COUNTY OF SANTA BARBARA

Planning and Development

www.sbcountyplanning.org

Draft Mitigated Negative Declaration 23NGD-00007

PLSB, LLC Residence & Accessory Structures

20CDH-00000-00022 & 23CUP-00001

March 2024

Applicant

PLSB, Inc.
PO Box 29374
San Francisco, CA 94129

Agent

Appleton Partners LLP
911 Chapala Street
Santa Barbara, CA 93101
(805) 965-0304

For More Information Contact Katie Nall, Planner, Energy Minerals & Compliance
P: (805) 884-8050 E: nallk@countyofsb.org

1.0 REQUEST/PROJECT DESCRIPTION

The project is for a Coastal Development Permit, Case No. 20CDH-OOOOO-00022, to allow the demolition of the existing residence, garage, guest house, greenhouse, and shed, and allow for the construction of a new 5,282-square-foot residence, a 760-square-foot detached garage, 754-square-foot storage room above garage, 770-square-foot cabana, 765-square-foot guesthouse above cabana as well as a new backup generator, hardscaping, and landscaping. The 28-foot tall main residence includes an 8-foot tall cupola at the center and the accessory structures are proposed to be 27-feet above existing grade. Also proposed is a Minor Conditional Use Permit, Case No. 23CUP-00001, for the installation of a new 16-foot tall, 40-square-foot greenhouse. The proposed project will require approximately 1,200-cubic-yards of cut and 3,000-cubic-yards of fill. The project will result in the removal of 42 trees throughout the property including native and nonnative species. The parcel will be served by the Carpinteria Valley Water District, the Carpinteria Sanitary District, and the Santa Barbara County Fire District. The property is a 2.02 acre parcel zoned 8-R-1 and shown as Assessor's Parcel Number 005-400-041, located at 3393 Padaro Lane in the Toro Canyon Community Plan area, First Supervisorial District.

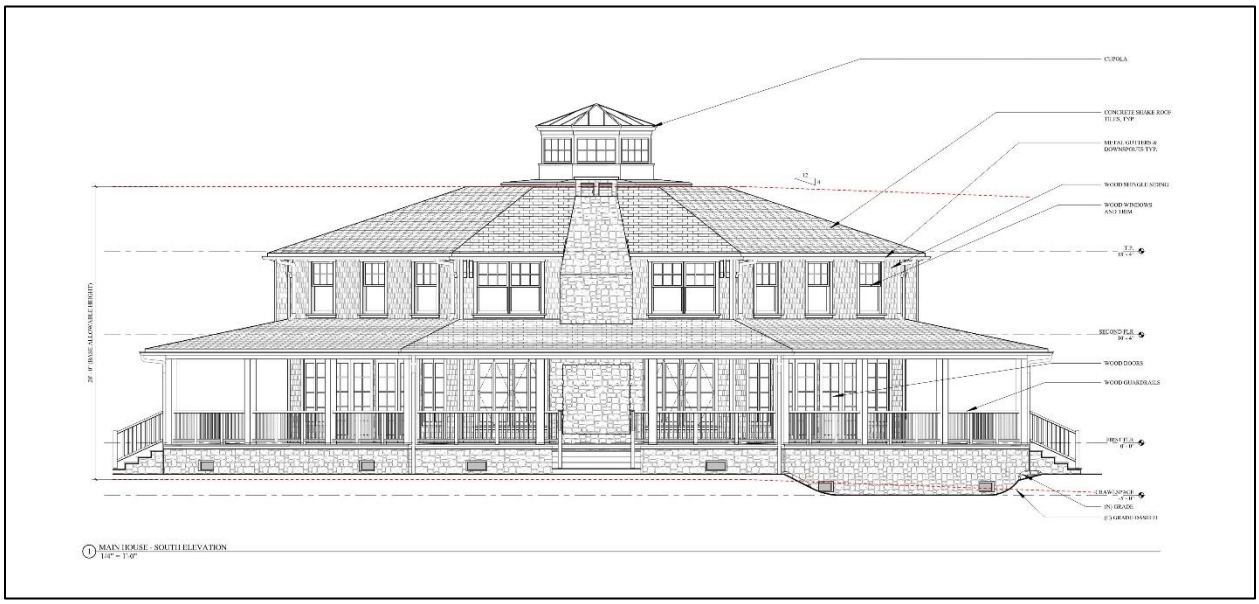


FIGURE 1. MAIN HOUSE - SOUTH ELEVATION. VIEW FROM PADARO BEACH.

FIGURE 2. DETACHED ACCESSORY STRUCTURES: GARAGE, CABANA, STORAGE ROOM, & GUESTHOUSE - EAST ELEVATION.

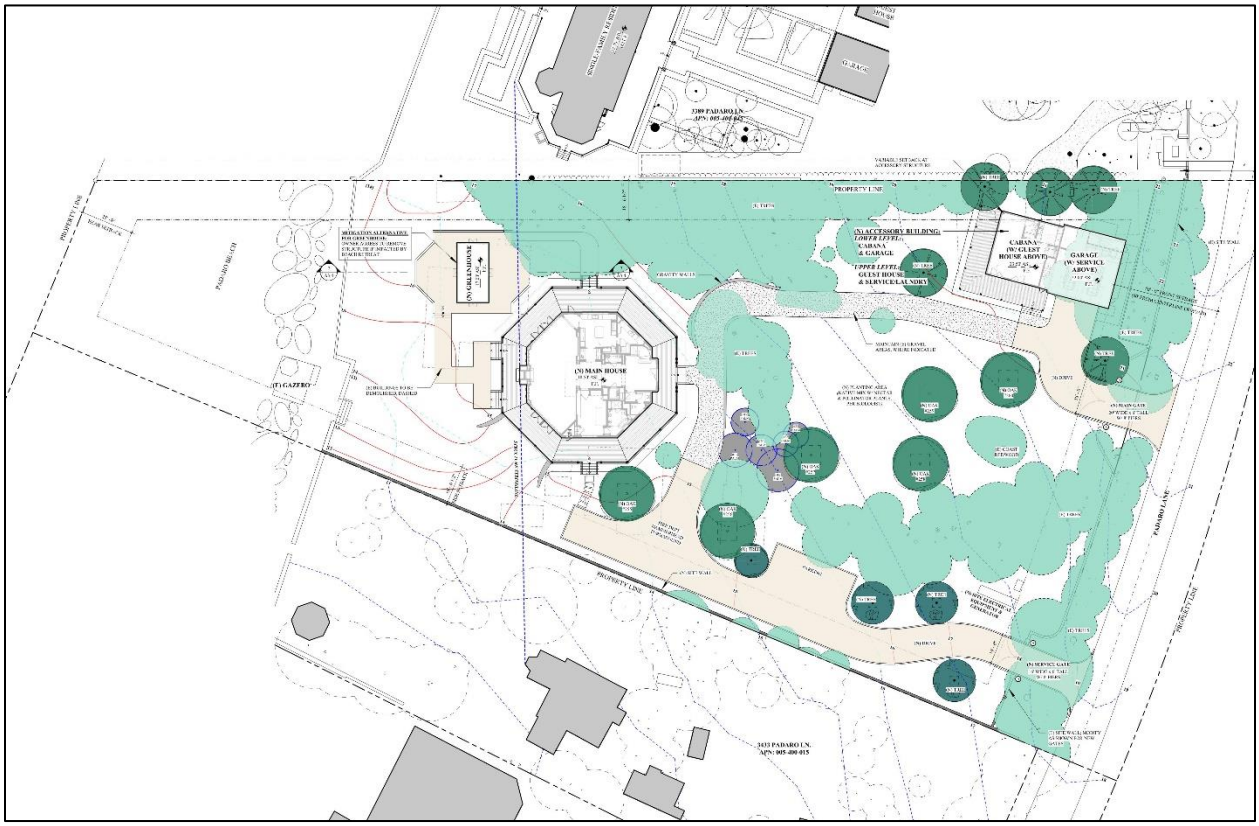


FIGURE 3. SITE PLAN SHOWING STRUCTURAL STRINGLINE BETWEEN 3389 AND 3433 PADARO LANE.

2.0 PROJECT LOCATION

The project site is located at 3393 Padaro Lane, in the Toro Canyon Plan area, First Supervisorial District. The 2.02-acre subject parcel (APN 005-400-041) is situated between Padaro Lane to the north and the Pacific Ocean the south.

2.1 Site Information	
Comprehensive Plan Designation	Coastal, Coastal Commission Appeals Jurisdiction Toro Canyon Plan Area: Rural Area, Existing Developed Rural Neighborhood. RES-4.6 (Residential - 4.6 units per acre)
Zoning District, Ordinance	Article II Coastal Zoning Ordinance. Residential 8-R-1, 8,000 sf minimum lot size Environmentally Sensitive Habitat Overlay - Eucalyptus windrows / Monarch butterflies Design Control Overlay, Flood Hazard Overlay - Toro Canyon Creek Toro Canyon Plan
Site Size	2.02-acres
Present Use & Development	Single Family Residence and Accessory Structures
Surrounding Uses/Zoning	North: Padaro Lane, Southern Pacific Railroad (SPRR), Highway 101 South: Pacific Ocean East: 8-R-1, Single Family Residence West: 8-R-1, Single Family Residence
Access	Padaro Lane
Public Services	Water Supply: Carpinteria Valley Water District

	Sewage:	Carpinteria Sanitary District
	Fire:	Carpinteria - Summerland Fire Protection District
	Other:	Carpinteria Unified School District

3.0 ENVIRONMENTAL SETTING

3.1 PHYSICAL SETTING

The project site is located within a fully developed residential neighborhood along Padaro Lane, which includes various combinations of narrow lots, large existing homes, flood control easements, sandy beach and state tideland areas. Most parcels within the neighborhood are sized between 7,000 square feet to one acre, oriented perpendicular to Padaro Lane and the ocean. The subject parcel, at 2.02-acres, has the largest acreage within the neighborhood. Padaro Lane is a two-lane roadway located south of Highway (HWY) 101 and the Southern Pacific Railroad tracks, connecting to Highway 101 and Via Real.

The property is developed with a 2,931-square-foot two-story single-family residence with a maximum height of 21-feet above existing grade, and the following ancillary structures: a secondary residence; a two-car garage; a garage, office and carport structure; a garage/workshop; a greenhouse; and a gazebo. Most of the accessory structures are unpermitted. All of these structures have hardscape patios and walkways around and/or adjacent to them. The single-family residence was built in 1935; the construction dates of the ancillary structures are unknown but they appear to have been built after 1935. A rock revetment, which predates 1972, is present on the southern edge of the parcel between the beach and the landscaped grass. The revetment received repair and augmentation through permits 83-CP-58 & 85-CDP-97 and prevents major shoreline erosion. The property is accessed via a gated gravel driveway that begins at Padaro Lane and extends to the main residence and the ancillary structures.

The entire property, except for about 12,050-square-feet that extends onto the beach, is landscaped with a variety of ornamental trees, shrubs, herbs, a small fruit orchard, and a small turfgrass lawn. During the 2021-2022 season, approximately 25,000 monarchs, or 10 percent of the entire western population, aggregated on the property on one redwood tree, several surrounding eucalyptus trees, and one pine tree. All the 25,000 butterflies clustered in an area less than three-fourths of an acre on the property.

3.2 ENVIRONMENTAL BASELINE

The environmental baseline from which the project's impacts are measured consists of the physical environmental conditions in the vicinity of the project, as described above

4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is defined as follows:

Potentially Significant and Unavoidable Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Significant but Mitigable: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to an Insignificant Impact.

Insignificant Impact: An impact is considered adverse but does not trigger a significance threshold.

No Impact: There is adequate support that the referenced information sources show that the impact simply does not apply to the subject project.

Beneficial Impact: There is a beneficial effect on the environment resulting from the project.

Reviewed Under Previous Document: The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is found, and identification of mitigation measures incorporated from the previous documents.

4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Potent. Signif. and Unavoid.	Significant but Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?		X			
b. Change to the visual character of an area?		X			
c. Glare or night lighting which may affect adjoining areas?		X			
d. Visually incompatible structures?		X			

Existing Setting: The project site is located at 3393 Padaro Lane, approximately 0.5 miles northwest of the Padaro Lane and Santa Clause Lane intersection. The site is within the Padaro Lane Existing Developed Rural Neighborhood (EDRN), which is a Rural Neighborhood located south of U.S. 101 and north of the Pacific Ocean. This area was developed in 1920 as the Town of Serena and was laid out and characterized by long narrow lots oriented perpendicular to Padaro Lane, formerly the Coast Highway, to the ocean. Today, the area is a mix of primary and secondary residences. The lots are generally larger at the western end of Padaro Lane, becoming narrower with smaller lots toward the eastern end. Architectural styles vary widely throughout the neighborhood. The Toro Canyon Plan identifies this area as a scenic corridor and the Coastal Plan identifies the area as a view corridor overlay designation.

No streetlights exist along Padaro Lane and road shoulders are undeveloped, but densely vegetated along the north and south sides of the street. Most parcels on the south side of Padaro Lane have heavy plantings of predominantly non-native, ornamental trees (Monterrey cypress, black acacia, and pittosporum) with scattered ornamental shrubs along the property lines. This, along with tall fencing along the property lines, and dense trees on the north side of Padaro Lane effectively blocks views from Hwy 101 to the south. To the north of the site, small portions of Paredon Ridge are visible through the dense vegetation. The primary public viewshed of the project site is from Padaro Beach. When looking north from the beach, large single-family residences, accessory structures, flagpoles, and a rock revetment are visible, back dropped by dense vegetation along Padaro Lane and the San Ynez Mountains. Although most residences within the vicinity are built directly adjacent to the rock revetment, the closest five parcels to the property vary between a 30 and 130-foot setback from the revetment.

The proliferation of large dwellings, often from 5,000, to 20,000 square feet in size, also is altering the neighborhood's rural character. Dwellings of this size often pose neighborhood compatibility issues if the size of the homes is larger than those in the existing neighborhood. Residents have expressed concern over building heights and the scale of new homes, which often obstruct or degrade ocean and mountain views from public roads, trails, and private homes. New development also alters natural visual resources of the area, such as land formations (e.g. rock outcroppings and ridgelines), creeks, and existing vegetation. New roads and driveways also produce adverse visual impacts if not carefully sited and

designed. Inappropriate grading, landscaping or structural design for new or expanded roads can create adverse changes in the area's rural and semi-rural character.

Currently, the property is screened from Padaro Lane by existing dense vegetation and fencing. A 1,800-square-foot work shed in the northeast corner of the lot and a 1,350-square-foot garage in the northwest corner are briefly visible from Padaro Lane over the 6-foot tall wooden fence along the northern edge of the property. The western and eastern property lines are fenced off by a 6-foot tall wooden and metal wire fence, and the southern edge of the private, landscaped portion of the property is fenced with a 4-foot tall brick wall. There are no public views from Padaro Lane over or through the site to the ocean. A boulder seawall revetment exists approximately 10-feet south of the brick wall and separates the developed and landscaped portion of the property from Padaro Beach. The portion of the property that extends onto the beach is not fenced and is open to the public. The main residence, gazebo, and accessory structures are all visible from Padaro Beach.

FIGURE 4. AERIAL VIEW OF EXISTING PADARO LANE NEIGHBORHOOD.

County Environmental Thresholds. The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views.

Impact Discussion:

(a). Obstruct scenic vista or create offensive site from public view. The project proposes to demolish all onsite structures and rebuild a main residence, cluster four individual accessory structures, and place a greenhouse on the existing developed residential lot within the Padaro Lane EDRN. The site wall along the northern property line would remain in place, but modified to allow for the construction of two entry gates, a main and service gate. The western gate would be 20-feet wide and the eastern gate would be 16-feet wide. Both gates would be 6-foot tall with 8-foot tall piers. Site visibility from nearby transportation corridors is limited due to the short viewing timeframe associated with the

faster rates of vehicle travel along HWY 101 and the screening from dense vegetation and fencing along Padaro Lane. These initial demolition and construction activities, including the associated heavy construction equipment, heavy haul truck trips, construction workers, construction and demolition wastes, etc., would be visible form Padaro Beach. However, construction activities would be temporary and would generally occur over a limited area and for a short period of time (e.g., generally over a period 12-24 months). The project does not include extensive grading visible from public areas.

Once constructed, the proposed residence and greenhouse would be visible from Padaro Beach, however, the proposed dwelling and greenhouse would be similar in bulk and scale to existing development and vegetation in the surrounding neighborhood. The project would result in the relocation of 6 trees and the removal of 42 trees throughout the property including native and nonnative species (See Table 1 and Figure 7 in Section 4.4 Biological Resources). Because of the dense vegetative backdrop of the site, removal of these trees would not be noticeable from Padaro Beach (See Figure 6). The main residence would be setback 216-feet from the rear property line, and 100-feet from the rock revetment adjacent to the beach. Per Local Coastal Plan Policy 3-4, new oceanfront structures and additions shall not be located closer to the ocean than adjacent structures to minimize or avoid impacts on public views from the beach. The proposed main residence does not cross the "stringline" created from the existing neighboring structures, ensuring that the proposed residence does not infringe on mountain views from the beach (Figure 3). The greenhouse would be located seaward of the stringline but it's encroachment into the residential stringline is visually insignificant due to its limited height, design, and building materials. The greenhouse is made of glass and green painted metal (Figure 5). Other accessory structures that encroach into the stringline along Padaro Beach include gazebos, flagpoles, and raised decks on surrounding properties. The South Board of Architectural Review (SBAR) reviewed the location of the greenhouse and residence on June 16, 2023 and determined they were appropriately located for the lot as long as no light is permitted within the greenhouse (MM-Aesth-01).

The 28-foot tall main residence includes an 8-foot tall cupola at the center. Even at this height, the residence does not intrude into the skyline as seen from Padaro Beach (Figure 5) due to existing vegetation along Padaro Lane. Aesth-02 requires that all exterior surfaces of the structures match the surrounding environment, such as with earth tones and non-reflective paints. A color and materials board was submitted to SBAR on June 16, 2023 ensuring compatibility with this requirement. The approved exterior features include a sandstone veneer wall skirt, gray driftwood wall shingles, cedar shake roof tiles, and white trim. Therefore, the residence would not be conspicuously visible compared to other residences along Padaro Beach. Aesth-03 would reduce temporary impacts to visual resources by requiring construction site cleanup and debris clearing during construction activities. A low intensity lighting plan, to be approved by the SBAR, is required to minimize the bulk and visibility of the structures visible from Padaro Beach. The proposed residence would be 5,282-square-feet in size, while neighboring properties range between 1,000 and 7,000-square-feet. The project would not obstruct or degrade ocean and mountain views from public viewpoints and no natural visual resources would be impacted as a result of project construction.

Therefore, the proposed development would not significantly obstruct public views from any public road or from a public recreation area to, and along the coast, and impacts to scenic vistas would be *less than significant with mitigation*.

(b, d). Change Visual Character of the Area. The current configuration of the lot includes multiple small coastal cottage style structures placed sporadically throughout the site. Therefore, the proposed Project may incrementally change the existing visual character of the project site and the Padaro Lane neighborhood by consolidating, centering, and increasing the massing of these structures. Although the main residence has a similar proposed height as existing residences along Padaro Lane, 28-feet above existing grade, the size of the main residence appears to have larger massing than other two-

story residences along Padaro Lane due to architectural features which exacerbate the perception of its height and scale. However, at 5,282 net square-feet on a 2.02-acre lot, the proposed residence has a floor area ratio of 6% while the average FAR in the neighborhood is 9.8% (average taken from the neighboring four properties on either side of the subject lot). Proposed landscaping would consist of low-growing native species along the coastal side of the property, progressively getting taller closer to Padaro Lane in an effort accentuate the vegetative backdrop of the property from the perspective at the beach.

FIGURE 5. RENDERED VIEW OF MAIN RESIDENCE AND GREENHOUSE FROM PADARO BEACH. NEIGHBORING PROPERTIES SHOWN TO DEMONSTRATE SCALE OF NEARBY STRUCTURES.

As shown in Figure 5, most Padaro Lane single-family dwellings are built close to their southern property lines, along Padaro Beach. The neighboring property to the east is an exception, as it is set back uncharacteristically far. Therefore, the main residence is designed further back from Padaro Beach than other properties in the area to comply with stringline requirements (Local Coastal Plan Policy 3-4). As previously discussed in subsection *a.*, structural stringline minimizes impacts on public views by pushing new development further away from the beach. The proposed site plan design depicts the main residence and greenhouse within a 0.2-acre development area near the southern portion of the 2.02-acre property and a 0.05-acre development area for the accessory structures in the northwestern portion of the property, leaving the center and northern end of the property relatively vacant. This design approach was intentional for biological purposes. The clustered accessory structures and the main residence would be as far away from the existing Monarch Roosting site as possible and require the least amount of tree removal as feasible this is further discussed in Section 5.4 Biological Resources.

The South Board of Architectural Review (SBAR) reviewed the project's architectural style, mass, bulk, scale, and neighborhood compatibility on June 16, 2023 and indicated the project was acceptable with the recommended color, materials, and lighting restrictions identified in Aesth-01 & Aesth-02. Therefore, the proposed project would not introduce a visually incompatible structure, and impacts to the visual character of the low-density residential neighborhood would be *less than significant with mitigation*.

(c). Create Glare or Night Lighting. Impacts resulting from glare or night lighting are considered potentially significant as the project involves construction of a residence and accessory structures located near Padaro Beach. Inappropriate night lighting installed within the Cupola and greenhouse or on entry gates could create glare and spillover into public areas and neighboring parcels. To prevent this impact, mitigation measure Aesth-01 prevents lights from being installed within the cupola or greenhouse. Aesth-01 also requires that all exterior project lighting would be dark sky compliant and comply with applicable County regulations, requiring that lighting be low-intensity, low-glare, and hooded to prevent spillover onto adjacent properties. Overall, the proposed project would not create

a new source of substantial light that would adversely affect adjacent light-sensitive areas or a new source of glare that would substantially affect day or nighttime views in the area. Therefore, project impacts associated with light and glare would be *less than significant with mitigation*.

Cumulative Impacts: The implementation of the project is not anticipated to result in any substantial change in the aesthetic character of the area since the development is visually compatible with residences in the neighborhood. Thus, the project would not cause a cumulatively considerable effect on aesthetics.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's aesthetic impacts to an insignificant level:

MM-Aesth-01 Lighting. The Owner/Applicant shall ensure any exterior night lighting installed on the project site is of low intensity, low glare design, minimum height, and shall be hooded to direct light downward onto the subject lot and prevent spill-over onto adjacent lots. No unobstructed beam of exterior light shall be directed toward any area zoned or developed residential. The Owner/Applicant shall install timers or otherwise ensure lights are dimmed after 10 p.m. Additionally, no lights may be hung within glass structures onsite including the cupola and greenhouse. **PLAN REQUIREMENTS**: The Owner/Applicant shall develop a Lighting Plan for P&D and BAR approval incorporating these requirements and showing locations and height of all exterior lighting fixtures. **TIMING**: P&D and BAR shall review a Lighting Plan for compliance with this measure prior to issuance of a Coastal Development Permit for structures. **MONITORING:** Compliance Monitoring staff shall inspect structures upon completion to ensure that exterior lighting fixtures have been installed consistent with their depiction on the final Lighting Plan prior to Final Building Inspection Clearance.

MM-Aesth-02 Building Materials. Natural building materials and colors compatible with surrounding terrain (e.g., earth-tones and non-reflective paints) shall be used on exterior surfaces of all structures, including fences. **Plan Requirements and Timing:** Materials shall be denoted on all plans, including all plans for future residential development enabled by the proposed Project. All structures shall be painted prior to the issuance of Final Building Inspection Clearances. **Monitoring:** P&D compliance monitoring staff shall inspect prior to the issuance of Final Building Inspection Clearances.

MM-Aesth-03 Construction Clean-up. The Project site shall be cleared of all excess construction debris following the initial construction activities associated with the Project. **Plan Requirements and Timing:** This requirement shall be noted on all plans. Debris clearance shall occur prior to issuance of Final Building Inspection Clearances for future residential development enabled by the proposed Project. **Monitoring:** P&D compliance monitoring staff shall inspect prior to issuance of Final Building Inspection Clearances.

With the incorporation of these measures, residual impacts would be insignificant.

4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Poten. Signif. and Unavoid.	Significant but Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?				X	
b. An effect upon any unique or other farmland of State or Local Importance?				X	

Impact Discussion:

(a, b). The project site is zoned for residential uses (8-R-1, 8,000-square-foot minimum lot size). The project site does not contain a combination of acreage and/or soils which render the site an important agricultural resource. Additionally, the site is located on/adjacent to Padaro Beach. Beaches have no agricultural value. The site does not adjoin and/or would not impact any neighboring agricultural operations.

Mitigation and Residual Impact. No impacts are identified. No mitigations are necessary.

4.3a AIR QUALITY

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?			X		
b. The creation of objectionable smoke, ash or odors?			X		
c. Extensive dust generation?			X		

County Environmental Threshold. Chapter 5 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (as revised in July 2015) addresses the subject of air quality. The thresholds provide that a proposed project would not have a significant impact on air quality if operation of the project would:

- emit (from all project sources, mobile and stationary), less than the daily trigger for offsets for any pollutant (currently 55 pounds per day for NOx and ROC, and 80 pounds per day for PM_{10});
- emit less than 25 pounds per day of oxides of nitrogen (NOx) or reactive organic compounds (ROC) from motor vehicle trips only;
- not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- be consistent with the adopted federal and state Air Quality Plans.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, and chemical or industrial processing operations that release pollutants).

Impact Discussion:

(a-c). Potential Air Quality Impacts. The scope of the project includes demolition of the existing residence, garage and accessory structures, and allows for the construction of a new residence, detached garage, storage room, cabana, guesthouse, and greenhouse. The proposed project would require approximately 1,200-cubic-yards of cut and approximately 3,000-cubic-yards of fill for construction as

well as landscaping installation. The project would not result in new vehicle emissions (i.e., new vehicular trips to or from the site would be fewer than 100) because a single-family residence and accessory structures are currently constructed on the subject lot. Project construction would require site preparation, grading, building construction, paving, and architectural coating activities, which would temporarily produce air pollutant emissions. Project-related grading activities would have the potential to cause short-term fugitive dust that could have the potential to impact nearby residential uses. Project related grading would also contribute to regional emissions of PM10 and PM2.5. Dust emissions resulting from project-related construction would be reduced to the extent feasible through the implementation of County Grading Ordinance and the Air Pollution Control District requirements, which require the implementation of standard dust control measures (Air-01). It would not involve new stationary sources (i.e., equipment, machinery, hazardous materials storage, industrial or chemical processing, etc.) that would increase the amount of pollutants released into the atmosphere. The project would also not generate additional smoke, ash, odors, or long-term dust after construction. The project's contribution to global warming from the generation of greenhouse gases would be negligible. Long-term emissions are typically estimated using the CalEEMod computer model program. However, the proposed single-family residence is below threshold levels for significant air quality impacts, pursuant to the screening table maintained by the Santa Barbara County APCD. Therefore, the proposed project would not have a potentially significant long-term impact on air quality.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the significance criteria for air quality. Therefore, the project's contribution to regionally significant air pollutant emissions is not cumulatively considerable, and its cumulative effect is insignificant.

Mitigation and Residual Impact:

The following mitigation measures would reduce the project's air quality impacts to an insignificant level:

MM-Air-01 Dust Control. The Owner/Applicant shall comply with the following dust control components at all times including weekends and holidays:

a. Dust generated by the development activities shall be kept to a minimum with a goal of retaining dust on the site.
b. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, use water trucks or sprinkler systems to prevent dust from leaving the site and to create a crust after each day's activities cease.
c. During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site.
d. Wet down the construction area after work is completed for the day and whenever wind exceeds 15 mph.
e. When wind exceeds 15 mph, have site watered at least once each day including weekends and/or holidays.
f. Order increased watering as necessary to prevent transport of dust off-site.
g. Cover soil stockpiled for more than two days or treat with soil binders to prevent dust generation. Reapply as needed.
h. If the site is graded and left undeveloped for over four weeks, the Owner/Applicant shall immediately: (i) Seed and water to re-vegetate graded areas; and/or (ii) Spread soil binders; and/or; (iii) Employ any other method(s) deemed appropriate by P&D or APCD.

PLAN REQUIREMENTS: These dust control requirements shall be noted on all grading and building plans. **PRE-CONSTRUCTION REQUIREMENTS**: The contractor or builder shall provide P&D monitoring staff and APCD with the name and contact information for an assigned onsite dust control monitor(s)

who has the responsibility to:

a. Assure all dust control requirements are complied with including those covering weekends and holidays.
b. Order increased watering as necessary to prevent transport of dust offsite.
c. Attend the pre-construction meeting.

TIMING: The dust monitor shall be designated prior to grading permit issuance. The dust control components apply from the beginning of any grading or construction throughout all development activities until Final Building Inspection Clearance is issued. **MONITORING**: P&D processing planner shall ensure measures are on plans. P&D grading and building inspectors shall spot check; Grading and Building shall ensure compliance onsite. APCD inspectors shall respond to nuisance complaints.

4.3b AIR QUALITY - GREENHOUSE GAS EMISSIONS

Greenhouse Gas Emissions - Will the project:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X		

Existing Setting:

The County of Santa Barbara's Final Environmental Impact Report (EIR) for the Energy and Climate Action Plan (ECAP) (PMC, 2015) and the *2016 Greenhouse Gas Emissions Inventory Update and Forecast* (County of Santa Barbara Long Range Planning Division, 2018) contain a detailed description of the proposed project's existing regional setting as it pertains to GHG emissions. Regarding non-stationary sources of GHG emissions within Santa Barbara County specifically, the transportation sector produces 38% of the total emissions, followed by the building energy (28%), agriculture (14%), off-road equipment (11%), and solid waste (9%) sectors (County of Santa Barbara Long Range Planning Division 2018).

CEQA Guidelines Section 15064.4(b) states that a lead agency "should focus its analysis on the reasonably foreseeable incremental contribution of the project's [GHG] emissions to the effects of climate change." A project's individual contribution may appear small but may still be cumulatively considerable. Therefore, it is not appropriate to determine the significance of an individual project's GHG emissions by comparing against state, local, or global emission rates. Instead, the Governor's Office of Planning and Research recommends using an established or recommended threshold as one method of determining significance during CEQA analysis (OPR 2008, 2018). A lead agency may determine that a project's incremental contribution to an existing cumulatively significant issue, such as climate change, is not significant based on supporting facts and analysis [CEQA Guidelines Section 15130(a)(2)].

Environmental Thresholds.

Consistent with CEQA Guidelines Section 15064.7, Thresholds of Significance, the County developed and adopted its Interim Thresholds of significance for determining the significance of a project's GHG emissions through analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. CEQA Guidelines Section 15064.7(a) states, "[a] threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental

effect." Projects that comply with an applicable threshold would normally have an insignificant effect on the environment. Projects that exceed or otherwise do not comply with an applicable threshold may have a significant effect on the environment and, as a result, may require project modifications or mitigation measures to avoid or reduce those effects to insignificant levels. The following thresholds reflect this general guidance as well as the specific guidance set forth in CEQA Guidelines Section 15064.4 regarding the significance of impacts from GHG emissions.

Per CEQA Guidelines Section 15064.4, County staff should consider the following factors, among others, when determining the significance of impacts from GHG emissions on the environment: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (e.g., CEQA Guidelines Section 15183.5, Tiering and Streamlining the Analysis of Greenhouse Gas Emissions, Subsection (b)). The County recommends the use the California Emissions Estimator Model (CalEEMod) to estimate operational and construction GHG emissions from projects. CalEEMod, developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts, estimates project emissions based on the types of proposed land uses, sizes, location within the state, and approximate start dates of construction and operations.

The thresholds framework consists, first, of a numerical threshold (Screening Threshold) and, second, an efficiency threshold (Significance Threshold). The County based the Screening Threshold on the types of land uses that the County permitted over a 10-year period (2010 –2019). The County set the Screening Threshold at a level that captures the "fair share" of emissions from new development consistent with its 2030 GHG emissions target. The County based the Significance Threshold on the targeted level of emissions from new development in 2030 and projected population and employment for the unincorporated county for the same year. The Interim GHG Thresholds recommend that land use projects be first assessed against a screening threshold of 300 $MTCO_2e$/year. Staff would compare the quantified GHG emissions against the 300 $MTCO_2e$/year Screening Threshold using the Board-adopted Size-Based Project Screening Criteria Table, which lists the types and sizes of projects that would typically emit less than 300 $MTCO_2e$/year. If the estimated GHG emissions are less than the Screening Threshold, staff can conclude that project would have an insignificant environmental impact, and the project would require no further analysis. For projects that exceed the screening threshold, a service population threshold of 3.8 $MTCO_2e$ is recommended.

A numeric significance threshold is applicable to development projects of various land use types, such as residential, commercial, and mixed-use. The numeric threshold is the emissions level below which a project's incremental contribution to global climate change is less than "cumulatively considerable" and, therefore, the project would have an insignificant impact. The numeric screening threshold is 300 $MTCO_2E$ per year and is used to determine the significance of the project's GHG emissions.

Impact Discussion:

(a, b). Based on the project description above, the proposed project would not result in any greenhouse gas (GHG) emissions, either directly or indirectly, as compared to the existing environmental setting. As a result, no impacts related to GHG emissions are anticipated.

Mitigation and Residual Impact. No impacts are identified. Therefore, no mitigation is necessary.

4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?				X	
b. A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?				X	
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?				X	
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?			X		
e. The loss of healthy native specimen trees?		X			
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?			X		
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		X			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?		X			
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?		X			
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?		X			
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			X		

Existing Plant and Animal Communities/Setting:

Background and Methods. Santa Barbara County has a wide diversity of habitat types, including chaparral, oak woodlands, wetlands and beach dunes. These are complex ecosystems and many factors are involved in assessing the value of the resources and the significance of project impacts. For this project, a Biological Report dated August 2, 2021 was prepared by Watershed Environmental Inc. in which biologist Mark de la Garza and Peter Gaede performed surveys of the property on July 16, 2021 and July 28, 2021 (Attachment B); an Arborist Report dated September 2, 2022 was prepared by Duke McPherson (Attachment C); and a Monarch Butterfly Habitat Conservation and Enhancement Plan was prepared for the project site in February 2023 by Daniel E. Meade, Ph.D., Stu Weiss, Ph.D. and Kyle Nessen of Althouse and Meade, Inc. (Attachment D). The following analysis is based on the information contained in these reports.

Physical. Site elevations range from a high of 23-feet amsl in the northern corner of the property to a low of 6-ft amsl along the southern property boundary on the beach. The property gently slopes 2-3 percent toward

the south, toward the Pacific Ocean. There are no watercourses, creeks, streams, freshwater or brackish wetlands, vernal pools, or seeps on the subject property. The nearest waterbody is the Pacific Ocean and the nearest watercourse is Arroyo Paredon Creek located 700-ft southeast of the property. This creek flows in a north-south direction into the Pacific Ocean and is an intermittent watercourse.

Flora. The 2.02-acre site is completely landscaped. The developed portion of the property is landscaped with a variety of ornamental trees, shrubs, herbs, a small fruit orchard, and a small turfgrass lawn. The beach consists of sand with no vegetation. The property does not contain any federally designated critical habitat. However, within 5-miles of the site, federally designated critical habitat is mapped for the following six species (Figure 6):

- Tidewater goby (Eucyclogobius newberryi), endangered, Arroyo Paredon (700 ft. southeast)
- Southern California steelhead DPS (Oncorhynchus mykiss), endangered, Arroyo Paredon (700 ft. southeast), Romero Creek (2.5 mi. northwest), Carpinteria Creek (2.85 mi. southeast), San Ysidro Creek (3.45 mi. west), and Montecito Creek (4.2 mi. west).
- Ventura march milkvetch (Astragalus pycnostachyus), endangered, Carpinteria Salt Marsh (1.05 mi. southeast).
- California red-legged frog (Rana draytonii), threatened, Los Padres National Forest Santa Ynez River Watershed (3.40 mi. north).
- Least Bell's vireo (Vireo bellii pusillus), endangered, Santa Ynez River (4.65 miles north)
- Arroyo toad (Anaxyrus californicus), endangered, Mono Creek Los Padres National Forest (4.9 mi. north)

Monarch. Although not federally designated, the subject parcel contains a known Monarch Butterfly Overwintering Site. Additionally, there are 2 historic monarch butterfly overwintering sites and one potential site within 1 mile of the project site, and several others further to the west and northwest.

Trees. Table 1 provides a list of the tree types and quantity on the property, how many would be removed, and how many would be retained. All native trees, regardless of whether they were originally planted for landscape purposes, with a DBH of 6-inches or larger and all non-native trees with a DBH of 25 inches or larger meet Toro Canyon Community Plan Policy BIO-TC-13 (coastal) to be classified as "protected trees". Figure 7 shows the locations of the trees to be removed and relocated or new trees planted, oriented around the proposed development. The property contains 82 eucalyptus trees. Most of these exist in rows along the western and northern property line, and in a row along the gravel driveway that leads to the garage office and carport. These trees screen the property from the street and neighbors, and provide habitat for monarch roosting sites.

Per the Biological Report, 55 species of plants were identified on the property during the July 16 and 28, 2021 surveys. Approximately 91 percent are nonnative (introduced) and 9 percent are native to California. The number of nonnative plant species is high but expected, given that the entire property, and all adjacent properties except for the beach are landscaped and developed. All of the native plant species on this property appear to have been planted as part of the landscaping. None of the existing vegetation on the property is rare, threatened, or endangered.

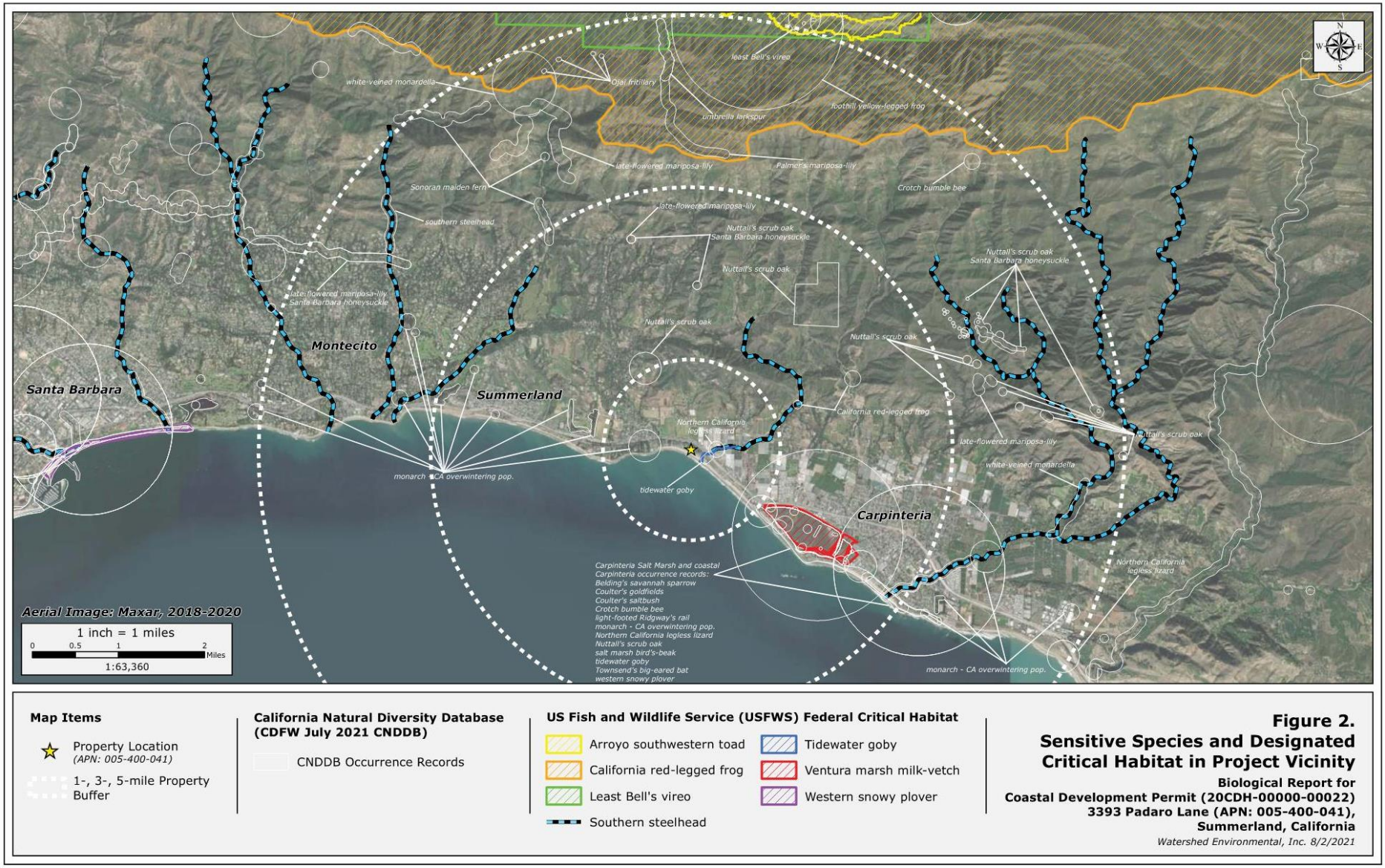


FIGURE 6. MAP OF SENSITIVE SPECIES AND CRITICAL HABITAT WIHTIN THE PROJECT VICINITY.

FIGURE 7. LOCATION OF ONSITE TREES. CORRESPONDING LIST IDENTIFIED AS TABLE 1.

