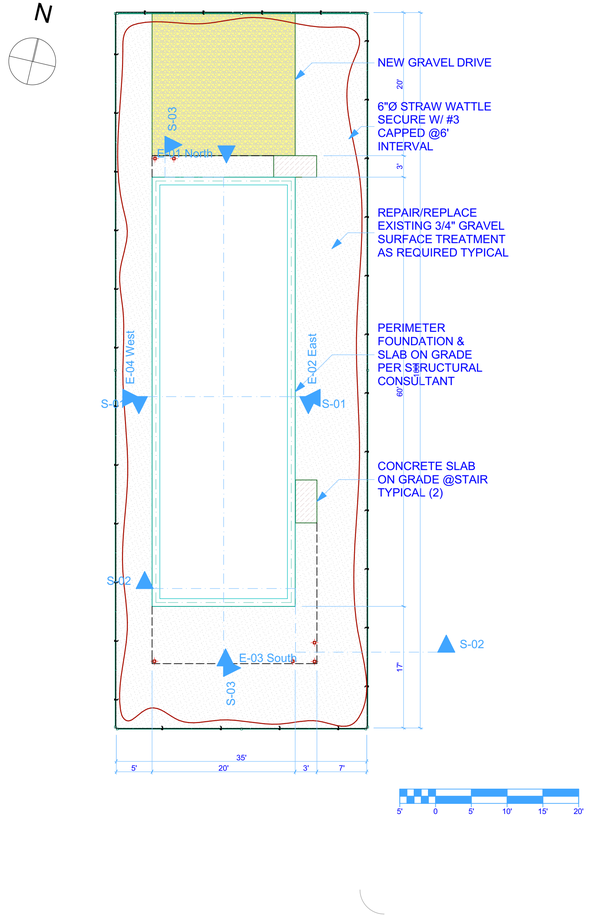


S-02 Transverse Ridge 1/8" = 1'-0"

HARVARD AVE



0. Architectural Site Plan & Erosion Control Plan 1" = 10'

Rev#	Chk'd	Change Name	Date

Christopher Church Architect
330 7th St PO Box 18
Montara CA 94037
650-728-3119

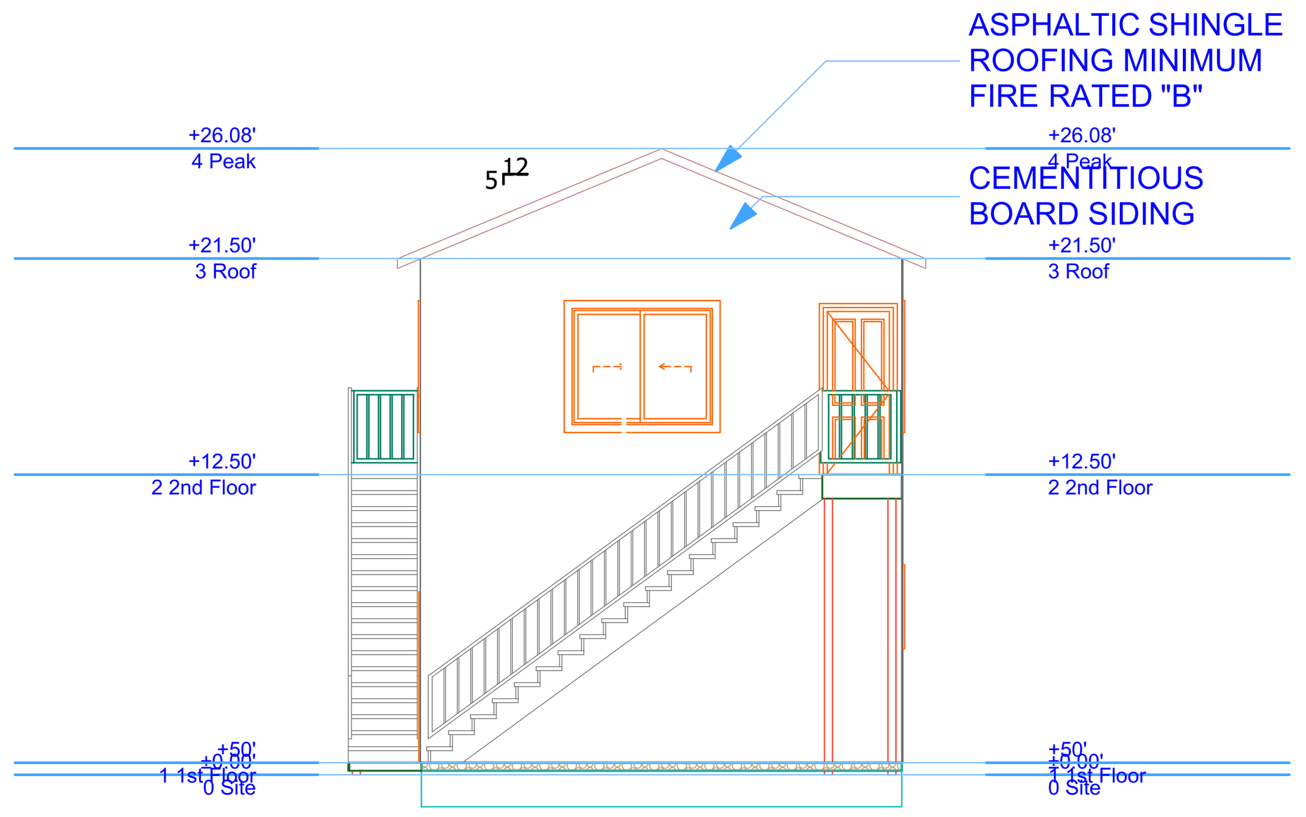
Pemberton Fishing Building
New Vacation Rental/Office/Commercial Fishing Storage
Owner: Donald Pemberton, PO Box 245, El Granada CA 94018
Project Address: APN 047-023-320, Half Moon Bay, CA 94019
Assessor's Parcel Number APN: 047-023-320, Zoning: CCR