TABLE 1. ONSITE TREE IDENTIFICATION NUMBER, SPECIES TYPE, DIAMETER AT BREAST HEIGHT (DBH) IN INCHES, AND NOTES ON REMOVAL, RELOCATION, OR ADDITION. TREE IDENTIFICATION NUMBERS ARE ASSOCIATED WITH FIGURE 7, LOCATION OF ONSITE TREES.

TREE TABLE			
Tree Tag #	Species	DBH (in.)	Notes
1	Eucalyptus	63	
2	Eucalyptus	32	
3	Eucalyptus	49.7	
4	Eucalyptus	31.6	
5	HesMac	33.5	
7	Eucalyptus	24.6	
8	Eucalyptus	22.5	
9	Eucalyptus	13.9	
10	Eucalyptus	23.4	
11	Maple	12.4	Remove
12	Palm	10.5	Relocate
13	Palm	7.6	Relocate
14	Carrotwood	6.8	Remove
15	Carrotwood	18.2	Remove
17	Palm	6.7	Remove (diseased, per Arborist)
18	Palm	9.4	Relocate
19	Sycamore	12.8	Remove (per Arborist)
20	Palm	14	Relocate
21	Sycamore	11.4	Remove (per Arborist)
22	Pittosporum	3	Remove
23	Palm	13.8	Relocate
25	Palm	16.5	Relocate
27	Eucalyptus	34	
28	Eucalyptus	18.3	
29	Pine	6.2	
30	Acacia	10.2	
31	Acacia	7.7	
32	Myoporum	8.4	
33	Eucalyptus	43.5	
34	Cypress	20.9	
35	Palm	15.6	
36	Cypress	13.9	
37	Cypress	13.3	
38	Eucalyptus	44.2	
39	Myoporum	11	
40	Myoporum	10.2	
42	Myoporum	6.8	
43	Eucalyptus	22.3	
44	Cypress	11.9	
45	Eucalyptus	17.5	
46	Eucalyptus	11.8	
47	Eucalyptus	31.9	
48	Acacia	8.3	
49	unknown/ornamental	5.9	
50	Acacia	27.4	
52	Eucalyptus	44.1	
53	Eucalyptus	15.8	
54	Eucalyptus	22.5	
55	Eucalyptus	25	
56	Myoporum	6.1	
58	Eucalyptus	8.4	
59	Eucalyptus	35.2	
60	Eucalyptus	19.3	
61	Eucalyptus	23.5	
62	Eucalyptus	22.2	
63	Eucalyptus	18.5	
64	Eucalyptus	11.9	
65	Eucalyptus	19.5	
66	Myoporum	5.7 & 5.2	
67	Pine	11.6	
68	Acacia	4.3	
69	Palm	33.3	
70	Fig	5.6	
71	Palm	10	
72	Cypress	11.5	
73	Eucalyptus	18.8	
74	Eucalyptus	35.1	
75	Cypress	12.9	
76	Pine	11.1	
77	Eucalyptus	26.5	
78	Palm	29.7	
79	Eucalyptus	36	
80	Palm	14.3	
81	Eucalyptus	19.4 & 11.7	
82	Eucalyptus	47.4	
83	Eucalyptus	40.6	
84	Eucalyptus	37.1	
85	Eucalyptus	31.3	
86	Eucalyptus	34.1	
87	Eucalyptus	11.1	
88	Eucalyptus	28.6	
89	Eucalyptus	23.4	
90	Eucalyptus	25.9	
91	Eucalyptus	27.5	
92	Eucalyptus	14.8	
93	Cypress	12.8	
94	Cypress	16.2	
95	Cypress	8.2	
96	Cypress	31.4	
97	Eucalyptus	19.2	
98	Myoporum	6.8	
99	Myoporum	7.8	
100	Myoporum	8.4	
101	Eucalyptus	22	
102	Eucalyptus	23.3	
103	Eucalyptus	13	
104	Eucalyptus	19.9	
105	Eucalyptus	10.4	
106	Eucalyptus	22.9	
107	Eucalyptus	10.5	
108	Eucalyptus	27.9	
109	Eucalyptus	18.3	
110	Eucalyptus	19.8	
111	Eucalyptus	37.4	
112	Eucalyptus	21	
113	Eucalyptus	31.2	
114-137	Orchard (fruit trees)	various	Remove
154	Acacia	5.2	
155	Myoporum	4.4	
156	Myoporum	8.4	
157	Palm	7.5	
158	Myoporum	6.5	

TREE TABLE (cont.)			
Tree Tag #	Species	DBH (in.)	Notes
159	Myoporum	6.5	
160	Myoporum	8.1, 8.2, 4.2	
161	unknown/ornamental	3.1	Remove
162	unknown/ornamental	6.1, 5.6, 4.6, 4.4	
163	Eucalyptus	24.7	
164	Pine	10.8	
165	Eucalyptus	13.3	
166	Eucalyptus	16.4	
167	unknown/ornamental	5.6	
168	unknown/ornamental	5.9	
169	Pine	5.3	
170	Cypress	4.9	
171	Myoporum	5.1 & 3.9	
172	Myoporum	5.2	
173	Cypress	5.6	
174	Pine	6.4	
175	Pine	5.3	
176	Myoporum	4.3	
177	Palm	7.5	
178	unknown/ornamental	4.4 & 4	
179	Cypress	5.6	
180	Pine	3.5	
181	Acacia	4.3	
182	Acacia	4.2	
183	Cypress	6.2	
184	Myoporum	13.5	
185	Eucalyptus	31.7	
186	Sequoia	7.2	
187	Pine	13.1	
188	Eucalyptus	29.2	
189	unknown/ornamental	5.3	
190	unknown/ornamental	7.6	
191	Pittosporum	6.4	
192	Myoporum	6.4	
193	Eucalyptus	27.9	
194	Cypress	4.6	
195	Eucalyptus	9.7	
196	Cypress	4.3	
197	unknown/ornamental	3.6	Remove
198	Cypress	5.1	
199	Cypress	4.2 & 4.2	
200	Cypress	4.1	
201	Cypress	6.1	
202	Cypress	9.8	
203	Eucalyptus	20.8	
204	Cypress	6.4	
205	Cypress	8.8	
206	Cypress	17.7	
207	Cypress	4.7	
208	Cypress	6.2	
209	Cypress	5.7	
210	Cypress	5.8	
211	Cypress	4.9	
212	Eucalyptus	4.7	
213	Myoporum	6.3	
214	Eucalyptus	4.3	
215	Cypress	5.8	
216	Cypress	5.6	
217	Cypress	5.1	
218	Cypress	5.2	
219	Eucalyptus	5.1	
220	Eucalyptus	5.3	
221	Cypress	4.4	
222	Myoporum	4.6 & 3.9	
223	Myoporum	4.6	
224	Myoporum	5.9	
225	Cypress	6.3	
226	Cypress	5.7	
227	Cypress	5.1	
228	Cypress	4.4	
229	Myoporum	4.5	
230	Cypress	4	
231	Cypress	4.8	
232	Myoporum	4	
233	Myoporum	8.4 & 5.9	
234	Cypress	7.1	
235	Cypress	5.5	
236	Cypress	4	
237	Cypress	4.6	
238	Eucalyptus	5.3	
239	Cypress	6.4	
240	Eucalyptus	4.9	
241	Cypress	7	
242	Cypress	4.4	
243	Cypress	5.7	Remove
244	Cypress	4.9	Remove
245	Cypress	5.1	Remove
246	Eucalyptus	4.3	Remove
247	Eucalyptus	4.8	Remove
248	Cypress	4.3	Remove
249	unknown/ornamental	13.9	Remove
250	Myoporum	6.8 & 5.5	Remove
251	Palm	9.3	
251	Palm	9.1	
252	Pepper	7.4 & 5.8	Remove
253	unknown/ornamental	7.4	Remove
254	Palm	10.2	
255	Island Oaks	(108" Box)	New
256	Island Oaks	(108" Box)	New
257	Island Oaks	(108" Box)	New
258	Island Oaks	(108" Box)	New
259	Island Oaks	(108" Box)	New
260	Island Oaks	(108" Box)	New
261	Island Oaks	(48" Box)	New
262	California Sycamore	(48" Box)	New
263	California Sycamore	(48" Box)	New
264	California Sycamore	(48" Box)	New
265	Coast Redwood	(48" Box)	New
266	Coast Redwood	(48" Box)	New
267	Coast Redwood	(48" Box)	New
268	Coast Redwood	(48" Box)	New
269	Coast Redwood	(48" Box)	New

Fauna. Wildlife species expected to inhabit the site include common urban-acclimated species identified below. On July 28, 2021 a nesting bird survey was completed and 5 inactive passerine bird nests were found on the property as well as 8 turkey vultures roosting in four eucalyptus trees along the western property line. No raptor nests were found. The CNDDB indicates that the following special status animal species have the potential to occur in the area: Northern California legless lizard (Anniella pulchra), tidewater goby (Eucyclogobius newberryi), Monarch butterfly overwintering population. No special status wildlife species were found during the biological surveys, but common wildlife species observed include southern alligator lizard (Elgaria multicarinata), western fence lizard (Sceloporus occidentalis), American crow (Corvus brachyrhynchos), Allen's hummingbird (Selasphorus sasin), band-tailed pigeon (Columda fasciata), black phoebe (Sayornis nigricans), California towhee (Pipilo crissalis), cliff swallow (Hirundo pyrrhonota), dark-eyed junco (Junco hyemalis), house finch (Carpodacus mexicanus), mourning dove (Zenaida macroura), spotted towhee (Pipilo maculatus), turkey vulture (Cathartes aura), Botta's pocket gopher (Thomomys bottae), and Merriam's chipmunk (Eutamias merriam) (Figure 4).

Overwintering Monarch butterflies. The surrounding neighborhood has supported large aggregations of overwintering monarch butterflies for at least four decades at several locations along Padaro Lane. The subject property's site is located on the northeast corner of the property. Monarchs roost on blue gum eucalyptus trees that line the perimeter of the property and a landscaped large redwood tree in the center of the property (Figure 8).The site is almost entirely enclosed by a mix of eucalyptus trees, pine, palm, and Monterey cypress trees and is one of the most populated monarch colonies in Santa Barbara County. The aggregation area appears to be well protected from wind and provides desirable dappled light typical of monarch aggregations. Dense perimeter trees and/or sheltering topography for wind protection in all directions, with an interior canopy gap for a varied insolation environment, is an ideal habitat configuration. Monarch clusters were not present at the site on March 2, 2022 (Watershed Environmental 2022), however were observed during a follow up site visit on November 15, 2022.

Overwintering sites typically include roost trees surrounded by a larger grove of trees and shrubs that protect clustering monarchs from the wind. Dense perimeter trees and/or sheltering topography for wind protection in all directions, with an interior canopy gap for a varied insolation environment, is an ideal habitat configuration. Western monarch populations have experienced a general decline since the 1980s. Less than 2,000 monarch individuals were observed in all western aggregation sites at the overwintering population peak during the 2020-2021 overwintering season. Remarkably, the western population bounced back to about 250,000 in the 2021-2022 season and over 300,000 in the 2022-2023 season. In July 2022, the International Union for Conservation of Nature (IUCN) re-classified the migratory monarch butterfly as endangered on its "red list." However, the IUCN classification does not translate to legal or regulatory protections for the species. Currently, Monarchs are not listed as threatened or endangered under the California Endangered Species Act (CESA). Monarch butterflies are not listed as endangered or threatened by the USFWS. Monarch butterfly overwintering aggregation sites are however, protected by California Fish and Game Code and by the County of Santa Barbara biological resource protection policies DevStd BIO-TC-1.4, DevStd BIO-TC-5.1, and BIO-TC-14.
During the 2021-2022 season, 25,000 monarchs, or 10 percent of the entire western population, aggregated at 3393 Padaro Lane. All the 25,000 butterflies clustered in an area less than three-fourths of an acre on the property. This large number of monarch butterflies indicates the site has the appropriate configuration of trees and topographic location to provide microclimate and light conditions desirable for monarch butterflies during the fall.

Thresholds. Santa Barbara County's Environmental Thresholds and Guidelines Manual (2008) includes guidelines for the assessment of biological resource impacts. The following thresholds are applicable to this project:

Wetlands: Projects which result in a net loss of important wetland area or wetland habitat value, either through direct or indirect impacts to wetland vegetation, degradation of water quality, or would threaten

the continuity of wetland-dependant animal or plant species are considered to have a potentially significant effect on the environment. Projects which substantially interrupt wildlife access, use and dispersal in wetland areas would typically be considered to have a potentially significant impact. Projects which disrupt the hydrology of wetlands systems would be considered to have a potentially significant impact.

Individual Native Trees: Project created impacts may be considered significant due to the loss of 10% or more of the trees of biological value on a project site.

Other Rare Habitat Types: The Manual recognizes that not all habitat-types found in Santa Barbara County are addressed by the habitat-specific guidelines. Impacts to other habitat types or species may be considered significant, based on substantial evidence in the record, if they substantially: (1) reduce or eliminate species diversity or abundance; (2) reduce or eliminate the quality of nesting areas; (3) limit reproductive capacity through losses of individuals or habitat; (4) fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources; (5) limit or fragment range and movement; or (6) interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Impact Discussion:

(a - c). The entire property, except for about 12,050-sf that extends onto the beach, is landscaped with a variety of ornamental trees, shrubs, herbs, a small fruit orchard, and a small turfgrass lawn. The neighborhood has been heavily landscaped with nonnative plant species for years. The subject parcel is fully developed with residential uses, and completely landscaped. No natural vegetation exists onsite, therefore, the project would not result in the loss of any rare plant communities or special status plant species. The subject property itself does not include any special status plant species that would be impacted with the development of the project and the project would not decrease the species diversity found onsite. The proposed landscape plan includes use of native plant species to increase the species diversity onsite, including oak trees, California sycamore, coffeeberry, and Catalina currant (included in Attachment A). Therefore, *no impacts* are expected to occur to plant species onsite.

(d). The project includes the demolition of all structures onsite and the construction of three separate buildings, a main residence, greenhouse, and accessory structure. The site is currently landscaped with shrubs, herbs, a small fruit orchard, and a small turfgrass lawn as well as a variety of ornamental trees, including tall eucalyptus, sycamore, palm, cypress, myoporum, and pine trees. The project would require the removal of the existing landscaping and existing non-native landscape to be removed (shrubs, herbs, small orchard, turfgrass) does not provide any habitat value due to the spread out nature and low diversity of the vegetation. The existing eucalyptus windrows that provide raptor nesting and known butterfly roosting sites are protected by Toro Canyon Community Plan Policy BIO-TC-14 and would remain. No raptor nests were found during the bird surveys, but five inactive passerine bird nests and eight turkey vultures roosting in four eucalyptus trees along the western property line were observed. The eucalyptus, pine, and redwood trees to remain have historically been used as an aggregation site for monarch butterflies and are therefore considered ESH. None of these trees are proposed for removal or have the potential to be impacted as they will be protected through the project's tree protection plan, outlined in MM-Bio-01. Impacts to monarch species are discussed further in subsections (*g – j)*. The landscaping plan (Attachment A) includes planting of native plants including meadow vegetation for the center of the property, California sycamore, coffeeberry, and Catalina currant. The native vegetation would be better suited to provide habitat to local species than existing vegetation. Therefore, the project would have a *less than significant* impact on existing non-native vegetation of habitat value.

(e). Construction of the project would require the removal of 42 trees. Toro Canyon Community Plan Policy BIO-TC-13 states that "Native protected trees and non-native protected trees shall be preserved to the maximum extent feasible." Development Standard DevStd BIO-TC-13.19 (coastal) defines

"protected native trees" as at least six inches in diameter (largest diameter for non-round trunks) as measured 4.5 feet above ground level (or as measured on the uphill side where sloped), and "non-native protected tree" as at least 25 inches in diameter measured at this height. By applying these protected tree size thresholds, there are 61 protected trees on this property (refer to Table 1). Of the 61 protected trees, 32 are non-native (Eucalyptus, Hesperocyparis macrocarpa, Palm, and Acacia) and 29 are native (Cypress, Sycamore, and Pine). Of the 29 protected native trees on the property, 2 sycamores are proposed for removal for health concerns as recommended by the Arborist Report (Duke McPherson Arborist Report dated September 2, 2022). None of the 32 protected non-native trees on the property are proposed for removal. A supplemental site diagram identifying the trees and structures to be relocated, removed, and replaced is included in Attachment E.

Most of the eucalyptus are tall and robust with thick canopies, however, some are showing signs of drought-stress. Trees would be removed due to health conditions, to create space for the new residential uses, and to create a comprehensive landscaping plan. The Toro Canyon Plan development standard DevStd BIO-TC-13.2 (coastal) states development shall be sited and designed to avoid damage to native protected trees and nonnative protected trees by incorporating buffer areas, or incorporate mitigation in a manner consistent with County requirements for tree replacement. Therefore, the two native protected sycamore trees that are proposed for removal would be replaced onsite by of three new 48" box California Sycamore trees as well as seven Island Oaks (1 in a 48" box and 6 in a 108" box), and five new 48" box Coast Redwood trees (Table 1). In the event of additional unexpected damage or removal, impacted native trees would be replaced onsite at a 3:1 ratio with large 24-inch box size or 1:1 ratio with a 48" box tree (MM-Bio-01 & MM-Bio-02).

Regular pruning is essential for maintaining tree health and reducing the risk of failure. Black Acacias, Monterey Pines, and Eucalyptus varieties are fast growing and would need to be pruned to maintain the health of the tree and the protection of the monarch roosting site. The dead fronds of the mature Canary Island Palm on the northwest side would need occasional removal as well. By removing dead, damaged, or weak branches, a tree's structural integrity would increase and the likelihood of branch failure would decrease. Every two years the entire tree population would be surveyed for changes in health and the possible need for pruning, as recommended by the Arborist Report (Mitigation Measure BIO-03). Safety pruning would largely be applied to the large population of Eucalyptus species most of which are very tall and present the greatest possibility of branch breakage with consequent liability and injury. Pruning would also help to maintain the butterfly roosting zone as free of tree work activity over as long a period as is necessary. Impacts to individual specimen trees would be *less than significant with mitigation*.

(f, k). Wildlife utilization is expected to be limited to generalist species that have a high tolerance for human presence. Noise, dust and vehicle traffic generated by construction activities are expected to temporarily hinder foraging activities of wildlife in the immediate project area. Typical residential activities may introduce minor uses of residential herbicides and pesticides and new sources of light and noise associated with human habitation. However, the site has been occupied since the 1920s and the continuation of that use would not introduce new factors not previously experienced onsite. The proposed project has been designed to minimize the development footprint and potential for impacts to habitat associated with human habitation. Proposed landscaping consists of a native, non-invasive planting palette which would minimize the anticipated need for herbicides and pesticides. Therefore, the proposed project would not result in a significant impact associated with the introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat. Impacts from human habitation would be *less than significant*.

(g, h, i, j). Wildlife observed on the subject property during the July 16 and 28, 2021 surveys was limited to a few relatively common species of birds, two reptile species, and two mammal species. The nesting bird survey found five inactive passerine bird nests on the property and turkey vultures roosting in four

eucalyptus trees along the western property line. No raptor nests were found. Several species of bats and owls have a potential to forage on the property and may be roosting during the day and/or nesting in the trees on this property. Therefore, in order to ensure project consistency with the Federal Migratory Bird Treaty Act 20 and Section 3503.5 of the CDFW Code 21 that protects active migratory bird and raptor nests, vegetation removal and demolition activities are conditioned to occur outside the February 1 - September 1 bird breeding season (MM-Bio-05). If these activities must occur during the bird breeding season, a County-approved biologist familiar with identifying raptors and other birds shall conduct pre-construction breeding bird surveys and establish a buffer in the event an occupied or active nest is found.

Wildlife utilization is expected to be limited to generalist species that have a high tolerance for human presence. Therefore, the only sensitive habitat found onsite is the monarch butterfly aggregation on one redwood tree, several surrounding eucalyptus trees, and one pine tree. A single pine tree at the west edge of the fruit orchard also held monarch clusters. The aggregation area on the subject property is protected by a circle of trees that creates wind protection with the redwood tree located near the northeast wall of the circle. The site is almost enclosed by a mix of eucalyptus trees, pine, palm, and Monterey cypress trees. Clusters were concentrated on the redwood tree with monarchs also clustering on blue gum trees east and north of the redwood, as well as the pine.

To assess changes in sheltering dynamics around the monarch aggregation site, the Monarch Butterfly Habitat Conservation and Enactment Plan (HCEP) modeled existing and proposed wind conditions using microclimate airflow simulations. Current conditions identify two locations of “gaps” which allow wind to hit the overwintering site: the South and West Gap. For proposed conditions, site plans for the proposed buildings were georeferenced to the Study Area model. As a result of the models, the proposed additional trees and main house height, bulk and scale contribute to greater wind protection in the proposed condition, “plugging” the South Gap, therefore improving habitat quality by reducing wind speeds under storm conditions where the butterflies aggregate. The size of proposed buildings create advantageous wind breaks that help reduce strong winds, and the locations are placed strategically in the most vulnerable gaps identified in existing canopy. Construction of the proposed ancillary building on the west side of the property would provide wind blockage equivalent to or better than the current wind protection from the west at the West Gap. The two story building fills the West Gap and reduces wind speeds around the aggregation site. The additional plantings of island oak reinforce this wind protection, creating suitable conditions in and around the monarch clustering area (Figures 8 & 9).

In the heart of the grove opening, an existing orchard is proposed for removal and is planned to be repurposed for the planting of a variety of nectaring plants, specifically chosen for their suitability to overwintering monarchs. While a net loss of trees is anticipated, it is unlikely to impact the quality of the overwintering habitat negatively. No trees where monarchs have been observed roosting are identified for removal. Ample locations for sunning would remain, and trees planned for removal are either too low or too far away to provide sources of dappled light. The relocation and planting of additional trees, particularly large island oaks around the aggregation tree, further reinforce wind protection improvements to the overwintering site (Figures 6 & 7). This design strategically utilizes both existing and newly planted trees to conserve and augment the overwintering habitat of the monarch butterfly. However, these wind model conclusions assume the preservation and maintenance of existing large Eucalyptus trees with full canopies, and if they are lost, the habitat quality would degrade. Therefore, continuous maintenance of onsite trees is required for future health and protection of the overwintering site. The resulting enhancement of monarch habitat is consistent with the Toro Canyon Plan policy goals and objectives, particularly Policy Bio-TC-1 which states that “Environmentally Sensitive Habitat (ESH) areas shall be protected and, where appropriate, enhanced”.

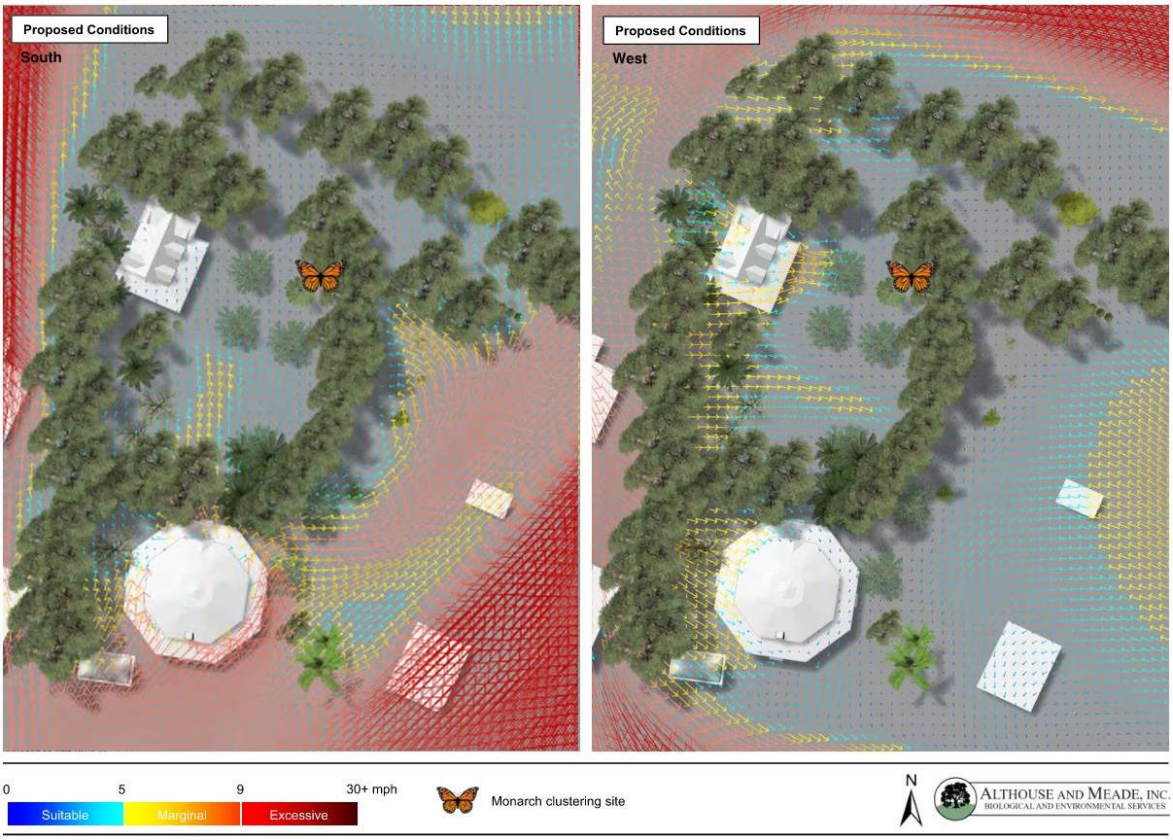


FIGURE 8. SOUTH AND WEST GAP OVERVIEW, PROPOSED CONDITIONS.

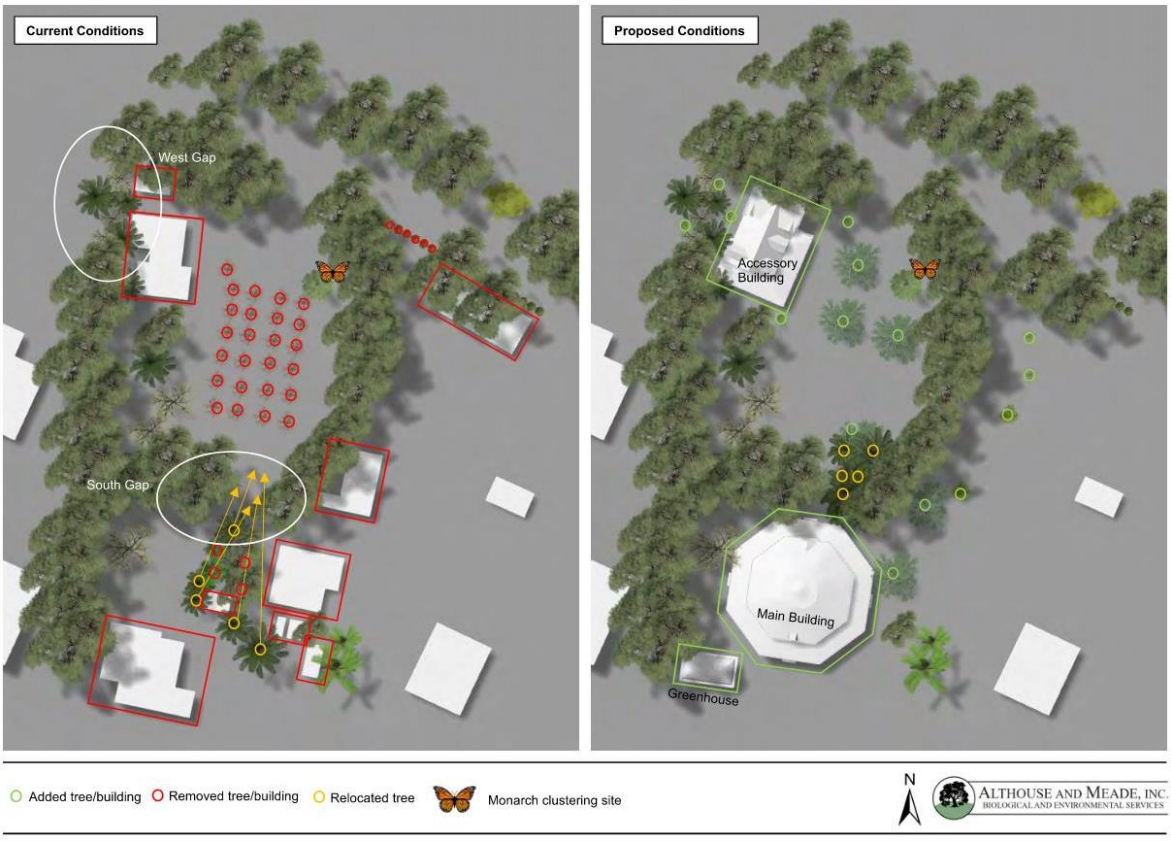


FIGURE 9. CHANGES FROM CURRENT TO PROPOSED CONDITIONS.

As recommended in the Arborist Report, the entire onsite tree population is required to be surveyed for changes in health and the possible need for pruning every two years to maintain healthy trees and therefore protect the overwintering site. A County-qualified arborist will monitor pruning activities to ensure the health of the trees containing suitable monarch aggregation habitat is maintained. Demolition and construction activities should avoid disturbance to the aggregation area while monarch butterflies are present (October through March). A detailed site management plan that specifies appropriate scheduling of activities is required to be prepared prior to any site disturbance (MM-Bio-03) in order to minimize to the extent feasible any construction-related impacts to monarchs and the overwintering habitat. Per the Toro Canyon Plan, the Monarch Butterfly habitat shall have a minimum 50-foot buffer radius. The closest proposed cabana is approximately 54-feet from the roosting site.

As discussed in subjection *(e)* above, construction of the project would remove 42 trees. The trees would be replaced by 15 trees placed is areas intended to support and protect the existing monarch roosting site. The eucalyptus trees identified in the survey as containing turkey vulture roosting sites would not be removed. These trees would be maintained in order to protect the roosting site long term. A County-qualified biologist is required to prepare a Monarch Habitat Management Plan for the site, to address both short and long-term management of the monarch habitat onsite. The plan would include details on fencing for the protected trees and roosting site, to prevent disturbance during construction activities; pruning procedures to maintain the habitat for the life of the project, and guidelines on how to mitigate risks from activities resulting in vibration near, or movement of monarch clusters. The plan would be implemented by a biologist who would be present during all ground disturbing activities if work is to take place during the overwintering season (MM-Bio-03 & MM-Bio-04). Therefore, impacts to wildlife and habitat onsite would be *less than significant with implementation of mitigation*.

Cumulative Impacts. Since the project would not significantly impact biological resources onsite, it would not have a cumulatively considerable effect on the County's biological resources.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's biological resource impacts to an insignificant level:

MM-Bio-01 Tree Protection Plan. The Owner / Applicant shall submit a Tree Protection Plan (TPP) prepared by a P&D-approved arborist and/or biologist. The Owner Applicant shall comply with and specify the following as notes on the TPP and Grading and Building Plans:

a. All protected native and protected non-native trees shall be preserved. "Protected native trees" refer to those as at least six inches in diameter (largest diameter for non-round trunks) as measured 4.5 feet above ground level (or as measured on the uphill side where sloped), and "non-native protected tree" as at least 25 inches in diameter measured at this height. No grading for buildings, access ways, easements, subsurface grading sewage disposal and well placement shall take place within the area within six feet of the dripline of any of these trees.
b. 43 trees will be removed per approved plans. Depict location of these trees.
c. 6 trees will be boxed and replanted. Depict original and new location for these trees.
d. Fencing of all trees to be protected at least six feet outside the dripline with chain-link (or other material satisfactory to P&D) fencing at least 3-ft high, staked to prevent any collapse, and with signs identifying the protection area placed in 15-ft intervals on the fencing.
e. Fencing/staking/signage shall be maintained throughout all grading and construction activities.
f. All trees located within 25-ft of buildings shall be protected from stucco and/or paint during construction.
g. No irrigation is permitted within 6-ft of the dripline of any protected tree unless specifically authorized.
h. The following shall be completed only by hand and under the direction of a P&D approved

arborist/biologist:

i. Any trenching required within the dripline or sensitive root zone of any specimen.
ii. Cleanly cutting any roots of one inch in diameter or greater, encountered during grading or construction.
iii. Tree removal and trimming.

i. Special equipment: If the use of hand tools is deemed infeasible by P&D, P&D may authorize work with rubber-tired construction equipment weighing five tons or less. If significant large rocks are present, or if spoil placement will impact surrounding trees, then a small tracked excavator (i.e., 215 or smaller track hoe) may be used as determined by P&D staff and under the direction of a P&D approved biologist.
j. The following are not permitted:
   i. Any trenching within the dripline or sensitive root zone of any specimen.
   ii. Cutting any roots of one inch in diameter or greater.
   iii. Tree removal and trimming.
k. Grading shall be designed to avoid ponding and ensure proper drainage within driplines of oak trees.

PLAN REQUIREMENTS: The Owner/Applicant shall: (1) Submit the TPP; (2) Include all applicable components in Tree Replacement Plan and/or Landscape and Irrigation Plans if these are required; (3) include as notes or depictions all plan components listed above, graphically depicting all those related to earth movement, construction, and temporarily and/or permanently installed protection measures. **TIMING**: The Owner/Applicant shall comply with this measure prior to issuance of a Coastal Development Permit. Plan components shall be included on all plans prior to the issuance of grading permits. The Owner/Applicant shall install tree protection measures onsite prior to issuance of grading permits and pre-construction meeting. **MONITORING**: The Owner/Applicant shall demonstrate to P&D compliance monitoring staff that trees identified for protection were not damaged or removed or if damage, or removal occurred, that correction is completed as required by the TPP prior to Final Building Inspection Clearance.

MM-Bio-02 Unexpected Damage and Mitigation. In the event of unexpected damage or removal, this mitigation shall include but is not limited to posting of a performance security and hiring an outside consulting biologist or arborist to assess damage and recommend mitigation. The required mitigation shall be done under the direction of P&D prior to any further work occurring on site. Any performance securities required for installation and maintenance of replacement trees will be released by P&D after its inspection and approval of such installation and maintenance.

Damaged native trees shall be mitigated on a minimum replacement ratio of 3:1 with large 24-inch box size or larger native trees and non-native protected trees that are removed should be replaced at a 1:1 ratio with native or non-native drought tolerant large 24-inch box size or larger trees. If it becomes necessary to remove a tree not planned for removal, the tree shall be boxed and replanted if feasible. If a P&D approved arborist certifies that it is not feasible to replant the tree, it shall be replaced at the appropriate ratio. If replacement trees cannot all be accommodated on site, a plan must be approved by P&D for replacement trees to be planted off site.

MM-Bio-03 Monarch Habitat Management Plan. The Owner/Applicant shall submit for P&D approval a Monarch Habitat Management Plan prepared by a P&D-approved biologist specializing in Monarch butterflies and designed to address both short and long-term management of the monarch habitat onsite.

Overwintering Season. The plan shall include measures to protect aggregations during the overwintering period (October 1st – March 1st) and during proposed construction activities, as well as provide specific guidance on how to conduct construction while minimizing harm to the monarchs and their habitat. The plan shall also include guidelines on how to mitigate risks from activities

resulting in vibration and excessive noise near monarch clusters. Construction activities may not occur within 50-feet of any aggregation site.

Protection. The trees identified in Table 1 as protected shall be preserved and protected as described in MM-Bio-01. No grading for buildings, access ways, easements, subsurface grading sewage disposal and well placement shall take place within the area within six feet of the dripline of any of these trees. Excavation work within or adjacent to sensitive habitats including native trees shall be avoided to the maximum extent feasible. Where excavation must be performed within sensitive areas (as determined by P&D), it shall be performed with hand tools only. If the use of hand tools is deemed infeasible by P&D, excavation work may be authorized by P&D to be completed with rubber-tired construction equipment weighing five tons or less. If significant large rocks are present, or if spoil placement will impact surrounding trees, then a small tracked excavator (i.e., 215 or smaller track hoe) may be used as determined by P&D staff. Construction activities may not occur within 50-feet of any aggregation site. To avoid damage during construction, all butterfly roosting areas shall be temporarily fenced with snow fencing, or a similar technique to cordon off cluster trees on the property at a reasonable distance away from the cluster to prevent disturbance of monarchs during the overwintering season by construction personnel or activity. Protective fencing shall be maintained throughout all grading & construction activities. To prevent any accidental damage to cluster trees, those that have been used for clustering shall be marked in advance of work with tags or flagging to ensure tree crews and personnel do not trim, cut, or damage them. If new cluster locations are found by the biological monitor outside the already described locations the new trees shall receive these same protections.

Pruning. Regular tree pruning is required to maintain the butterfly roosting zone over a long period of time. Tree care shall be staggered over time to prevent excessive canopy reduction at any one time. For example, selective pruning shall be conducted on no more than 20% of the trees in the shelter zone per year over a five year period. Careful reduction of weight on large eucalyptus along the western property line to shall occur to prevent branch failures with monitoring by a qualified monarch biologist. Any tree pruning work on the property shall be monitored and guided by a qualified monarch butterfly specialist familiar with the site. The project arborist shall be on call for unforeseen circumstances. The entire tree population shall be surveyed every two years for changes in health and the possible need for pruning.

The MHMP shall include guidance to protect and enhance monarch overwintering habitat as found in the voluntary Section 7 guidance by the US Fish and Wildlife Service posted here: https://xerces.org/sites/default/files/publications/21-015_03.pdf

PLAN REQUIREMENTS: The Owner/Applicant shall draft and submit the MHMP to P&D for review and approval. The HMHP shall include all plan components listed above, graphically depicting those related to tree protection measures. **TIMING**: The Owner/Applicant shall submit the MHMP for review and approval prior to issuance of the Coastal Development Permit. Plan components shall be included on all plans prior to the issuance of grading and building permits. The Owner/Applicant shall install tree protection measures onsite prior to the pre-construction meeting. **MONITORING**: The Owner/Applicant shall submit to P&D compliance monitoring staff the name and contact information for the approved arborist/biologist prior to commencement of construction / pre-construction meeting. The Owner/Applicant shall demonstrate to P&D compliance monitoring staff that the roosting site and trees identified for protection were not damaged or removed or if damage, or removal occurred, that correction is completed as required by the MHMP prior to Final Building Inspection Clearance. Permit Compliance staff shall spot check measures in the field.

MM-Bio-04 Onsite Arborist/Biologist. The Owner/Applicant shall designate a P&D-approved arborist/biologist to be onsite throughout all grading and construction activities which may impact native or protected trees. Duties include the responsibility to ensure all aspects of the approved

Monarch Habitat Management Plan is carried out. **MONITORING**: The Owner/Applicant shall submit to P&D compliance monitoring staff the name and contact information for the approved arborist/biologist prior to commencement of construction / pre-construction meeting. P&D compliance monitoring staff shall site inspect as appropriate.

MM-Bio-05 Nesting Bird Surveys. To avoid disturbance of nesting birds, including raptorial species, protected by the Federal Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (CFGC), the removal of vegetation, ground disturbance, exterior construction activities, and demolition shall occur outside of the bird nesting season (February 1 through August 31) whenever feasible. If these activities must occur during the bird nesting season, then a pre-construction nesting bird survey shall be performed by a County-qualified biologist. Pre-construction surveys for nesting birds shall occur within the area to be disturbed and shall extend outward from the disturbance area by 500 feet. The distance surveyed from the disturbance may be reduced if property boundaries render a 500-foot survey radius infeasible, or if existing disturbance levels within the 500-foot radius (such as from a major street or highway) are such that project-related activities would not disturb nesting birds in those outlying areas. If any occupied or active bird nests are found, a buffer shall be established and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. The buffer shall be 300 feet for non-raptors and 500 feet for raptors, unless otherwise determined by the qualified biologist and approved by P&D. Buffer reductions shall be based on the known natural history traits of the bird species, nest location, nest height, existing pre-construction level of disturbance in the vicinity of the nest, and proposed construction activities. All construction personnel shall be notified as to the location of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities or vegetation removal shall occur within this buffer until the County-qualified biologist has confirmed that nesting is completed, the young have fledged and are no longer dependent on the nest, or the nest fails, and there is no evidence of a second nesting attempt; thereby determining the nest unoccupied or inactive. If birds protected under MBTA or CFGC are found to be nesting in construction equipment, that equipment shall not be used until the young have fledged and are no longer dependent on the nest, and there is no evidence of a second nesting attempt. **PLAN REQUIREMENTS AND TIMING:** If construction must begin within the nesting season, then the pre-construction nesting bird survey shall be conducted no more than one week (7 days) prior to commencement of vegetation removal, grading, or other construction activities. Active nests shall be monitored by the biologist at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults, and there is no evidence of a second nesting attempt. Bird survey results and buffer recommendations shall be submitted to County Planning and Development for review and approval prior to commencement of grading or construction activities. The qualified biologist shall prepare weekly monitoring reports, which shall document nest locations, nest status, actions taken to avoid impacts, and any necessary corrective actions taken. Active nest locations shall be marked on an aerial map and provided to the construction crew on a weekly basis after each survey is conducted. Active nests shall not be removed without written authorization from USFWS and CDFW. **MONITORING:** P&D shall be given the name and contact information for the biologist prior to initiation of the pre-construction survey. Permit Compliance and P&D staff shall review the survey report(s) for compliance with this condition prior to the commencement of ground-disturbing activities and perform site inspections throughout the construction period to verify compliance in the field.

With the incorporation of these measures, residual impacts would be insignificant.