Site Plan
Schematic Design
Not for construction

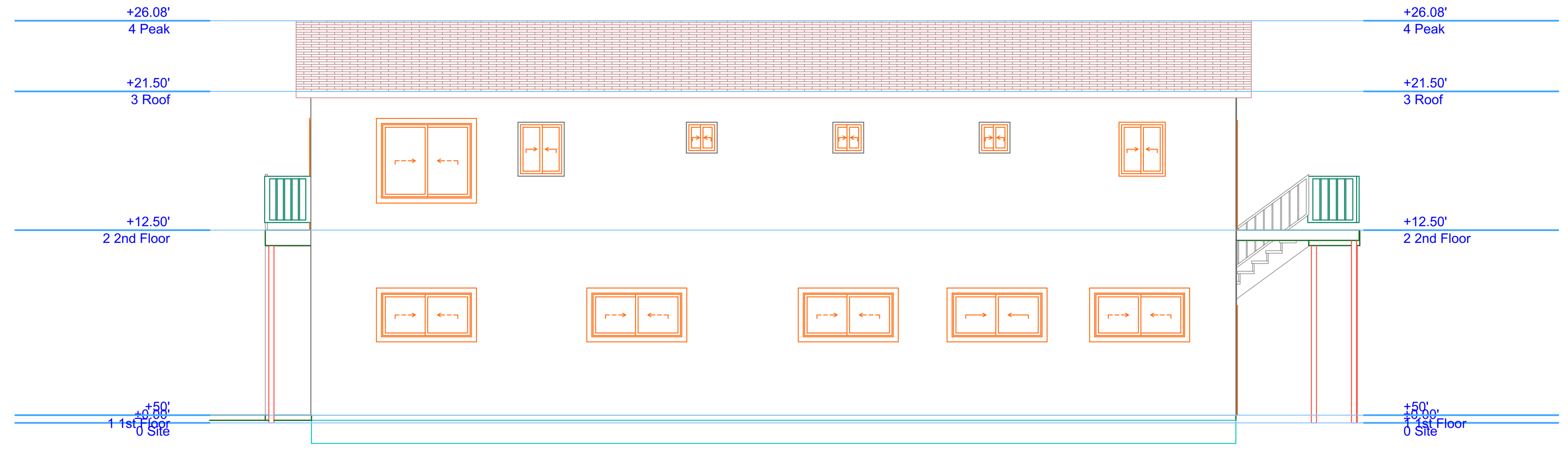
A.1

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

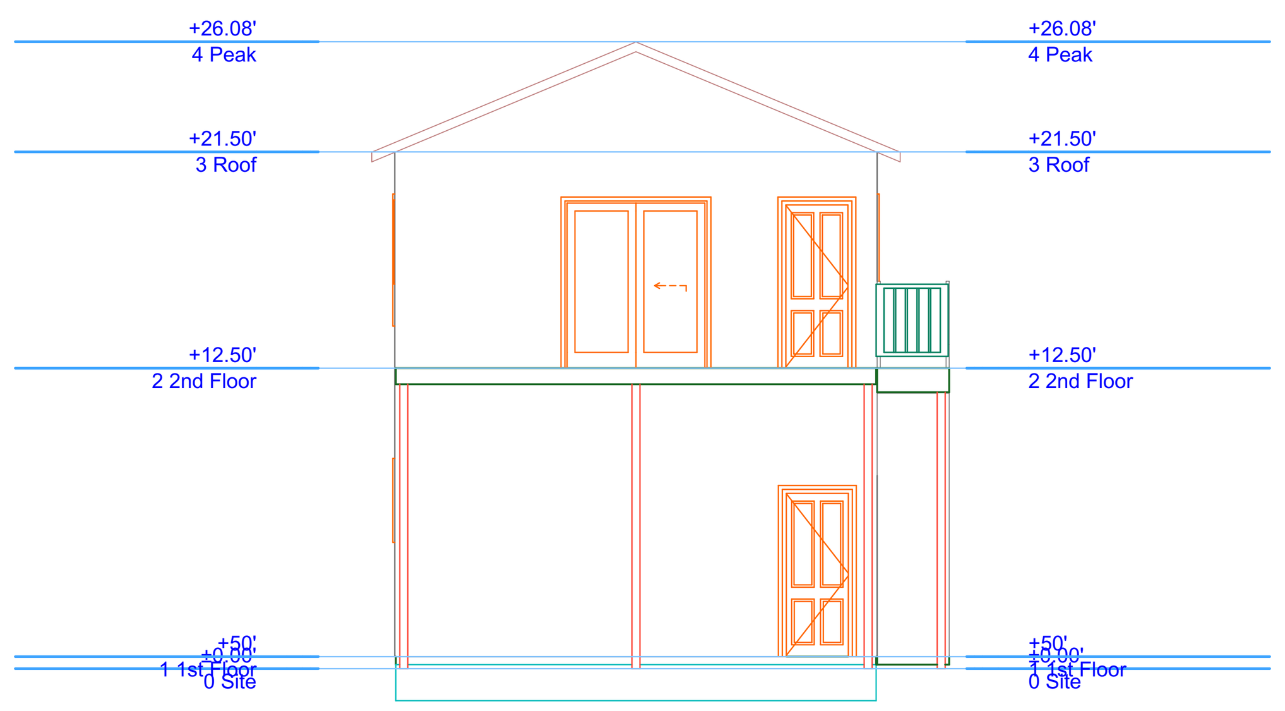
ATTACHMENT D



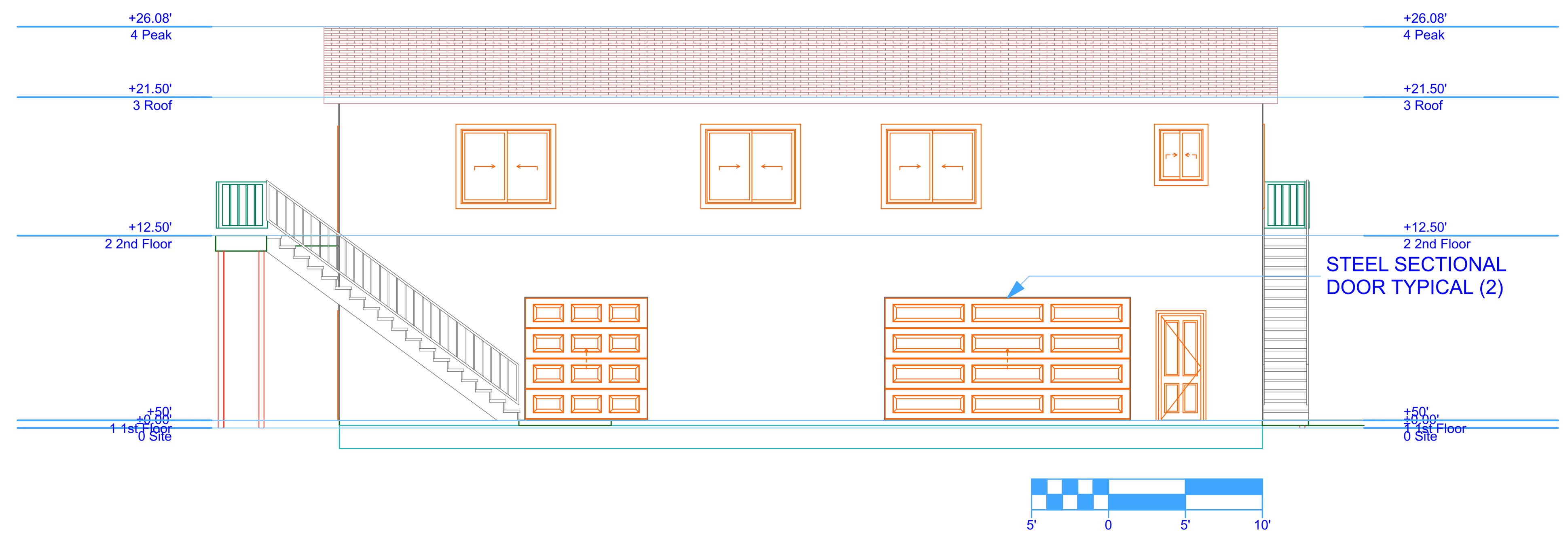
E-01 North 1/8" = 1'-0"



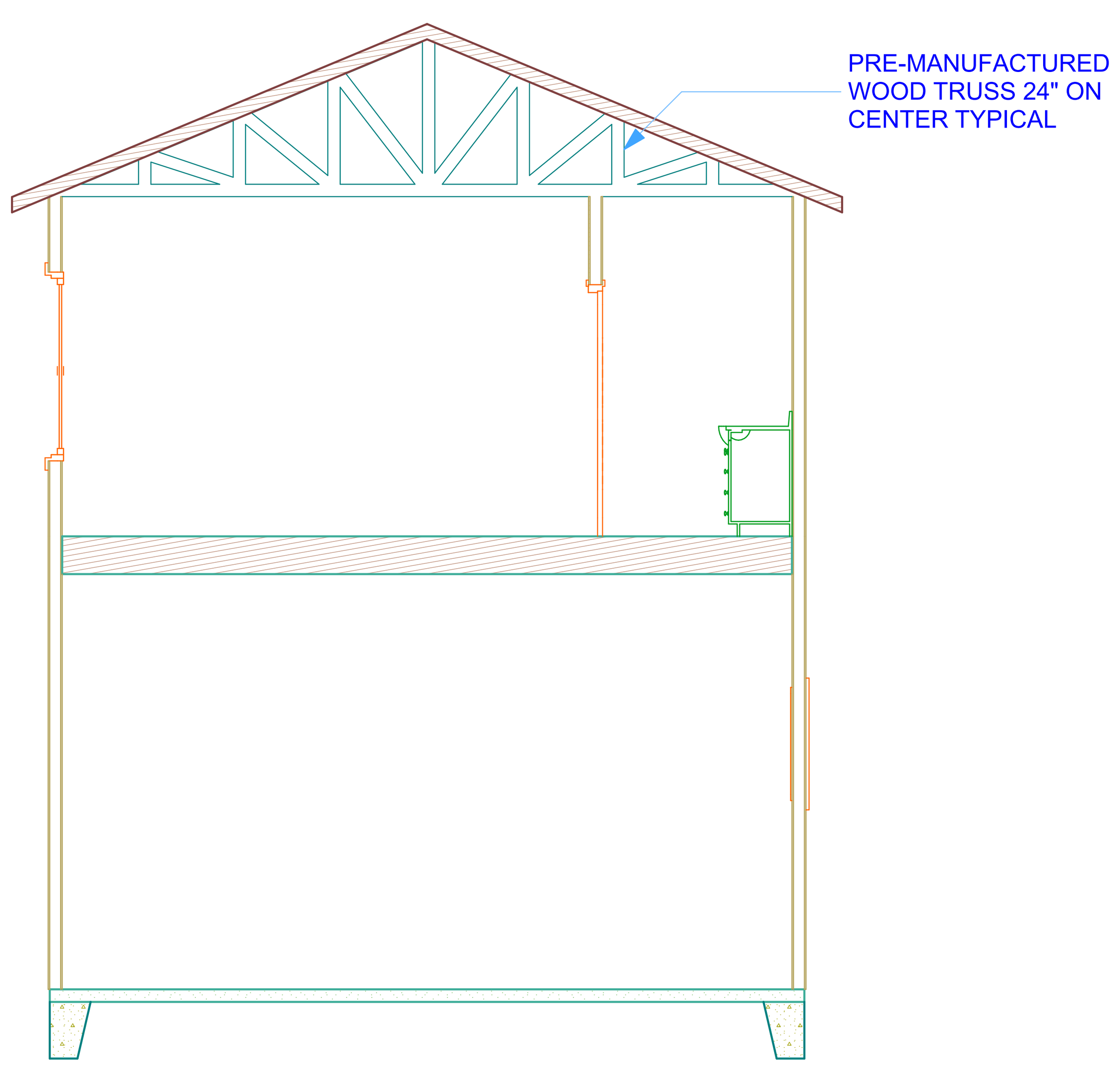
E-04 West 1/8" = 1'-0"



E-03 South 1/8" = 1'-0"



E-02 East 1/8" = 1'-0"



S-01 Building Section 1/4" = 1'-0"

S-03 Longitudinal Ridge 1/4" = 1'-0"

RevID	ChID	Change Name	Date

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Christopher Church Architect
330 7th St PO Box 18
Montara CA 94037
650-728-3119

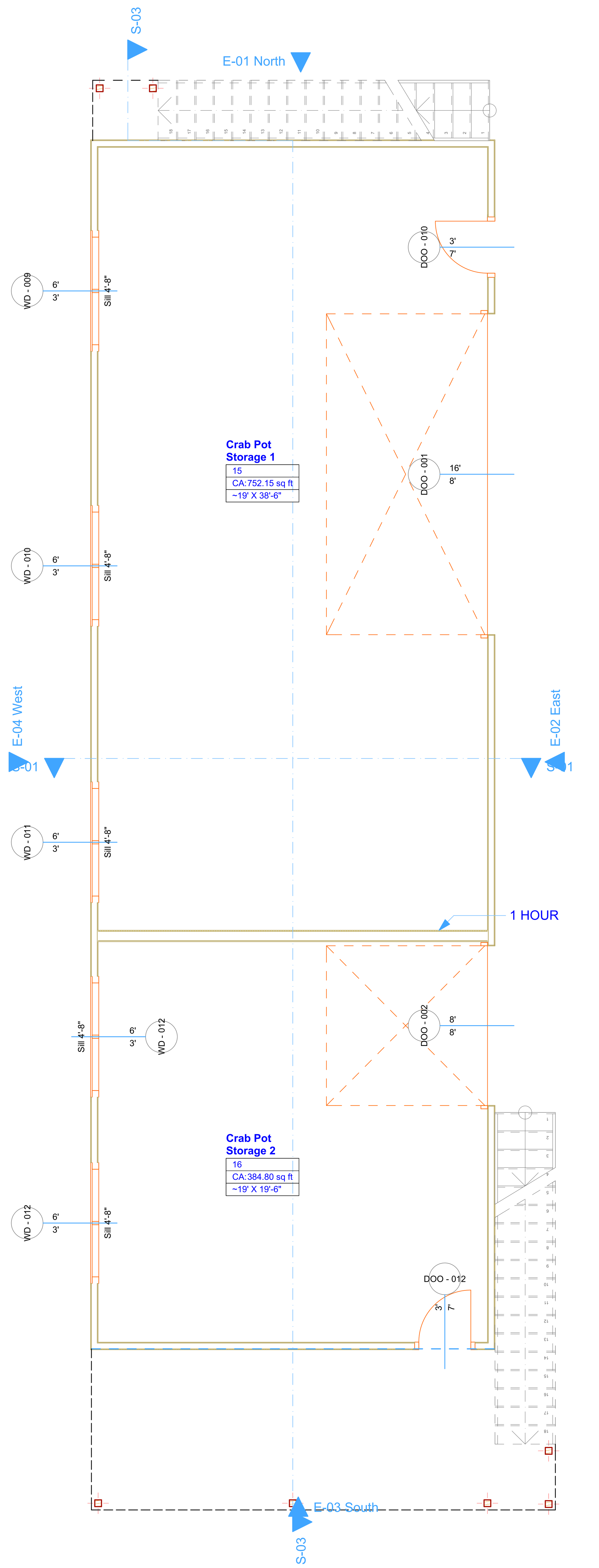
Pemberton Fishing Building
New Vacation Rental/Office/Commercial Fishing Storage
Owner: Donald Pemberton, PO Box 245, El Granada CA 94018
Project Address: APN 047-023-320, Half Moon Bay, CA 94019
Assessor's Parcel Number APN: 047-023-320, Zoning: CCR