4.5 CULTURAL RESOURCES

Will the proposal:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in CEQA Section 15064.5?			X		
b. Cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource pursuant to CEQA Section 15064.5?		X			
c. Disturb any human remains, including those located outside of formal cemeteries?		X			
d. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X			

County Environmental Thresholds: Chapter 8 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (2008, revised February 27, 2018) contains guidelines for the identification, significance evaluation, and mitigation of impacts to cultural resources, including archaeological, historic, and tribal cultural resources. In accordance with the requirements of CEQA, these guidelines specify that if a resource cannot be avoided, it must be evaluated for importance under specific CEQA criteria. CEQA Section 15064.5(a)(3)A-D contains the criteria for evaluating the importance of archaeological and historic resources. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the significance criteria for listing in the California Register of Historical Resources: (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (B) Is associated with the lives of persons important in our past; (C) Embodies

the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (D) Has yielded, or may be likely to yield, information important in prehistory or history. The resource also must possess integrity of at least some of the following: location, design, setting, materials, workmanship, feeling, and association. For archaeological resources, the criterion usually applied is (D).

CEQA calls cultural resources that meet these criteria "historical resources". Specifically, a "historical resource" is a cultural resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources, or included in or eligible for inclusion in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1. As such, any cultural resource that is evaluated as significant under CEQA criteria, whether it is an archaeological resource of historic or prehistoric age, a historic built environment resource, or a tribal cultural resource, is termed a "historical resource".

CEQA Guidelines Section 15064.5(b) states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." As defined in CEQA Guidelines Section 15064.5(b), substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource is materially impaired when a project: (1) demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; (2) demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources; or (3) demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

For the built environment, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995), is generally considered as mitigated to an insignificant impact level on the historical resource.

Existing Setting. For at least the past 10,000 years, the area that is now Santa Barbara County has been inhabited by Chumash Indians and their ancestors. Information on file at P&D and the Central Coast Information Center of the University of California, Santa Barbara (CCIC) documents that the area surrounding Toro Creek south of Highway 101 was widely used by the Chumash and contains scattered cultural remains throughout the area. Based on a record search conducted at the CCIC on (September 19, 2023), twenty-three (23) cultural resources have been previously recorded within 1-mile of the proposed Project site, and one recorded archaeological site potentially overlaps the project site: CA-SBA-12. CA-SBA-12 is described as a Prehistoric site with marine shell and "habitation debris" but is considered low-density and shallow deposit of camp refuse that probably represents a seasonal camp.

A Phase I Cultural Resources Technical Report dated November 2023 was prepared for the project by Dudek Archeologist, Heather McDaniel McDevitt. Per the Phase I Report, CA-SBA-12 is mapped on CHRIS database maps as overlapping the proposed Project site, however, the description in the original CA-SBA-12 site record appears to conflict with the CHRIS mapped location. The site record text states the site location is "0.5 mile east of Loon Point bisected by 101", and not south of the rail road tracks or within the vicinity of the project site. This conflict is supported by a 1979 survey description for the polo fields and SPRR corridor, both north of the project site. An Intensive-level archaeological pedestrian survey of the proposed Project site was completed on October 2, 2023 by Dudek's Principal Investigator, Heather McDaniel McDevitt. No cultural material was observed as a result of the Phase I survey.

On November 21, 2023, a formal notice of application completeness for the proposed project was sent to Julie Tumamait-Stenslie, Chair, Barbareno/Ventureno Band of Mission Indians; Kenneth Kahn, Tribal Chairman of the Santa Ynez Band of Chumash Indians; and Gabriel Frausto, Chairman of the Coastal Band of the Chumash Nation. The notice provided notification of the opportunity for consultation pursuant to Public Resources Code (PRC) Section 21080.3.1 and in accordance with the provisions of Assembly Bill (AB) 52, and included a description of the proposed project. On November 30, 2023, the Coastal Band of the Chumash Nation responded, requesting all earth disturbances associated with construction work within the property lines be monitored by a P&D approved archaeologist and a Native American consultant. The Barbareno/Ventureno Band of Mission Indians did not respond to the notice. On December 26, 2023, the Santa Ynez Band of Chumash Indians responded requesting formal consultation for the project. A meeting with staff took place January 18, 2024. Santa Barbara County and the Santa Ynez Band of Chumash Indians concluded consultation on January 19, 2024, and the Santa Ynez Band of Chumash Indians agreed with the determination and recommendations outlined in the Phase I Cultural Resources Technical Report dated November 2023 and that Tribal Cultural Monitoring should be present during all ground disturbing activities. Revised language for the Workers Environmental Awareness Program training was provided and incorporated into this analysis. No additional resources were identified.

In the early 1900s several of the small farms in the area were subdivided into tracts. Within Toro Canyon, the 34-acre parcel immediately east of Toro Canyon Road on Via Real was platted as the Serena Park Subdivision. The town of Serena, laid out in long thin lots running from Padaro Lane to the ocean, was not developed until the 1920s. Several large estates were also constructed during the 1920s and 1930s. A Phase 1 Historic Resources Technical Report was prepared by Jay Carlander, Ph.D, dated January 5, 2021 (Attachment F). Per the report, the two-story, vernacular house built in 1935 at 3393 Padaro Lane is not eligible for listing as a historic resource under County of Santa Barbara criteria. The twelve attendant buildings also located on the property are not historically or architecturally significant and therefore none are eligible for listing as a historic resource under County of Santa Barbara criteria. Because the buildings located at 3393 Padaro Lane are not eligible for listing as historic resources under County of Santa Barbara criteria, their proposed demolition would not result in a significant impact to a historic resource. This site is not significant or eligible for the California Register of Historical Resources (CRHR) because it does not retain sufficient integrity or provide data important to understanding prehistory.

Impact Discussion:

(a). Historical Significance. The main residence was built in 1935 and the accessory structures were later constructed mostly in the 1960s or on unknown dates. The house has not retained design integrity because it does not represent a high-quality example of vernacular beachside residential architecture. Additionally, the original form of the building has been altered by a substantial west elevation addition within the last 50 years. Although the windows and siding appear to be mostly original, the doors are newer replacements and the materials of the west addition are newer materials added within the last fifty years. The house does not retain integrity of feeling because its lack of design, materials, and workmanship integrity preclude it from expressing a strong aesthetic or historic sense of a particular period of time. Therefore, the property has not retained its historic integrity and the main house at 3393 Padaro Lane is not eligible for listing as a historic resource under County of Santa Barbara criteria. The twelve attendant buildings also located on the property are not historically or architecturally significant and therefore none are eligible for listing as a historic resource under County of Santa Barbara criteria. The proposed demolition of existing buildings would not result in a significant impact to a historic resource.

(b - d). Archeological and Tribal Cultural Resources. Based on the presence of several prehistoric resources within proximity of the project site, the general project vicinity is considered sensitive for prehistoric cultural resources. Additionally, the CHRIS database search mapped one (1) cultural resource, a prehistoric site (CA-SBA-12), overlapping the proposed Project site, however this mapping may be

inaccurate as described above.CA-SBA-12 is described as a prehistoric site with marine shell and "habitation debris" and therefore, is considered an important and unique resource under CEQA and is of cultural significance to the Native American community.

No cultural materials were observed during the subsequent Phase I survey, which covered all undeveloped areas, accounting for approximately 40 percent of the proposed Project site. Applicant proposed additional mitigation includes a supplemental pedestrian survey by a County-qualified archaeologist to occur once existing structures, slabs and foundations have been removed (CulRes-05). This would allow a more intensive review of the site, reaching places not currently available for survey, and confirming the presence or expected absence of materials described in the site description of CA-SBA-12. Based on the likelihood that the site is incorrectly mapped, together with the negative survey findings and significant ground disturbance that has occurred since at least 1929, it appears that *if* a cultural deposit does exist within the proposed Project site, it is not likely to still be intact. Therefore, at this time and with the evidence available, it is unlikely that known significant cultural resources, as defined by CEQA Section 15064.5, are likely to exist within the project improvement areas proposed for ground disturbance. Or if present, the portion of CA-SBA-12 overlapping the proposed Project site is not likely to meet the thresholds for eligibility as a significant historical resource under any NRHP or CRHR criteria. Even if insignificant, the potential for cultural resources to be found during construction is possible. Therefore, all earth disturbances including grading and placement of fill within the project area would be monitored by a P&D approved archaeologist and a Native American consultant as recommended through the AB 52 consultation process and in compliance with the provisions of the County Archaeological Guidelines (CulRes-02). Mitigation also includes a workers environmental awareness training by a qualified archeologist as requested through the AB 52 Consultation process (CulRes-01).

CA-SBA-12 is described as a prehistoric site with marine shell and "habitation debris" and there is no reason to believe human remains are at the site. In the event that human remains or any archaeological remains are inadvertently encountered during construction activities, a stop work order (CulRes-03) would halt construction onsite and the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains. Prior to ground disturbance activities, the Applicant retained County-qualified archaeologist, meeting the Secretary of the Interior's Standards, and with experience in California prehistoric and historic resources (experience within Santa Barbara County preferred), shall compose a Cultural Resource Monitoring and Treatment Plan (CulRes-04).

As proposed, excavations are not expected to exceed two (2) feet below ground surface (bgs) for the structural foundations, five (5) feet bgs for installation of utilities, and two (2) feet bgs for installation of hard and soft scape. Therefore, ground disturbances are shallow and limited to areas that have been previously disturbed by grading, building construction and agricultural activities resulting in a low potential for intact cultural deposits to exist within areas proposed for ground disturbance. As a result, the proposed project would not cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource, disturb any human remains, or cause a substantial adverse change in the significance of a tribal cultural resource. In order to comply with cultural resource policies, the development project would be conditioned with a standard archaeological discovery clause which requires all work to cease in the event that archaeological remains were encountered during grading, construction, landscaping, or other construction-related activity and resources discovered during site development are treated in accordance with the County's Cultural Resources Guidelines (CultRes-09). Impacts would therefore be *less than significant with mitigation*.

Cumulative Impacts. Since the project would not significantly impact cultural resources, it would not have a cumulatively considerable effect on the County's cultural resources with implementation of the

mitigation measures described below.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's cultural resource impacts to an insignificant level:

MM-CulRes-01 WEAP Training. Workers Environmental Awareness Program (WEAP). The Applicant will invite a County-approved archaeologist to provide a cultural resources awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The County will invite the Santa Ynez Band of Chumash Indians THPO or their designee to provide a tribal cultural resources awareness training program (Worker Environmental Awareness Program [WEAP]) for all personnel involved in project construction, including field consultants and construction workers. The one-time WEAP training session shall be conducted prior to any project-related construction activities in the project area. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values. **PLAN REQUIREMENTS:** The Applicant shall submit the WEAP to the County for review and approval prior to implementation. All workers, contractors, and visitors shall attend the WEAP prior to entering the project site and performing any work. The Applicant shall provide copies of the training attendance sheets to County staff as a record of compliance with this measure on a monthly basis. **TIMING:** The WEAP shall be reviewed and approved by the County prior to Zoning Clearance approval. Implementation of the one-time WEAP training session shall occur prior to the start of construction. As new crew members are added to the project WEAP training will be provided and will require employee review and sign off by construction superintendent. **MONITORING:** P&D permit compliance staff will ensure compliance with the WEAP throughout construction by review of attendance sheets and hardhats, inspection of the site, and interviewing workers, as appropriate.

MM-CulRes-02 Cultural Resource Monitor. The Owner/Applicant shall have all earth disturbances including scarification and placement of fill within the archaeological site area monitored by a P&D approved archaeologist and a Native American consultant in compliance with the provisions of the County Archaeological Guidelines. **TIMING**: Prior to issuance of the Coastal Development Permit, the Owner/Applicant shall submit for P&D review and approval, a contract or Letter of Commitment between the Owner/Applicant and the archaeologist, consisting of a project description and scope of work, and once approved, shall execute the contract. **MONITORING**: The Owner/Applicant shall provide P&D compliance monitoring staff with the name and contact information for the assigned onsite monitor(s) prior to grading/building permit issuance and pre-construction meeting. P&D compliance monitoring staff shall confirm monitoring by archaeologist and Native American consultant and P&D grading inspectors shall spot check field work.

MM-CulRes-03 Stop Work at Encounter. The Owner/Applicant and/or their agents, representatives or contractors shall stop or redirect work immediately in the event archaeological remains are encountered during grading, construction, landscaping or other construction-related activity. The Owner/Applicant shall immediately contact P&D staff, and retain a P&D approved archaeologist and Native American representative to evaluate the significance of the find in compliance with the provisions of the County Archaeological Guidelines and conduct appropriate mitigation funded by the Owner/Applicant. If the discovery is determined significant under CEQA and avoidance is not feasible, data recovery will likely be required. **PLAN REQUIREMENTS:** This condition shall be printed on all building and grading plans. **MONITORING:** P&D permit processing planner shall check plans prior to

issuance of a Coastal Development Permit and P&D compliance monitoring staff shall spot check in the field throughout grading and construction.

MM-CulRes-04 Cultural Resource Inadvertent Discovery Plan. Impacts to cultural resources should be minimized through implementation of pre- and post- construction tasks. Tasks pertaining to cultural resources include the development of a cultural resource inadvertent discovery plan (IDP). The purpose of the Plan is to 1) guide the supplemental pedestrian survey and if necessary the subsurface testing and ensure both are conducted in accordance with professional standards as outlined by the Office of Historic Preservation (1995); 2) outline cultural monitoring (archaeological and Native American/Tribal) protocols and a program of treatment and mitigation in the case of an inadvertent discovery of cultural (archaeological or Native American/Tribal) resources during ground-disturbing phases; and 3) to provide for the proper identification, evaluation, treatment, and protection of any cultural resources in accordance with CEQA throughout the duration of the Project. Existence of and importance of adherence to this plan should be stated on all Project site plans intended for use by those conducting the ground disturbing activities. **PLAN REQUIREMENTS**: The Owner/Applicant shall draft and submit the Inadvertent Discovery Plan (IDP) to P&D for review and approval. The IDP shall include all plan components listed above. **TIMING**: The Owner/Applicant shall submit the IDP for review and approval prior to issuance of the Coastal Development Permit. **MONITORING**: The Owner/Applicant shall submit to P&D compliance monitoring staff the name and contact information for the approved archaeologist prior to commencement of construction / pre-construction meeting. Permit Compliance staff shall spot check measures in the field.

MM-CulRes-05 Supplemental Pedestrian Survey. Once existing structures, slabs and foundations have been removed, a thorough intensive field survey will be conducted by a County-qualified archaeologist. The results of this survey will be reported to the County and a supplemental memo will be provided to document the results. The removal of slabs and foundations will be monitored by a County-qualified archaeologist and Native American Monitor. **TIMING**: Prior to issuance of the Land Use Permit, the Owner/Applicant shall submit for P&D review and approval, a contract or Letter of Commitment between the Owner/Applicant and the archaeologist, consisting of a project description and scope of work, and once approved, shall execute the contract. Monitoring shall take place once foundations have been removed. **PLAN REQUIREMENTS:** This condition shall be printed on all building and grading plans. **MONITORING**: The Owner/Applicant shall provide P&D compliance monitoring staff with the name and contact information for the assigned onsite monitor(s) prior to grading/building permit issuance and pre-construction meeting. P&D compliance monitoring staff shall confirm monitoring by archaeologist and Native American consultant and P&D grading inspectors shall spot check field work.

With the incorporation of these measures, residual impacts would be insignificant.

4.6 ENERGY

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?				X	
b. Requirement for the development or extension of new sources of energy?				X	

Impact Discussion.

(a, b). The County has not identified significance thresholds for electrical and/or natural gas service impacts

(Thresholds and Guidelines Manual). Private electrical and natural gas utility companies provide service to customers in Central and Southern California, including the unincorporated areas of Santa Barbara County. The proposed project involves the construction of one single-family dwelling and associated accessory structures. Energy use is estimated as follows:

Multiplier	**Project Demand**
Natural Gas (13.7 million BTU per capita[1])	54.8 million BTU per year (assuming a 4 person household)
Electricity (7.4MWh/yr/home PG&E; 6.9 MWh/yr/home SCE)[2]	6.9 megawatt hours per year

In summary, the project would have minimal long term energy requirements and a negligible effect on regional energy needs. No adverse impacts would result.

Cumulative Impacts. The project's contribution to the regionally significant demand for energy is not considerable, and is therefore insignificant.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be insignificant.

4.7 FIRE PROTECTION

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
a. Introduction of development into an existing high fire hazard area or exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X		
b. Project-caused high fire hazard?			X		
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?			X		
d. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X		
e. Introduction of development that will substantially impair an adopted emergency response plan, emergency evacuation plan, or fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?			X		
f. Development of structures beyond safe Fire Dept. response time?			X		

Impact Discussion:

(a - f). The project includes demolition of the existing residential structures and construction of a new

[1] http://apps1.eere.energy.gov/states/residential.cfm/state=CA#ng
[2] http://enduse.lbl.gov/info/LBNL-47992.pdf

single-family residence, cabana, garage, storage room, greenhouse, and garage. The site is not located within a High Fire Hazard Area. The project is located approximately 2.3-miles east of Carpinteria-Summerland Fire District Station No. 62 at 2375 Lillie Avenue in Summerland and is therefore located in an area with an adequate response time from fire protection services. Adequate access to the site is available via Padaro Lane. A Carpinteria-Summerland Fire District approved hammerhead turnaround is proposed on the eastern side of the parcel, accessed by the service gate. Both the main gate and service gate open in the direction of ingress travel and are located 30-feet from the edge of Padaro Lane's driving surface. An automatic sprinkler system would be installed in all habitable structures. The Carpinteria-Summerland Fire District has approved the proposed driveway configuration and the project is required to comply with standard conditions of approval (fire sprinklers, water flow, etc.) as outlined in the Carpinteria-Summerland Fire District condition letter dated January 11, 2021. The water district has been working on the low fire flow on Padaro to increase the flow to over the required 500 GPM, per Carpinteria-Summerland Fire District. Surrounding vegetation would be maintained and trimmed periodically, per MM-Bio-01. Therefore, impacts to fire protection are *less than significant*.

Cumulative Impacts. The Caprinteria Valley water district has been working on the low fire flow on Padaro to increase the flow to over the required 500 GPM. Since the project would not create significant fire hazards, it would not have a cumulatively considerable effect on fire safety within the County.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be insignificant.

4.8 GEOLOGIC PROCESSES

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?		X			
b. Disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading?		X			
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?			X		
d. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X		
e. Any increase in wind or water erosion of soils, either on or off the site?		X			
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?				X	

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				X	
h. Extraction of mineral or ore?				X	
i. Excessive grading on slopes of over 20%?				X	
j. Sand or gravel removal or loss of topsoil?		X			
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?			X		
l. Excessive spoils, tailings or over-burden?				X	

Existing Setting. The site is located on the beachfront between the Pacific Ocean and Padaro Lane in Carpinteria, California. Improvements were first constructed on this lot in 1935, and aerial photos indicate additions have been constructed since that time. GeoSoils, Inc. (GeoSoils) prepared a Coastal Hazard and Wave Runup Study for the proposed project in March 2021, which was peer reviewed by GeoDynamics, Inc (GDI) (Geosoils March 2021, September 2021, January 2023, July 2023; GDI March 2021, February 2022, March 2023, and September 2023), these are included as Attachments G1, G2, and G3. The following analysis is based on this information.

The property landward of the rock revetment, is in Flood Zone X (area of minimal flood hazard) with no base flood elevation. The portion of the property south (oceanward) of the revetment is in Flood Zone VE, with a base flood elevation of 14 to 15 feet NAVD88 (elevation transition bisects the lot). The project design life is 75 years, which is consistent with the policies of the County of Santa Barbara Coastal Land Use Plan. An existing rock revetment runs east-west along Padaro Beach from 3315 to 3483 Padaro Lane and bisects the subject property, separating the sandy beach and the residential uses. The revetment pre-dates 1972 and was issued a Conditional Use Permit (83-CP-58) and a Coastal Development Permit (85-CDP-97) for repair and augmentation of the original revetment. The proposed project scope does not include changes to the existing revetment.

A geotechnical report, Preliminary Geotechnical Investigation, Proposed Development 3393 Padaro Lane, Carpinteria, County of Santa Barbara, California (Pike 2020), was prepared for PLSB, LLC in September 2020 to determine the subsurface geological conditions of the proposed Project site and provide preliminary grading and foundation recommendations for the proposed site redevelopment. The report details the results of two (2) hand auger borings drilled to depths of up to fifteen (15) feet and two (2) truck-mounted hollow stem auger borings to the depth of fifty (50) feet. The soils encountered in the borings include various types of older alluvium characterized as interbedded layers of silty sands and silty clays. No artificial fill was identified within the proposed Project site (Dudek November 2023).

The existing ground surface elevation of the parcel varies between 13 to 14 feet NAVD88 at the southern (oceanward) part of the lot to Elevation 21 feet NAVD88 near Padaro Lane. The revetment, which predates 1972, is at plan elevation 17 feet NAVD88. An existing deck with a finished surface between plan elevation 12.5 and 13.6 feet is built on the rock revetment, and an existing wooden gazebo rests on the deck surface. Aerial photographs indicate the deck may have been there since 1972 or earlier.

Environmental Threshold. Pursuant to the County's Adopted Thresholds and Guidelines Manual, impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

1. The project site or any part of the project is located on land having substantial geologic constraints, as determined by P&D or PWD. Areas constrained by geology include parcels located

near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.

2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.
3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
4. The project is located on slopes exceeding 20% grade.

Impact Discussion:

(a). Potential to Result in Geologic Hazards. The project site is not underlain by any known active faults and is not at risk of ground failure or fault rupture (California Geological Survey [CGS] 2021). Likewise, the project site is relatively flat and has minimal risk of being affected by mudslides, landslides, and soil creep. Nonetheless, the site is in a seismically active region of California and is subject to risk from earthquakes, including ground shaking, liquefaction, and lateral spreading. Compliance with existing building regulations would reduce potential ground shaking impacts caused by movement along a distant fault to a less than significant level. MM-Geo-01 requires that the building design and construction comply with all recommendations provided in the geotechnical engineering reports prepared for the project. MM-Geo-01 together with the normal building permit review and inspection process would ensure that all seismic and soils-related hazards would be reduced to a *less than significant level with mitigation*.

(b, e, j). Potential for Grading-Related Impacts. Site preparation is proposed to include the placement of two to three feet of fill within the southerly portion of the property to satisfy flood elevation requirements. The northern portion of the property would remain at current grade and be subject to minimal cut and fill estimated to not exceed a depth of ground disturbance of one (1) foot below current ground surface (bgs). Proposed excavations are not expected to exceed two (2) feet bgs for excavation of the structural foundations, five (5) feet bgs for installation of utilities, and two (2) feet bgs for installation of hard and soft scape. As proposed, the main residence would have a first floor elevation of 18.5' NAVD88 and the grade around the perimeter porch would be at 15.5' NAVD88 (or lower). The elevation of the crawl space under the main residence is at 13.5' NAVD88. The garage level is at 20.5' NAVD88, but the cabana has a finished floor of 23.5' NAVD88. Finally, the greenhouse would be at 17.00' NAVD88.

The project would require approximately 1,200-cubic-yards of cut and approximately 3,000-cubic-yards of fill. Cut for the crawl space would be used in addition to imported fill to raise the single-family residence to meet the lowest habitable Finished Floor elevation of 18.5-feet NAVD88. The Finished Floor Elevation of 18.5-feet NAVD88 provides adequate elevation to keep the residence safe from coastal flooding over the expected 75-year design life of the development (Geosoils March 2021). The project site currently has approximately 9,500-square-feet of impermeable surfaces and the project proposes approximately 18,660-square-feet of impermeable surfaces including residential structures, pathways, and the fire approved driveways. The rest of the lot would be covered in landscaping. The site would be graded and sloped to allow surface water to flow towards a proposed bioswale on the southeast corner of the lot. An 8-inch PVC storm drain pipe would drain excess stormwater from the bioswale to the rock revetment. The bioswale would be covered by lawn, sea lavender, and shrubs. Erosion would not be increased as a result of the project.

The potential for the erosion or loss of topsoil would be further reduced through implementation of an Erosion Control Plan during project construction, as required by Chapter 14 of the Santa Barbara County Code of Ordinances. Grading operations that would occur on the project site would remove vegetative cover and disturb the ground surface, thereby increasing the potential for erosion and sedimentation

impacts, including the loss of gravel and topsoil. This would be a potentially significant impact. This impact would be reduced below the County's adopted thresholds of significance through implementation of MM-Geo-01, which require that the building and site design and construction comply with all recommendations provided in the geotechnical engineering reports and the Coastal Hazard & Wave Runup Study prepared for the project. Compliance with MM-Geo-01 would ensure that the building and site design and construction are completed in accordance with the geotechnical engineer and coastal engineer's recommendations, accounting for the identified site-specific geotechnical and coastal hazards. Upon project completion, site soils would be stabilized with vegetation and the project would be required to develop and maintain stormwater BMPs during long-term operation as required by MM-WatRes-01, thereby minimizing the potential for erosion. Therefore, potential grading, erosion, and sedimentation impacts would be *less than significant with mitigation*.

(c). Exposure to Rising Sea Level. The development is in a high coastal hazard area. The existing rock revetment would not be modified or removed, however, the project is considered new shoreline development, and coastal development standards require that the new development be located outside the wave uprush zone or above the flood elevation, and designed without shoreline protection, if feasible. The project design life is 75 years per the County of Santa Barbara Coastal Land Use Plan. The Coastal Hazard and Wave Runup Study and GDI peer review (Attachment G) utilized a still water elevation of 7.6 feet NAVD88 and 5.4 feet of sea level rise (SLR) to evaluate impacts from coastal flooding and potential wave action for this project life. This represents the 0.5% high probability (medium to high-risk aversion) and low emissions scenario. The modelled limit of wave uprush is estimated at Elevation 19 feet NAVD88 without the revetment, therefore, a Finished Floor Elevation (FFE) for the main residence of Elevation +18.5 feet NAVD88 is recommended (GeoSoils).

To meet this recommended habitable minimum FFE of 18.5 feet NAVD88, the site grade would be raised by placement of 0 to 4 feet of fill. The existing site wall behind the revetment would remain, and a new retaining wall would be constructed along the eastern property line. This would allow the site grade to raise the finished grade to elevation 16 to 17 near the revetment and up to elevation 18 or 19 feet under the main house, tapering to match existing elevation of 21 feet NAVD88 near Padaro Lane. As described above, the garage would have a FFE of 20.5' NAVD88 and the cabana would have a FFE of 23.5' NAVD88. The main residence would have a first floor elevation of 18.5' NAVD88 and the grade around the perimeter porch would be at 15.5' NAVD88 (or lower). The elevation of the crawl space under the main residence is proposed at 13.5' NAVD88. A four-foot-high crawl space with flood vents would be constructed to house a floodproof vault for a mechanical room. Because the mechanical room would be below base flood elevation and exposed to potential coastal flooding, it is designed perpendicular to the shoreline to present the least resistance to any flood waters that may pass through the site in the future. Per the County Flood Control condition letter dated February 27, 2024, the crawl space cannot be more than 4-feet below the first finished floor level. As proposed, the habitable space would not be impacted by sea level rise.

The estimated coastline retreat is estimated at approximately 112 feet northward. The glass greenhouse is located approximately 90 feet landward of the beachside toe of the revetment. The estimated beach retreat would reach the greenhouse in 65 years, 10 years less than design period of 75 years. Although the greenhouse is a non-habitable and can flood under FEMA regulations, it will be removed from the property in the event the greenhouse structure is impacted by shoreline erosion (MM-Geo-02).

Compliance with these design strategies, State requirements, and County regulations would ensure that potential effects of sea level rise on the site would not subject residents or occupants of the project site to a substantial risk or hazard. Even without the revetment, the potential for coastal hazards to impact the development is mitigated by the proposed design. The structure elevation above potential future flooding, the FEMA approved design methods for the improvements below the flood elevation, and the setback from the shoreline, all combine to mitigate the potential hazards. Additionally, the revetment is

existing and further protects the property from coastal hazards and wave runup. Because the project would not result in an impact on the environment associated with sea level rise, this impact would be *less than significant*.

(d). Unique Geologic Features and Paleontological Resources. The site is between Padaro Beach and Padaro Lane. There are no known unique geological features located on the project site. There are no documented paleontological resources on the project site and due to the shallow depth of disturbance proposed for construction work, impacts to paleontological resources *would be less than significant*.

(f). Changes in deposition or erosion of beach sands or dunes. All proposed development and construction work is located on the inland side of the rock revetment. No sand is present in the area of proposed development and due to existing and proposed drainage patterns, there is no potential for erosion to modify the beach or ocean drainage. Therefore, the project would *not impact* the beach sand/dunes adjacent to the development. *(g, h, i, l).* Other Potential Geological Hazards. The project would connect to the existing sanitary sewer system serving the project area and would not involve the use of septic systems. Likewise, the project would not involve mining activities or the creation of excessive spoils, tailings, or overburden. The project would not involve grading on slopes exceeding 20% and project grading activities would be minimal. Therefore, there would be *no impact* related to septic systems, mining, and spoils, tailings, overburden, or grading.

(k). Vibration. The project would not include stationary sources of significant vibration, such as heavy equipment operations, and there would be no long-term vibration impacts associated with the project. The use of heavy equipment during construction has the potential to produce vibration. However, construction activities would be temporary and intermittent and would not substantially affect nearby uses. Therefore, impacts related to vibration would be *less than significant*.

Cumulative Impacts. Since the project would not result in significant geologic impacts after mitigation, and geologic impacts are typically localized in nature, it would not have a cumulatively considerable effect on geologic hazards within the County.

Mitigation and Residual Impact: The following mitigation measure would reduce the project's geologic impacts to an insignificant level:

MM-GEO-01. Building design and construction shall comply with all recommendations from the GeoSoils, Inc. "*Coastal Engineering Review Response and Project Plan Compliance Review for 3393 Parado Lane, Carpinteria, CA 93013*", dated July 12, 2023 and all associated reports and recommendations. These recommendations, including recommendations concerning foundations, construction, grading, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the consultant(s) prior to commencement of development. The final plans approved by the consultant(s) shall be in substantial conformance with the plans approved by the County relative to foundation, construction, grading, drainage, and height of the structure. Any substantial changes in the proposed development approved by the County that may be required by the consultant(s) shall require an amendment to this permit or a new Coastal Development Permit. **PLAN REQUIREMENTS:** Building Plans shall comply with all recommendations of the GeoSoils, Inc. Coastal Hazard & Wave Runup Study. This condition shall be included as a notation on project plans. **TIMING:** Building plans shall be reviewed by P&D staff prior to Coastal Development Permit issuance and Building Permit issuance. An approved geotechnical engineer shall provide observation and testing services during site preparation, grading, and foundation construction. **MONITORING:** During Plan Check, P&D staff shall review plans for notations prior to permit issuance. B&S staff shall ensure compliance with recommendations during plan check review and in the field.

MM-Geo-02. A recorded Notice to Property Owner document is necessary to ensure that the proposed greenhouse shall be removed from the property at the expense of the owner/applicant in the event it is impacted by shoreline erosion. **REQUIREMENTS:** This condition shall be included as a notation on all

Coastal Development Permit, Grading, and Building plans. **TIMING:** The property owner shall sign and record the document prior to the issuance of a Coastal Development Permit.

With the incorporation of these measures, residual impacts would be insignificant.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?			X		
b. The use, storage or distribution of hazardous or toxic materials?			X		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?			X		
d. Possible interference with an emergency response plan or an emergency evacuation plan?			X		
e. The creation of a potential public health hazard?			X		
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?			X		
g. Exposure to hazards from oil or gas pipelines or oil well facilities?			X		
h. The contamination of a public water supply?			X		

Thresholds. The County's safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

Impact Discussion:

(a – h). There is no evidence that hazardous materials were used, stored or spilled on site in the past, and there are no aspects of the proposed use that would include or involve hazardous materials at levels that would constitute a hazard to human health or the environment.

The proposed project would result in the development of one single-family dwelling. The use of common household materials (cleaners, garden and automotive products, etc.) on the project site would not result in significant hazardous materials/waste impacts. Traffic that would be generated by the project would not substantially interfere with emergency response capabilities to the project site or to other properties in the project area. Therefore, *impacts are less than significant*.

Mitigation and Residual Impact: No impacts are identified. No mitigations are necessary.

Cumulative Impacts. Since the project would not create significant impacts with respect to hazardous materials and/or risk of upset, it would not have a cumulatively considerable effect on safety within the

County.

4.10 LAND USE

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?			X		
b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X		
c. The induction of substantial unplanned population growth or concentration of population?			X		
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?			X		
e. Loss of existing affordable dwellings through demolition, conversion or removal?			X		
f. Displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X		
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X		
h. The loss of a substantial amount of open space?			X		
i. An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)			X		
j. Conflicts with adopted airport safety zones?			X		

Existing Setting. The project site is located on Padaro Lanes in the Toro Canyon Plan, which is an Existing Developed Rural Neighborhood located south of U.S. 101, adjacent to the Pacific Ocean. This area was developed in 1920 as the Town of Serena and was laid out in long narrow lots oriented perpendicular to Padaro Lane, formerly the Coast Highway, to the ocean. Today, the area is a mix of primary and secondary residences. The lots are generally larger at the western end of Padaro Lane, becoming narrower with smaller lots toward the eastern end. Directly east of the larger western properties is the "Beach Club Road" tract, a 1950s housing development with smaller parcels.

Padaro Lane serves single-family residential development located between the roadway and the coastline.

On-street parking is limited, especially on the narrower eastern end of Padaro Lane. Padaro Lane makes up one of the five Rural Neighborhoods (RNs) in the Coastal portion of the Toro Canyon Plan.

Environmental Threshold: The Thresholds and Guidelines Manual contains no specific thresholds for land use. Generally, a potentially significant impact can occur if a project would result in substantial growth inducing effects or result in a physical change in conflict with County policies adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Discussion:

(a, c-j). The project site is zoned residential (8-R-1, 8,000-square-foot minimum lot size) and includes the demolition of an existing single-family residence and accessory structures and the construction of a replacement single-family residence and associated accessory structures. The property is currently served by the Carpinteria Sanitary District and does not involve the extension of a sewer trunk line. The project does not conflict with any airport safety zones. The project is not growth inducing, and does not result in the loss of affordable housing, or a significant displacement of people. The project is compatible with existing land uses. Therefore, impacts to land use designation and population displacement are *less than significant*.

(b). Toro Canyon Plan's DevStd BIO-TC-1.4 policy requires a minimum 50-foot buffer from any side of a Monarch butterfly habitat. As discussed in Section 4.4, Biological Resources, the project would include work within the 50-foot buffer space including construction of the new driveway, removal of surrounding vegetation, and movement of construction materials throughout the site. A Monarch Habitat Management Plan prepared by a P&D-approved arborist and/or biologist and designed to address both short and long-term management of the monarch habitat onsite including tree pruning restrictions is required by Mitigation Measure Bio-01. Additionally, Toro Canyon Community Plan Policy BIO-TC-13 states that "Native protected trees and non-native protected trees shall be preserved to the maximum extent feasible". Construction of the project would remove 2 native protected sycamore trees and would be replaced onsite by of 3 new 48" box California Sycamore trees as well as 7 Island Oaks (1 in a 48" box and 6 in a 108" box), and 5 new 48" box Coast Redwood trees (Table 1). In the event of additional unexpected damage or removal, impacted trees would be replaced onsite at a 3:1 ratio with large 24-inch box size or 1:1 ratio with a 48" box tree (Mitigation Measure Bio-02). Therefore, impacts from conflicts with biological policies would be mitigated to a less than significant level.

Local Coastal Plan Policy 3-4, also known as the stringline policy, prevents the structures from being located closer to the bluff's edge than the adjacent structures by drawing a line between the neighboring property's seaward structures. The main residence complies with this setback policy, however the greenhouse is located on the seaward side of the stringline. This encroachment into the stringline is appropriate due to the site constraints including biological impacts from protected trees and monarch habitat, and setback requirements. Additionally, as described in Section 4.1 Aesthetics, the greenhouse's encroachment into the residential stringline is visually insignificant due to its height, design, and building materials. Along Padaro Beach, other accessory structures that encroach into the stringline include gazebos and raised decks. The South Board of Architectural Review reviewed the location of the greenhouse and residence on June 16, 2023 and determined they were appropriate for the lot. MM-Aesth-01 Lighting prevents lights from being hung within the greenhouse, further decreasing its visual prominence from the beach.

As discussed in Section 4.5 Cultural Resources, one cultural resource, a prehistoric site (CA-SBA-12), potentially overlaps the project site. However, due to the likelihood that the site is incorrectly mapped, and the negative survey findings, it appears that if a cultural deposit does exist within the site, it is not likely to still be intact. Therefore, at this time and with the evidence available, it is unlikely that known significant cultural resources exist within the project improvement areas. To mitigate, all earth disturbances including grading and placement of fill within the project area would be monitored

by a P&D approved archaeologist and a Native American consultant as recommended through the AB 52 consultation process and in compliance with the provisions of the County Archaeological Guidelines (CulRes-02). Additionally, applicant proposed additional mitigation includes a supplemental pedestrian survey by a County-qualified archaeologist to occur once existing structures, slabs and foundations have been removed (CulRes-05).

With implementation of the proposed aesthetic, biological, and cultural mitigation measures, the adjacent visual, ESH, and cultural resources would be protected against any significant disruption.

Cumulative Impacts. The implementation of the project is not anticipated to result in any substantial change to the site's conformance with environmentally protective policies and standards or have significant growth inducing effects. Thus, the project would not cause a cumulatively considerable effect on land use.

Mitigation and Residual Impact. No impacts are identified. No mitigation is necessary.

4.11 NOISE

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?				X	
b. Short-term exposure of people to noise levels exceeding County thresholds?				X	
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?				X	

Setting/Threshold. Noise is generally defined as unwanted or objectionable sound which is measured on a logarithmic scale and expressed in decibels (dB(A)). The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (L_{dn}) are noise indices which account for differences in intrusiveness between day- and night-time uses. County noise thresholds are: 1) 65 dB(A) CNEL maximum for exterior exposure, 2) 45 dB(A) CNEL maximum for interior exposure of noise-sensitive uses, and 3) an increase in noise levels by 3 db(A) – either individually or cumulatively when combined with other noise-generating sources when the existing (ambient) noise levels already exceed 65 db(A) at outdoor living areas or 45db(A) at interior living areas. Noise-sensitive land uses include: residential dwellings; transient lodging; hospitals and other long-term care facilities; public or private educational facilities; libraries, churches; and places of public assembly.

The proposed project site is located outside of 65 dB(A) noise contours for roadways, public facilities, airport approach and take-off zones. Surrounding noise-sensitive uses consist of single family residences.

Impact Discussion:

(a - c). The proposed project involves the construction of a single-family dwelling. Long-term noise generated onsite would not: 1) exceed County thresholds, or 2) substantially increase ambient noise levels in adjoining areas. Noise sensitive uses on the project site would not be exposed to or impacted by off-site noise levels exceeding County thresholds. Noise generated from heavy equipment during grading and construction can temporarily exceed County noise thresholds of 65 dB(A) for a distance of up to

approximately 1,600 feet. During grading and construction on the project site, construction could result in significant, short-term noise impacts, which would affect nearby residents. Standard noise conditions are applicable to all land use entitlements and would be enforced during construction activities. Therefore, even short-term construction-related noise impacts would have a less than significant impact on the neighborhood. Noise impacts as a result from the project would be *insignificant*.

Cumulative Impacts. The implementation of the project is not anticipated to result in any substantial noise effects. Due to the finite and temporary nature of construction, a cumulative impact resulting from the combined effects from other projects would not be considerable. Therefore, the project would not contribute in a cumulatively considerable manner to noise impacts.

Mitigation and Residual Impact. No impacts are identified. No mitigations are necessary.

4.12 PUBLIC FACILITIES

Will the proposal require or result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				X	
b. Student generation exceeding school capacity?				X	
c. Significant amounts of solid waste or breach any federal, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?				X	
d. The relocation or construction of new or expanded wastewater treatment facilities (sewer lines, lift-stations, etc.) the construction or relocation of which could cause significant environmental effects?				X	
e. The relocation or construction of new or expanded storm water drainage or water quality control facilities, the construction of which could cause significant environmental effects?				X	

Impact Discussion:

(a – e). The proposed project would replace the existing residential development onsite and would not result in the increase of residences within the area. This level of new development would not have a significant impact on existing police protection or health care services. Existing service levels would be sufficient to serve the proposed project. The proposed project would not generate solid waste in excess of County thresholds. The project would not cause the need for new or altered sewer system facilities as it is already in the service district, and the District has adequate capacity to serve the project. No additional drainages or water quality control facilities would be necessary to serve the project. Therefore, the project would have *no impact* to public facilities.

Mitigation and Residual Impact: No impacts are identified. No mitigation is necessary.

4.13 RECREATION

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				X	
b. Conflict with biking, equestrian and hiking trails?				X	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				X	

Setting/Threshold. The Thresholds and Guidelines Manual contains no threshold for park and recreation impacts. However, the Board of Supervisors has established a minimum standard ratio of 4.7 acres of recreation/open space per 1,000 people to meet the needs of a community. The Santa Barbara County Parks Department maintains more than 900 acres of parks and open spaces, as well as 84 miles of trails and coastal access easements.

The proposed project site is located along Padaro beach. Vertical coastal access along almost the entire coastal frontage in Toro Canyon (i.e., Padaro Lane to Santa Claus Lane) is severely limited and beach access is not yet formalized in Toro Canyon. Public access for Toro Canyon's two miles of sandy beach frontage from Padaro and Santa Claus Lanes has been gradually obstructed by development of coastal properties. Substantial informal (i.e. not dedicated/protected) public access occurs by crossing the Southern Pacific Railroad tracks and seawall at the western end of Santa Claus Lane. Some informal roadside parking exists in this area.