Section Elevation
Schematic Design
Not for construction

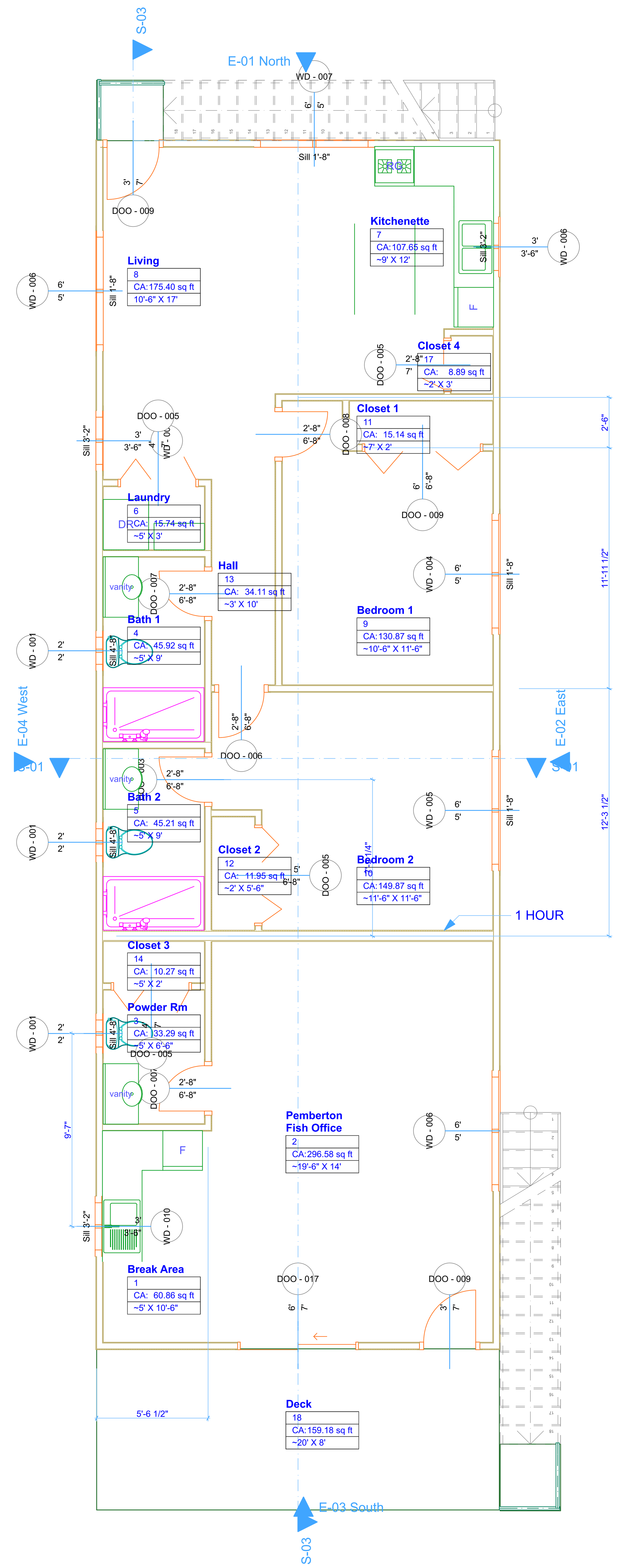
A.3

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

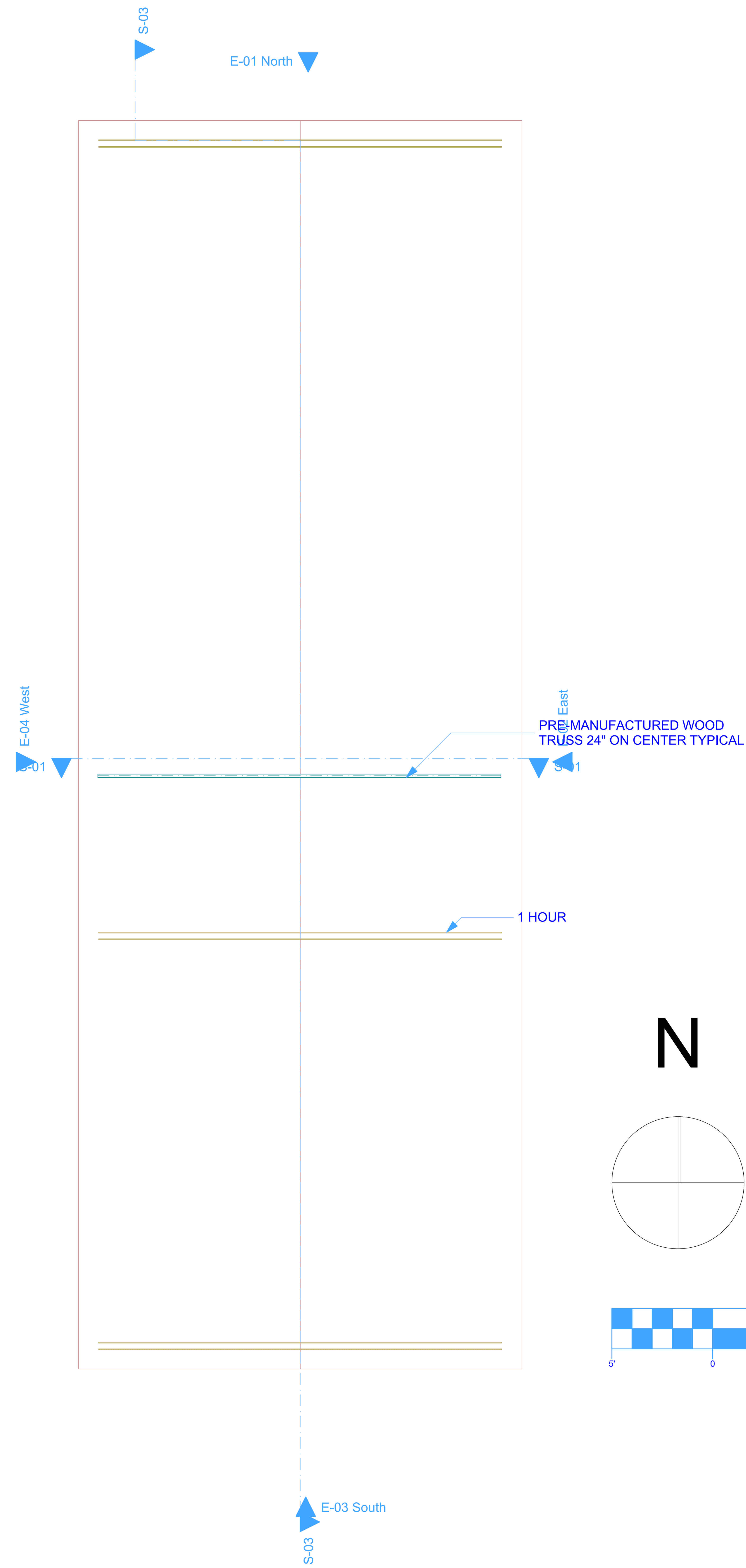
ATTACHMENT E



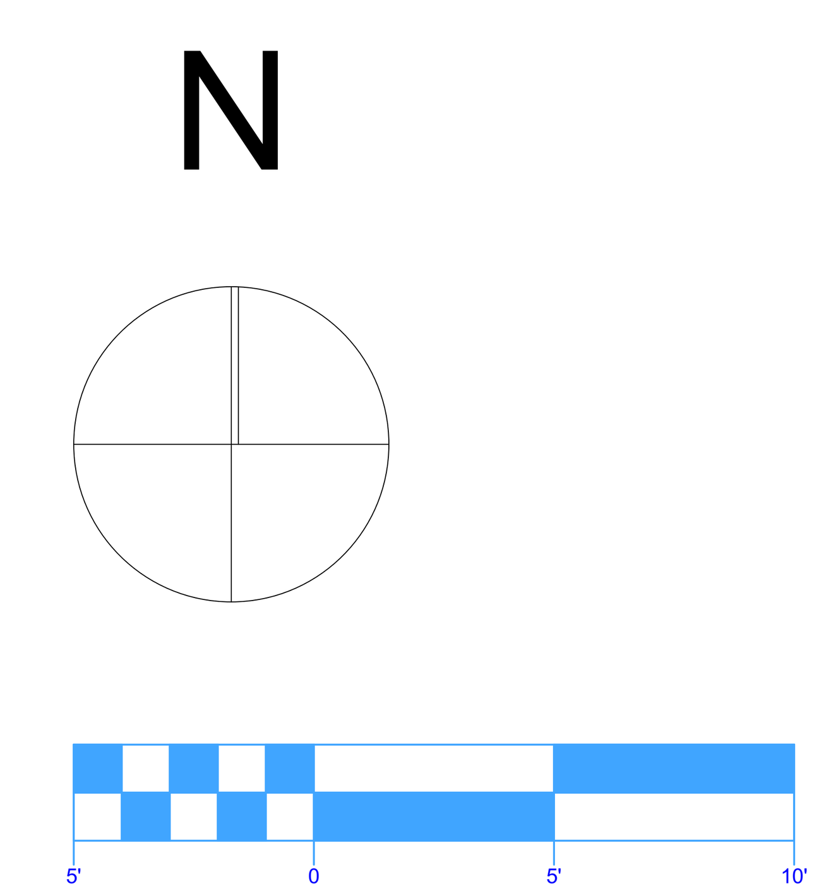
1. 1st Floor 1/4" = 1'-0"



2. 2nd Floor 1/4" = 1'-0"



3. Roof 1/4" = 1'-0"



Christopher Church Architect
330 7th St PO Box 18
Montara CA 94037
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Pemberton Fishing Building
New Vacation Rental/Office/Commercial Fishing Storage
Owner: Donald Pemberton, PO Box 245, El Granada CA 94018
Project Address: APN 047-023-320, Half Moon Bay, CA 94019
Assessor's Parcel Number APN: 047-023-320, Zoning: CCR

Floor Plan
Schematic Design
Not for construction

A.2

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F


INTERSTATE

Project Site

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT G

Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

PEMBERETON PROPERTY
HARVARD AVENUE
PRINCETON, CALIFORNIA
APN 047-230-320

PREPARED FOR:
DON PEMBERTON
431 MONTECITO AVENUE
EL GRANADA, CA 94018

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

FEBRUARY, 2019

Sigma Prime Geosciences, Inc.

February 19, 2019

Donald Pemberton
431 Montecito Avenue
El Granada, CA 94018

Subject: Geotechnical Report for Proposed Construction,
Harvard Avenue, Princeton, California, APN: 047-023-320.
Sigma Prime Job No. 19-101

Dear Mr. Pemberton:

As per your request, we have performed a geotechnical study for the proposed construction at the location mentioned above. The accompanying report summarizes the results of our studies and engineering analyses and presents geotechnical recommendations for the planned construction.

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
PEMBERTON PROPERTY
HARVARD AVENUE
PRINCETON, CALIFORNIA
APN 047-023-320

PREPARED FOR:
DONALD PEMBERTON
431 MONTECITO AVENUE
EL GRANADA, CA 94018

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

FEBRUARY 19, 2019

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1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed construction located on Harvard Avenue in Princeton, California, at the location shown in Figure 1. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations necessary to complete the proposed project.

1.1 PROJECT DESCRIPTION

The proposed project is to consist of constructing a two story multi-use building. Loads will be very light.

1.2 SCOPE OF WORK

The scope of work for this study was presented in our proposal dated December 10, 2018. 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;
- Subsurface study, including 2 soil borings in the site vicinity for the buildings foundation design;
- Laboratory testing of selected soil samples, to establish their engineering properties, and for soil classification purposes;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed improvements.

2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on January 22, 2019. The subsurface study consisted of drilling 2 soil borings. Both soil borings were advanced to a depth of 12 feet. The approximate locations of the borings, numbered B-1 and B-2, are shown in Figure 2. The boring logs and the results of the laboratory tests on soil samples are attached in Appendix A.

2.2 SITE CONDITIONS

The site is very flat and covered with gravel throughout. It is currently used for storage of fishing equipment mostly crab traps. There is a small shed at the east side of the property which is slated for removal. Vegetation is very sparse.

2.3 REGIONAL AND LOCAL GEOLOGY

The property is underlain by gravelly clay/clayey sand associated with Pleistocene age alluvial fan and stream terrace deposits (Pampeyan, 1994). The material is generally very stiff and very dense, and is commonly partially cemented.

2.4 SITE SUBSURFACE CONDITIONS

Based on the soil borings, the subsurface conditions consist of approximately 1 foot of granular subbase fill followed by 1 foot of dense silty sand fill followed by 2 feet of native stiff clay followed by stiff sandy clay to the drilled depth of 12 feet. The upper clayey soil has moderate plasticity, with plasticity indices of 13 and 17.

2.5 GROUNDWATER

Groundwater was not encountered in the soil borings and is not expected to impact the proposed construction.

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 fault, located 0.6 km 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}
2.197	0.883	2.197	null	1.465	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, accurately obtained from Google Earth™, are 37.5044 and –122.4884, respectively.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

It is our opinion that, from a geotechnical viewpoint, 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 and structural calculations 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 not located in an Alquist-Priolo Earthquake Fault Zone where fault rupture is considered likely (California Division of Mines and Geology, 1976). Therefore, active faults are not believed to exist beneath the site, and the potential for fault rupture to occur at the site is considered 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 stiff nature of the underlying sandy clays, the likelihood of significant damage to the structure from differential compaction is low.

- 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 silty sands were not encountered at the site and are not expected at depth, where the soils typically become more dense and partially cemented. Therefore, in our opinion, the likelihood of liquefaction occurring at the site 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 elevation runup of 8 meters or approximately 26 feet above sea level (NAVD 88), (figure 3). The flow depth is estimated to be approximately 2 meters or 6.5 feet, (figure 4). The subject property is at an elevation of approximately 20 feet above sea level (NAVD88). According to San Mateo County Zoning Regulations (January, 2018) any proposed residential floor height must be a minimum of 8.5 feet above ground level.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

All deleterious materials, including trees, topsoil, concrete, roots, vegetation, 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.

After the site has been properly cleared, stripped, and excavated to the required grades, the exposed surface soil in areas to receive a slab-on-grade should be scarified to a depth of 6 inches, moisture conditioned, and compacted to the specifications listed below under the section captioned "compaction."

3.3.2 Compaction

The scarified surface soils should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1157-78. All trench backfill should also be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 92 percent of the maximum dry density. Trench fills should be placed in loose lifts of 6 to 8 inches.

3.3.3 Surface Drainage

The finish grades should be designed to drain surface water away from foundations, retaining walls and slab areas, to suitable discharge points. Slopes

of at least 5 percent within 10 feet of the structures are recommended, where space permits. Ponding of water should not be allowed adjacent to the structure.

3.4 FOUNDATIONS

A reinforced slab/mat foundation is recommended. A reinforced slab or mat foundation may be designed for allowable bearing pressures of 2,500 pounds per square foot for dead plus live loads, with a one-third increase allowed for total loads including wind or seismic forces. Building walls will be constructed to withstand wave force from tsunami inundation as explained in section 3.2. as calculated by the structural engineer.

We recommend that the slabs be underlain by at least 12 inches of non-expansive granular fill. Where floor wetness would be detrimental, a vapor barrier, such Stego wrap or equivalent may be used.

All slabs should be reinforced to provide structural continuity and to permit spanning of local irregularities. The slabs should be capable of spanning 10 feet, point to point, and should cantilever a minimum of 4 feet.

Less than ½-inch of total settlement and less than ¼-inch of differential settlement is expected.

3.4.1 Lateral Loads

A passive pressure equivalent to that provided by a fluid weighing 300 pcf and a friction factor of 0.3 may be used to resist lateral forces and sliding against mat or spread footing foundations. These values include a safety factor of 1.5 and may be used in combination without reduction. Passive pressures should be disregarded for the uppermost 12 inches of foundation depth, measured below the lowest adjacent finished grade, unless confined by concrete slabs or pavements. However, the pressure distribution may be computed from the ground surface.

3.5 CONSTRUCTION OBSERVATIONS 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 Mr. Don Pemberton for specific application in developing geotechnical design criteria for the currently planned construction at Harvard Avenue (APN047-023-320) in Princeton, California. 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 study; 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 a study 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.

5. REFERENCES

Borchardt, G. and Toppozada, T.R., 1996, Relocation of the "1836 Hayward Fault Earthquake" to the San Andreas Fault, Abstracts, American Geophysical Union Fall Meeting, December, San Francisco.