Some of the homes in the Padaro Lane area were granted permits to build under the condition that access to the beach would be offered to the public via vertical easements to and/or horizontal easements along the beach. The nearest coastal access point is located approximately 370-feet from the subject parcel's southern-property line. The closest designated recreational trail, Padaro Bridge Shoulder Trail, runs west of Toro Canyon and connects across creek and under freeway. It would not be impacted by the proposed project.

Impact Discussion:

(a, b). The proposed project site is located adjacent to Padaro Beach. Padaro Bridge Shoulder Trail, located approximately 1.2-miles west of the project site is commonly used for horseback riding. Due to the nature of the project being demo/rebuild of a single-family residence and accessory structures, *no adverse impacts* to existing trails would result.

(c). The proposed project would not result in any population increase and would have *no adverse impacts* on the quality or quantity of existing recreational opportunities, either in the project vicinity or County-wide.

Mitigation and Residual Impact. No impacts are identified. No mitigation is necessary.

4.14 TRANSPORTATION

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?			X		
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?			X		
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X		
d. Result in inadequate emergency access?			X		

Setting. Padaro Lane is a two-lane roadway located south of Hwy. 101 and the Southern Pacific Railroad tracks, connecting to Hwy 101 and Via Real at two freeway interchanges. The parcel is located within the Transportation Corridor Wetland Overlay District, which provides specific standards of development for transportation projects between Santa Claus Lane and the Padaro Lane freeway exit. The projects raise awareness of existing public beach access, the California Coastal Trail link, and other development in the area.

Thresholds. According to the County's Environmental Thresholds and Guidelines Manual, a significant transportation impact would occur when:

a. Potential Conflict with a Program, Plan, Ordinance, or Policy. A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code Section 21099(b)(1). In such cases, applicants must identify project modifications or mitigation measures that eliminate or reduce inconsistencies with applicable programs, plans, ordinances, and policies. For example, some community plans include provisions that encourage complete streets. As a result, an applicant for a multifamily apartment complex may need to reduce excess parking spaces, fund a transit stop, and/or add bike storage facilities to comply with a community plan's goals and policies.

b. Potential Impact to VMT. The County expresses thresholds of significance in relation to existing, or baseline, county VMT. Specifically, the County compares the existing, or baseline, county VMT (i.e., pre-construction) to a project's VMT. Projects with VMT below the applicable threshold would normally result in a less than significant VMT impact and, therefore, would not require further analyses or studies. Projects with a VMT above the applicable threshold would normally result in a significant VMT impact and, therefore, would require further analyses and studies, and, if necessary, project modifications or mitigation measures. CEQA Guidelines Section 15064.3 establish VMT as the most appropriate measure of transportation impacts under CEQA.

The County presumes that land use or transportation projects meeting any of the screening criteria would have less than significant VMT impacts and would not require further analysis. County thresholds identify Small Projects as a project that generates 110 or fewer average daily trips. The VMT thresholds of significance are for general use and should apply to most projects subject to environmental review. However, the thresholds may not be appropriate for unique projects. In such cases, CEQA Guidelines Section 15064.7(c) allows the County to use other thresholds "… on a case-by-case basis as provided in Section 15064(b)(2)." The OPR Technical Advisory recommended thresholds for land use projects including Residential, Employment, Regional Retail, Mixed-Use Projects, and Other Land Use types.

c. Design Features and Hazards. Threshold "c" considers whether a project would increase roadway hazards. An increase could result from existing or proposed uses or geometric design features. In part, the analysis should review these and other relevant factors and identify results that conflict with the County's Engineering Design Standards or other applicable roadway standards.

d. Emergency Access. Threshold "d" considers any changes to emergency access resulting from a project. To identify potential impacts, the analysis must review any proposed roadway design changes and determine if they would potentially impede emergency access vehicles.

Impact Discussion:

(a). Potential Conflict with a Program, Plan, Ordinance, or Policy. The Santa Barbara County Association of Governments (SBCAG) 2040 Regional Transportation Plan and Sustainable Communities Strategy (SBCAG, 2013) and the County's Comprehensive Plan, zoning ordinances, capital improvement programs, and other planning documents contain transportation and circulation programs, plans, ordinances, and policies. A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code Section 21099(b)(1). The proposed project involves construction of a single-family dwelling on a parcel zoned for residential development. The project would not result in conflicts with an applicable Program, Plan, Ordinance, or Policy related to transportation, and therefore, would result in an *insignificant* impact.

(b). Potential Impact to VMT. The County presumes that land use projects meeting any of the screening criteria, absent substantial evidence to the contrary, would have less than significant VMT impacts and would not require further analysis. A single-component project (e.g., residence, office, or store) only needs to meet one of the screening criteria. Using the County's VMT Tool, it was determined that the proposed project, which involves construction of a single-family dwelling, would result in fewer than 110 average daily trips. The project meets the screening criteria for small projects, and therefore, is presumed to have *insignificant* impacts related to VMT.

(c). Design Features and Hazards. The proposed project involves construction of a single-family dwelling and driveway improvements. The proposed driveway improvements are designed to be consistent with the County's driveway standards, and would not result in hazards due to a geometric design feature. Further, the proposed project involves construction of a single-family dwelling on a parcel zoned for residential development, and would not increase hazards due to incompatible uses. Therefore, the project would not result in hazards due to a geometric design feature or incompatible uses, and impacts would be *insignificant*.

(d). Emergency Access. The proposed driveway improvements included as part of the project are designed to comply with County and Carpinteria-Summerland Fire District standards and would not result in inadequate emergency access. Therefore, impacts related to emergency access are *insignificant*.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for transportation. Therefore, the project's contribution to the regionally significant transportation impacts is not considerable, and is insignificant.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be less than significant.

4.15 WATER RESOURCES/FLOODING

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X		
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?		X			
c. Change in the amount of surface water in any water body?			X		
d. Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?		X			
e. Alterations to the course or flow of flood water or need for private or public flood control projects?			X		
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion?		X			
g. Alteration of the direction or rate of flow of groundwater?			X		
h. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?			X		
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?			X		
j. The substantial degradation of groundwater quality including saltwater intrusion?			X		
k. Substantial reduction in the amount of water otherwise available for public water supplies?			X		
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?		X			

Water Quality Regulation. Santa Barbara County is within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB), which oversees the area extending from the Santa Barbara County/Ventura County line to the northern boundary of the Santa Cruz County, and from the coastline to approximately 40 miles inland. Per the requirements of the Clean Water Act (CWA), and the California Porter-Cologne Act, CCRWQCB has prepared a Water Quality Control Plan for the watersheds under its jurisdiction. The Central Coast Region Water Quality Control Plan characterizes watersheds within the Central Coast

region, identifies beneficial uses that exist or have the potential to exist in each water body, establishes water quality objectives for each water body to protect beneficial uses or allow their restoration and provides an implementation program that achieves water quality objectives. Per the requirements of CWA Section 303(c), the Water Quality Control Plan is reviewed every three years and revised as necessary to address problems with the plan, and meet new legislative requirements.

Water Resources Thresholds. A project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant.

A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well.

Water Quality Thresholds. A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses[3] of a receiving water body;
- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

Impact Discussion:

(a, c, e). Surface Water. The project is located on Padaro Lane, adjacent to Padaro Beach. Historically, Padaro Lane has had issues with surface drainage along the eastern end of Padaro Lane. Soils on the property are mapped by the Natural Resource Conservation Service 8 as "Ballard fine sandy loam (BaA), 0 to 2 percent slopes" and as "Beaches". Ballard fine sandy loam soil is classified as having a

[3] Beneficial uses for Santa Barbara County are identified by the Regional Water Quality Control Board in the Water Quality Control Plan for the Central Coastal Basin, or Basin Plan, and include (among others) recreation, agricultural supply, groundwater recharge, fresh water habitat, estuarine habitat, support for rare, threatened or endangered species, preservation of biological habitats of special significance.

medium runoff rate and light erosion hazard. This soil occurs in the northern 75% of the property, and is commonly used for estates and urban development. The main residence would be setback approximately 100-feet from the existing rock revetment and would not include alterations, such as new revetments or jetties, that could change the course or direction of water movements or activities, such as water withdrawals, that could change the amount of water in the surface water bodies surrounding the site. The project would create minor amounts of additional storm water runoff as a result of newly constructed impermeable surfaces (i.e. structures, driveways, patios, etc.). Construction activities such as grading could also potentially create temporary runoff and erosion problems. Application of standard County grading, erosion, and drainage-control measures would ensure that no significant increase of erosion or storm water runoff would occur.

(b, d, l). Water Quality. The project would be expected to generate only minor amounts of storm water pollutants, however, the site is currently used for residential activities. The project would not introduce new pollutants not already used. These pollutants include fertilizers, pesticides, and household cleaners, chemicals, and runoff from driveways. Minor amounts of such household hazardous material would not present a significant potential for release of waterborne pollutants and would be highly unlikely to create a public health hazard.

The project site currently has approximately 9,500-square-feet of impermeable surfaces and the project proposes approximately 18,660-square-feet of impermeable surfaces including residential structures, pathways, and the fire approved driveways. The rest of the lot would be covered in landscaping. The site would be graded and sloped to allow surface water to flow towards a proposed bioswale on the southeast corner of the lot. The bioswale would be covered by lawn, sea lavender, and shrubs. A storm drain inlet and pipe would also be constructed between the bioswale and rock revetment to accommodate excess stormwater. Erosion would not be increased as a result of the project.

Due to the increase in impervious surface on the project site, the project's potential long term impacts to water quality would be potentially significant. MM-WatRes-01 requires the Owner/applicant to prepare a Stormwater Control Plan/Stormwater Management Plan (SWCP/SWMP) for P&D review and approval that would develop and maintain stormwater BMPs to stabilize the site, protect natural watercourses/creeks, prevent erosion, convey storm water runoff to existing drainage systems keeping contaminants and sediments onsite, and meet requirements for post-development peak stormwater flows and BMPs and maintenance requirements to ensure that the project would not result in a net increase to on-site or off-site drainage. Implementation of stormwater management would reduce the potential for temporary impacts to surface water bodies and groundwater quality during project construction to a *less than significant level with mitigation*.

(g - k). Groundwater. The Toro Canyon Sub-basin is part of the Carpinteria groundwater basin, which is not overdrafted, and is not considered at risk of seawater intrusion. The geotechnical report, Preliminary Geotechnical Investigation, Proposed Development 3393 Padaro Lane, Carpinteria, County of Santa Barbara, California, was prepared for PLSB, LLC in September 2020 to determine the subsurface geological conditions of the proposed Project site and provide preliminary grading and foundation recommendations for the proposed site redevelopment (Dudek November 2023). The report identified groundwater at 14-20.5 feet throughout the site. Excavations are not expected to exceed two (2) feet bgs for excavation of the structural foundations, five (5) feet bgs for installation of utilities, and two (2) feet bgs for installation of hard and soft scape, therefore there is no potential to hit groundwater during project construction.

The project would be supplied with water from the Carpinteria Valley Water District, which receives its water from the Carpinteria Groundwater Basin, the Cachuma Project, and the State Water Project. Since the volume of water extracted annually does not exceed its safe yield, this basin is not overdrafted. Additionally, the project would not involve activities such as groundwater extraction that could result in

the alteration of the direction or rate of flow of groundwater. The project's impact on water supplies and groundwater hydrology would be *less than significant*.

(f). Flooding Impacts on Structures. The subject parcel is partially located within the FEMA Regulatory Coastal Floodplain Zone VE, yet no development is proposed within Zone VE per this proposal. As discussed in Section 4.8, Geological Processes, under Checklist Item c., the project site is subject to flooding risk from storms and sea level rise, potentially exposing the residence and future occupants to hydrologic hazards. A four-foot-high crawl space with flood vents would be constructed to house a floodproof vault for a mechanical room. The existing lot elevation is between 13 and 21 feet NAVD88 and would be raised as depicted on the civil plans (Attachment A) to 18 to 19 feet NAVD88 near the greenhouse, main house and garage; the grade at the proposed guest house remains unchanged. The structure's design would allow stormwater flows to pass beneath the residence and would not impede the course or flow of flood water. Because the mechanical room would be below base flood elevation and exposed to potential coastal flooding, it is to be oriented perpendicular to the shoreline to present the least resistance to any flood waters that may pass through the site in the future. Most of the property, landward of the rock revetment, is in Flood Zone X (area of minimal flood hazard) with no base flood elevation. The portion of the property south or oceanward of the revetment is in Flood Zone VE, with a base flood elevation of 14 to 15 feet NAVD88 (elevation transition bisects the lot). Site preparation is proposed to include the placement of two to three feet of fill within the southerly portion of the property to satisfy flood elevation requirements.

Predictions about the long-term effects of global climate change include rising sea levels due to melting of glaciers and thermal expansion. Rising sea levels could increase the incidence of flooding in coastal areas with altitudes at or near sea-level. Although the exact rate of future sea level rise is unknown, the Intergovernmental Panel on Climate Change has estimated that sea levels may rise between 50 and 90 centimeters (approximately 1.6-to-3 feet) by the year 2100.[4] Although the project does involve lands near sea level, the area proposed for development is situated at a minimum recommended Finished Floor Elevation (FFE) of 18.5 feet NAVD88. Therefore, even if these rates of sea level rise are realized, the development area would remain well above sea level within that planning horizon. MM-Geo-01 requires that the building and site design and construction comply with all recommendations provided in the geotechnical engineering reports and the Coastal Hazard & Wave Runup Study prepared for the project. Compliance with MM-Geo-01 would ensure that the building and site design and construction are completed in accordance with the geotechnical engineer and coastal engineer's recommendations, accounting for the identified site-specific geotechnical and coastal hazards. Upon project completion, site soils would be stabilized with vegetation and the project would be required to develop and maintain stormwater BMPs during long-term operation as required by MM-WatRes-01, thereby minimizing the potential for erosion. The continued single-family residential use of the site would not result in accelerated tsunamis, sea level rise, or seawater intrusion. Therefore, potential impacts related to flooding and runoff would be *less than significant with mitigation*.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for water resources. Therefore, the project's contribution to the regionally significant issues of water supplies and water quality is not considerable, and is insignificant.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's water resource impacts to an insignificant level:

[4] The Intergovernmental Panel on Climate Change is a scientific intergovernmental body set up by the World Meteorological Organization (WMO) and by the United Nations Environment Programme (UNEP).

MM-WatRes-01 Storm Water BMPs. To minimize pollutants impacting downstream waterbodies or habitat, the parking area and associated driveways shall be designed to minimize degradation of storm water quality. Best Management Practices (BMPs) such as landscaped areas for infiltration (vegetated filter strips, bioswales, or bioretention areas), designed in accordance with the California Stormwater BMP Handbook for New Development and Redevelopment (California Stormwater Quality Association) or other approved method shall be installed to intercept and remove pollutants prior to discharging to the storm drain system. The BMPs selected shall be maintained in working order. The landowner is responsible for the maintenance and operation of all improvements and shall maintain annual maintenance records. The plans and a copy of the long-term maintenance program shall be submitted to P&D and Public Works, Water Resources Division staff, for review prior to approval of a Coastal Development Permit. BMP maintenance is required for the life of the project and transfer of this responsibility is required for any subsequent sale of the property. The condition of transfer shall include a provision that the property owners conduct maintenance inspection at least once a year and retain proof of inspections. **PLAN REQUIREMENTS**: The BMPs shall be described and detailed on the site, grading and drainage and landscape plans, and depicted graphically. The location and type of BMP shall be shown on the site, building and grading plans. **TIMING**: The plans and maintenance program shall be submitted to P&D for approval prior to a Coastal Development Permit. **MONITORING:** P&D compliance monitoring staff shall site inspect for installation prior to Final Building Inspection Clearance. The landowner shall make annual maintenance records available for review by P&D upon request.

With the incorporation of these measures, residual impacts would be insignificant.

5.0 INFORMATION SOURCES

5.1 County Departments Consulted: Carpinteria-Summerland Fire District, Public Works, & Flood Control

5.2 Comprehensive Plan

X	Seismic Safety/Safety Element	X	Conservation Element
X	Open Space Element	X	Noise Element
X	Coastal Plan and Maps	X	Circulation Element
	ERME		

5.3 Other Sources

X	Field work	X	Ag Preserve maps
X	Calculations	X	Flood Control maps
X	Project plans	X	Other technical references (reports, survey, etc.)
	Traffic studies		
X	Records	X	Planning files, maps, reports
X	Grading plans	X	Zoning maps
X	Elevation, architectural renderings	X	Soils maps/reports
X	Published geological map/reports	X	Plant maps
X	Topographical maps	X	Archaeological maps and reports
			Other

6.0 PROJECT SPECIFIC *(short- and long-term)* AND CUMULATIVE IMPACT SUMMARY

The project would result in project-specific impacts that are significant but mitigable in the following issue areas: Aesthetic/visual Resources, Biological Resources, Cultural Resources, Geologic Processes, and Water Resources/Flooding.

The project would result in project-specific impacts that are less than significant in the following issue areas: Air Quality, Fire Protection, Hazardous Materials/Risk of Upset, Land Use, and Transportation.

The project would result in no impacts in the following issue areas: Agricultural Resources, Energy, Public Facilities, and Recreation.

Mitigation measures applied to the project would ensure that the project would not result in any significant cumulative impacts.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory?		X			
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?		X			
3. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)				X	
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X		

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR ?				X	

1. As discussed in Section 4.4 (Biological Resources), Section 4.8 Geologic Processes, and Section 4.15 (Water Resources/Flooding), project specific impacts would be mitigated to a less than significant level through mitigation measures. Therefore, the project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. Further, as discussed in sections 4.3 (Air Quality), Section 4.6 (Energy) and Section 4.5 (Cultural Resources), the project would not contribute significantly to greenhouse gas emissions, to increased energy consumption, nor would it eliminate important examples of the major periods of California history or prehistory.

2. The project would not have the potential to achieve short-term to the disadvantage of long-term environmental goals, because proposed *mitigation measures* would reduce all potentially significant impacts to *less than significant*.

3. As discussed in the "cumulative impacts" section under each issue area of this document, the project would not result in any impacts which are cumulatively considerable.

4. The project does not result in environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. There is no excessive noise, no known or expected hazardous materials and no other factors associated with the project that would cause substantial adverse effects on human beings.

5. There is no known disagreement among experts regarding the projects impacts.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

Local Coastal Plan

Local Coastal Plan Policy 1-3: *Where there are conflicts between the policies set forth in the coastal land use plan and those set forth in any element of the County's Comprehensive Plan or existing ordinances, the policies of the coastal land use plan shall take precedence.*

Local Coastal Plan Policy 3-3: *To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers, or where such restriction would cause the inverse condemnation of the parcel by the County.*

Local Coastal Plan Policy 3-4: *In areas of new development, above-ground structures shall be set back a sufficient distance from the bluff edge to be safe from the threat of bluff erosion for a minimum of 75 years, unless such standard will make a lot unbuildable, in which case a standard of 50 years shall be used. The County shall determine the required setback. A geologic report shall be required by the County in order to*

make this determination. At a minimum, such geologic report shall be prepared in conformance with the Coastal Commission's adopted Statewide Interpretive Guidelines regarding "Geologic Stability of Bluff top Development." (See also Policy 4-5 regarding protection of visual resources.)

Local Coastal Plan Policy 4-5: *In addition to that required for safety (see Policy 3-4), further bluff setbacks may be required for oceanfront structures to minimize or avoid impacts on public views from the beach. Bluff top structures shall be set back from the bluff edge sufficiently far to insure that the structure does not infringe on views from the beach except in areas where existing structures on both sides of the proposed structure already impact public views from the beach. In such cases, the new structure shall be located no closer to the bluff's edge than the adjacent structures.*

Local Coastal Plan Policy 9-1: *Prior to the issuance of a development permit, all projects on parcels shown on the land use plan and/or resource maps with a Habitat Area overlay designation or within 250 feet of such designation or projects affecting an environmentally sensitive habitat area shall be found to be in conformity with the applicable habitat protection policies of the land use plan. All development plans, grading plans, etc., shall show the precise location of the habitat(s) potentially affected by the proposed project. Projects which could adversely impact an environmentally sensitive habitat area may be subject to a site inspection by a qualified biologist to be selected jointly by the County and the applicant.*

Land Use Element

Land Use Element Policy 4. *Prior to issuance of a development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, sewer, roads, etc.) are available to serve the proposed development. The applicant shall assume full responsibility for costs incurred in service extensions or improvements that are required as a result of the proposed project. Lack of available public or private services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the land use plan. Affordable housing projects proposed pursuant to the Affordable Housing Overlay regulations, special needs housing projects or other affordable housing projects which include at least 50% of the total number of units for affordable housing or 30% of the total number of units affordable at the very low income level shall be presumed to be consistent with this policy if the project has, or is conditioned to obtain all necessary can and will serve letters at the time of final map recordation, or if no map, prior to issuance of land use permits.*

HILLSIDE AND WATERSHED PROTECTION

HILLSIDE AND WATERSHED PROTECTION Policy *1. Plans for development shall minimize cut and fill operations. Plans requiring excessive cutting and filling may be denied if it is determined that the development could be carried out with less alteration of the natural terrain.*

HILLSIDE AND WATERSHED PROTECTION Policy *2. All developments shall be designed to fit the site topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and native vegetation, such as trees, shall be preserved to the maximum extent feasible. Areas of the site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall remain in open space.*

Toro Canyon Plan

Policy VIS-TC-1: *Development shall be sited and designed to protect public views.*

DevStd VIS-TC-1.2: *Development and grading shall be sited and designed to avoid or minimize hillside and mountain scarring and minimize the bulk of structures visible from public viewing areas. Mitigation measures may be required to achieve this, including but not limited to increased setbacks, reduced structure size and height, reductions in grading, extensive landscaping, low intensity lighting, and the use of narrow or limited length roads/driveways, unless those measures would preclude reasonable use of*

property or pose adverse public safety issues.

DevStd VIS-TC-1.3: *(COASTAL) Development shall not occur on ridgelines if suitable alternative locations are available on the property. When there is no other suitable alternative location, structures shall not intrude into the skyline or be conspicuously visible from public viewing places. Additional measures such as an appropriate landscape plan and limiting the height of the building may be required in these cases.*

Policy BIO-TC-1: *Environmentally Sensitive Habitat (ESH) areas shall be protected and, where appropriate, enhanced.*

DevStd BIO-TC-1.4: *(COASTAL) Development shall be required to include the following buffer areas from the boundaries of Environmentally Sensitive Habitat (ESH): Monarch butterfly habitat - minimum 50 feet from any side of the habitat.*

Policy BIO-TC-5: *(COASTAL) Due to the existing land subdivision and built environment in the Rural Neighborhoods of Torito Road, Serena Park, La Mirada Drive and Ocean Oaks Road, where existing structures and related landscaped areas are within the ESH buffer, structural additions to the existing primary residence may be allowed if it can be shown, pursuant to the required site-specific biological study, that such development shall not adversely impact the adjacent riparian species and meets all other provisions of this Plan and the LCP including development standards for native and non-native protected tree species.*

DevStd BIO-TC-5.1: (*COASTAL) For existing lawfully constructed primary residences in Rural Neighborhoods located within ESH buffer areas, structural additions shall be scaled, sited, and designed in conformance with the following standards:*

a. Second story additions shall be considered the preferred design alternative to avoid ground disturbance;

b. Additions shall be allowed only if they are located a minimum of 6 feet from any oak or sycamore canopy dripline, do not require removal of oak or sycamore trees, do not require any additional pruning or limbing of oak or sycamore trees beyond what is currently required for the primary residence for life and safety, minimize disturbance to the root zones of oak or sycamore trees to the maximum extent feasible (e.g., through measures such as raised foundation or root bridges), preserve habitat trees for Monarch Butterflies and nesting raptors, and do not extend new areas of fuel modification into ESH areas;

c. Additions shall be located on those portions of the structure located outside or away from the ESH. If the subject development cannot be located away from ESH, then the extension of a ground level development footprint shall be denied.

d. Improvements, such as decomposed granite pathways or alternative patios, may be allowed in existing developed areas within the dripline of oak and sycamore trees if such improvement are permeable, and do not require compaction of soil in the root zone.

Policy BIO-TC-13: *Native protected trees and non-native protected trees shall be preserved to the maximum extent feasible. DevStd BIO-TC-13.1: (COASTAL) A "native protected tree" is at least six inches in diameter (largest diameter for non-round trunks) as measured 4.5 feet above level ground (or as measured on the uphill side where sloped), and a "non-native protected tree" is at least 25 inches in diameter at this height. Sufficient area shall be restricted from any associated grading to protect the critical root zones of native protected trees*

Policy BIO-TC-14: *Non-native trees and forests (e.g., eucalyptus groves and windrows) that provide known raptor nesting or major and recurrent roosting sites shall be protected.*

10.0 RECOMMENDATION BY P&D STAFF

On the basis of the Initial Study, the staff of Planning and Development:

____ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

__X__ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

____ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas:

__X__ With Public Hearing _____ Without Public Hearing

PREVIOUS DOCUMENT: Not Applicable

PROJECT EVALUATOR: **Katie Nall** **DATE:** February 2024

11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

__X__ I agree with staff conclusions. Preparation of the appropriate document may proceed.
____ I DO NOT agree with staff conclusions. The following actions will be taken:
____ I require consultation and further information prior to making my determination.

SIGNATURE:_____ **INITIAL STUDY DATE**: February 27, 2024

SIGNATURE:_____ **NEGATIVE DECLARATION DATE**: March 18, 2024

SIGNATURE:_____ **REVISION DATE:** _____

SIGNATURE:_____ **FINAL NEGATIVE DECLARATION DATE:** _____

12.0 ATTACHMENTS

A. Project Plans
B. Watershed Environmental Inc. Biological Report dated August 2, 2021
C. Duke McPherson Arborist Report/Tree Protection Plan dated September 2, 2022
D. Althouse & Meade, Inc. Monarch Butterfly Habitat Conservation and Enhancement Plan dated May 2023

E. Site Diagram Relocated, Removed, and New Structures and Trees dated June 2, 2023

F. Carlander Phase 1 Historic Resources Technical Report dated January 5, 2021

G. Coastal Hazard & Wave Runup Study

G.1 Coastal Hazard & Wave Runup Study for 3393 Padaro Lane dated March 8, 2021

G.2 GeoSoils, Inc. Coastal Engineering Review Response and Project Plan Compliance Review for 3393 Parado Lane, dated July 12, 2023

G.3 GeoDynamics, Inc. Peer Coastal Engineering Review dated September 8, 2023

3393 Padaro Lane

Carpinteria, CA 93013

ABBREVIATIONS

,C	Centerline	LAV.	Lavatory
#	Pound or Number	LKR.	Locker
L	Angle	LT.	Light
0	Diameter or Round	LTWT.	Lightweight
A.B.	Anchor Bolt	M.C.	Medicine Cabinet
A.D.	Area Drain	M.O.	Masonry Opening
ACOUS.	Acoustical	MAT.	Material
ADJ.	Adjustable	MAX.	Maximum
AL.	Aluminum	MECH.	Mechanical
APPROX.	Approximate or Approximately	MFR.	Manufacturer
ARCH.	Architectual or Architect	MH.	Manhole
ASPH.	Asphalt	MIN.	Minimum
		MIR.	Mirror
BD.	Board	MISC.	Miscellaneous
BITUM.	Bituminous	MTD.	Mounted
BLDG.	Building	MTL.	Metal
BLK.	Block	MUL.	Mullion
BLKG.	Blocking	MW.	Microwave
BM.	Beam		
BOT.	Bottom	(N)	New
		N.	North
C.B.	Catch Basin	N.I.C.	Not In Contract
C.I.	Cast Iron	N.T.S.	Not To Scale
C.J.	Ceiling Joist	NOM.	Nominal
CL.	Centerline		
CAB.	Cabinet	O.	Oven
CEM.	Cement	O.C.	On Center
CER.	Ceramic	O.D.	Outside Diameter (Dim.)
CL.	Centerline	OBS.	Obscure
CLG.	Ceiling	O.F.C.I.	Owner Furnished
CLKG.	Caulking		Contractor Installed
CLOS.	Closet	OPNG.	Opening
CLR.	Clear	OPP.	Opposite
CNTR.	Counter		
COL.	Column	P.	Pantry
CONC.	Concrete	P.LAM.	Plastic Laminate
CONN.	Connection	P.W.	Plywood
CONSTR.	Construction	PL.	Plate
CONT.	Continuous	PLAS.	Plaster
CTR.	Center	PLYWD. or P.W.	Plywood
CTSK.	Countersunk	PRCST.	Pre-cast
		PT.	Point
D.F.	Douglas Fir		
D.O.	Door Opening	Q.T.	Quarry Tile
D.S.	Downspout		
D.S.P.	Dry Standpipe	R.	Riser
DBL.	Double	RA	Range
DEPT.	Department	R.D.	Roof Drain
DET./DTL.	Detail	R.O.	Rough Opening
DIA.	Diameter	R.R.	Roof Rafter
DIM.	Dimension	RAD. or R.	Radius
DN.	Down	REC.	Recommendation
DR.	Door	REF.	Reference
D.W.	Dishwasher	REFR.	Refrigerator
DWG.	Drawing	REINF.	Reinforcement
DWR.	Drawer	REQ'D.	Required
		RESIL.	Resilient
E.	East	REV.	Revision
E.J.	Expansion Joint	R/F	Refrigerator/Freezer
EA.	Each	RGTR.	Register
ELEC.	Electrical	RH	Range Hood
ELEV.	Elevation	RM.	Room
EMER.	Emergency	RWD. or R.W.	Redwood
ENCL.	Enclosure		
EQ.	Equal	S.	South
EQUIP.	Equipment	S.C.	Solid Core
EXIST./(E)	Existing	S.D.	Soap Dispenser
EXP.	Exposed	S.S.	Stainless Steel
EXT.	Exterior	S.SK.	Service Sink
		SCHED.	Schedule
F.A.	Fire Alarm	SEC.	Section
F.D.	Floor Drain	SHF. or SH.	Shelf or Shelves
F.E.	Fire Extinguisher	SHT.	Sheet
F.F.	Finish Floor	SHWR.	Shower
F.G.	Finish Grade	SIM.	Similar
F.O.C.	Face of Concrete	SPEC.	Specification
F.O.F.	Face of Finish	SQ.	Square
F.O.S.	Face of Stud	STA.	Station
F.S.	Finish Slab	STD.	Standard
FDN.	Foundation	STL.	Steel
FIN.	Finish	STOR.	Storage
FLASH.	Flashing	STRL. OR STRUCT.	Structural
FLR.	Floor	SUSP.	Suspended
FLUOR.	Fluorescent	SYM.	Symmetrical
FPRF.	Fireproof		
FRZ.	Freezer	T.&G.	Tongue and Groove
FT.	Foot or Feet	T.	Tread
FTG.	Footing	T.B.	Towel Bar
FURR.	Furring	T.C.	Top of Curb
FUT.	Future	T.O.	Top of Overhang
		T.O.W.	Top of wall
G.B.	Grab Bar	T.P.	Top of Pavement
G.C.	General Contractor	T.P.D. or T.P.H.	Top of Toilet Paper
GA.	Gauge		Dispenser or Holder
GALV.	Galvanized		
G.D.	Garbage Disposal	T.V.	Television
GL.	Glass or Glazing	TC	Trash Compactor
GND.	Ground	TEL.	Telephone
GR.	Grade	TER.	Terrazzo
GYP.	Gypsum	THK.	Thick
		THK.	Thickness
H.B.	Hose Bibb	TYP.	Typical
H.C.	Hollow Core		
H.M.	Hollow Metal	U.N.O.	Unless Noted Otherwise
H. WD.	Hardwood	UNF.	Unfinished
HDWR.	Hardware	UR.	Urinal
HNDCP.	Handicap		
HORIZ.	Horizontal	V.A.T.	Vinyl Asbestos Tile
HR.	Hour	V.G.	Vertical Grain
HT.	Height	VCT.	Vinyl Composite Tile
		VER.	Verify W. Arch/Owner
I.D.	Inside Diameter	VERT.	Vertical
IN.	Inches	VEST.	Vestibule
INSUL.	Insulation		
INT.	Interior	W.	West
JAN.	Janitor	W.C.	Water Closet
JST.	Joist	W.I.	Wrought Iron
JT.	Joint	W.P.	Waterproof
		W/ or W.	With
KIT.	Kitchen	W/O	Without
		WD.	Wood
L. or LIN.	Linen Closet	WSCT.	Wainscot
LB.	Leader Box	WT.	Weight
LAB.	Laboratory		
LAM.	Laminated		

SYMBOLS

- SIM 1 / A101 — ELEVATION DWG NUMBER / SHEET NUMBER
- SIM 1 / A101 — SECTION DWG NUMBER / SHEET NUMBER
- ELEVATION CALLOUT
- 0 — GRIDLINE BUBBLE
- SIM 1 / A101 — DETAIL DWG NUMBER / SHEET NUMBER
- 101N — WINDOW NUMBER
- 101N — DOOR NUMBER
- ROOM / 101 — ROOM NAME
- A1.0 — KEYNOTE
- 8 — REVISION NUMBER
- 20R @ ± 7 1/2" / 19T @ ± 11" — STAIR TAG
- 15 — WALL TYPE
- C1 / 8' - 0" — CEILING TAG
- EARTHWORK
- CONCRETE
- CONCRETE MASONRY
- STONE
- ADOBE
- STEEL
- CERAMIC TILE
- PLASTER OR GYPSUM
- FINISH WOOD
- PLYWOOD
- BLANKET INSULATION

CODE COMPLIANCE NOTES

GENERAL NOTES:

This project shall comply with the following codes: 2022 CRC, 2022 CMC, 2022 CPC, 2022 CEC, 2022 Energy Code and Santa Barbara County (SBCO) Building Ordinance #4871 and SBCO Grading Ordinance #4766.

General purpose egress door locking/latching hardware shall comply with California Referenced Standards Code (CRSC), section 12-10-202, as adopted by State Fire Marshal for all occupancies (R and M occupancies with less than 10 occupants are exempt). Lever handles shall comply with subsection (f): "Levers must be curved and shall return to within 1/2 inch of the door."

FIRE PROTECTION NOTES:

All entry gates which obstruct the required access for fire apparatus shall comply with Section 503 of the 2022 CFC.

Overhead clearance of thirteen feet-six inches shall be maintained above required access road with as required by Section 503 of the 2022 CFC.

All new or existing structures shall be identified as stipulated in Section 505 of the 2022 CFC with address numbers in such a position as to be plainly visible and legible from the street or road fronting the property. Numbers shall be installed prior to final occupancy clearance.

Brush clearance and hazard abatement shall be in compliance with the 2022 CFC as adopted by the District. Clearance shall be maintained throughout all phases of construction. All mechanized equipment shall be operated within a 25' travel distance of a 2A:10B:C fire extinguisher at all times. Spark arrestors shall be maintained on all equipment with internal combustion engines operated within grass or brush covered areas.

This project is located within County of Santa Barbara Very High Fire Hazard Severity Zone and State Resposibility Area, subject to CRC Section R313 and CRC Section 327 for accessory buildings, decks, overhangs and similar architectural features. This project is to be provided with an approved fire sprinkler system under separate permit subject to CRC Section R313.

Roofing assemblies for this structure shall meet California Residential Code Section R902 (UL Class A) requirements to meet MFPD Ordinance 1991-1. Wood roofing systems are otherwise prohibited by Santa Barbara County Ordinances 4244. Specifications and plans sufficient to demonstrate compliance shall be submitted prior to issuance of fire protection certificate.

Exterior glazing shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257.

NEW SITE DEVELOPMENT AREAS

SQUARE FOOTAGES

PROPOSED		
SINGLE FAMILY RESIDENCE:	**GROSS SF ***	**NET SF +**
FIRST FLOOR	2,723 SF	2,394 SF
SECOND FLOOR	2,559 SF	2,266 SF
TOTAL	**5,282 SF**	**4,660 SF**
ACCESSORY STRUCTURES:	**GROSS SF ***	**NET SF +**
GARAGE	**760 SF**	**760 SF**
CABANA	**770 SF**	**686 SF**
STORAGE & LAUNDRY (ABOVE GARAGE)	**745 SF**	**585 SF**
GUEST HOUSE (ABOVE CABANA)	**765 SF**	**560 SF**
GREENHOUSE	**400 SF**	**400 SF**
GAZEBO (EXISTING TO REMAIN)	**227 SF**	**227 SF**

* **GROSS FLOOR AREA:** *The area included within the surrounding exterior walls of all floors or levels of a building, as measured to the interior surfaces of exterior walls* (as detailed in Section 35-110.020 of the Santa Barbara County Code)

+ **NET FLOOR AREA:** *The gross floor area excluding shafts, stairways, corridors and halls, unusable attics, and unenclosed porches and balconies* (as detailed in Section 35-110.020 of the Santa Barbara County Code)

INDEX OF DRAWINGS

REQUIRED SPECIAL INSPECTIONS

PROJECT DIRECTORY

Owner & Owner Consultants

OWNER
PLSB, LLC
PO Box 29374
San Francisco, CA 94129

SURVEYOR/CIVIL
L&P Consultants
3 W. Carrillo Street, #205
Santa Barbara, CA 93101
(805) 962-4611

COASTAL ENGINEER
Geosoils, Inc.
5741 Palmer Way
Carlsbad, CA 92010
(760) 438-3155

BIOLOGIST
Althouse and Meade
1650 Ramada Drive, Suite 180
Paso Robles, CA 93446
(805) 237-9626

Architect & Architect Consultants

ARCHITECT
Appleton Partners LLP
911 Chapala Street
Santa Barbara, CA 93101
ph: 805 965 0304

PROJECT INFORMATION

LEGAL DESCRIPTION:
APN: 005-400-041
ZONING: 8-R-1
COASTAL ZONE: YES
HIGH FIRE: NO
CONSTRUCTION TYPE: V-B
OCCUPANCY: R

SITE SIZE:
LOT AREA (in sq. ft.): 87,991
LOT AREA (in acres): 2.02

ADDITIONAL INFORMATION:
BUILDING HEIGHT: NOT TO EXCEED 28'
** SANTA BARBARA COUNTY-COASTAL ZONING ORDINANCE, SECTION 35-71.10 ESTABLISHES A HEIGHT LIMIT THAT IS NOT TO EXCEED 25'-0"*
** SECTION 35-127.A.3.b ALLOWS PORTIONS OF A STRUCTURE TO EXCEED THE HEIGHT LIMIT BY A MAXIMUM OF 3 FEET WHERE THE ROOF PITCH IS 4:12 OR GREATER*

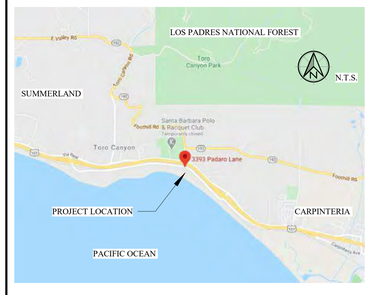
** 25' + 3' =* ***28'-0"***

PARKING SPACES: 2

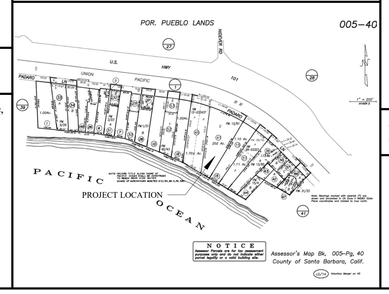
PROJECT DESCRIPTION

Demolition of (E) Single Family Residence, Detached Garage, Guest House, Greenhouse, Sheds, and other Structures. Construction of (N) Two-Story Single Family Residence, (N) Detached Accessory Building with a Garage and Cabana on the lower level and a Guest House and Storage & Laundry above, (N) Greenhouse, as well as associated Site Work, Landscaping, and (N) Generator.