California Building Code, 2016. California Code of Regulations. Title 24, Part 2 Volume 2, Effective January 1, 2017.

California Division of Mines and Geology, 1976, Earthquake Fault Zones, Alquist-Priolo Earthquake Fault Zoning Act, Half Moon Bay Quadrangle, Scale 1: 24,000.

Jennings, C.W., 1996, Preliminary Fault and Geologic Map, State of California, California Division of Mines and Geology, Scale 1:750,000.

International Conference of Building Officials, February, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada. (To be used with 1997 Uniform Building Code)

Modeling for the SAFFR Tsunami Scenario- Generation, Propagation, Inundation, and Currents in Ports and Harbors, 2013 USGS Open File Report 2013-1170-D and California Geologic Survey Special Report 229

Pampeyan, Earl H., 1994, Geologic Map of the Montara Mountain and San Mateo 7-1/2' Quadrangles, San Mateo County, California, USGS Miscellaneous Investigations Series Map I-2390, Scale 1:24,000.

Petersen, M.D., Bryant, W.A., Cramer, C.H., Cao, T., Reichle, M.S., Frankel, A.D., Lienkaemper, J.J., McCrory, P.A., and Schwartz, D.P., 1996, Probabilistic Seismic Hazard Assessment for the State of California, USGS Open File Report 96-706, CDMG Open File Report 96-08, 33p.

Toppozada, T.R., Real, C.R., and Park, D.L., 1981, Preparation of Isoseismal Maps and Summaries of Reported Effects for pre-1900 California Earthquakes, CDMG Open File Report 81-11 SAC.

Toppozada, T.R., 1984, History of Earthquake Damage in Santa Clara County and Comparison of 1911 and 1984 Earthquakes.

United States Geological Survey, 1989, Lessons Learned from the Loma Prieta, California Earthquake of October 17, 1989, Circular 1045.

Working Group on California Earthquake Probabilities, 1999, Earthquake Probabilities in the San Francisco Bay Region: 2000 to 2030 – A Summary of Findings, U.S. Geological Survey Open File Report 99-517, version 1.

APPENDIX A

SUBSURFACE STUDY

The soils encountered during drilling were logged by our representative, and samples were obtained at depths appropriate to the study. The samples were taken to the 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 18 inches. The standard penetration resistance is the number of blows required to drive a standard split spoon sampler the last 12 inches, and is recorded on the boring logs at the appropriate depth. Use of the standard split spoon sampler defines a Standard Penetration Test (SPT), and yields an SPT-equivalent blow count. A modified California (Mod-Cal) sampler was also used, which results in blow counts that are higher than an SPT-equivalent blow count, due to the Mod-Cal sampler's larger diameter. For analyses, it is normal practice to reduce the Mod-Cal blow counts to correspond to an SPT-equivalent blow count. The blow counts from the Mod-Cal sampler are uncorrected on the logs. The results of these field tests are also 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 groundwater 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.

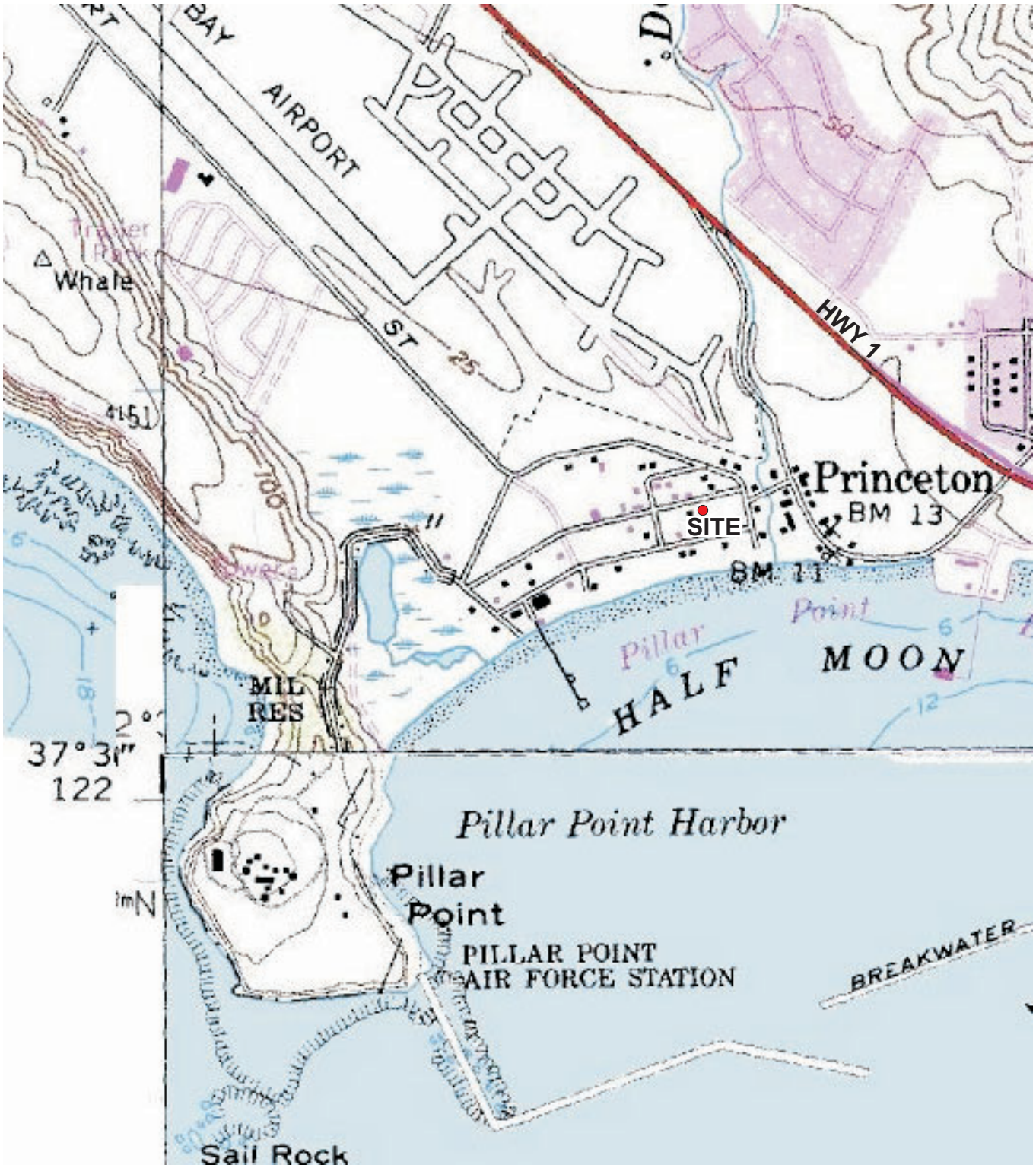
APPENDIX B

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 two soil samples in accordance with ASTM D 422. These results are presented on the boring logs, at the appropriate sample depths.



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0 1000

Scale - feet

Sigma Prime Geosciences, Inc.

Figure	1
Date:	2/16/19
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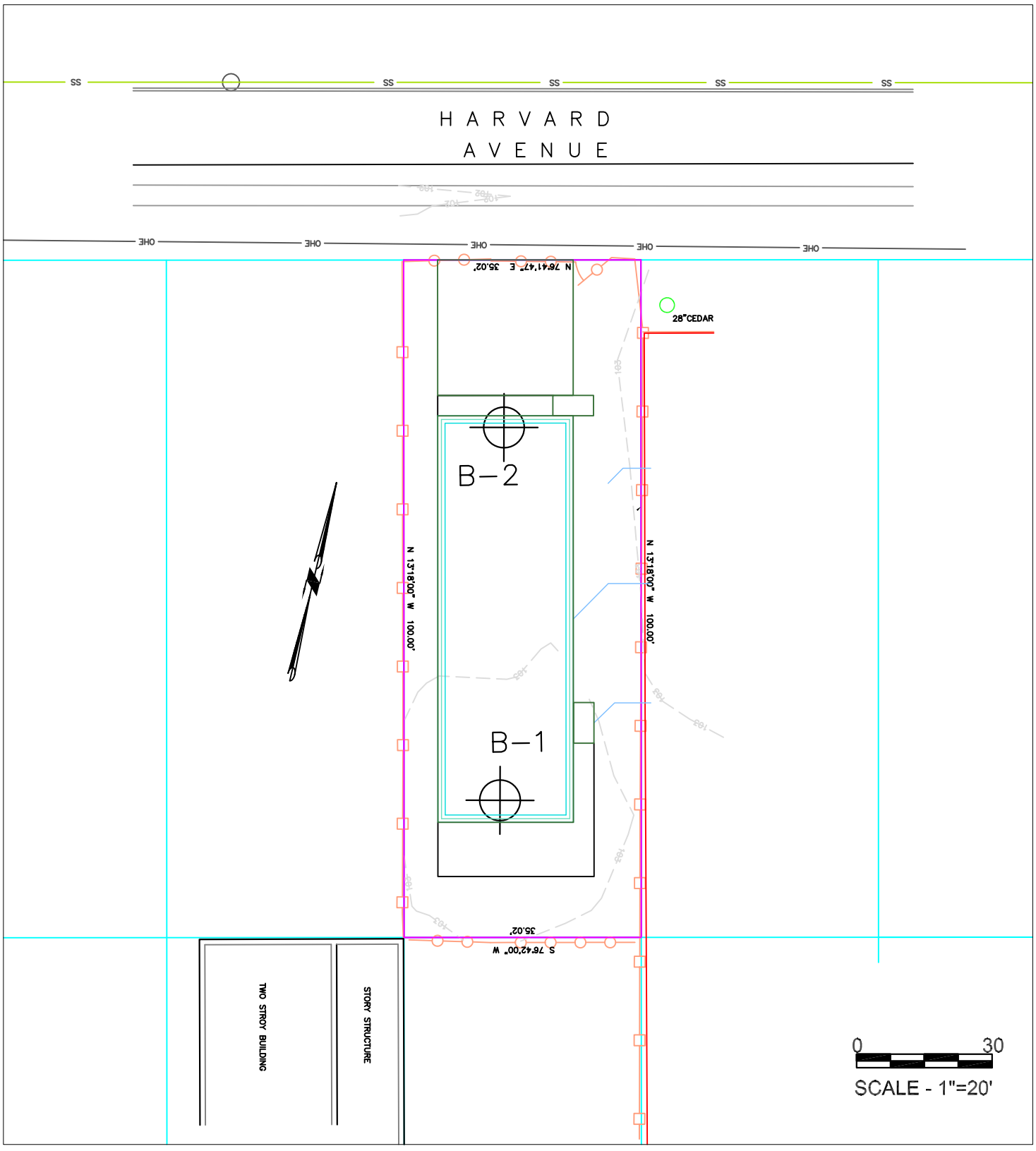
Location Map

Pemberton Property, Harvard Ave., Princeton



Explanation

B–2 Soil Borings Drilled 1-22-19

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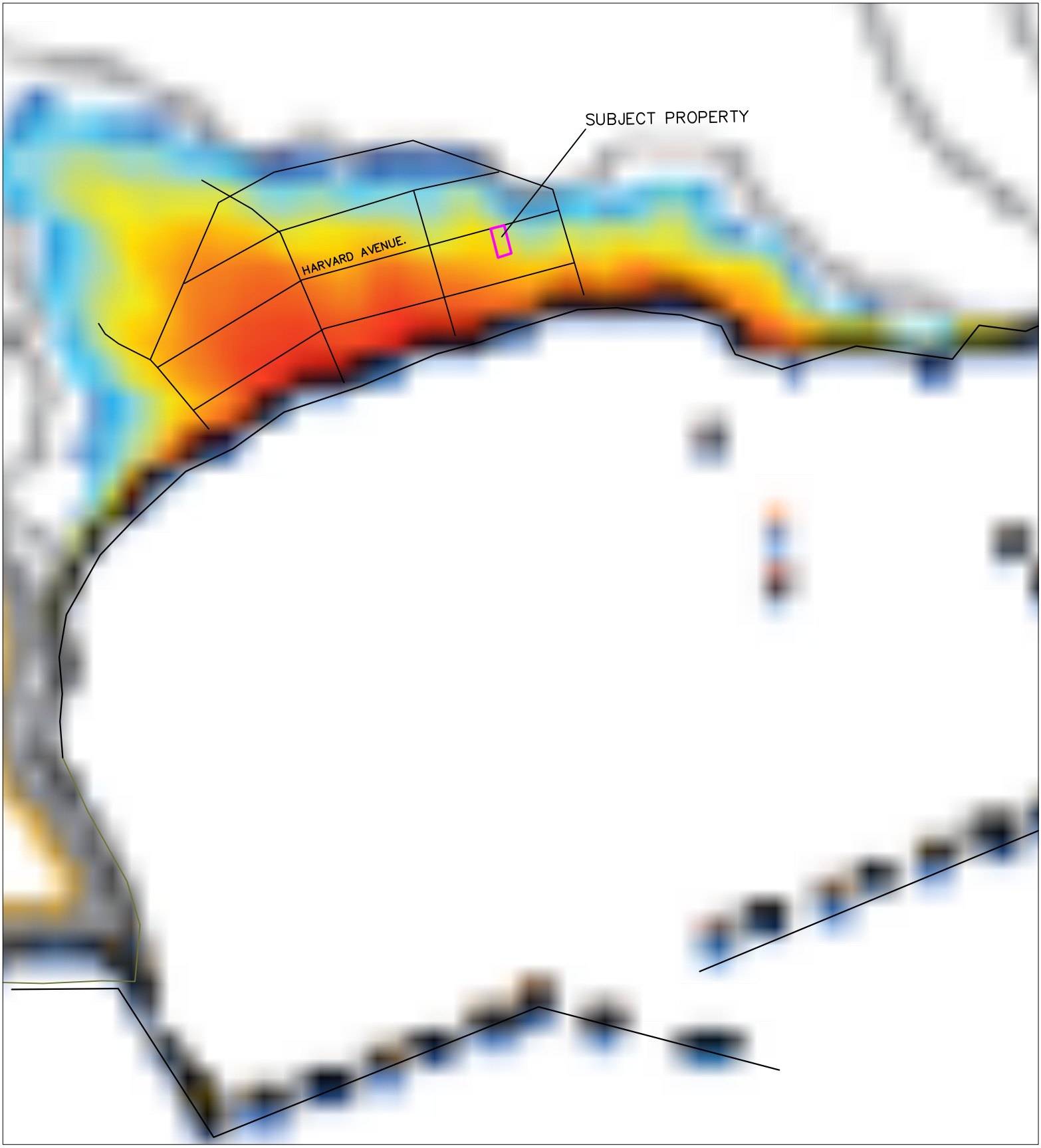
Figure	2
Date:	2/16/19
Job No.:	19-101

Site Map

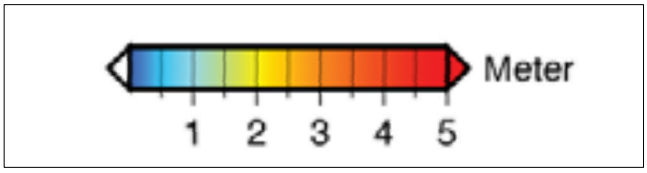
Pemberton Property, Harvard Ave., Princeton