VICINITY MAP



PARCEL MAP



CONDITIONS OF APPROVAL

PROJECT MATERIALS & COLORS

ROOF: Monier Concrete Cedar Shake Roof Tiles

EXTERIOR WALLS: Wood Shingle; Cabot Stain #0342, Driftwood Gray

TRIM & BASE: Wood; Benjamin Moore Paint #OC-118, Snowfall White

WINDOWS & DOORS: Wood; Benjamin Moore Paint #OC-118, Snowfall White

ISSUE DATES

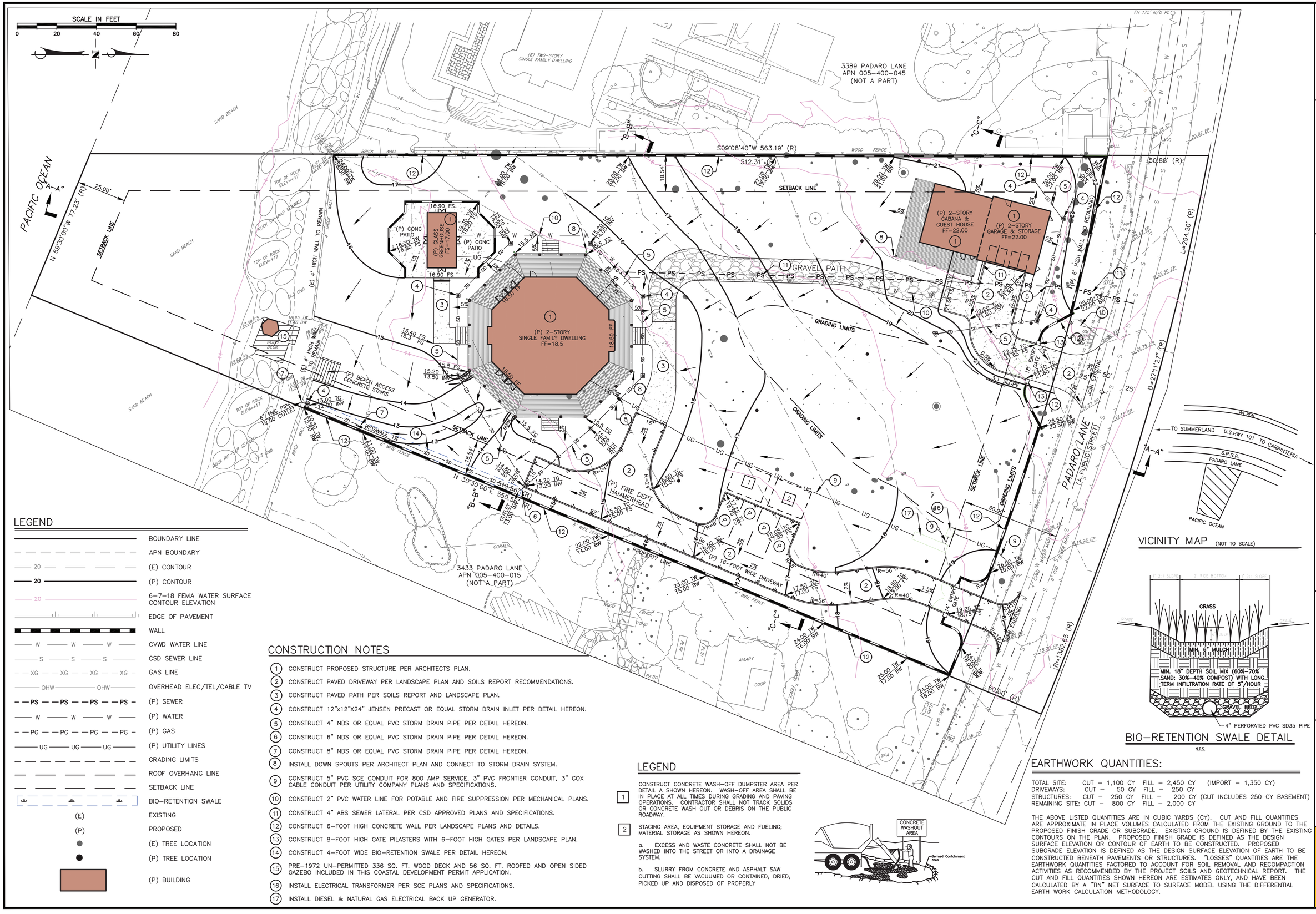
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

COVERSHEET

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn:
Job Number: 2006.00
Sheet
A0.0



LEGEND

- BOUNDARY LINE
- APN BOUNDARY
- (E) CONTOUR
- (P) CONTOUR
- 6-7-18 FEMA WATER SURFACE CONTOUR ELEVATION
- EDGE OF PAVEMENT
- WALL
- CVWD WATER LINE
- CSD SEWER LINE
- GAS LINE
- OVERHEAD ELEC/TEL/CABLE TV
- (P) SEWER
- (P) WATER
- (P) GAS
- (P) UTILITY LINES
- GRADING LIMITS
- ROOF OVERHANG LINE
- SETBACK LINE
- BIO-RETENTION SWALE
- (E) EXISTING
- (P) PROPOSED
- (E) TREE LOCATION
- (P) TREE LOCATION
- (P) BUILDING

CONSTRUCTION NOTES

1. CONSTRUCT PROPOSED STRUCTURE PER ARCHITECTS PLAN.
2. CONSTRUCT PAVED DRIVEWAY PER LANDSCAPE PLAN AND SOILS REPORT RECOMMENDATIONS.
3. CONSTRUCT PAVED PATH PER SOILS REPORT AND LANDSCAPE PLAN.
4. CONSTRUCT 12"x12"X24" JENSEN PRECAST OR EQUAL STORM DRAIN INLET PER DETAIL HEREON.
5. CONSTRUCT 4" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
6. CONSTRUCT 6" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
7. CONSTRUCT 8" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
8. INSTALL DOWN SPOUTS PER ARCHITECT PLAN AND CONNECT TO STORM DRAIN SYSTEM.
9. CONSTRUCT 5" PVC SCE CONDUIT FOR 800 AMP SERVICE, 3" PVC FRONTIER CONDUIT, 3" COX CABLE CONDUIT PER UTILITY COMPANY PLANS AND SPECIFICATIONS.
10. CONSTRUCT 2" PVC WATER LINE FOR POTABLE AND FIRE SUPPRESSION PER MECHANICAL PLANS.
11. CONSTRUCT 4" ABS SEWER LATERAL PER CSD APPROVED PLANS AND SPECIFICATIONS.
12. CONSTRUCT 6-FOOT HIGH CONCRETE WALL PER LANDSCAPE PLANS AND DETAILS.
13. CONSTRUCT 8-FOOT HIGH GATE PILASTERS WITH 6-FOOT HIGH GATES PER LANDSCAPE PLAN.
14. CONSTRUCT 4-FOOT WIDE BIO-RETENTION SWALE PER DETAIL HEREON.
15. PRE-1972 UN-PERMITTED 336 SQ. FT. WOOD DECK AND 56 SQ. FT. ROOFED AND OPEN SIDED GAZEBO INCLUDED IN THIS COASTAL DEVELOPMENT PERMIT APPLICATION.
16. INSTALL ELECTRICAL TRANSFORMER PER SCE PLANS AND SPECIFICATIONS.
17. INSTALL DIESEL & NATURAL GAS ELECTRICAL BACK UP GENERATOR.

LEGEND

1. CONSTRUCT CONCRETE WASH-OFF DUMPSTER AREA PER DETAIL A SHOWN HEREON. WASH-OFF AREA SHALL BE IN PLACE AT ALL TIMES DURING GRADING AND PAVING OPERATIONS. CONTRACTOR SHALL NOT TRACK SOLIDS OR CONCRETE WASH OUT OR DEBRIS ON THE PUBLIC ROADWAY.
2. STAGING AREA, EQUIPMENT STORAGE AND FUELING; MATERIAL STORAGE AS SHOWN HEREON.

a. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.

b. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY

VICINITY MAP (NOT TO SCALE)

BIO-RETENTION SWALE DETAIL

N.T.S.

EARTHWORK QUANTITIES:

TOTAL SITE: CUT – 1,100 CY FILL – 2,450 CY (IMPORT – 1,350 CY)
DRIVEWAYS: CUT – 50 CY FILL – 250 CY
STRUCTURES: CUT – 250 CY FILL – 200 CY (CUT INCLUDES 250 CY BASEMENT)
REMAINING SITE: CUT – 800 CY FILL – 2,000 CY

THE ABOVE LISTED QUANTITIES ARE IN CUBIC YARDS (CY). CUT AND FILL QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISH GRADE OR SUBGRADE. EXISTING GROUND IS DEFINED BY THE EXISTING CONTOURS ON THE PLAN. PROPOSED FINISH GRADE IS DEFINED AS THE DESIGN SURFACE ELEVATION OR CONTOUR OF EARTH TO BE CONSTRUCTED. PROPOSED SUBGRADE ELEVATION IS DEFINED AS THE DESIGN SURFACE ELEVATION OF EARTH TO BE CONSTRUCTED BENEATH PAVEMENTS OR STRUCTURES. "LOSSES" QUANTITIES ARE THE EARTHWORK QUANTITIES FACTORED TO ACCOUNT FOR SOIL REMOVAL AND RECOMPACTION ACTIVITIES AS RECOMMENDED BY THE PROJECT SOILS AND GEOTECHNICAL REPORT. THE CUT AND FILL QUANTITIES SHOWN HEREON ARE ESTIMATES ONLY, AND HAVE BEEN CALCULATED BY A "TIN" NET SURFACE TO SURFACE MODEL USING THE DIFFERENTIAL EARTH WORK CALCULATION METHODOLOGY.

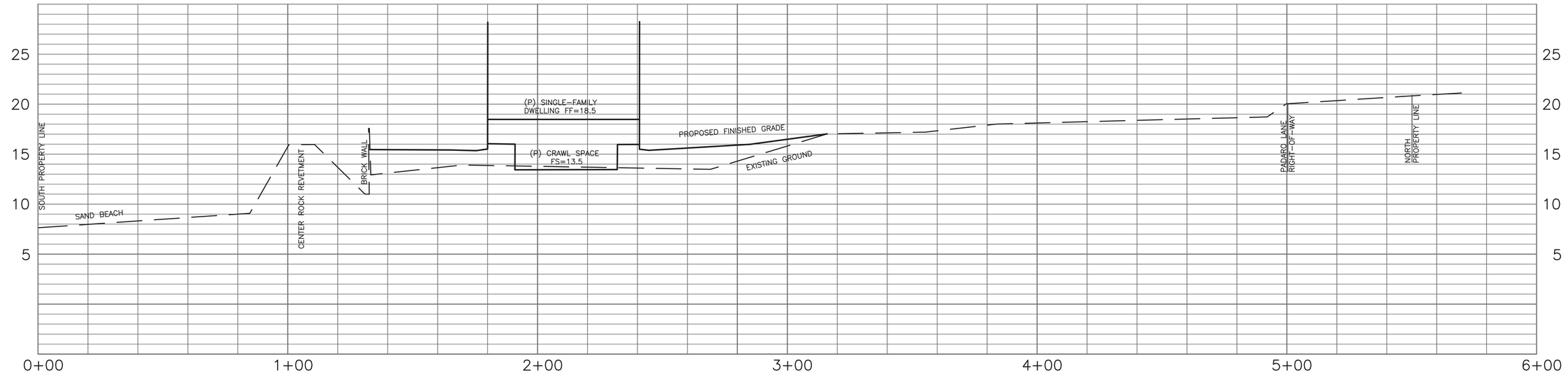
PROJECT NO. 20-007.01
DRAWING NAME: GP-1
DATE: SEPTEMBER 20, 2023

PRELIMINARY GRADING, DRAINAGE & IMPROVEMENT PLAN
COASTAL DEVELOPMENT PERMIT 20CDH-00000-00022
3393 PADARO LANE; APN 005-400-041
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT: PLSB, LLC
P.O.B. 29374
SAN FRANCISCO, CA 94129
ATTN:

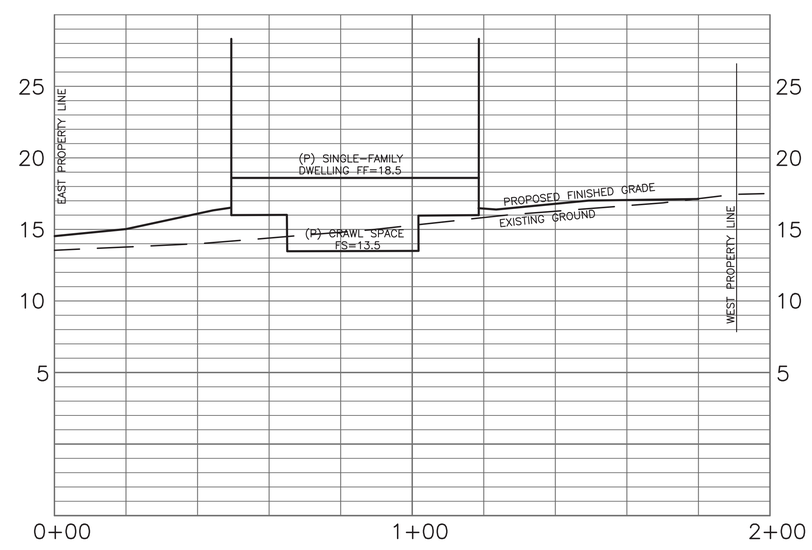
3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

LP CONSULTANTS



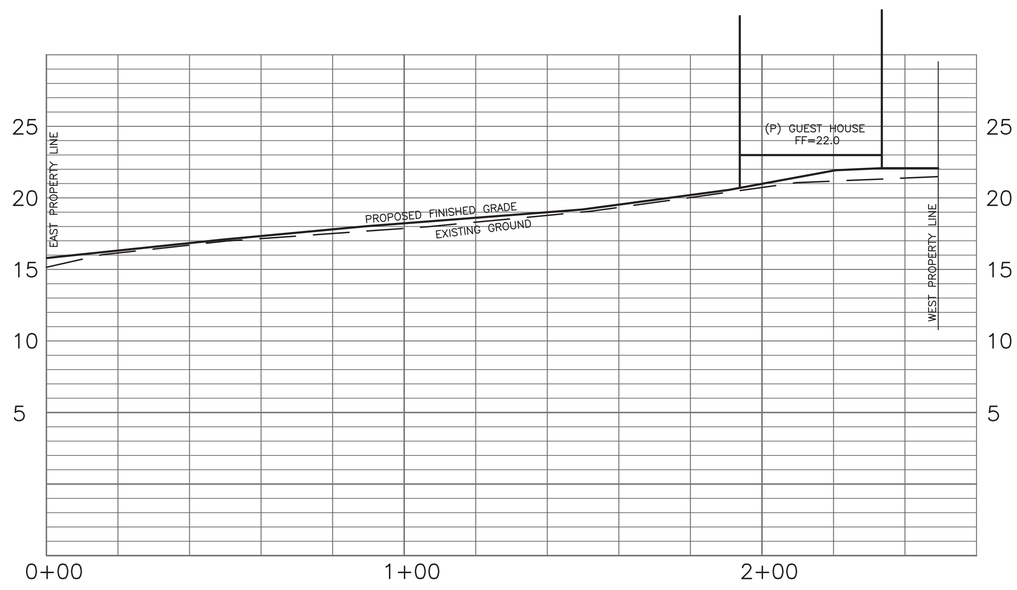
SECTION "A–A"

SCALE: HORZIONTAL – 1"=20' ; VERTICAL – 1"= 5'



SECTION "B–B"

SCALE: HORZIONTAL – 1"=20' ; VERTICAL – 1"= 5'



SECTION "C–C"

SCALE: HORZIONTAL – 1"=20' ; VERTICAL – 1"= 5'

PROJECT NO.
20-007.01

DRAWING NAME:
GP-2

DATE:
SEPTEMBER 20, 2023

SITE SECTIONS
DEVELOPMENT PERMIT 20CDH-00000-00022
3393 PADARO LANE; APN 005-400-041
COUNTY OF SANTA BARBARA, CALIFORNIA

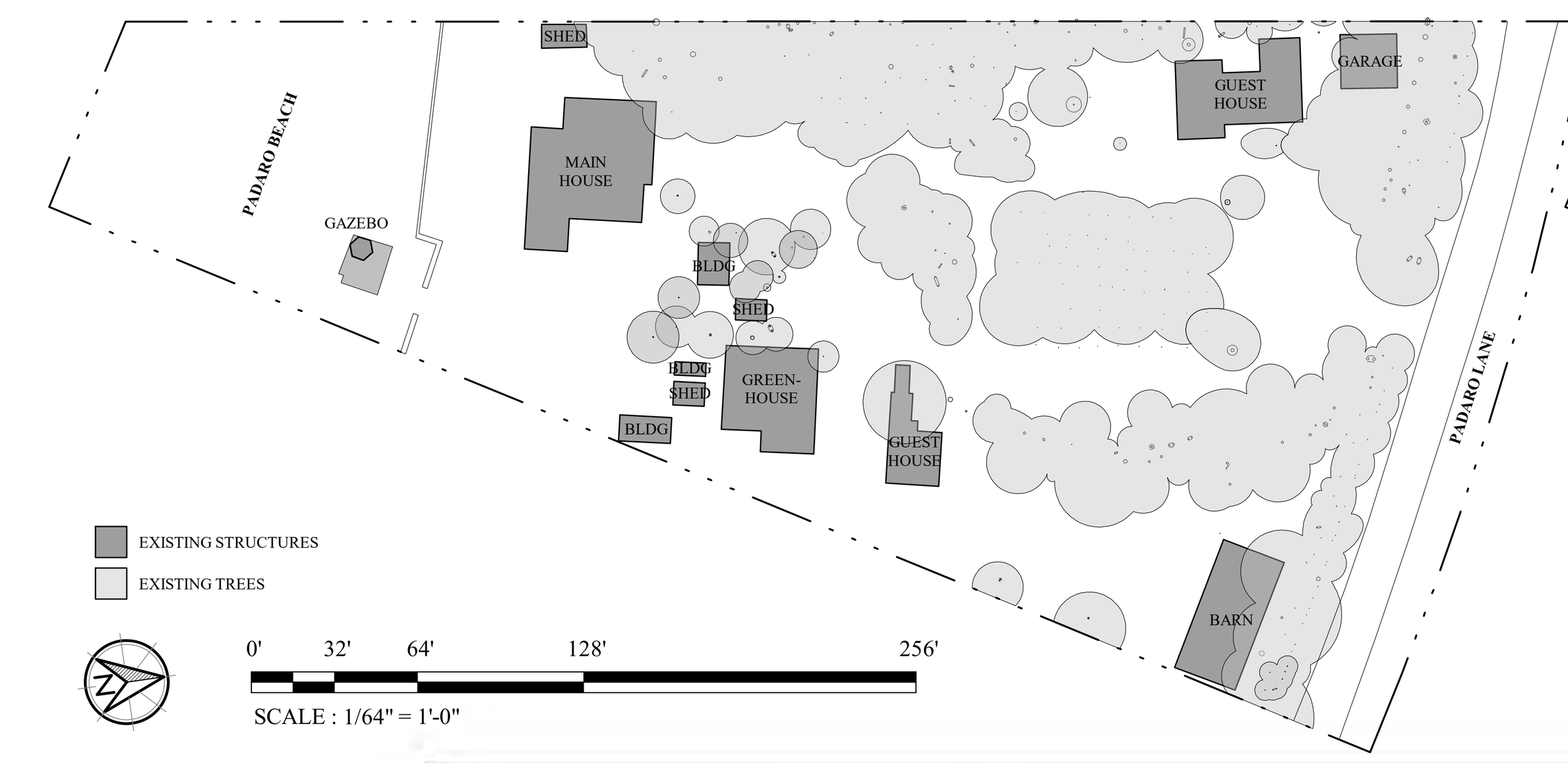
CLIENT:
PLSB, LLC
P.O.B. 29374
SAN FRANCISCO, CA 94129

ATTN:

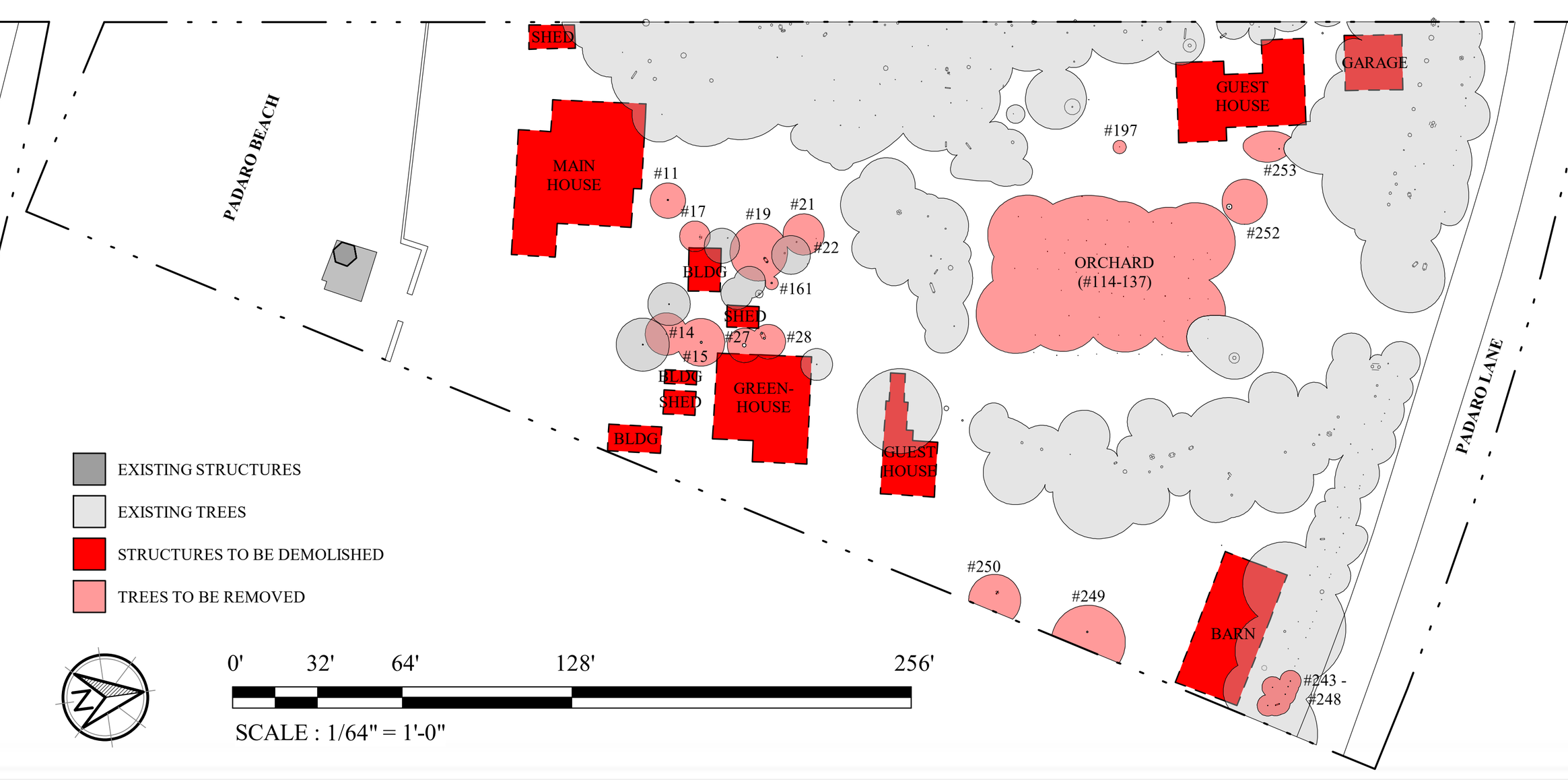
3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

L&P CONSULTANTS

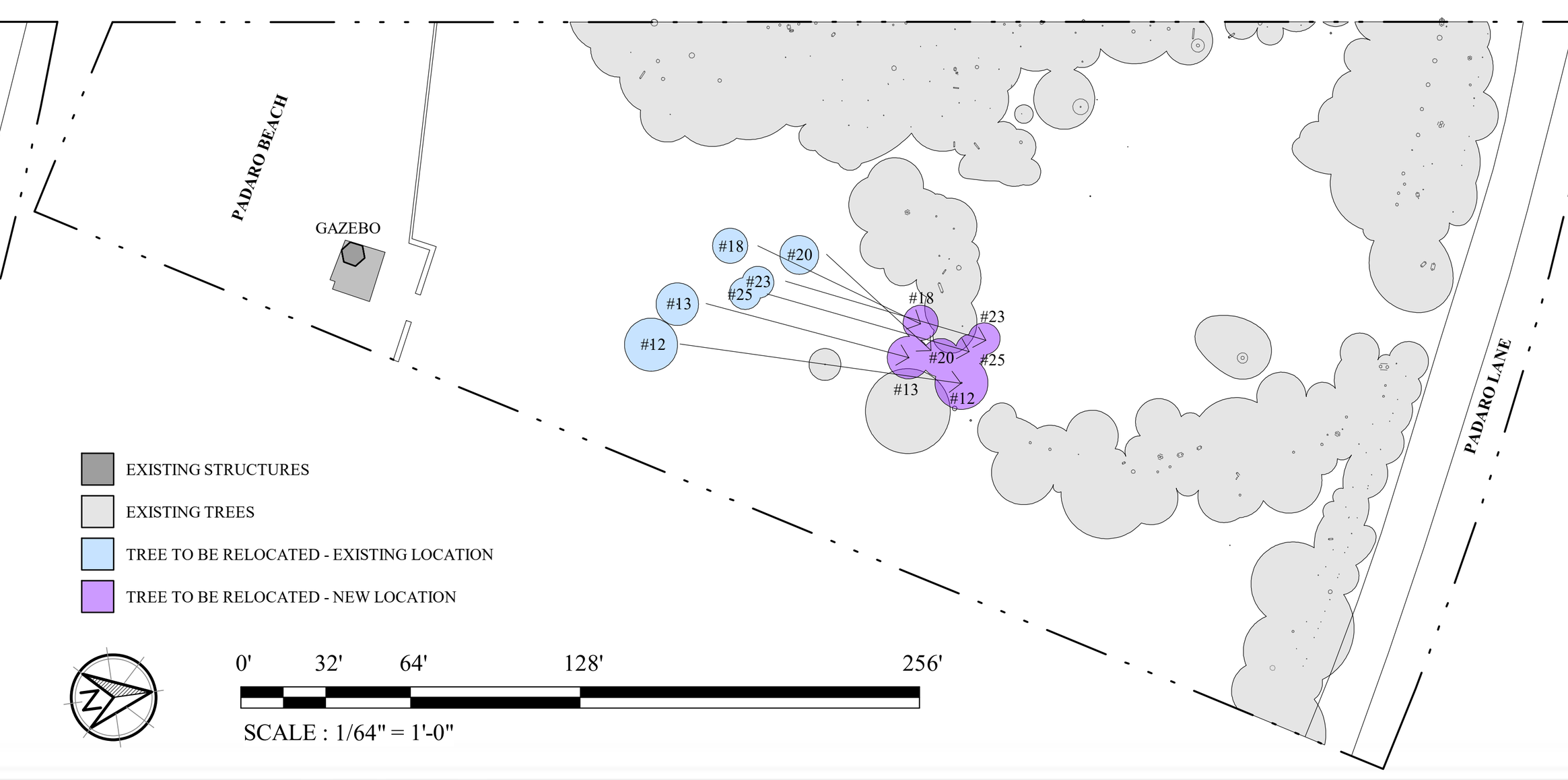
SITE DIAGRAM - EXISTING CONDITIONS



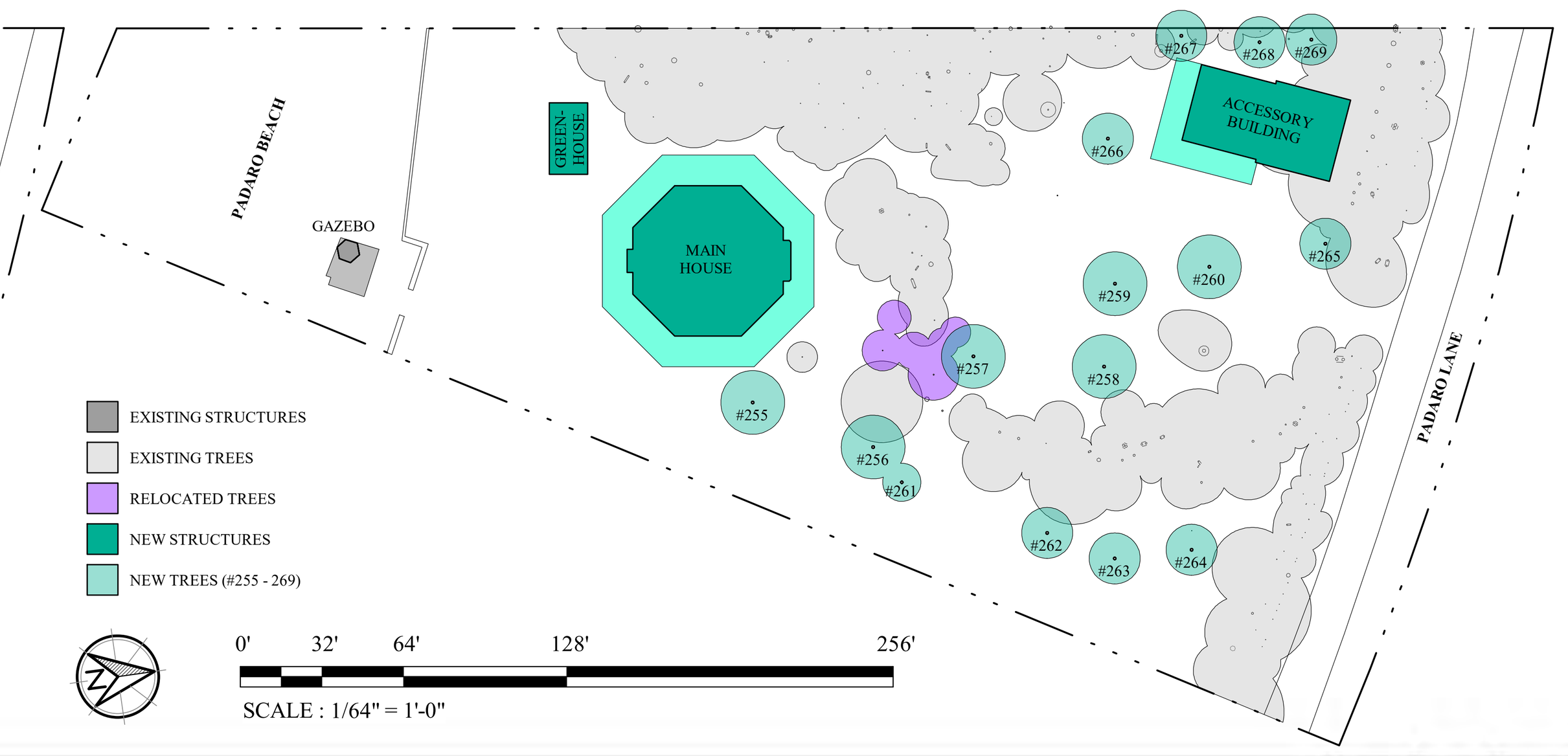
SITE DIAGRAM - TO BE REMOVED

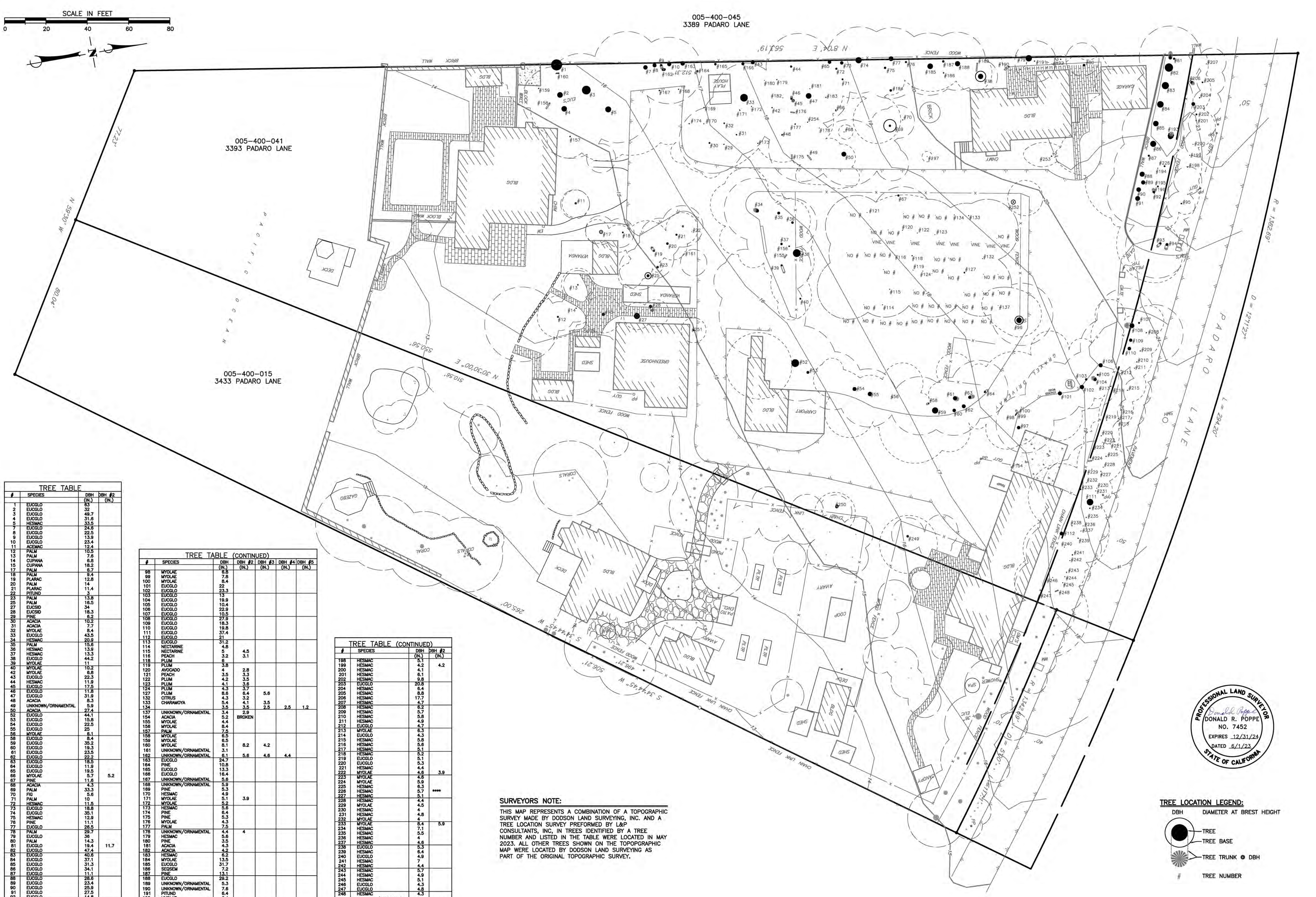


SITE DIAGRAM - TREES TO BE RELOCATED



SITE DIAGRAM - PROPOSED





TREE TABLE

#	SPECIES	DBH (IN.)	DBH #2 (IN.)
1	EUCGLO	63	
2	EUCGLO	32	
3	EUCGLO	49.7	
4	EUCGLO	31.6	
5	HESMAC	33.5	
7	EUCGLO	24.6	
8	EUCGLO	22.5	
9	EUCGLO	13.9	
10	EUCGLO	23.4	
11	ACEMAC	12.4	
12	PALM	10.5	
13	PALM	7.6	
14	CUPANA	6.8	
15	CUPANA	18.2	
17	PALM	6.7	
18	PALM	9.4	
19	PLARAC	12.8	
20	PALM	14	
21	PLARAC	11.4	
22	PITUND	3	
23	PALM	13.8	
25	PALM	16.5	
27	EUCSID	34	
28	EUCSID	18.3	
29	PINE	6.2	
30	ACACIA	10.2	
31	ACACIA	7.7	
32	MYOLAE	8.4	
33	EUCGLO	43.5	
34	HESMAC	20.9	
35	PALM	15.6	
36	HESMAC	13.9	
37	HESMAC	13.3	
38	EUCGLO	44.2	
39	MYOLAE	11	
40	MYOLAE	10.2	
42	MYOLAE	6.8	
43	EUCGLO	22.3	
44	HESMAC	11.9	
45	EUCGLO	17.5	
46	EUCGLO	11.8	
47	EUCGLO	31.9	
48	ACACIA	8.3	
49	UNKNOWN/ORNAMENTAL	5.9	
50	ACACIA	27.4	
52	EUCGLO	44.1	
53	EUCGLO	15.8	
54	EUCGLO	22.5	
55	EUCGLO	25	
56	MYOLAE	6.1	
58	EUCGLO	8.4	
59	EUCGLO	35.2	
60	EUCGLO	19.3	
61	EUCGLO	23.5	
62	EUCGLO	22.2	
63	EUCGLO	18.5	
64	EUCGLO	11.9	
65	EUCGLO	19.5	
66	MYOLAE	5.7	5.2
67	PINE	11.6	
68	ACACIA	4.3	
69	PALM	33.3	
70	FIG	5.6	
71	PALM	10	
72	HESMAC	11.5	
73	EUCGLO	18.8	
74	EUCGLO	35.1	
75	HESMAC	12.9	
76	PINE	11.1	
77	EUCGLO	26.5	
78	PALM	29.7	
79	EUCGLO	36	
80	PALM	14.3	
81	EUCGLO	19.4	11.7
82	EUCGLO	47.4	
83	EUCGLO	40.6	
84	EUCGLO	37.1	
85	EUCGLO	31.3	
86	EUCGLO	34.1	
87	EUCGLO	11.1	
88	EUCGLO	28.6	
89	EUCGLO	23.4	
90	EUCGLO	25.9	
91	EUCGLO	27.5	
92	EUCGLO	14.8	
93	HESMAC	12.8	
94	HESMAC	16.2	
95	HESMAC	8.2	
96	SEQSEM	31.4	
97	EUCGLO	19.2	

TREE TABLE (CONTINUED)

#	SPECIES	DBH (IN.)	DBH #2 (IN.)	DBH #3 (IN.)	DBH #4 (IN.)	DBH #5 (IN.)
98	MYOLAE	6.8				
99	MYOLAE	7.8				
100	MYOLAE	8.4				
101	EUCGLO	22				
102	EUCGLO	23.3				
103	EUCGLO	13				
104	EUCGLO	19.9				
105	EUCGLO	10.4				
106	EUCGLO	22.9				
107	EUCGLO	10.5				
108	EUCGLO	27.9				
109	EUCGLO	18.3				
110	EUCGLO	19.8				
111	EUCGLO	37.4				
112	EUCGLO	21				
113	EUCGLO	31.2				
114	NECTARINE	4.8				
115	NECTARINE	5	4.5			
116	PEACH	3.2	3.1			
118	PLUM	6				
119	PLUM	3.8				
120	AVOCADO	4	2.8			
121	PEACH	3.5	3.3			
122	PLUM	4.2	3.5			
123	PLUM	4.1	3.6			
124	PLUM	4.3	3.7			
127	PLUM	8.6	6.4	5.6		
132	CITRUS	4.3	3.2			
133	CHARAMOYA	5.4	4.1	3.5		
134		3.5	3.5	2.5	2.5	1.2
137	UNKNOWN/ORNAMENTAL	3.4	2.9			
154	ACACIA	5.2	BROKEN			
155	MYOLAE	4.4				
156	MYOLAE	8.4				
157	PALM	7.5				
158	MYOLAE	6.5				
159	MYOLAE	6.5				
160	MYOLAE	8.1	8.2	4.2		
161	UNKNOWN/ORNAMENTAL	3.1				
162	UNKNOWN/ORNAMENTAL	6.1	5.6	4.6	4.4	
163	EUCGLO	24.7				
164	PINE	10.8				
165	EUCGLO	13.3				
166	EUCGLO	16.4				
167	UNKNOWN/ORNAMENTAL	5.6				
168	UNKNOWN/ORNAMENTAL	5.9				
169	PINE	5.3				
170	HESMAC	4.9				
171	MYOLAE	5.1	3.9			
172	MYOLAE	5.2				
173	HESMAC	5.6				
174	PINE	6.4				
175	PINE	5.3				
176	MYOLAE	4.3				
177	PALM	7.5				
178	UNKNOWN/ORNAMENTAL	4.4	4			
179	HESMAC	5.6				
180	PINE	3.5				
181	ACACIA	4.3				
182	ACACIA	4.2				
183	HESMAC	6.2				
184	MYOLAE	13.5				
185	EUCGLO	31.7				
186	SEQSEM	7.2				
187	PINE	13.1				
188	EUCGLO	29.2				
189	UNKNOWN/ORNAMENTAL	5.3				
190	UNKNOWN/ORNAMENTAL	7.6				
191	PITUND	6.4				
192	MYOLAE	6.4				
193	EUCGLO	27.9				
194	HESMAC	4.6				
195	EUCGLO	9.7				
196	HESMAC	4.3				
197	UNKNOWN/ORNAMENTAL	3.6				

TREE TABLE (CONTINUED)

#	SPECIES	DBH (IN.)	DBH #2 (IN.)
198	HESMAC	5.1	
199	HESMAC	4.2	4.2
200	HESMAC	4.1	
201	HESMAC	6.1	
202	HESMAC	9.8	
203	EUCGLO	20.8	
204	HESMAC	6.4	
205	HESMAC	8.8	
206	HESMAC	17.7	
207	HESMAC	4.7	
208	HESMAC	6.2	
209	HESMAC	5.7	
210	HESMAC	5.8	
211	HESMAC	4.9	
212	EUCGLO	4.7	
213	MYOLAE	6.3	
214	EUCGLO	4.3	
215	HESMAC	5.8	
216	HESMAC	5.6	
217	HESMAC	5.1	
218	HESMAC	5.2	
219	EUCGLO	5.1	
220	EUCGLO	5.3	
221	HESMAC	4.4	
222	MYOLAE	4.6	3.9
223	MYOLAE	4.6	
224	MYOLAE	5.9	
225	HESMAC	6.3	
226	HESMAC	5.7	****
227	HESMAC	5.1	
228	HESMAC	4.4	
229	MYOLAE	4.5	
230	HESMAC	4	
231	HESMAC	4.8	
232	MYOLAE	4	
233	MYOLAE	8.4	5.9
234	HESMAC	7.1	
235	HESMAC	5.5	
236	HESMAC	4	
237	HESMAC	4.6	
238	EUCGLO	5.3	
239	HESMAC	6.4	
240	EUCGLO	4.9	
241	HESMAC	7	
242	HESMAC	4.4	
243	HESMAC	5.7	
244	HESMAC	4.9	
245	HESMAC	5.1	
246	EUCGLO	4.3	
247	EUCGLO	4.8	
248	HESMAC	4.3	
249	UNKNOWN/ORNAMENTAL	13.9	
250	MYOLAE	6.8	5.5
251	PALM	9.3	
252	PEPPER	7.4	5.8
253	UNKNOWN/ORNAMENTAL	7.4	
254	PALM	10.3	

SURVEYORS NOTE:

THIS MAP REPRESENTS A COMBINATION OF A TOPOGRAPHIC SURVEY MADE BY DODSON LAND SURVEYING, INC. AND A TREE LOCATION SURVEY PREFORMED BY L&P CONSULTANTS, INC, IN TREES IDENTIFIED BY A TREE NUMBER AND LISTED IN THE TABLE WERE LOCATED IN MAY 2023. ALL OTHER TREES SHOWN ON THE TOPOPGRAPHIC MAP WERE LOCATED BY DODSON LAND SURVEYING AS PART OF THE ORIGINAL TOPOGRAPHIC SURVEY.

PROFESSIONAL LAND SURVEYOR
DONALD R. POPPE
NO. 7452
EXPIRES 12/31/24
DATED 6/1/23
STATE OF CALIFORNIA

TREE LOCATION LEGEND:

DBH — DIAMETER AT BREST HEIGHT
TREE
TREE BASE
TREE TRUNK @ DBH
— TREE NUMBER

SURVEY
1" = 20'-0"

The information on this sheet has been provided by the surveyor, DODSON LAND SURVEYING INC., Lic #7234, with updates to show the site surveyed in NAVD 1988 by L&P Consultants, Lic #5470.
Appleton Partners LLP provides no warranty as to the accuracy of this survey.

0' 10' 20' 40' 80'
SCALE : 1" = 20'-0"

PROJECT NO. 20-007.01
DRAWING NAME: 20-007-TOPOBASE.DWG
DATE: MAY 2023

3393 PADARO LANE
TOPOGRAPHIC SURVEY
SANTA BARBARA CALIFORNIA

CLIENT:
ATTN:

L&P CONSULTANTS
3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

ISSUE DATES

Δ	DATE	DESCRIPTION

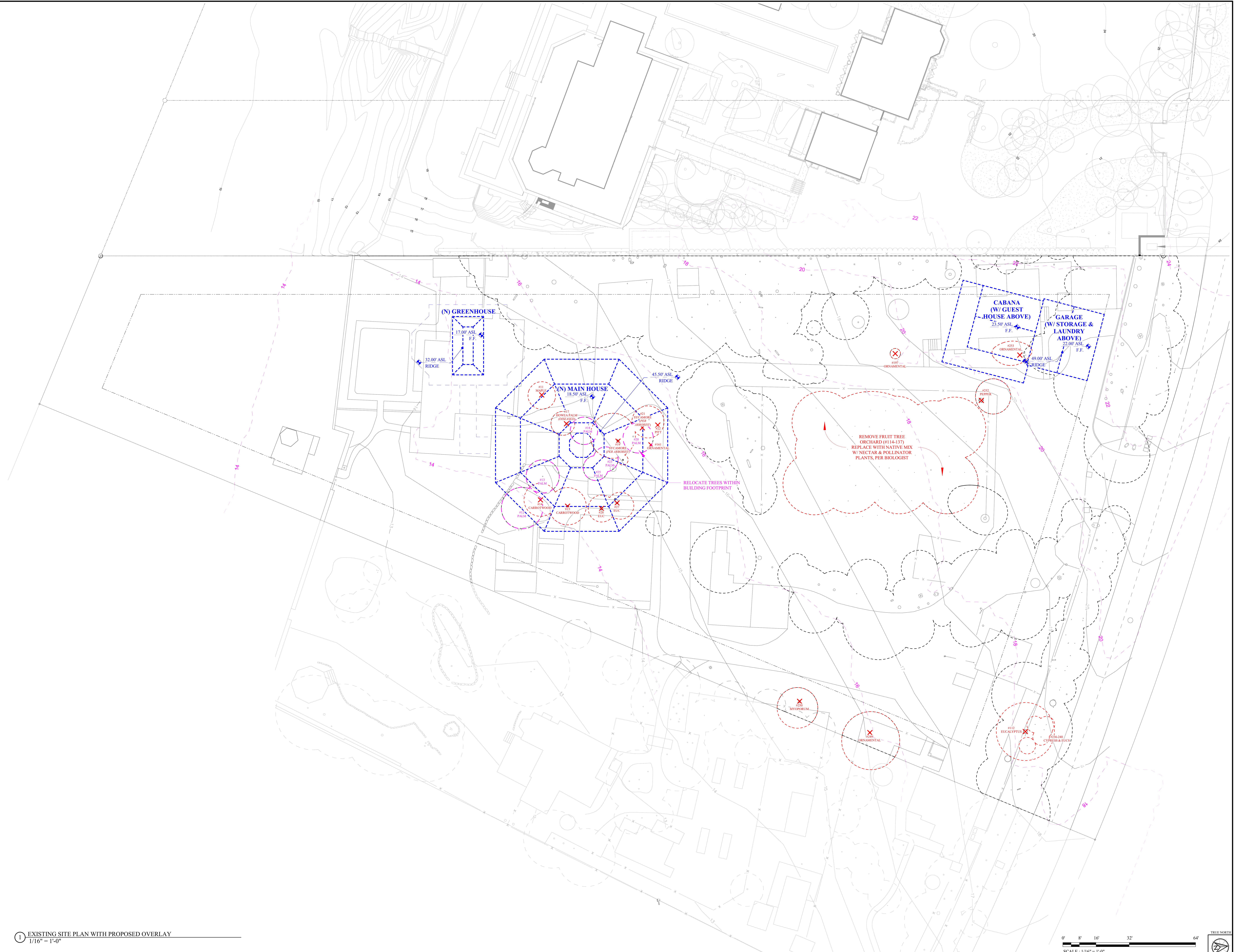
SURVEY & SITE DIAGRAMS

3393 Padaro Lane

Carpinteria, CA 93013

Date: 06/01/23
Scale: As indicated
Drawn: L&P
Job Number: 2006.00
Sheet

A1.0



1 EXISTING SITE PLAN WITH PROPOSED OVERLAY
1/16" = 1'-0"

ISSUE DATES

Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

EXISTING SITE PLAN WITH PROPOSED OVERLAY

3393 Padaro Lane

Carpinteria, CA 93013

Date: 10/10/23

Scale: As indicated

Drawn: PR

Job Number: 2006.00

Sheet

A1.0a

C:\Users\jnubson\Desktop\Local Files\2006 3393 PADARO - Main House_Central_jnubson@appleton-architects.com.rvt

EXTERIOR LIGHTING SCHEDULE

SYMBOL	MANUFACTURER	TYPE	MODEL	REMARKS	MOUNTING HEIGHT	
A	IRONCAD	EXTERIOR WALL LANTERN	CUSTOM	10" W x 16" H, (2) 40 WATT BULBS	6'-0" A.F.S.	
B	IRONCAD	EXTERIOR PENDANT	SCHOOLHOUSE LIGHT	13" W x 16" H, (3) 40 WATT BULBS	PORCH CLG.	
C	SPJ LIGHTING	PATH LIGHT	SPJ-JTS100	8-15V, 105 LUMENS	PATH	
D	SPJ LIGHTING	RECESSED WALL MOUNT PATH LIGHT	SPJ-FB-275-3	8-15V, 120V	8" - 12" A.F.S.	

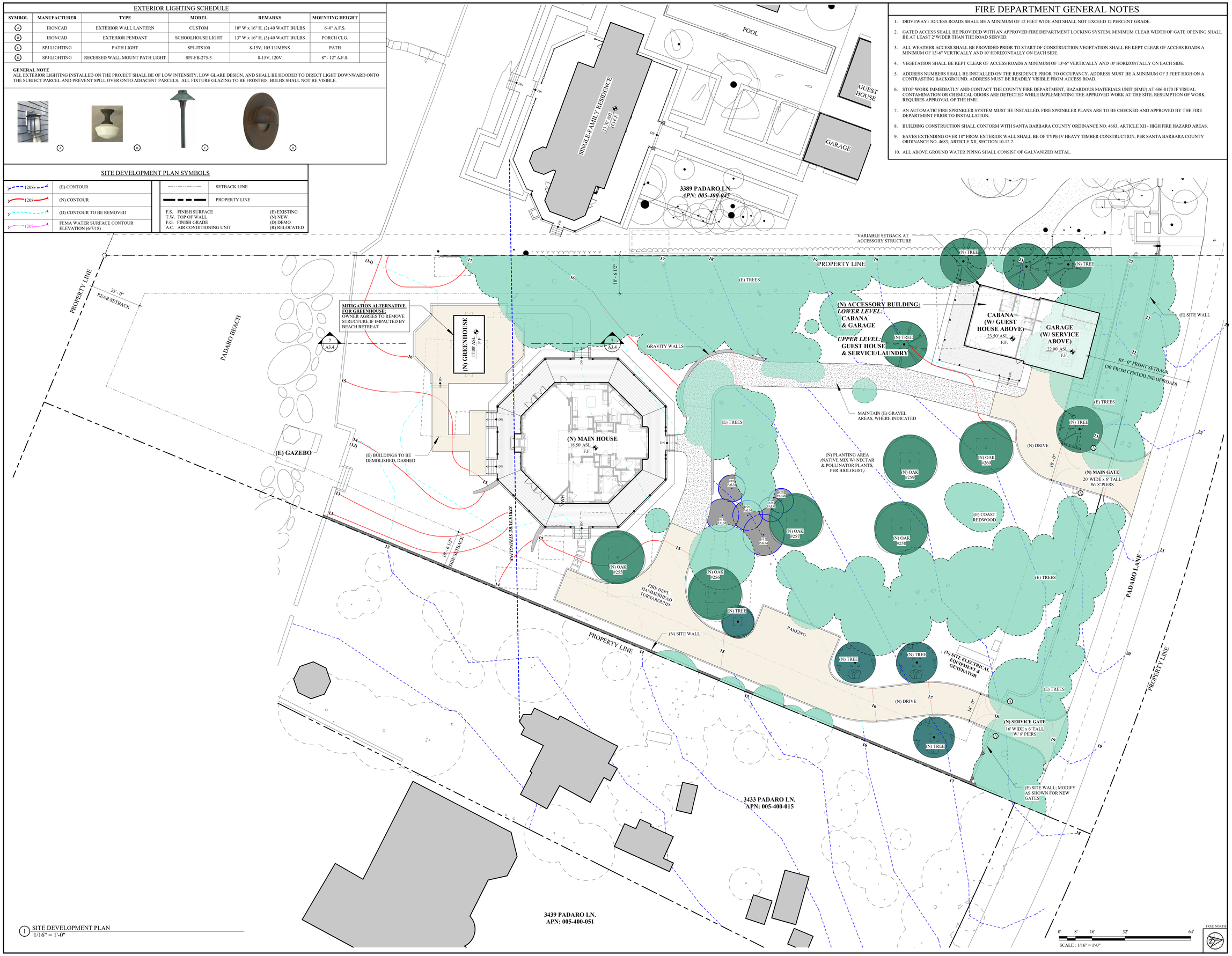
GENERAL NOTE
ALL EXTERIOR LIGHTING INSTALLED ON THE PROJECT SHALL BE OF LOW INTENSITY, LOW GLARE DESIGN, AND SHALL BE HOODED TO DIRECT LIGHT DOWNWARD ONTO THE SUBJECT PARCEL AND PREVENT SPILL OVER ONTO ADJACENT PARCELS. ALL FIXTURE GLAZING TO BE FROSTED. BULBS SHALL NOT BE VISIBLE.

SITE DEVELOPMENT PLAN SYMBOLS

1208	(E) CONTOUR		SETBACK LINE
1208	(N) CONTOUR		PROPERTY LINE
1208	(D) CONTOUR TO BE REMOVED	F.S. FINISH SURFACE T.W. TOP OF WALL F.G. FINISH GRADE A.C. AIR CONDITIONING UNIT	(E) EXISTING (N) NEW (D) DEMO (R) RELOCATED
1208	FEMA WATER SURFACE CONTOUR ELEVATION (6/7/18)		

FIRE DEPARTMENT GENERAL NOTES

1. DRIVEWAY / ACCESS ROADS SHALL BE A MINIMUM OF 12 FEET WIDE AND SHALL NOT EXCEED 12 PERCENT GRADE.
2. GATED ACCESS SHALL BE PROVIDED WITH AN APPROVED FIRE DEPARTMENT LOCKING SYSTEM. MINIMUM CLEAR WIDTH OF GATE OPENING SHALL BE AT LEAST 2' WIDER THAN THE ROAD SERVED.
3. ALL WEATHER ACCESS SHALL BE PROVIDED PRIOR TO START OF CONSTRUCTION.VEGETATION SHALL BE KEPT CLEAR OF ACCESS ROADS A MINIMUM OF 13'-6" VERTICALLY AND 10' HORIZONTALLY ON EACH SIDE.
4. VEGETATION SHALL BE KEPT CLEAR OF ACCESS ROADS A MINIMUM OF 13'-6" VERTICALLY AND 10' HORIZONTALLY ON EACH SIDE.
5. ADDRESS NUMBERS SHALL BE INSTALLED ON THE RESIDENCE PRIOR TO OCCUPANCY. ADDRESS MUST BE A MINIMUM OF 3 FEET HIGH ON A CONTRASTING BACKGROUND. ADDRESS MUST BE READILY VISIBLE FROM ACCESS ROAD.
6. STOP WORK IMMEDIATLY AND CONTACT THE COUNTY FIRE DEPARTMENT, HAZARDOUS MATERIALS UNIT (HMU) AT 686-8170 IF VISUAL CONTAMINATION OR CHEMICAL ODORS ARE DETECTED WHILE IMPLEMENTING THE APPROVED WORK AT THE SITE. RESUMPTION OF WORK REQUIRES APPROVAL OF THE HMU.
7. AN AUTOMATIC FIRE SPRINKLER SYSTEM MUST BE INSTALLED. FIRE SPRINKLER PLANS ARE TO BE CHECKED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
8. BUILDING CONSTRUCTION SHALL CONFORM WITH SANTA BARBARA COUNTY ORDINANCE NO. 4683, ARTICLE XII - HIGH FIRE HAZARD AREAS.
9. EAVES EXTENDING OVER 18" FROM EXTERIOR WALL SHALL BE OF TYPE IV HEAVY TIMBER CONSTRUCTION, PER SANTA BARBARA COUNTY ORDINANCE NO. 4683, ARTICLE XII, SECTION 10-12.2.
10. ALL ABOVE GROUND WATER PIPING SHALL CONSIST OF GALVANIZED METAL.



1 SITE DEVELOPMENT PLAN
1/16" = 1'-0"

10/10/2023 6:28:16 PM

ISSUE DATES

Δ	DATE	DESCRIPTION

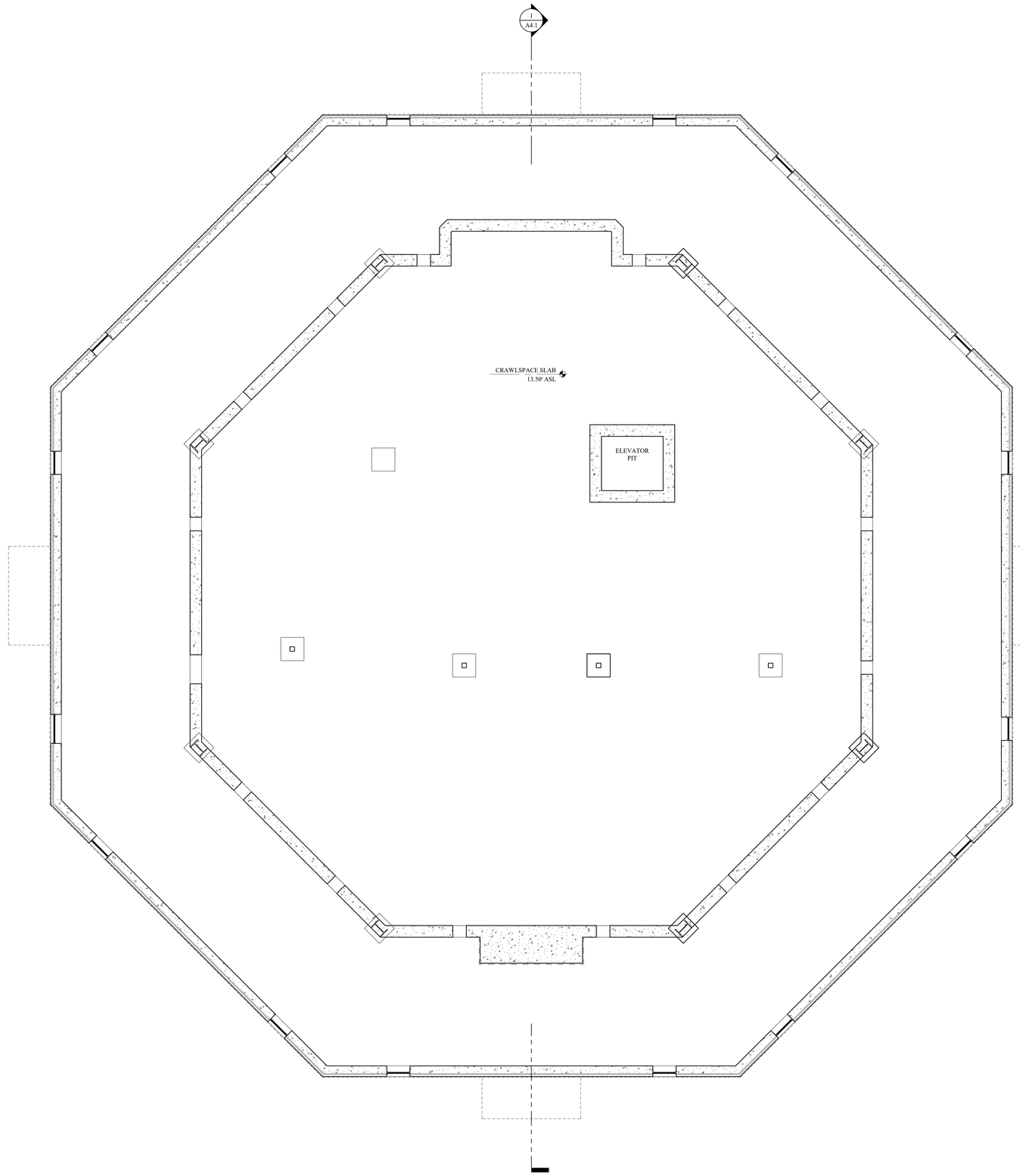
Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

SITE DEVELOPMENT PLAN

3393 Padaro Lane

Carpinteria, CA 93013

Date: 10/10/23
Scale: As indicated
Drawn: PR
Job Number: 2006.00
Sheet
A1.1



1 MAIN HOUSE - FOUNDATION PLAN
1/4" = 1'-0"

FLOOD VENT OPENINGS

NOTE:
FLOOD VENT OPENINGS SHALL COMPLY WITH 15A STANDARDS OF ONE SQUARE INCH OF OPENING PER ONE SQUARE FOOT OF ENCLOSED SPACE SUBJECT TO FLOODING

MAIN HOUSE CALCULATION:
THE FIRST FLOOR OF THE MAIN HOUSE IS 2,723 GROSS SF; THEREFORE, IT REQUIRES AT LEAST 2,723 S.I. OF CLEAR VENT OPENINGS.

THE PERIMETER OF THE PORCH SHALL HAVE (16) 12x24 VENTS (EACH WITH 189 S.I. OF CLEAR OPENING, SEE DETAIL); 15 x 189 = 2,835 S.I.

THE PERIMETER OF THE FOUNDATION WALLS SHALL HAVE (16) 14x14 OPENINGS (EACH WITH 196 S.I. OF CLEAR OPENING, SEE DETAIL); 16 x 196 = 3,136 S.I.

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

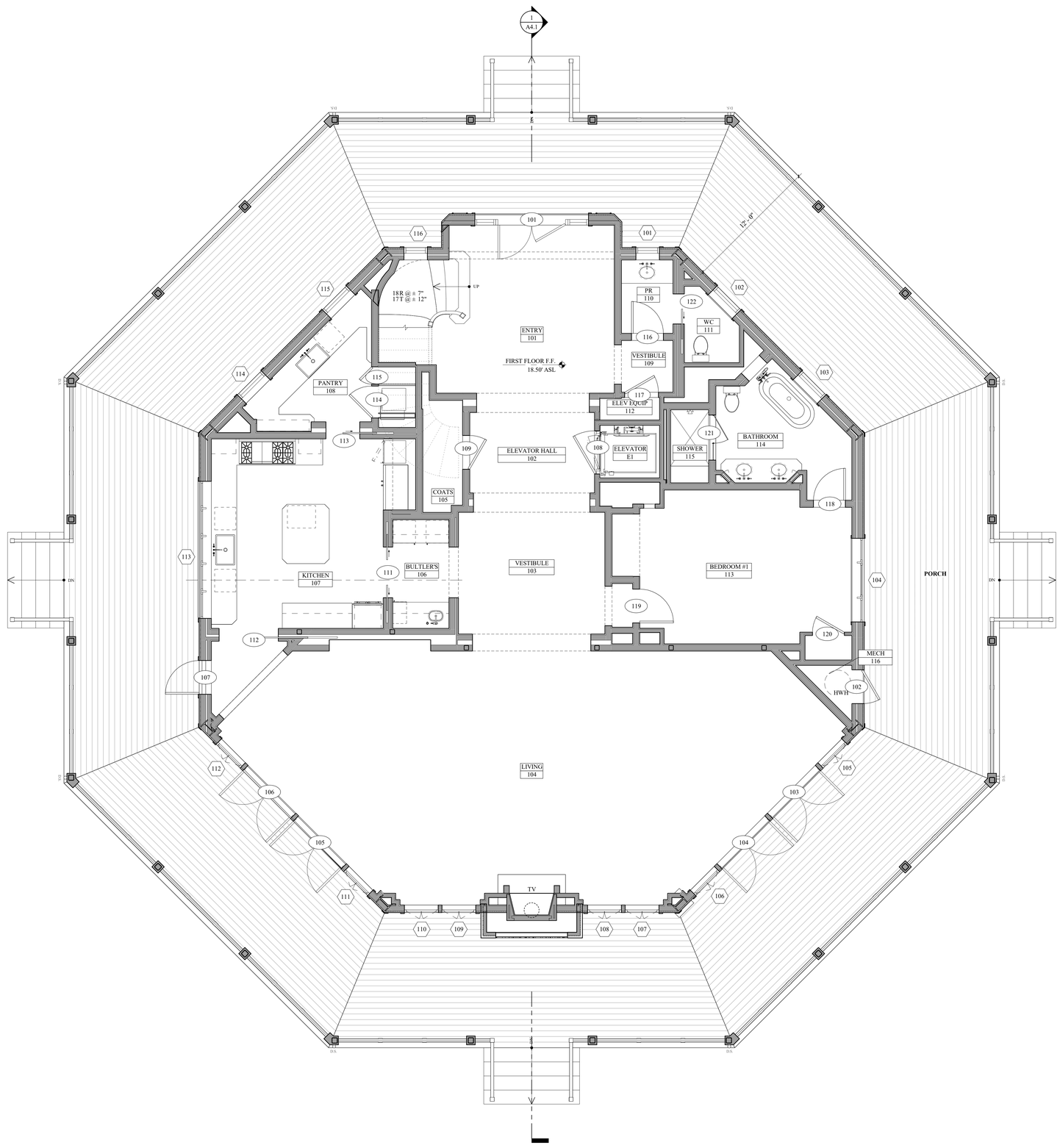
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

MAIN HOUSE - FOUNDATION PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: PR, FB
Job Number: 2006.00
Sheet
A2.0



1 MAIN HOUSE - FIRST FLOOR PLAN
1/4" = 1'-0"

FLOOR PLAN NOTES

1. ALL GRIDLINE DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL EXTERIOR WALL DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL INTERIOR WALL DIMENSIONING TO ROUGH FACE OF STUD U.N.O.
2. ALL DOORS AND WINDOWS DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
3. LANDING AT A DOOR SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NO LESS THAN 36"
4. PROVIDE ULTRA FLUSH WATER CLOSETS.
5. ALL ENTRY DOORS TO DWELLING UNITS OR GUEST UNITS SHALL BE ARRANGED SO THAT THE OCCUPANT HAS A VIEW OF THE AREA IMMEDIATELY OUTSIDE THE DOOR WITHOUT OPENING THE DOOR. SUCH VIEW MAY BE PROVIDED BY A DOOR VIEWER, THROUGH WINDOWS LOCATED IN THE VICINITY OF THE DOOR OR ADJOINING WALL.
6. PROVIDE AN APPROVED SPARK ARRESTOR FOR THE CHIMNEY OF A FIREPLACE, STOVE, OR BARBECUE.
7. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER & BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING.
8. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR & UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWERLINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
9. STRUCTURE IS TO BE SEALED TIGHTLY FOR RODENT PREVENTION. SCREENS O' EXT. OPENINGS ARE TO BE OF A TYPE THAT WILL NOT ALLOW RODENTS TO PASS THROUGH. PROVIDE AT NEW OR REPAIRED EXISTING OPENINGS.
10. PROVIDE DAMP-PROOFING FOR ALL WALLS BELOW GRADE THAT ENCLOSE USABLE SPACE.
11. MOISTURE RESISTANT GYPSUM WALLBOARD OR CEMENTITIOUS BACKER BOARD SHALL BE USED AT ALL WET LOCATIONS (LAVATORIES, KITCHENS, ETC.) AND AREAS TO RECEIVE CERAMIC TILE.
12. SEE FINISH SCHEDULE FOR ALL WALL, BASE, AND FINISH MATERIAL SELECTIONS.
13. ALL INSULATED PARTITIONS ARE SHOWN ON THE FLOOR PLAN OR ENLARGED FLOOR PLAN. INSULATION SHALL BE FULL DEPTH AND HEIGHT OF THE PARTITION VAPOR BARRIER SHALL BE INSTALLED AT THE EXTERIOR WALLS FULL HEIGHT OF PARTITION ON THE WARM SIDE BY THE GENERAL CONTRACTOR.
14. VERIFY LOCATION OF LIGHTING AND REGISTERS BEFORE FRAMING WALLS, FLOORS, ROOFS, AND CEILINGS.
15. GLASS DOORS SHALL BE INSTALLED AT FIREPLACES.
16. BATHROOM NOTES:

A. THE PLUMBING FIXTURES AND PLUMBING FITTINGS SHALL MEET THE STANDARDS NOTED BELOW.
(A) (N) WATER CLOSET = 1.28 GALLONS PER FLUSH MAX
(B) SHOWER HEAD = 2.5 GPM MAX
(C) FAUCETS = 2.2 GPM MAX

B. GLAZING WITHIN A 24" ARC OF THE DOORWAY. GLAZING WITHIN 18" OF FLOOR, GLAZING IN SHOWER AND BATHTUB DOORS AND ENCLOSURES SHALL BE TEMPERED PER CRC R304.8.

C. IN BATHROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING, FIXTURES SHALL HAVE GLAZED WINDOW AREA OF 3 SQ. FT. WITH 1/2 OPENABLE OR MECHANICALLY VENTILATED IN ACCORDANCE WITH CMC 2010, CBC R303.3.

D. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES AT THE CENTER OF THE FRONT CLEARANCE AREA FOR FIXTURES. THE CEILING HEIGHT ABOVE FIXTURES SHALL BE SUCH THAT THE FIXTURE IS CAPABLE OF BEING USED FOR ITS INTENDED PURPOSE PER CRC R305.1.

E. SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE TO A HEIGHT NO LESS THAN 6 FEET ABOVE THE FLOOR.

18. TWO MINIMUM 1" DIAMETER METALLIC CONDUITS BE PROVIDED THAT ORIGINATE AT A READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY FOR A SOLAR ZONE AREA COMPLYING WITH CALIFORNIA ENERGY CODE SECTION 110.10 AND TERMINATE AT A MINIMUM 4" SQUARE APPROVED ELECTRICAL JUNCTION BOX AND THE SEGMENT OF CONDUIT RUN IN THE ATTIC SHALL BE PERMANENTLY AND VISIBLE MARKED AS "FOR FURTURE SOLOR PHOTOVOLTAIC". [SANTA BARBARA COUNTY ENERGY AND CLIMATE ACTION PLAN (ECAP) ORDINANCE 15ORD-00000- 00008]

FIRE NOTES

FIRE SAFE AND SEAL ALL GAPS AND PENETRATIONS IN FIRE RATED PARTITIONS.

ALL FIRE RESISTIVE GYPSUM WALLBOARD MUST BE APPLIED DIRECTLY TO STUD FRAMING. ALL SUBSEQUENT LAYERS AND OR COMPONENTS SHALL BE APPLIED OVER THE FIRE RESISTIVE GYPSUM WALLBOARD AT ALL FIRE RATED PARTITIONS.

PROVIDE FIRE RETARDANT TREATED BLOCKING IN STUD PARTITIONS AT ALL LOCATIONS TO RECEIVE CABINETRY OR CASEWORK AND WHERE FIRE RETARDANT TREATED PLYWOOD IS NOT SPECIFIED.

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

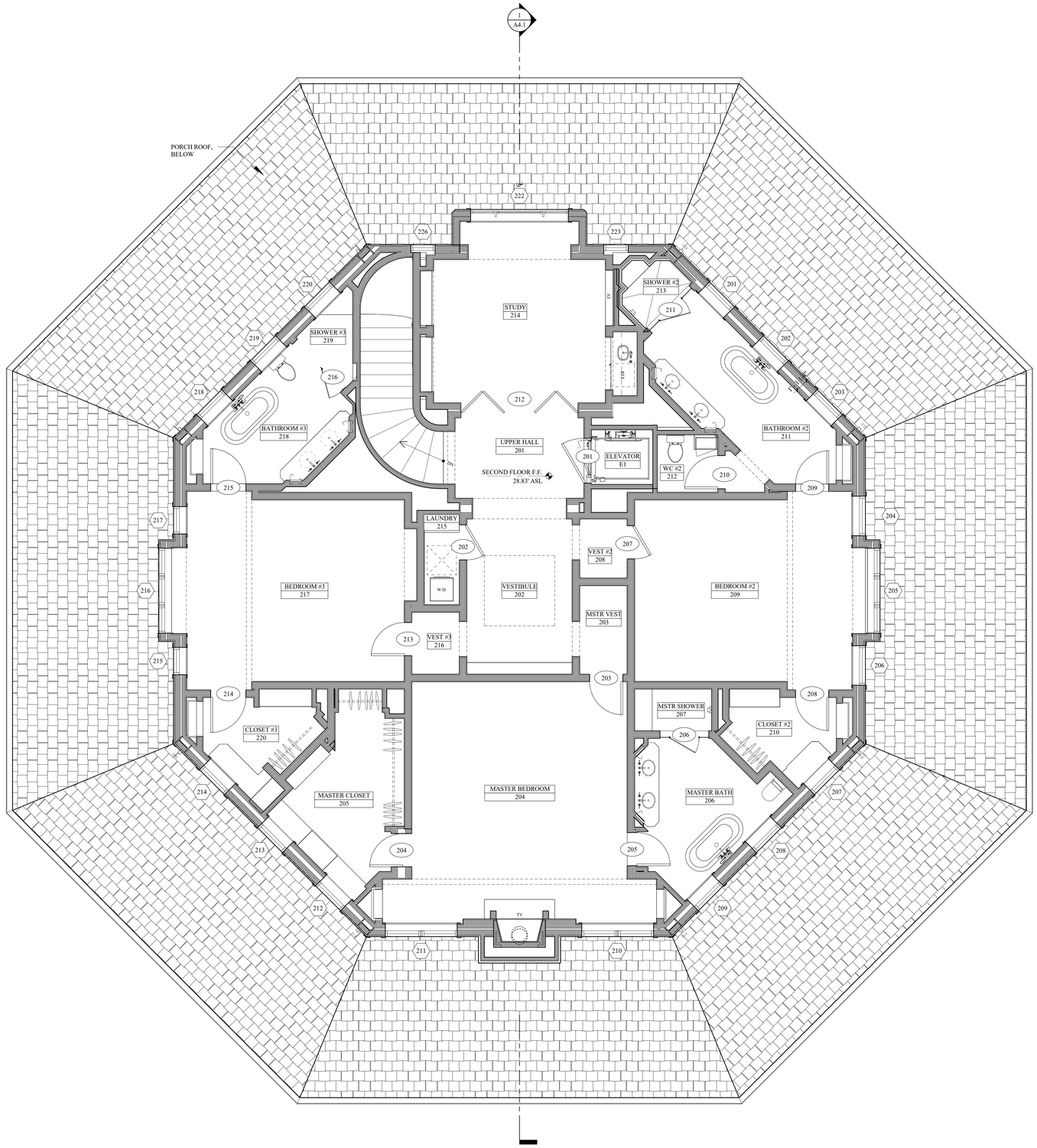
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

MAIN HOUSE - FIRST FLOOR PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: PR, FB
Job Number: 2006.00
Sheet
A2.1



1 MAIN HOUSE - SECOND FLOOR PLAN
1/4" = 1'-0"

FLOOR PLAN NOTES

1. ALL GRIDLINE DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL EXTERIOR WALL DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL INTERIOR WALL DIMENSIONING TO ROUGH FACE OF STUD U.N.O.
2. ALL DOORS AND WINDOWS DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
3. LANDING AT A DOOR SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NO LESS THAN 36"
4. PROVIDE ULTRA FLUSH WATER CLOSETS.
5. ALL ENTRY DOORS TO DWELLING UNITS OR GUEST UNITS SHALL BE ARRANGED SO THAT THE OCCUPANT HAS A VIEW OF THE AREA IMMEDIATELY OUTSIDE THE DOOR WITHOUT OPENING THE DOOR. SUCH VIEW MAY BE PROVIDED BY A DOOR VIEWER, THROUGH WINDOWS LOCATED IN THE VICINITY OF THE DOOR OR ADJOINING WALL.
6. PROVIDE AN APPROVED SPARK ARRESTOR FOR THE CHIMNEY OF A FIREPLACE, STOVE, OR BARBECUE.
7. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER & BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING.
8. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR & UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWERLINES- WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
9. STRUCTURE IS TO BE SEALED TIGHTLY FOR RODENT PREVENTION. SCREENS O' EXT. OPENINGS ARE TO BE OF A TYPE THAT WILL NOT ALLOW RODENTS TO PASS THROUGH. PROVIDE AT NEW OR REPAIRED EXISTING OPENINGS.
10. PROVIDE DAMP-PROOFING FOR ALL WALLS BELOW GRADE THAT ENCLOSE USABLE SPACE.
11. MOISTURE RESISTANT GYPSUM WALLBOARD OR CEMENTITIOUS BACKER BOARD SHALL BE USED AT ALL WET LOCATIONS (LAVATORIES, KITCHENS, ETC.) AND AREAS TO RECEIVE CERAMIC TILE.
12. SEE FINISH SCHEDULE FOR ALL WALL, BASE, AND FINISH MATERIAL SELECTIONS.
13. ALL INSULATED PARTITIONS ARE SHOWN ON THE FLOOR PLAN OR ENLARGED FLOOR PLAN. INSULATION SHALL BE FULL DEPTH AND HEIGHT OF THE PARTITION VAPOR BARRIER SHALL BE INSTALLED AT THE EXTERIOR WALLS FULL HEIGHT OF PARTITION ON THE WARM SIDE BY THE GENERAL CONTRACTOR.
14. VERIFY LOCATION OF LIGHTING AND REGISTERS BEFORE FRAMING WALLS, FLOORS, ROOFS, AND CEILINGS.
15. GLASS DOORS SHALL BE INSTALLED AT FIREPLACES.
16. BATHROOM NOTES:

A. THE PLUMBING FIXTURES AND PLUMBING FITTINGS SHALL MEET THE STANDARDS NOTED BELOW.
(A) (N) WATER CLOSET = 1.28 GALLONS PER FLUSH MAX
(B) SHOWER HEAD = 2.5 GPM MAX
(C) FAUCETS = 2.2 GPM MAX

B. GLAZING WITHIN A 24" ARC OF THE DOORWAY, GLAZING WITHIN 18" OF FLOOR, GLAZING IN SHOWER AND BATHTUB DOORS AND ENCLOSURES SHALL BE TEMPERED PER CRC R304.8.

C. IN BATHROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING, FIXTURES SHALL HAVE GLAZED WINDOW AREA OF 3 SQ. FT. WITH 1/2 OPENABLE OR MECHANICALLY VENTILATED IN ACCORDANCE WITH CMC 2010, CBC R303.3.

D. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES AT THE CENTER OF THE FRONT CLEARANCE AREA FOR FIXTURES. THE CEILING HEIGHT ABOVE FIXTURES SHALL BE SUCH THAT THE FIXTURE IS CAPABLE OF BEING USED FOR ITS INTENDED PURPOSE PER CRC R305.1.

E. SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE TO A HEIGHT NO LESS THAN 6 FEET ABOVE THE FLOOR.

18. TWO MINIMUM 1" DIAMETER METALLIC CONDUITS BE PROVIDED THAT ORIGINATE AT A READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY FOR A SOLAR ZONE AREA COMPLYING WITH CALIFORNIA ENERGY CODE SECTION 110.10 AND TERMINATE AT A MINIMUM 4" SQUARE APPROVED ELECTRICAL JUNCTION BOX AND THE SEGMENT OF CONDUIT RUN IN THE ATTIC SHALL BE PERMANENTLY AND VISIBLE MARKED AS "FOR FURTURE SOLOR PHOTOVOLTAIC". [SANTA BARBARA COUNTY ENERGY AND CLIMATE ACTION PLAN (ECAP) ORDINANCE 15ORD-00000- 00008]

FIRE NOTES

FIRE SAFE AND SEAL ALL GAPS AND PENETRATIONS IN FIRE RATED PARTITIONS.

ALL FIRE RESISTIVE GYPSUM WALLBOARD MUST BE APPLIED DIRECTLY TO STUD FRAMING. ALL SUBSEQUENT LAYERS AND OR COMPONENTS SHALL BE APPLIED OVER THE FIRE RESISTIVE GYPSUM WALLBOARD AT ALL FIRE RATED PARTITIONS.

PROVIDE FIRE RETARDANT TREATED BLOCKING IN STUD PARTITIONS AT ALL LOCATIONS TO RECEIVE CABINETRY OR CASEWORK AND WHERE FIRE RETARDANT TREATED PLYWOOD IS NOT SPECIFIED.

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

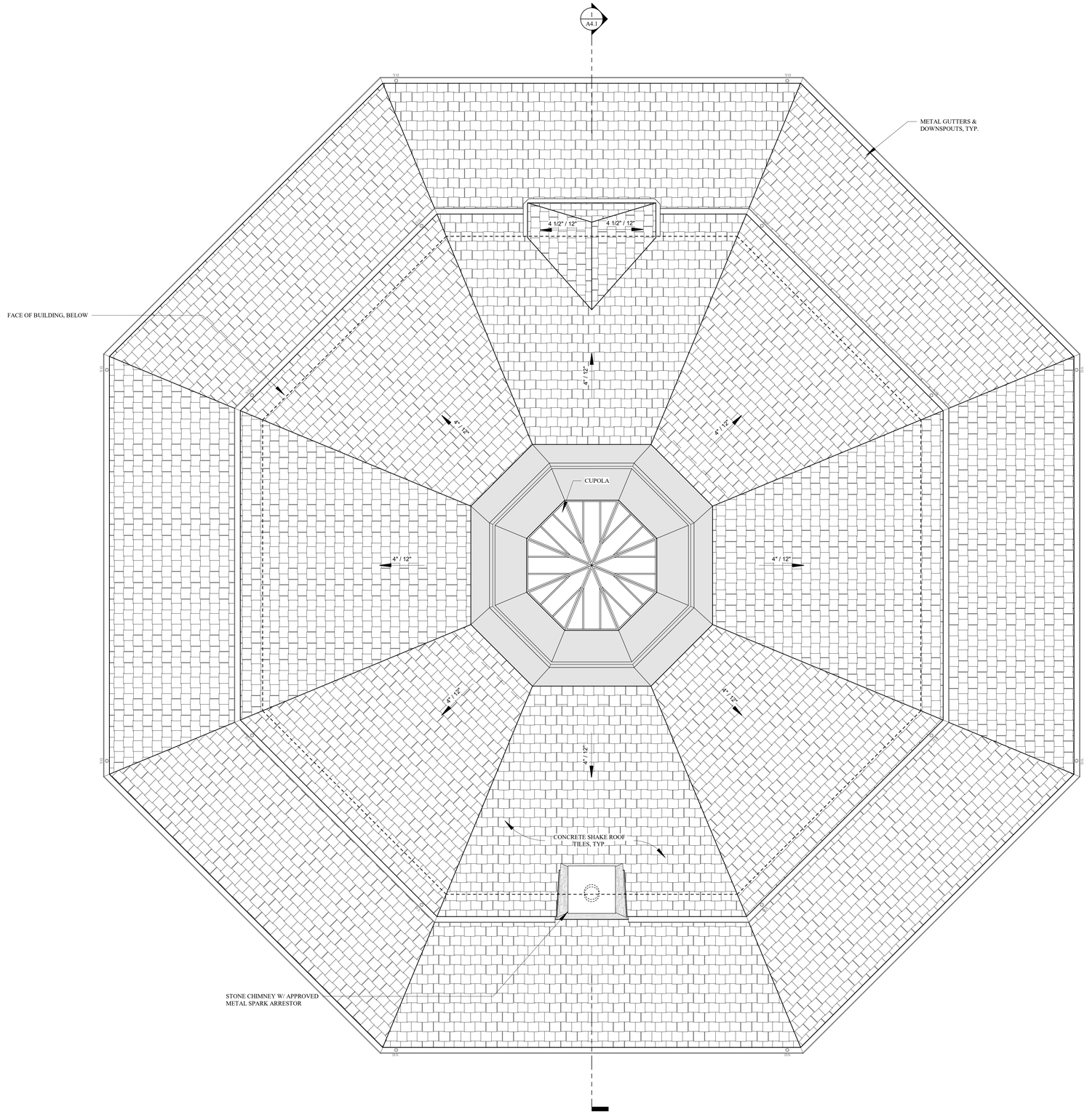
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 963-0304
FAX 805 560-6815

MAIN HOUSE - SECOND FLOOR PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: PR, FB
Job Number: 2006.00
Sheet
A2.2



1 MAIN HOUSE - ROOF PLAN
1/4" = 1'-0"

ROOF PLAN NOTES

1. ATTIC VENTILATION ACHIEVED WITH THE USE OF ICYNENE PER MANUFACTURER'S SPECIFICATIONS AND MECH. ENGINEER'S RECOMMENDATIONS PORTRAYED IN T-24 & M-SHEETS IN THIS PERMIT SET.
2. ALL CHIMNEYS MUST EXTEND A MINIMUM OF 2' ABOVE ANY PORTION OF THE BUILDING WITHIN 10', TYP.
3. VALLEY FLASHINGS SUBJECT TO CRC SECTION R327 ARE NOT TO BE LESS THEN 26 GALVANIZED SHEET GAUGE CORROSION RESISTANT METAL INSTALLED OVER 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER 72 POUND MINERAL SURFACED NON-PERFORATED CAP SHEET COMPLYING WITH ASTM D3909 INSTALLED OVER THE COMBUSTIBLE DECKING. [CRC R327.5.3]
4. ROOF GUTTERS SUBJECT TO CRC SECTION R327 TO BE PROVIDED WITH A MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. [CRC R327.5.4]
5. EXCEPT FOR ARCHITECTURAL TRIM, THE EXPOSED UNDERSIDE OF EXTERIOR PORCH CEILINGS SHALL MEET THE REQUIREMENTS OF SFM 12-7A.2, SHALL BE NON-COMBUSTIBLE MATERIAL AS DEFINED IN CRC SECTION R327.2, SHALL HAVE A MINIMUM OF ONE LAYER OF 5/8" TYPE 'X' GYPSUM SHEATHING BENEATH THE EXTERIOR COVERING ON THE UNDERSIDE OF THE EAVE OF SHALL BE CONSTRUCTED AS AN APPROVED 1-HOUR FIRE RESISTIVE WALL ASSEMBLY ON THE EXTERIOR SIDE. SEE DETAIL 12 ON SHEET A6.2.
6. ATTIC VENTS ON VERTICAL SURFACES ARE TO BE NON-COMBUSTABLE AND CORROSION RESISTANT. THE OPENING SIZE OF ANY VENTILATION DEVICE OR MATERIAL (SUCH AS WIRE MESH) IS TO HAVE A MINIMUM OPENING OF 1/16 INCH AND MAXIMUM OPENING SIZE NOT TO EXCEED 1/8 INCH.
7. UNDERLAYMENT SHALL CONFORM TO ASTM D 226 TYPE II MINERAL SURFACED ROLL ROOFING.