Not To Scale

Figure 3

FLOW DEPTH



From: Modeling for the SAFRR Tsunami Scenario... Open File Report 2013–1170–D

Princeton-By-The-Sea From Cal OES

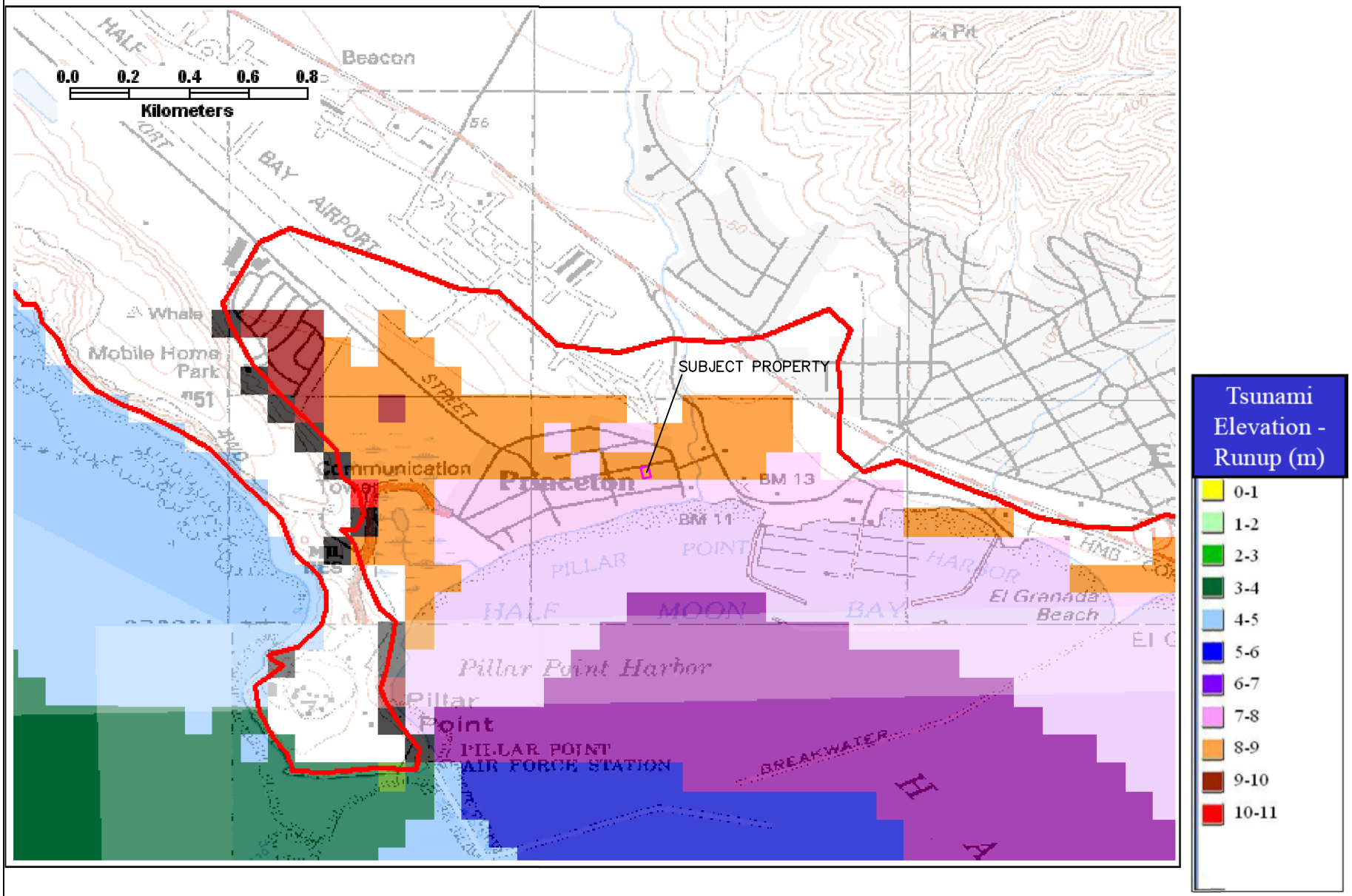


FIGURE 4

APPENDIX A

SUBSURFACE STUDY

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The boring logs and related information depict our interpretation of subsurface conditions only at the specific location and time indicated. Subsurface conditions and groundwater 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	Sigma Prime Geosciences, Inc.
Pemberton	19-101	

Location: Front of Lot

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continuous	4“	12’	12’	0’	103’ +/-	Assumed*

Boring No.	**B-1**
Page	1 of 1
Date(s)	1/22/19

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’ - 1’: Aggregate Base (Fill): gray; dense; dry.		GP	40 10		MC	* Assumed datum means datum selected by surveyor; not a true elevation.
	1’ - 2’: Silty Sand (Fill): moderate brown; dense; moist.		SM	13 14	1		
	2’ - 4’: Clay (NATIVE): dark brown; very stiff; moist.		CL	9 7 10 11	2	2½“	Lab, Sample #2: Moisture%=16.9% Dry Density=107.6 pcf LL=33, PL=20, PI=13
5	4’ - 12’: Sandy Clay: orange- brown; stiff; moist. ~20% sand.			8 8 9 12	3	2½“	
				6 7 11 11	4	SPT	
			CL	6 5 6 6	5	SPT	
10				8 10 11 15	6	SPT	
	Bottom of Hole 12’ below ground surface. No groundwater encountered.						
15							
20							

Project Name	Project Number	Sigma Prime Geosciences, Inc.
Pemberton	19-101	

Location: Back of Lot

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continuous	4“	12’	12’	0’	103’ +/-	Assumed*

Boring No.	B-2
Page	1 of 1
Date(s)	1/22/19

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’ - 1’: Aggregate Base (Fill): gray; dense; dry.		GP	27 14 13 13		MC	* Assumed datum means datum selected by surveyor; not a true elevation.
	1’ - 2’: Silty Sand (Fill): moderate brown; dense; moist.		SM		1		
	2’ - 4’: Clay (NATIVE): dark brown; very stiff; moist.		CL	11 13 13 14	2	2½“	
5	4’ - 12’: Sandy Clay: orange- brown; stiff; moist. ~20% sand.			10 10 12 13	3	2½“	Lab, Sample #3: Moisture%=17.4% LL=33, PL=16, PI=17
				5 5 7 10	4	SPT	
			CL	6 6 8 15	5	SPT	
10				7 9 12 15	6	SPT	
	Bottom of Hole 12’ below ground surface. No groundwater encountered.						
15							
20							

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

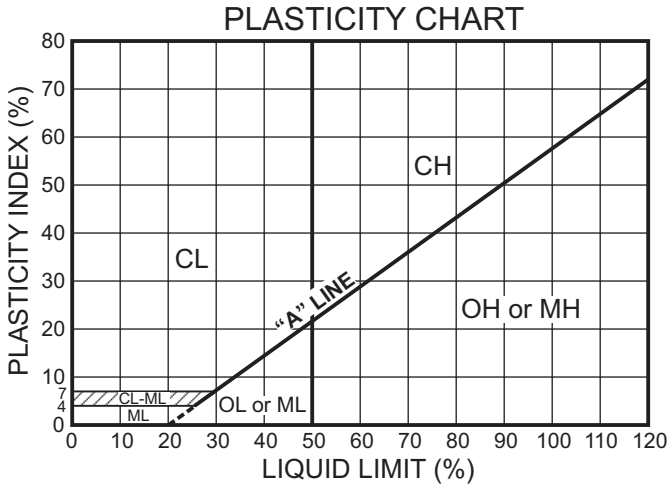
MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL
			Cu < 4 AND/OR 1 > Cc > 3	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.



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 two soil samples in accordance with ASTM D 422. These results are presented on the boring logs, at the appropriate sample depths.