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

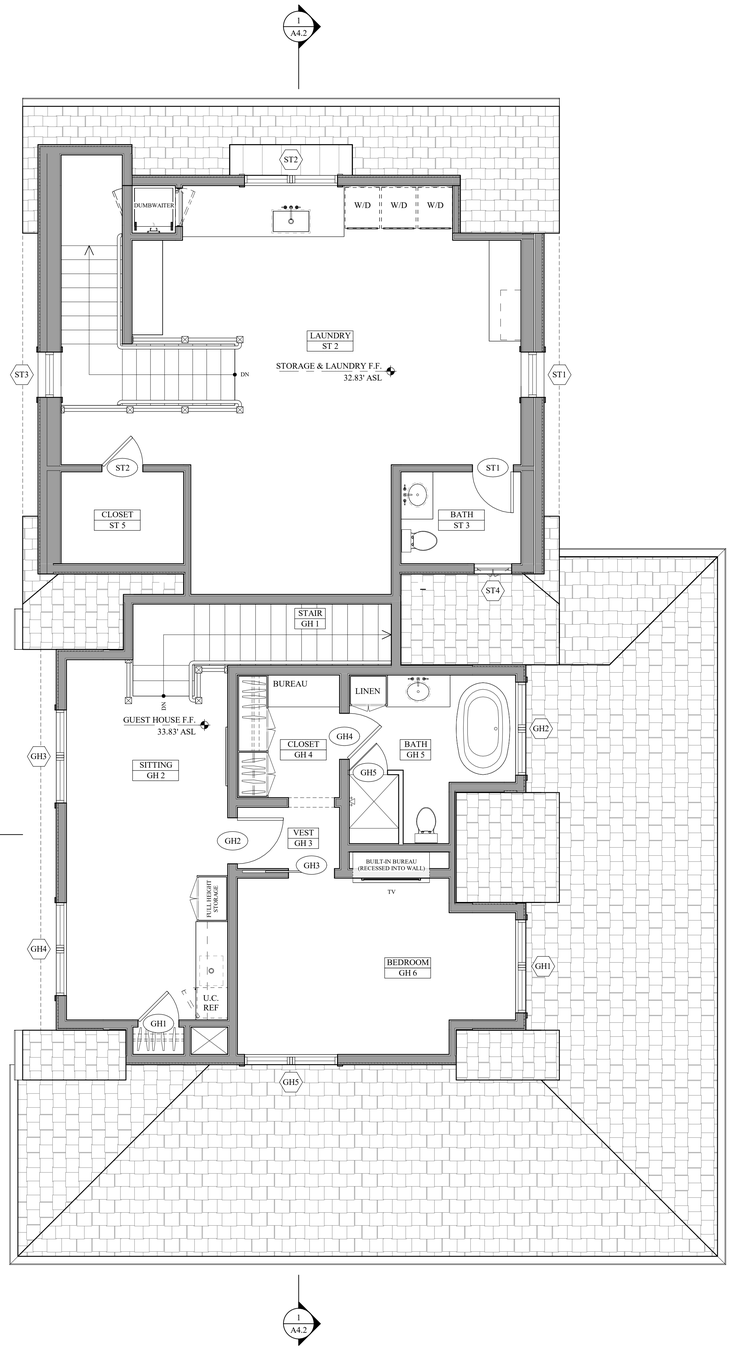
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

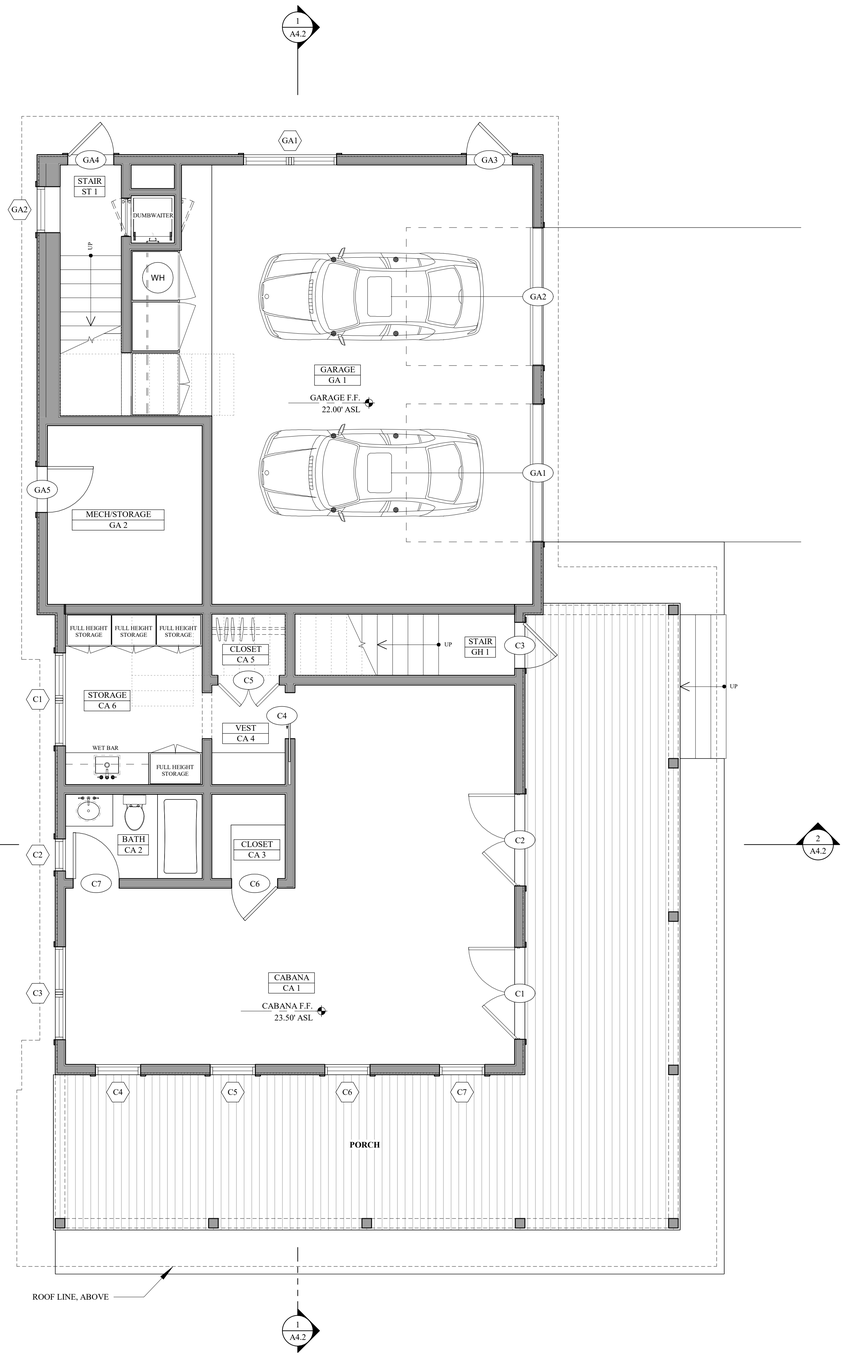
MAIN HOUSE - ROOF PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: FB; PR
Job Number: 2006.00
Sheet
A2.3



2 ACCESSORY BUILDING - SECOND FLOOR PLAN
1/4" = 1'-0"



1 ACCESSORY BUILDING - FIRST FLOOR PLAN
1/4" = 1'-0"

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

FLOOR PLAN NOTES

1. ALL GRIDLINE DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL EXTERIOR WALL DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL INTERIOR WALL DIMENSIONING TO ROUGH FACE OF STUD U.N.O.
2. ALL DOORS AND WINDOWS DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
3. LANDING AT A DOOR SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NO LESS THAN 36"
4. PROVIDE ULTRA FLUSH WATER CLOSETS.
5. ALL ENTRY DOORS TO DWELLING UNITS OR GUEST UNITS SHALL BE ARRANGED SO THAT THE OCCUPANT HAS A VIEW OF THE AREA IMMEDIATELY OUTSIDE THE DOOR WITHOUT OPENING THE DOOR. SUCH VIEW MAY BE PROVIDED BY A DOOR VIEWER, THROUGH WINDOWS LOCATED IN THE VICINITY OF THE DOOR OR ADJOINING WALL.
6. PROVIDE AN APPROVED SPARK ARRESTOR FOR THE CHIMNEY OF A FIREPLACE, STOVE, OR BARBECUE.
7. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER & BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING.
8. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR & UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWERLINES- WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
9. STRUCTURE IS TO BE SEALED TIGHTLY FOR RODENT PREVENTION. SCREENS O' EXT. OPENINGS ARE TO BE OF A TYPE THAT WILL NOT ALLOW RODENTS TO PASS THROUGH. PROVIDE AT NEW OR REPAIRED EXISTING OPENINGS.
10. PROVIDE DAMP-PROOFING FOR ALL WALLS BELOW GRADE THAT ENCLOSE USABLE SPACE.
11. MOISTURE RESISTANT GYPSUM WALLBOARD OR CEMENTITIOUS BACKER BOARD SHALL BE USED AT ALL WET LOCATIONS (LAVATORIES, KITCHENS, ETC.) AND AREAS TO RECEIVE CERAMIC TILE.
12. SEE FINISH SCHEDULE FOR ALL WALL, BASE, AND FINISH MATERIAL SELECTIONS.
13. ALL INSULATED PARTITIONS ARE SHOWN ON THE FLOOR PLAN OR ENLARGED FLOOR PLAN. INSULATION SHALL BE FULL DEPTH AND HEIGHT OF THE PARTITION VAPOR BARRIER SHALL BE INSTALLED AT THE EXTERIOR WALLS FULL HEIGHT OF PARTITION ON THE WARM SIDE BY THE GENERAL CONTRACTOR.
14. VERIFY LOCATION OF LIGHTING AND REGISTERS BEFORE FRAMING WALLS, FLOORS, ROOFS, AND CEILINGS.
15. GLASS DOORS SHALL BE INSTALLED AT FIREPLACES.
16. BATHROOM NOTES:

    A. THE PLUMBING FIXTURES AND PLUMBING FITTINGS SHALL MEET THE STANDARDS NOTED BELOW.
    (A) (N) WATER CLOSET = 1.28 GALLONS PER FLUSH MAX
    (B) SHOWER HEAD = 2.5 GPM MAX
    (C) FAUCETS = 2.2 GPM MAX

    B. GLAZING WITHIN A 24" ARC OF THE DOORWAY, GLAZING WITHIN 18" OF FLOOR, GLAZING IN SHOWER AND BATHTUB DOORS AND ENCLOSURES SHALL BE TEMPERED PER CRC R304.8.

    C. IN BATHROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING, FIXTURES SHALL HAVE GLAZED WINDOW AREA OF 3 SQ. FT. WITH 1/2 OPENABLE OR MECHANICALLY VENTILATED IN ACCORDANCE WITH CMC 2010, CBC R303.3.

    D. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES AT THE CENTER OF THE FRONT CLEARANCE AREA FOR FIXTURES. THE CEILING HEIGHT ABOVE FIXTURES SHALL BE SUCH THAT THE FIXTURE IS CAPABLE OF BEING USED FOR ITS INTENDED PURPOSE PER CRC R305.1.

    E. SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE TO A HEIGHT NO LESS THAN 6 FEET ABOVE THE FLOOR.

18. TWO MINIMUM 1" DIAMETER METALLIC CONDUITS BE PROVIDED THAT ORIGINATE AT A READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY FOR A SOLAR ZONE AREA COMPLYING WITH CALIFORNIA ENERGY CODE SECTION 110.10 AND TERMINATE AT A MINIMUM 4" SQUARE APPROVED ELECTRICAL JUNCTION BOX AND THE SEGMENT OF CONDUIT RUN IN THE ATTIC SHALL BE PERMANENTLY AND VISIBLE MARKED AS "FOR FURTURE SOLOR PHOTOVOLTAIC". [SANTA BARBARA COUNTY ENERGY AND CLIMATE ACTION PLAN (ECAP) ORDINANCE 15ORD-00000- 00008]

FIRE NOTES

FIRE SAFE AND SEAL ALL GAPS AND PENETRATIONS IN FIRE RATED PARTITIONS.

ALL FIRE RESISTIVE GYPSUM WALLBOARD MUST BE APPLIED DIRECTLY TO STUD FRAMING. ALL SUBSEQUENT LAYERS AND OR COMPONENTS SHALL BE APPLIED OVER THE FIRE RESISTIVE GYPSUM WALLBOARD AT ALL FIRE RATED PARTITIONS.

PROVIDE FIRE RETARDANT TREATED BLOCKING IN STUD PARTITIONS AT ALL LOCATIONS TO RECEIVE CABINETRY OR CASEWORK AND WHERE FIRE RETARDANT TREATED PLYWOOD IS NOT SPECIFIED.

ISSUE DATES

Δ	DATE	DESCRIPTION

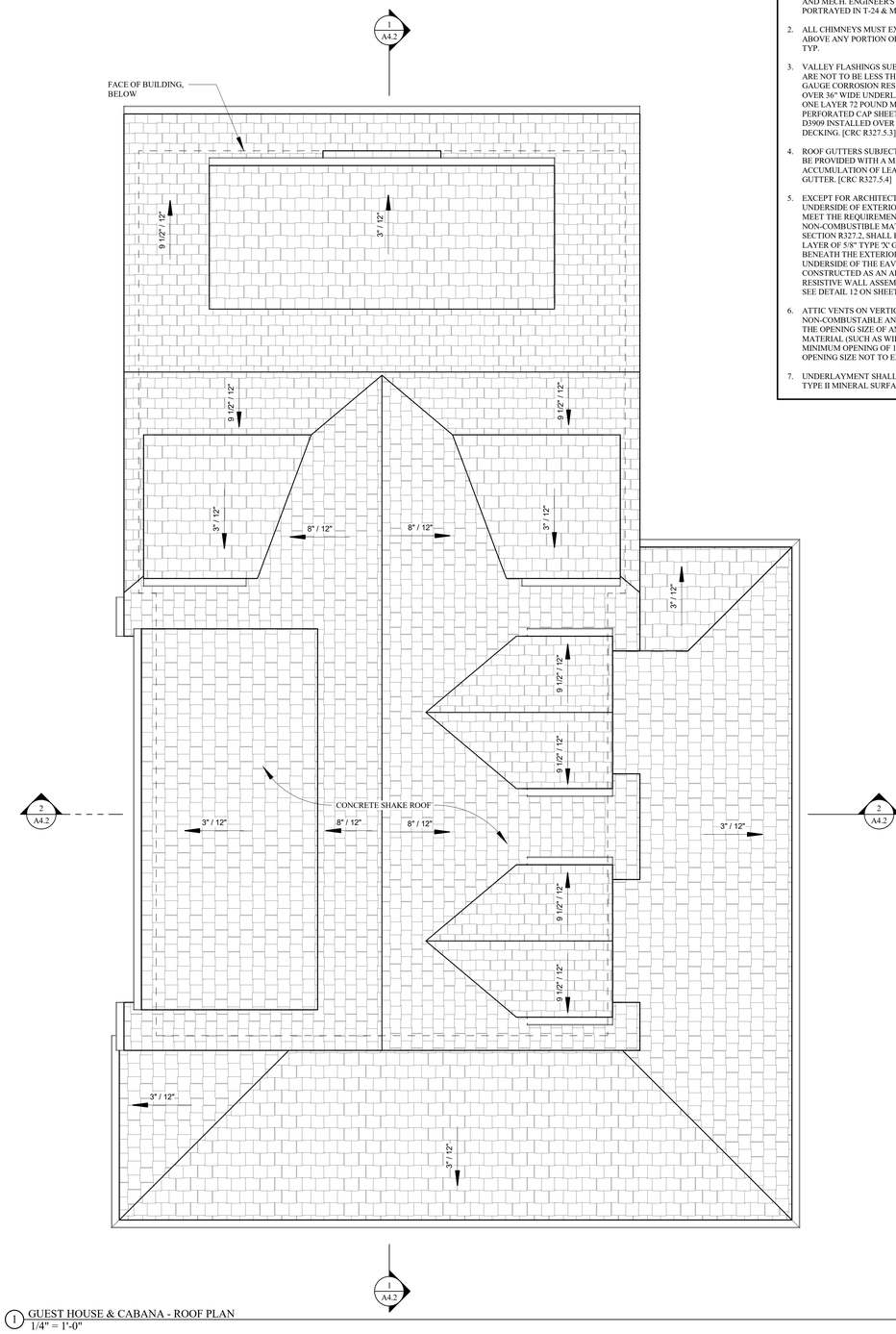
Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

ACCESSORY BUILDING - PLANS

3393 Padaro Lane

Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: PR; FB
Job Number: 2006.00
Sheet
A2.6



1 GUEST HOUSE & CABANA - ROOF PLAN
1/4" = 1'-0"

ROOF PLAN NOTES

1. ATTIC VENTILATION ACHIEVED WITH THE USE OF ICYNENE PER MANUFACTURER'S SPECIFICATIONS AND MECH. ENGINEER'S RECOMMENDATIONS PORTRAYED IN T-24 & M-SHEETS IN THIS PERMIT SET.
2. ALL CHIMNEYS MUST EXTEND A MINIMUM OF 2' ABOVE ANY PORTION OF THE BUILDING WITHIN 10', TYP.
3. VALLEY FLASHINGS SUBJECT TO CRC SECTION R327 ARE NOT TO BE LESS THEN 26 GALVANIZED SHEET GAUGE CORROSION RESISTANT METAL INSTALLED OVER 36" WIDE UNDERLAYMENT CONSISTING OF ONE LAYER 72 POUND MINERAL SURFACED NON-PERFORATED CAP SHEET COMPLYING WITH ASTM D3909 INSTALLED OVER THE COMBUSTIBLE DECKING. [CRC R327.5.3]
4. ROOF GUTTERS SUBJECT TO CRC SECTION R327 TO BE PROVIDED WITH A MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. [CRC R327.5.4]
5. EXCEPT FOR ARCHITECTURAL TRIM, THE EXPOSED UNDERSIDE OF EXTERIOR PORCH CEILINGS SHALL MEET THE REQUIREMENTS OF SFM 12-7A.2, SHALL BE NON-COMBUSTIBLE MATERIAL AS DEFINED IN CRC SECTION R327.2, SHALL HAVE A MINIMUM OF ONE LAYER OF 5/8" TYPE 'X' GYPSUM SHEATHING BENEATH THE EXTERIOR COVERING ON THE UNDERSIDE OF THE EAVE OF SHALL BE CONSTRUCTED AS AN APPROVED 1-HOUR FIRE RESISTIVE WALL ASSEMBLY ON THE EXTERIOR SIDE. SEE DETAIL 12 ON SHEET A6.2.
6. ATTIC VENTS ON VERTICAL SURFACES ARE TO BE NON-COMBUSTABLE AND CORROSION RESISTANT. THE OPENING SIZE OF ANY VENTILATION DEVICE OR MATERIAL (SUCH AS WIRE MESH) IS TO HAVE A MINIMUM OPENING OF 1/16 INCH AND MAXIMUM OPENING SIZE NOT TO EXCEED 1/8 INCH.
7. UNDERLAYMENT SHALL CONFORM TO ASTM D 226 TYPE II MINERAL SURFACED ROLL ROOFING.

FLOOR PLAN NOTES

1. ALL GRIDLINE DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL EXTERIOR WALL DIMENSIONING TO FACE OF PLYWOOD AND CONCRETE U.N.O. ALL INTERIOR WALL DIMENSIONING TO ROUGH FACE OF STUD U.N.O.
2. ALL DOORS AND WINDOWS DIMENSIONED TO CENTERLINE, UNLESS NOTED OTHERWISE.
3. LANDING AT A DOOR SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NO LESS THAN 36"
4. PROVIDE ULTRA FLUSH WATER CLOSETS.
5. ALL ENTRY DOORS TO DWELLING UNITS OR GUEST UNITS SHALL BE ARRANGED SO THAT THE OCCUPANT HAS A VIEW OF THE AREA IMMEDIATELY OUTSIDE THE DOOR WITHOUT OPENING THE DOOR. SUCH VIEW MAY BE PROVIDED BY A DOOR VIEWER, THROUGH WINDOWS LOCATED IN THE VICINITY OF THE DOOR OR ADJOINING WALL.
6. PROVIDE AN APPROVED SPARK ARRESTOR FOR THE CHIMNEY OF A FIREPLACE, STOVE, OR BARBECUE.
7. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER & BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING.
8. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR & UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWERLINES- WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.
9. STRUCTURE IS TO BE SEALED TIGHTLY FOR RODENT PREVENTION. SCREENS O' EXT. OPENINGS ARE TO BE OF A TYPE THAT WILL NOT ALLOW RODENTS TO PASS THROUGH. PROVIDE AT NEW OR REPAIRED EXISTING OPENINGS.
10. PROVIDE DAMP-PROOFING FOR ALL WALLS BELOW GRADE THAT ENCLOSE USABLE SPACE.
11. MOISTURE RESISTANT GYPSUM WALLBOARD OR CEMENTITIOUS BACKER BOARD SHALL BE USED AT ALL WET LOCATIONS (LAVATORIES, KITCHENS, ETC.) AND AREAS TO RECEIVE CERAMIC TILE.
12. SEE FINISH SCHEDULE FOR ALL WALL, BASE, AND FINISH MATERIAL SELECTIONS.
13. ALL INSULATED PARTITIONS ARE SHOWN ON THE FLOOR PLAN OR ENLARGED FLOOR PLAN. INSULATION SHALL BE FULL DEPTH AND HEIGHT OF THE PARTITION VAPOR BARRIER SHALL BE INSTALLED AT THE EXTERIOR WALLS FULL HEIGHT OF PARTITION ON THE WARM SIDE BY THE GENERAL CONTRACTOR.
14. VERIFY LOCATION OF LIGHTING AND REGISTERS BEFORE FRAMING WALLS, FLOORS, ROOFS, AND CEILINGS.
15. GLASS DOORS SHALL BE INSTALLED AT FIREPLACES.
16. BATHROOM NOTES:

A. THE PLUMBING FIXTURES AND PLUMBING FITTINGS SHALL MEET THE STANDARDS NOTED BELOW.
(A) (N) WATER CLOSET = 1.28 GALLONS PER FLUSH MAX.
(B) SHOWER HEAD = 2.5 GPM MAX
(C) FAUCETS = 2.2 GPM MAX

B. GLAZING WITHIN A 24" ARC OF THE DOORWAY, GLAZING WITHIN 18" OF FLOOR, GLAZING IN SHOWER AND BATHTUB DOORS AND ENCLOSURES SHALL BE TEMPERED PER CRC R304.8.

C. IN BATHROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR BATHING, FIXTURES SHALL HAVE GLAZED WINDOW AREA OF 3 SQ. FT. WITH 1/2 OPENABLE OR MECHANICALLY VENTILATED IN ACCORDANCE WITH CMC 2010, CBC R303.3.

D. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES AT THE CENTER OF THE FRONT CLEARANCE AREA FOR FIXTURES. THE CEILING HEIGHT ABOVE FIXTURES SHALL BE SUCH THAT THE FIXTURE IS CAPABLE OF BEING USED FOR ITS INTENDED PURPOSE PER CRC R305.1.

E. SHOWERS AND WALLS ABOVE BATHTUBS WITH SHOWER HEADS SHALL BE FINISHED WITH A NON-ABSORBENT SURFACE TO A HEIGHT NO LESS THAN 6 FEET ABOVE THE FLOOR.

18. TWO MINIMUM 1" DIAMETER METALLIC CONDUITS BE PROVIDED THAT ORIGINATE AT A READILY ACCESSIBLE ATTIC LOCATION WITH PROXIMITY FOR A SOLAR ZONE AREA COMPLYING WITH CALIFORNIA ENERGY CODE SECTION 110.10 AND TERMINATE AT A MINIMUM 4" SQUARE APPROVED ELECTRICAL JUNCTION BOX AND THE SEGMENT OF CONDUIT RUN IN THE ATTIC SHALL BE PERMANENTLY AND VISIBLE MARKED AS "FOR FURTURE SOLOR PHOTOVOLTAIC". [SANTA BARBARA COUNTY ENERGY AND CLIMATE ACTION PLAN (ECAP) ORDINANCE 15ORD-00000- 00008]

FIRE NOTES

FIRE SAFE AND SEAL ALL GAPS AND PENETRATIONS IN FIRE RATED PARTITIONS.

ALL FIRE RESISTIVE GYPSUM WALLBOARD MUST BE APPLIED DIRECTLY TO STUD FRAMING. ALL SUBSEQUENT LAYERS AND OR COMPONENTS SHALL BE APPLIED OVER THE FIRE RESISTIVE GYPSUM WALLBOARD AT ALL FIRE RATED PARTITIONS.

PROVIDE FIRE RETARDANT TREATED BLOCKING IN STUD PARTITIONS AT ALL LOCATIONS TO RECEIVE CABINETRY OR CASEWORK AND WHERE FIRE RETARDANT TREATED PLYWOOD IS NOT SPECIFIED.

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

Δ	DATE	DESCRIPTION

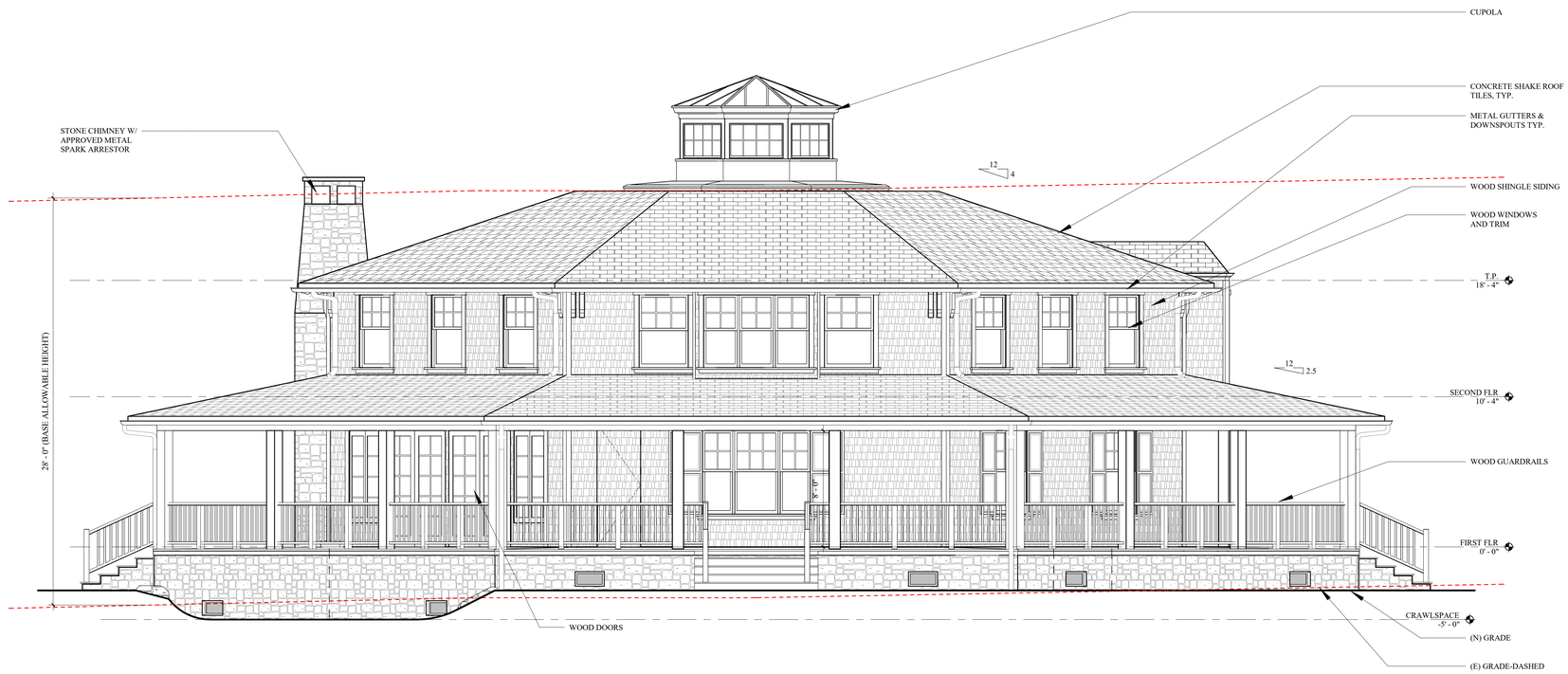
Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

ACCESSORY BUILDING - ROOF PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: PR; AV
Job Number: 2006.00
Sheet
A2.7

1 MAIN HOUSE - NORTH ELEVATION
1/4" = 1'-0"



2 MAIN HOUSE - EAST ELEVATION
1/4" = 1'-0"

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

ISSUE DATES

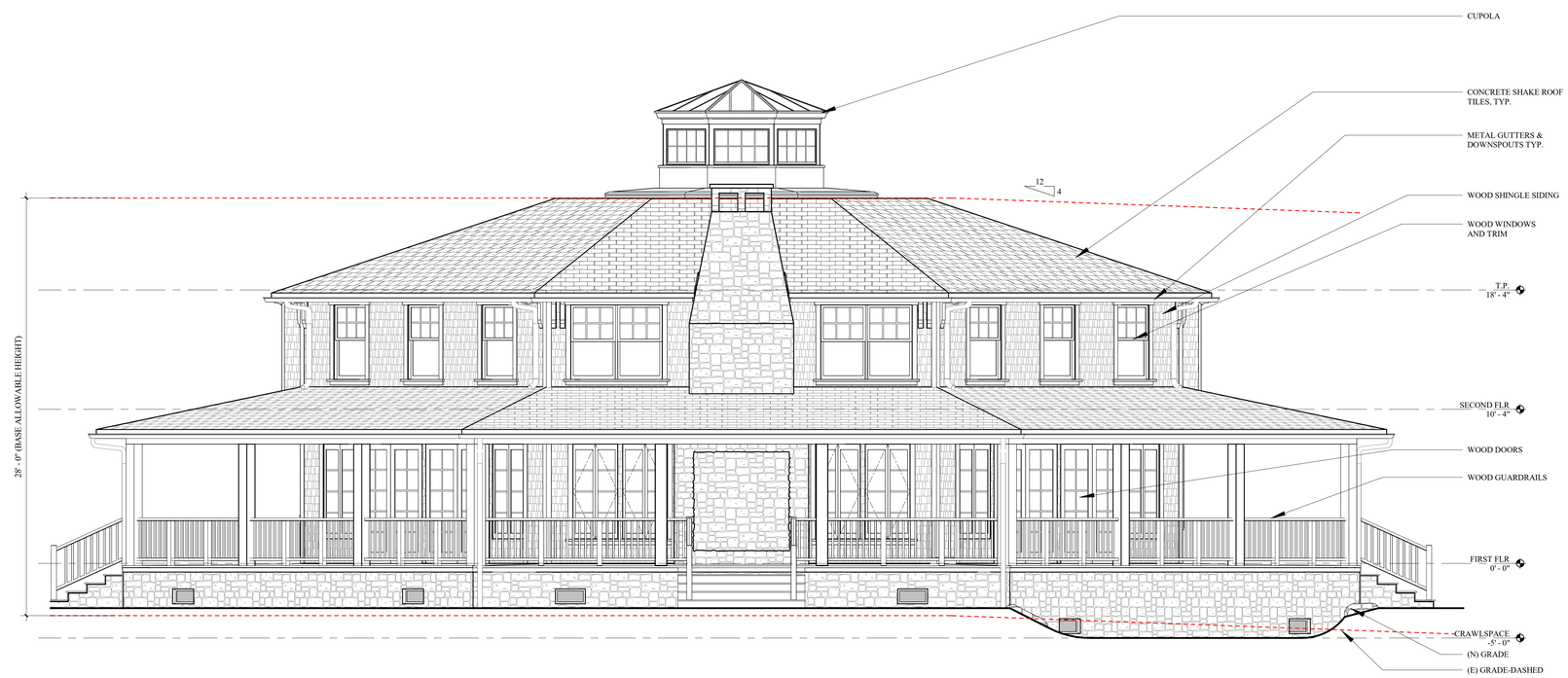
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

MAIN HOUSE - EXTERIOR ELEVATIONS

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: 1/4" = 1'-0"
Drawn: PR, FB
Job Number: 2006.00
Sheet
A3.1



1 MAIN HOUSE - SOUTH ELEVATION
1/4" = 1'-0"

2 MAIN HOUSE - WEST ELEVATION
1/4" = 1'-0"

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

ISSUE DATES

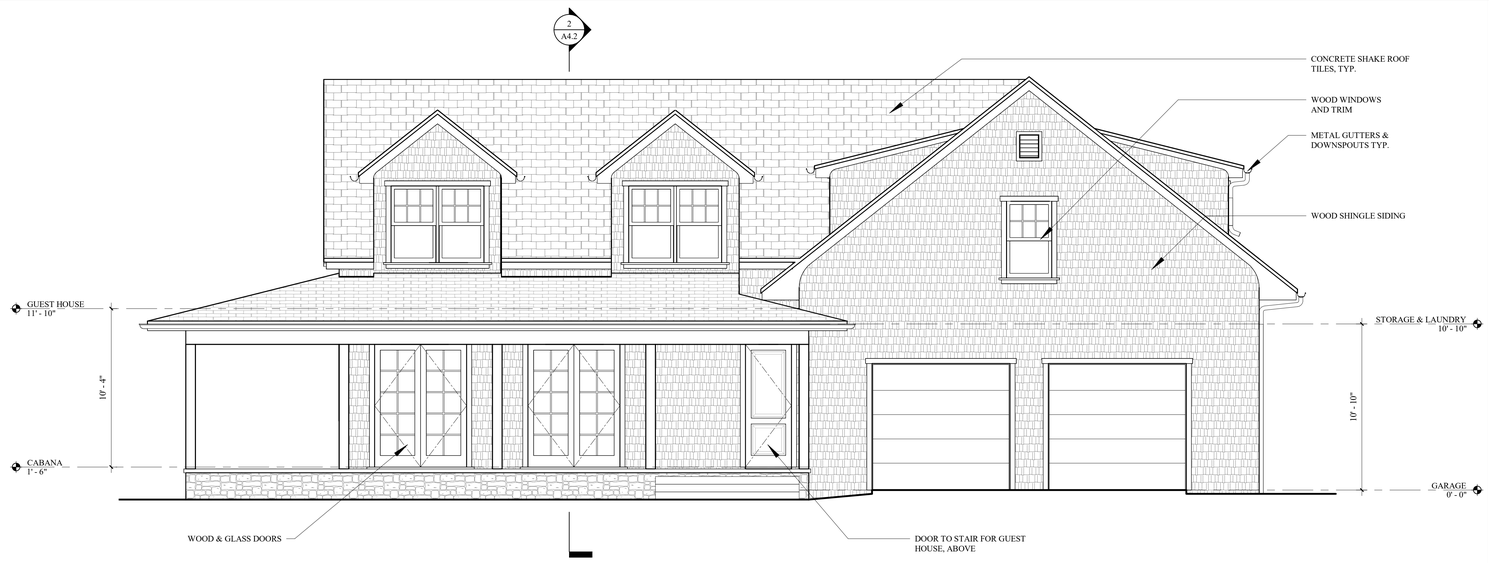
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

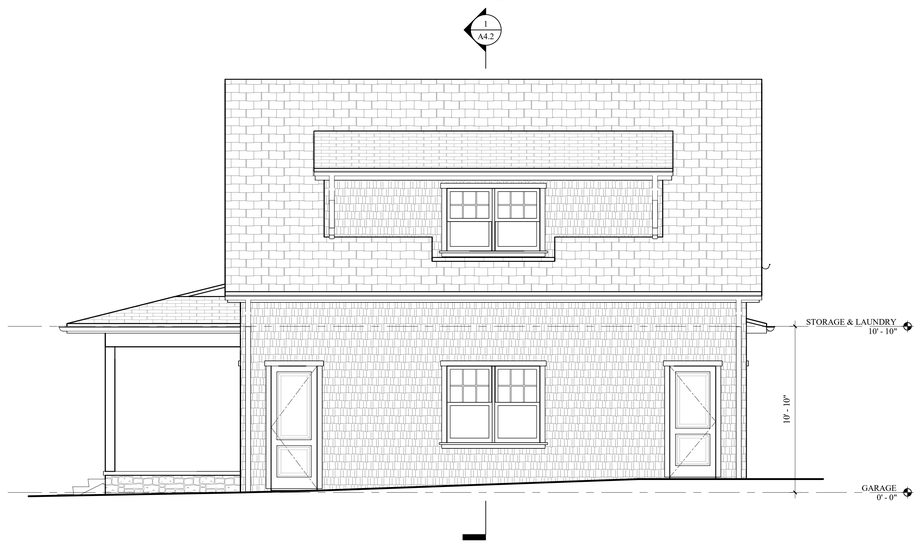
MAIN HOUSE - EXTERIOR ELEVATIONS

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: 1/4" = 1'-0"
Drawn: PR; FB
Job Number: 2006.00
Sheet
A3.2

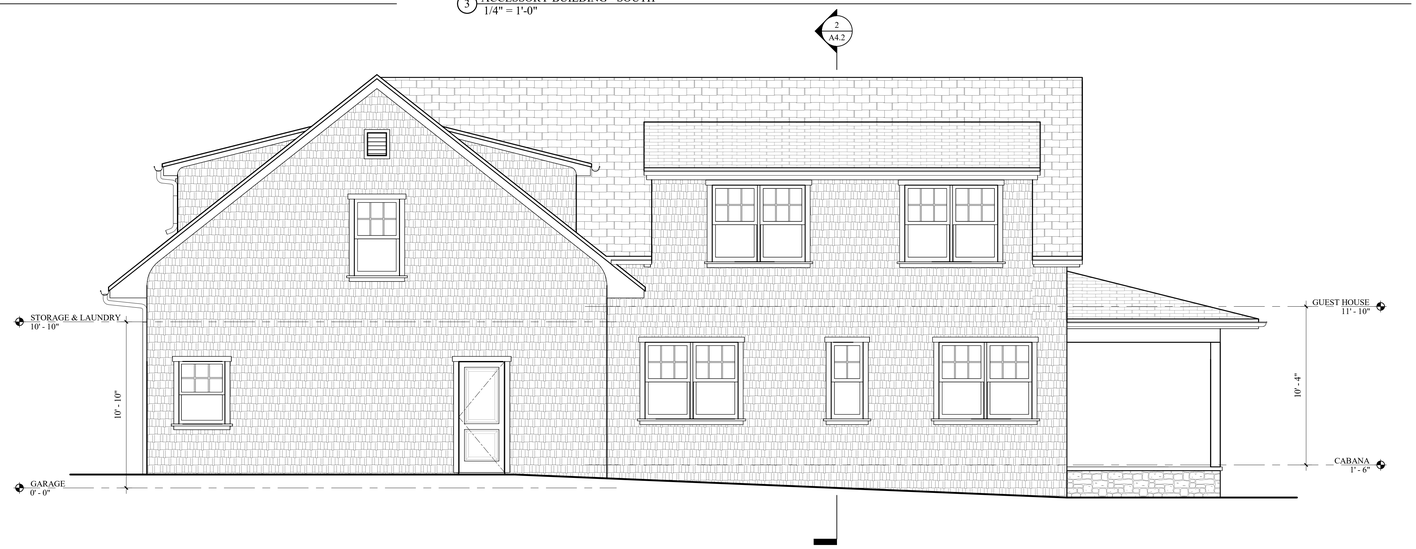


1 ACCESSORY BUILDING - EAST
1/4" = 1'-0"



2 ACCESSORY BUILDING - NORTH
1/4" = 1'-0"

3 ACCESSORY BUILDING - SOUTH
1/4" = 1'-0"



4 ACCESSORY BUILDING - WEST
1/4" = 1'-0"

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

ISSUE DATES

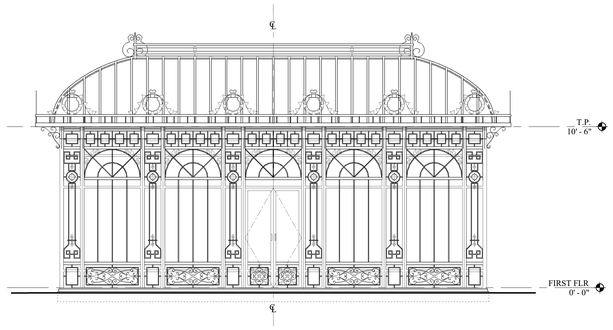
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

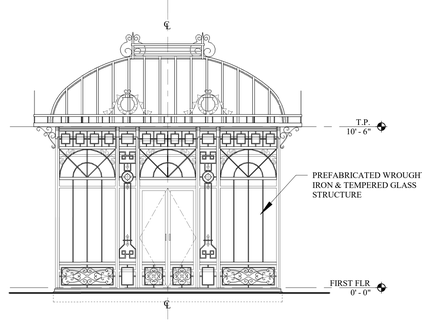
ACCESSORY BUILDING - EXTERIOR ELEVATIONS

3393 Padaro Lane
Carpinteria, CA 93013

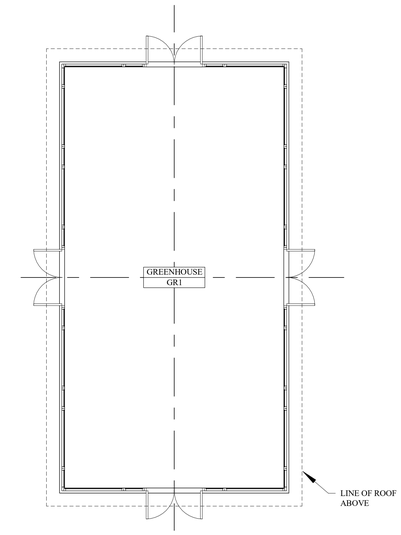
Date: 06/23/23
Scale: 1/4" = 1'-0"
Drawn: PR; FB
Job Number: 2006.00
Sheet
A3.3



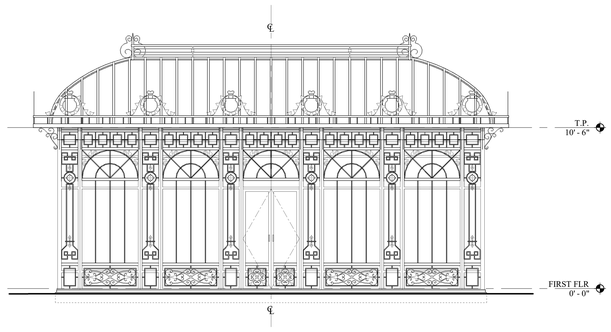
3 GREENHOUSE - NORTH ELEVATION
1/4" = 1'-0"



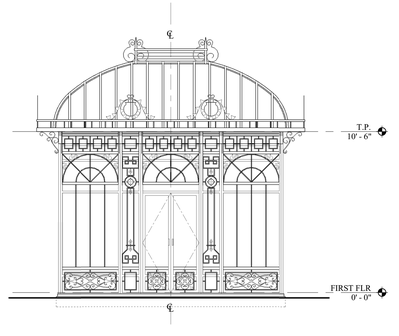
4 GREENHOUSE - EAST ELEVATION
1/4" = 1'-0"



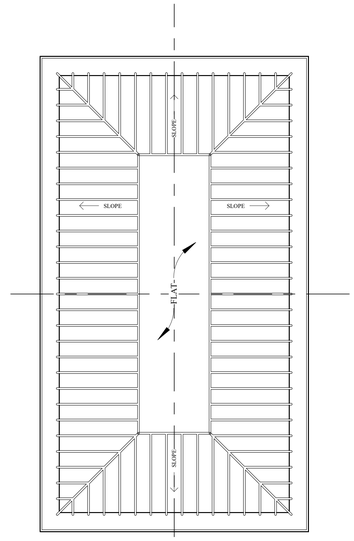
1 GREENHOUSE PLAN
1/4" = 1'-0"



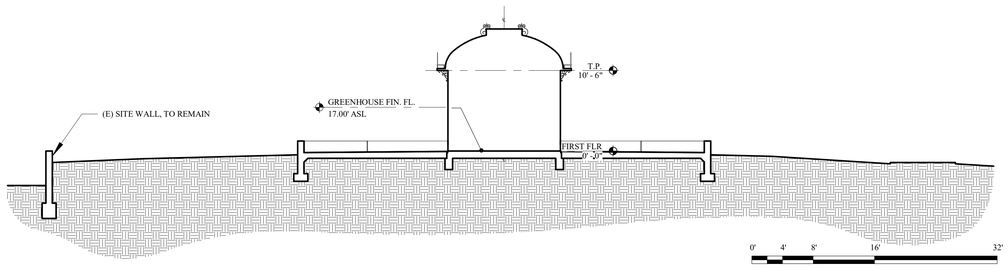
5 GREENHOUSE - SOUTH ELEVATION
1/4" = 1'-0"



6 GREENHOUSE - WEST ELEVATION
1/4" = 1'-0"



2 GREENHOUSE ROOF PLAN - 1/4
1/4" = 1'-0"



7 SITE SECTION AT GREENHOUSE
1/8" = 1'-0"

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

TRUE NORTH

ISSUE DATES

Δ	DATE	DESCRIPTION

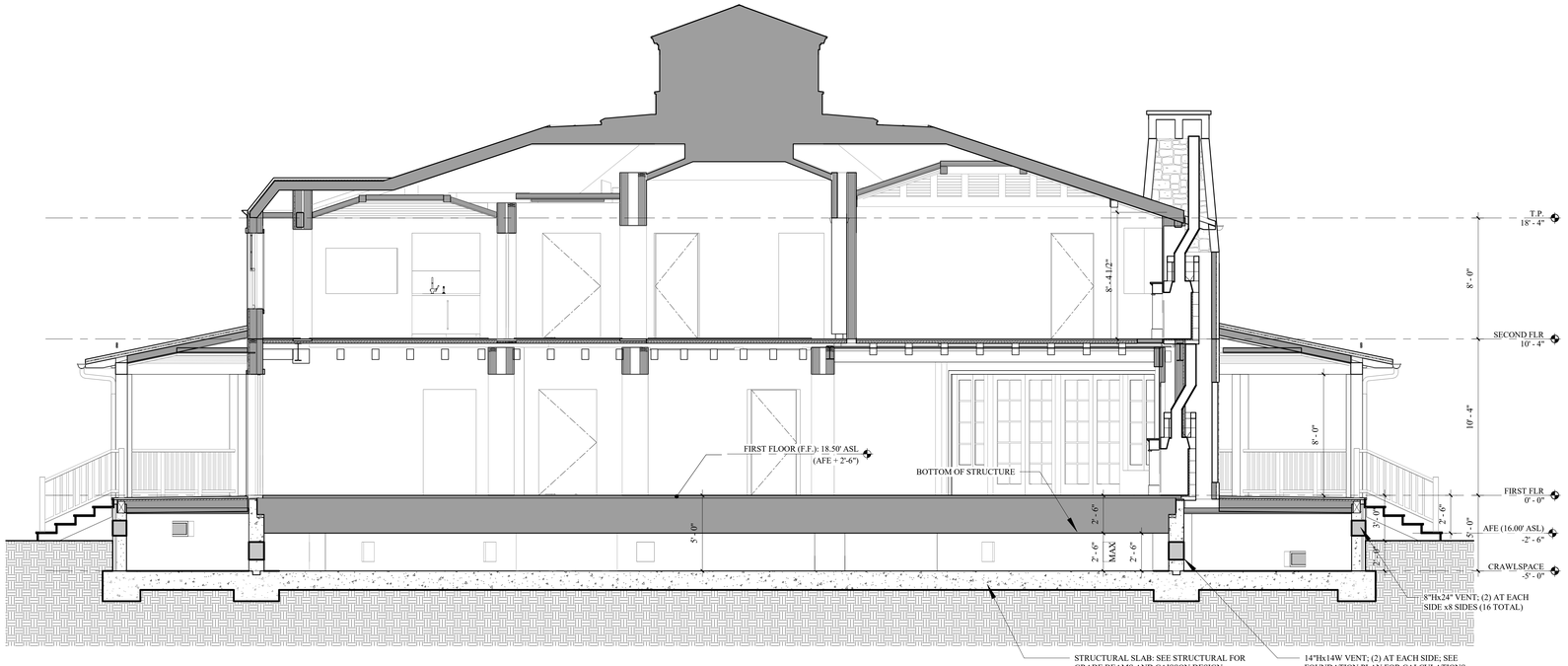
Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

GREENHOUSE - PLANS & ELEVATIONS

3393 Padaro Lane

Carpinteria, CA 93013

Date: 06/23/23
Scale: As indicated
Drawn: FB; PR
Job Number: 2006.00
Sheet
A3.4



1 MAIN HOUSE - BUILDING SECTION
1/4" = 1'-0"

CLASSIC™
PRODUCT INFORMATION

USA

1. PRODUCT NAME

Classic™ (LD-C-50™)

ICYNENE Classic™ (hereafter known as LD-C-50™) is a trademark for light density, open celled, flexible, 100% water-blown polyurethane foam insulation manufactured by Icynene Inc. ICYNENE LD-C-50™ spray formula is a nominal 0.5 lbs/ft3 density, free rise material.

2. MANUFACTURER

ICYNENE LD-C-50™ is made on-site from liquid components manufactured by Icynene Inc. Installation and on-site manufacturing is supplied by independent Icynene Licensed Dealers.

3. PRODUCT DESCRIPTION

ICYNENE LD-C-50™, the 'classic' light density formulation of Icynene has been installed in buildings since 1986. Icynene is the pioneer of high yield, 100% water-blown polyurethane foam technology for air-sealing and insulating buildings.

ICYNENE LD-C-50™ insulates and air-seals in one step for maximum energy conservation while minimizing the environmental impact during manufacturing and construction. Significantly reducing air leakage means ICYNENE LD-C-50™ contributes to a healthier, quieter and more comfortable indoor environment, while reducing energy consumption and related greenhouse gas emissions by as much as 50%.

ICYNENE LD-C-50™ is an effective vapor permeable air barrier material that can move with the building to maintain the air barrier characteristic against energy-robbing air leakage for the life of the building. Convective air movement inside wall cavities is virtually eliminated, providing more uniform temperatures throughout the building.

The result is superior quality construction, with higher comfort levels and lower heating and/or cooling costs. Energy savings will vary depending on building design, location, etc.

ICYNENE LD-C-50™ is applied by spraying liquid components onto an open wall, crawlspace, ceiling surface or cathedral ceiling. There it expands approximately 100: 1 in seconds to provide a flexible foam blanket of millions of tiny air cells, filling building cavities, cracks and crevices in the process. It adheres to most construction materials, sealing out air infiltration. Excess material is easily trimmed off, leaving a surface ready for drywall or other code compliant finish.

4. TECHNICAL DATA
(Based on Core Samples)

Thermal Performance
Thermal resistance (ASTM C518)
- R/in = R3.7 hr. ft2 °F/BTU

Average insulation contribution in a full fill stud wall:
- 2" x 4" = R13
- 2" x 6" = R20

ICYNENE LD-C-50™ provides more effective performance than the equivalent R-value of air permeable insulation materials. ICYNENE LD-C-50™ is not subject to loss of R-value due to aging, windy conditions, settling, convection or air infiltration; nor will it be prone to traditional moisture intrusion via air leakage.

A fact sheet with R-value data is available upon request.

Air Permeance/Air Barrier /Air Seal
ICYNENE LD-C-50™ fills any shaped cavity, and adheres most construction materials, creating assemblies with very low air permeance.

Additional interior or exterior air infiltration protection is subject to applicable codes.

Air permeability of core foam:
ASTM E283 data
- 0.009 L/s.m2 @ 75 Pa for 3.5"

Air permeability of a 2" x 6" wood framed wall assembly:
ASTM E 2178 data
- 0.01 L/s.m2 @ 75 Pa for 5.5"

All buildings insulated and air-sealed with ICYNENE LD-C-50™ must be designed to include adequate mechanical ventilation/ outdoor air supply. See ASHRAE Standard 62 – Ventilation for Acceptable Indoor Air Quality.

Water Vapor Permeance
ICYNENE LD-C-50™ is water vapor permeable and allows moisture to diffuse through the insulation and dissipate from the building envelope.

Water vapor transmission properties:
(ASTM E96 Desiccant Method)
- 11 perms @ 5.5"

In those situations that warrant a vapor retarder, a supplemental layer of polyethylene may be used. Alternately, low vapor permeance paint either directly on the foam or as a primer for the interior drywall may be used.

Water Absorption Properties
Water can be forced into the foam under pressure because it is open celled. Water will drain by gravity, given favorable drying potential, and upon drying all chemical and physical properties are fully restored.

Acoustical Properties
Performance in a 2"x 4" wood stud wall:

STC Sound Transmission Class - 37

Hz. Freq.	125	250	500	1000	2000	4000
ASTM E90	19	30	31	42	38	46

NRC Noise Reduction Coeff. - .70

Hz. Freq.	125	250	500	1000	2000	4000
ASTM C423	.11	.43	.89	.72	.71	.67

Burn Characteristics
ICYNENE LD-C-50™ is a combustible product and is therefore, consumed by flame, but will not sustain flame upon removal of the flame source. It leaves a charred foam residue. It will not melt or drip. ICYNENE LD-C-50™ is subject to all applicable National/State and County building codes regarding fire prevention. Requirements for Thermal Barrier and Ignition Barrier coverings must be met as per the applicable building code having jurisdiction.

U.S. Fire Testing
Surface Burning Characteristics
(ASTM E84) @ 5" thickness

Flame Spread	≤25
Smoke Development	≤450

*flame spread rating not intended to reflect hazards under actual fire conditions.

Electrical Wiring
ICYNENE LD-C-50™ has been evaluated with energized 14/3 and 12/2 residential wiring (max. 122°F). It is chemically compatible with typical electrical wiring coverings. Note: For any insulation of knob and tube wiring, please reference local electrical code.

Corrosion
ICYNENE LD-C-50™ did not cause corrosion when evaluated in contact with steel at 120°F and 85% relative humidity conditions.

Plastic Piping
ICYNENE LD-C-50™ is compatible in direct contact with CPVC piping systems, as per Paschal Engineering Study for the Spray Polyurethane Foam Alliance (SPFA).

Bacterial or Fungal Growth and Food Value
Independent testing conducted by Texas Tech University has confirmed that ICYNENE LD-C-50™ is not a source of food for mold; and as an air barrier material, it resists the airborne introduction of moisture, nutrients, and mold spores into the building envelope.

Environmental / Health / Safety
ICYNENE LD-C-50™ is 100% water-blown and therefore contains no ozone-depleting blowing agents. It is also PBDE-free. It has been thoroughly evaluated for in-situ emissions by industry and government experts. VOC emissions are below 1/100th of the safe concentration level (TLV) within hours following the application of ICYNENE LD-C-50™.

Proper handling and use is required to avoid exposure to reactive chemicals in their unreacted state. For more information, contact the Spray Polyurethane Foam Alliance or the American Chemistry Council. Newly insulated areas have been shown to be safe for occupancy 24 hours after installation is complete.

ICYNENE LD-C-50™ is CHPS E.Q. 2.2/Section 01350 Compliant and listed as such in the Collaborative for High Performance Schools (CHPS) Low Emitting Materials (LEM) Table. Under LEED guidelines, products that are CHPS E.Q. 2.2/Section 01350 Compliant are considered Environmentally Preferable Products.

The reaction used to create ICYNENE LD-C-50™ generates Carbon Dioxide to expand the foam. Carbon Dioxide has a very low Global Warming Potential (GWP of 1).

Not intended for exterior use. Not to be installed within 3" of heat emitting devices or where the temperature is in excess of 200°F, as per ASTM C411 or in accordance with applicable codes.

5. INSTALLATION

ICYNENE LD-C-50™ is installed by a network of Licensed Dealers, trained in the installation of ICYNENE LD-C-50™. Installation is generally independent of environmental conditions. It can be installed in hot, humid or freezing conditions. Surface preparation is generally not necessary. Within seconds, the foaming process is complete.

For information on Health and Safety, refer to the Spray Polyurethane Foam Alliance Health and Safety guidance documents at www.sprypolyurethane.com.

6. AVAILABILITY

Contact Icynene at 1-800-758-7325 or visit our website at www.icynene.com.

7. WARRANTY

WHEN INSTALLED PROPERLY IN ACCORDANCE WITH INSTRUCTIONS, THE COMPANY WARRANTS THAT THE PROPERTIES OF THE PRODUCT MEET PRODUCT SPECIFICATIONS AS OUTLINED IN THIS PRODUCT SPECIFICATION SHEET, SAVE AND EXCEPT ANY EXCLUSIONS REFERENCED IN THE WARRANTY.

8. TECHNICAL

Icynene Licensed Dealers and Icynene Inc. provide support on both technical and regulatory issues. Architectural specifications in CSI 3-Part format and design details are available upon request.

9. REGULATORY

ICYNENE LD-C-50™ has been tested as per the requirements of the International Code Council – Evaluation Service's AC377 Acceptance Criteria (June 2009). The following evaluation reports apply to this product:
- ICC ESR-1826

Based on the 3rd party test evidence submitted, this product was found to comply with:
- IBC: 2006 – 2009
- IRC: 2006 – 2009
- IECC: 2006 – 2009

10. RELATED REFERENCES

All physical properties were determined through testing by accredited third-party agencies. Icynene Inc. reserves the right to change specifications in its effort of continuous improvement. Please confirm that technical data literature is current.

11. PACKAGING AND STORAGE

Packaging

Package	55 US gallon steel drums
Component 'A'	550 lb. per drum Base Seal® MDI
Component 'B'	500 lb. per drum ICYNENE LD-C-50™ (Gold Seal®) Resin

Storage
Component A, Base Seal® MDI and Component B, ICYNENE LD-C-50™ Resin ideally should be stored between 60°F and 90°F.

Component A, Base Seal®, should be protected from freezing.

Component B, ICYNENE LD-C-50™ (Gold Seal®) Resin, can be frozen but must be protected from overheating 120°F and prolonged storage above 100°F.

Component B, ICYNENE LD-C-50™ (Gold Seal®) Resin, may separate during storage and should be mixed thoroughly prior to use.

12. INSTALLATION SPECIFICATIONS

Must be installed by Icynene Licensed Dealers. Refer to the Icynene Installer's Manual for expanded information.

ICYNENE
THE EVOLUTION OF INSULATION™

ICYNENE
THE EVOLUTION OF INSULATION™

Telephone: 905.363.4040
Toll Free: 800.758.7325
www.icynene.com
inquiry@icynene.com
SL-200-IN: Updated March 2013

0' 2' 4' 8' 16'
SCALE : 1/4" = 1'-0"

ISSUE DATES

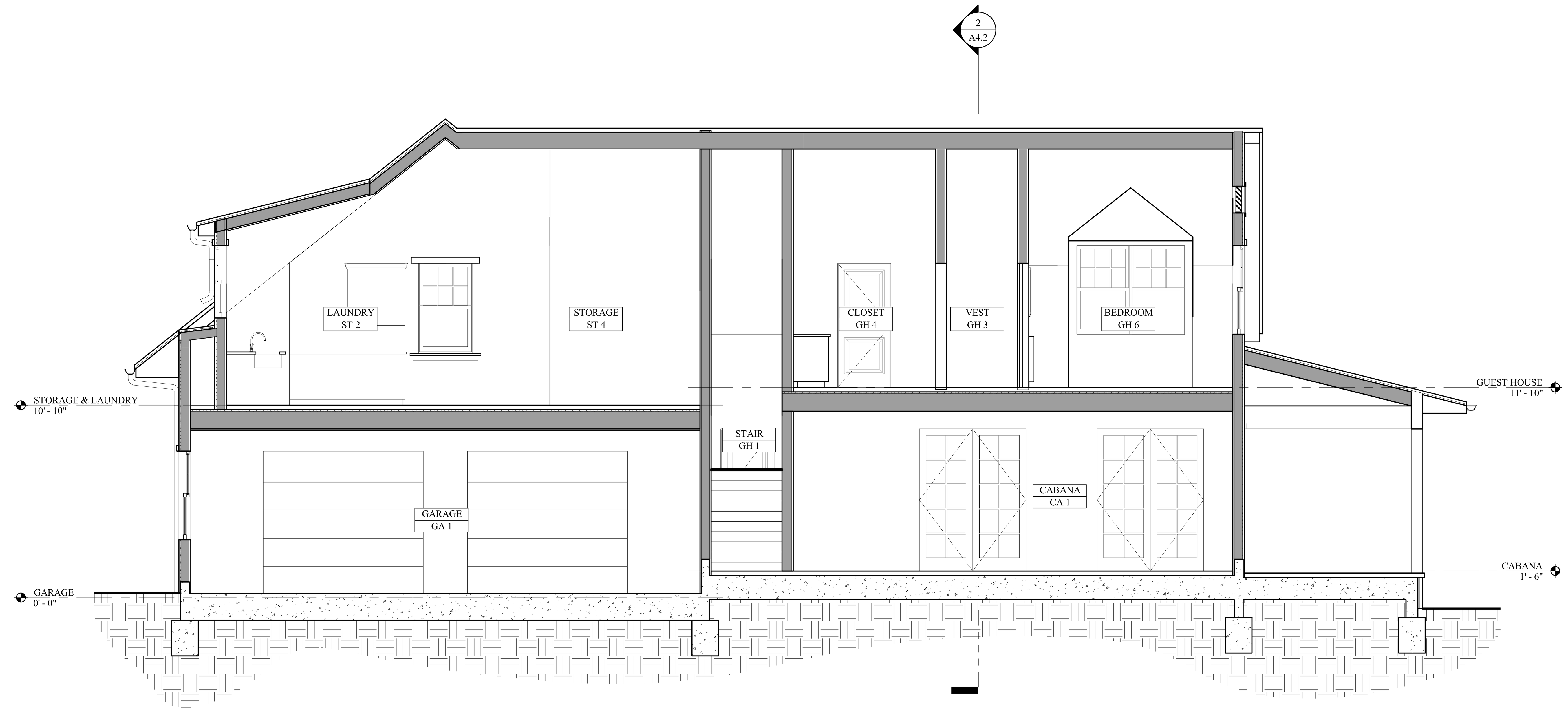
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

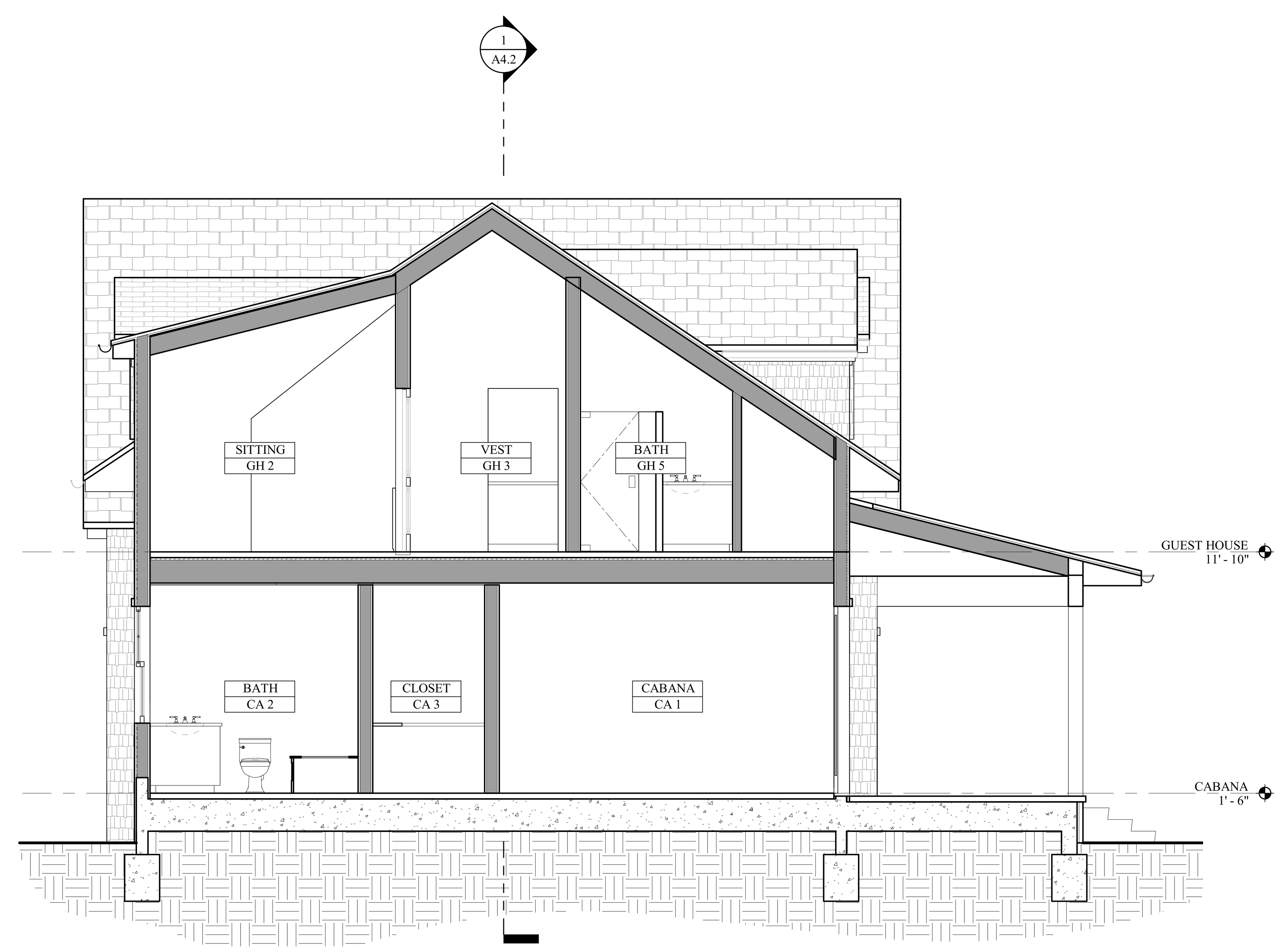
BUILDING SECTIONS

3393 Padaro Lane
Carpinteria, CA 93013

Date: 06/23/23
Scale: 1/4" = 1'-0"
Drawn: PR
Job Number: 2006.00
Sheet
A4.1



1 ACCESSORY BUILDING - SECTION-NS (LOOKING EAST)
1/4" = 1'-0"



2 ACCESSORY BUILDING - SECTION-EW (LOOKING NORTH)
1/4" = 1'-0"

ISSUE DATES

Δ	DATE	DESCRIPTION

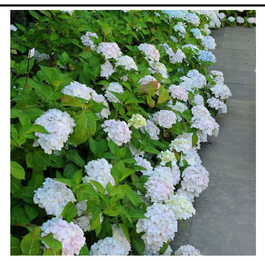
Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

ACCESSORY BUILDING SECTIONS

3393 Padaro Lane

Carpinteria, CA 93013

Date: 06/23/23
Scale: 1/4" = 1'-0"
Drawn: CH
Job Number: 2006.00
Sheet
A4.2



HYDRANGEA MACROPHYLLA

CAMELLIA JAPONICA

BOUGAINVILLEA
'SINGAPORE WHITE'

QUERCUS TOMENTELLA
ISLAND OAK

GARDENIA JASMINOIDES 'AIMEE'
FIRST LOVE GARDENIA

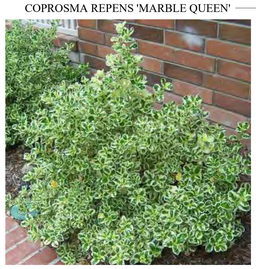
ARCTOSTAPHYLOS EDMUNDSII
'CARMEL SUR'

SEASHORE PASPALAM LAWN

CARISSA MACROCARPA 'GREEN CARPET'

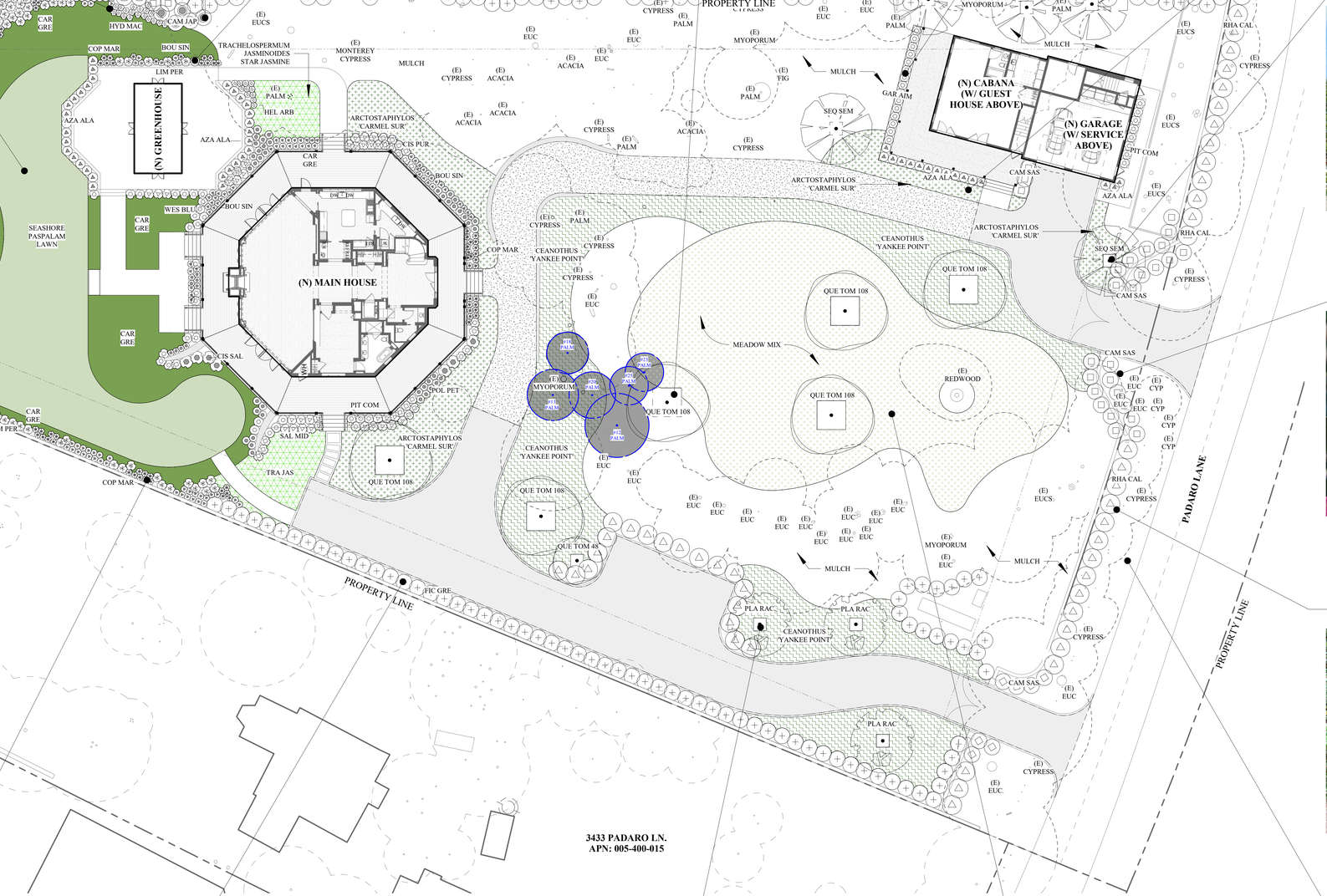
LIMONIUM PEREZII - SEA LAVENDER

COPROSMA REPENS 'MARBLE QUEEN'



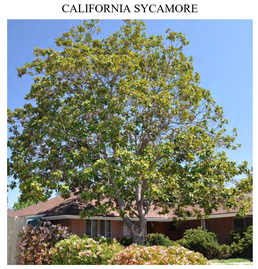
FILL IN HEDGE MATERIAL WHERE NECESSARY

FICUS NITIDA 'GREEN GEM'
HEDGE

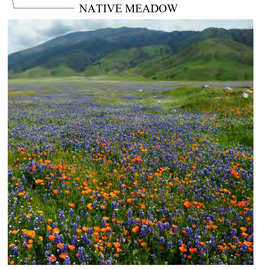


1 LANDSCAPE - PLANTING PLAN
1/16" = 1'-0"

PLATANUS RACEMOSA
CALIFORNIA SYCAMORE



NATIVE MEADOW

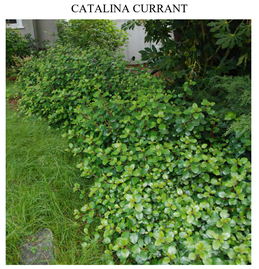


SEQUOIA SEMPERVIRENS
COAST REDWOOD

CAMELLIA SASANQUA

RHAMNUS CALIFORNICA
COFFEEBERRY

RIBES VIBURNIFOLIUM
CATALINA CURRANT



0' 8' 16' 32' 64'
SCALE : 1/16" = 1'-0"

TRUE NORTH

ISSUE DATES

Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

LANDSCAPE PLANTING PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 10/18/23
Scale: As indicated
Drawn: JY; BG; PR, FB
Job Number: 2006.00
Sheet
L1.1

10/19/2023 9:29:51 AM

Section 31 25 14.13 – Hydraulically-Applied Erosion Control: High Performance-Flexible Growth Medium

GENERAL

1.01 SUMMARY

A. This section specifies a hydraulically-applied, 100% biodegradable, High Performance-Flexible Growth Medium (HP-FGM) that is manufactured in the United States and is composed of 100% recycled thermally refined (within a pressure vessel) wood fibers, crimped interlocking man-made biodegradable fibers, mineral activators, naturally derived crosslinked biopolymers and water absorbents. The HP-FGM is phytosanitized, free from plastic netting, requires no curing period and upon application forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth

B. Related Sections: Other Specification Sections, which directly relate to the work of this Section include, but are not limited to the following:
   1. *Section 01 57 00 – Temporary Erosion and Sediment Control*
   2. *Section 31 00 00 – Earthwork*
   3. *Section 31 91 00 – Planting Preparation*
   4. *Section 32 92 00 – Turf and Grasses*

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials and application rate.

B. Certifications: Manufacturer shall submit a letter of certification that the product meets or exceeds all technical and packaging requirements.

1.03 DELIVERY, STORAGE AND HANDLING

A. Deliver materials and products in UV and weather-resistant factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage, weather, excessive temperatures and construction operations.

PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. PROFILE Products LLC
750 Lake Cook Road – Suite 440
Buffalo Grove, IL 60089
800-366-1180 (Fax 847-215-0577)
www.profileproducts.com

2.02 MATERIALS

A. The HP-FGM shall be Flexterra® HP-FGM and conform to the following property values when uniformly applied at a rate of 3500 pounds per acre (3900 kilograms/hectare) under laboratory conditions.

Property	Test Method	Req. Value (English)	Req. Value (SI)
Physical			
Mass Per Unit Area	ASTM D6566[1]	12 oz/yd^2 minimum	407 g/m^2 minimum
Thickness	ASTM D6525[1]	0.22 inch minimum	5.6 mm. minimum
Wet Bond Strength	ASTM D6818[1]	9 lb/ft	131 N/m
Ground Cover	ASTM D6567[1]	99% minimum	99% minimum
Water Holding Capacity	ASTM D7367	1700% minimum	1700% minimum
Material Color	Observed	Green	Green
Performance			
Cover Factor[2]	Large Scale Testing[4]	0.01 maximum	0.01 maximum
% Effectiveness[3]	Large Scale Testing[4]	99 % minimum	99 % minimum
Cure time	Observed	0 - 2 hours	0 - 2 hours
Vegetation Establishment	ASTM D7322[1]	800 % minimum	800 % minimum
Yield[5]	Calculated	2.6 minimum	2245 minimum
Kinetic Energy Absorption Potential[6]	Calculated	2.0 minimum	734 minimum
Environmental			
Functional Longevity[7]	ASTM D5338	Up to 18 months	Up to 18 months
Ecotoxicity	EPA 2021.0	96-hr LC50 > 100%	96-hr LC50 > 100%
Effluent Turbidity	Large Scale Testing[4]	100 NTU maximum	100 NTU maximum
Biodegradability	ASTM D5338	100% minimum	100% minimum

1. ASTM test methods developed for Rolled Erosion Control Products and have been modified to accommodate Hydraulically-Applied Erosion Control Products.
2. Cover Factor is calculated as soil loss ratio of treated surface versus an untreated control surface.
3. % Effectiveness = One minus Cover Factor multiplied by 100%.
4. Large scale testing conducted at Utah Water Research Laboratory. For specific testing information please contact a Profile technical service representative at 866-325-6262.
5. Yield = (Mass per Unit Area)*(Thickness)*(Ground Cover Percentage).
6. Kinetic Energy Absorption Potential = (Wet Bond Strength)*(Thickness)
7. Functional Longevity is the estimated time period, based upon ASTM D5338 testing and field observations, that a material can be anticipated to provide erosion control and agronomic benefits as influenced by composition, as well as site-specific conditions, including, but not limited to – temperature, moisture, light conditions, soils, biological activity, vegetative establishment and other environmental factors.

2.03 COMPOSITION

A. All components of the HP-FGM shall be pre-packaged by the Manufacturer to assure both material performance and compliance with the following values. No chemical additives with the exception of fertilizer, soil pH modifiers, extended-term dyes and biostimulant materials should be added to this product.

1. Thermally Processed (within a pressure vessel) Wood Fiber – 80% ± 3%
   - Heated to a temperature greater than 380 degrees Fahrenheit (193 degrees Celsius) for 5 minutes at a pressure greater than 50 psi (345 kPa)

   Crosslinked Biopolymers and Water Absorbents – 10% ± 1%
   Crimped, Man-made Biodegradable Interlocking Fibers – 5% ± 1%
   Micro-Pore Granules – 5% ± 1%

2.04 PACKAGING

A. Bags: Net Weight – 50 lb, UV and weather-resistant plastic film
Pallets: Weather-proof, stretch-wrapped with UV resistant pallet cover
Pallet Quantity: 40 bags/pallet or 1 ton/pallet

EXECUTION

3.01 SUBSTRATE AND SEEDBED PREPARATION

A. Examine substrates and conditions where materials will be applied. Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope. Do not proceed with installation until satisfactory conditions are established.

B. Depending upon project sequencing and intended application, prepare seedbed in compliance with other specifications under Section 1.01 B

3.02 INSTALLATION

A. Strictly comply with equipment manufacturer's installation instructions and recommendations. Use approved hydro-spraying machines with fan-type nozzle (50-degree tip). To achieve optimum soil surface coverage, apply HP-FGM from opposing directions to soil surface. Rough surfaces (rocky terrain, cat tracks and ripped soils) may require higher application rates to achieve 100% cover. Slope interruption devices or water diversion techniques are recommended when slope lengths exceed 100 feet (30 m). Maximum slope length is for product applications on a 3H:1V slope. For application on steeper slopes, slope interruption lengths may need to be decreased based on actual site conditions. Not recommended for channels or areas with concentrated water flow. This product may be applied on saturated soils and does not require a curing period to be effective. No chemical additives with the exception of fertilizer, liming and biostimulant materials should be added to this product.

B. For Erosion Control and Revegetation: To ensure proper application rates, measure and stake area. For maximum performance, apply HP-FGM in a two-step process*:

1. *Step One: Apply fertilizer with specified prescriptive agronomic formulations and 50% of seed with a small amount of HP-FGM for visual metering.*
2. *Step Two: Mix balance of seed and apply HP-FGM at a rate of 50 lb per 125 gallons (23 kg/475 liters) of water over freshly seeded surfaces. Confirm loading rates with equipment manufacturer. Do not leave seeded surfaces unprotected, especially if precipitation is imminent.*

**Depending upon site conditions HP-FGM may be applied in a one-step process where all components may be mixed together in single tank loads. Consult with Manufacturer for further details.*

Best results and more rapid curing are achieved at temperatures exceeding 60°F (15°C). Curing times may be accelerated in high temperature, low humidity conditions with product applied on dry soils.

Over-application of product may inhibit germination and plant growth.

C. Mixing: A mechanically agitated hydraulic-application machine is strongly recommended:
1. *Fill 1/3 of mechanically agitated hydroseeder with water. Turn pump on for 15 seconds and purge and pre-wet lines. Turn pump off.*
2. *Turn agitator on and load low density materials first (i.e. seed).*
3. *Continue slowly filling tank with water while loading fiber matrix into tank.*
4. *Consult application and loading charts to determine number of bags to be added for desired area and application rate. Mix at a rate of 50 lb of HP-FGM per 125 gallons (23 kg/475 liters). Contact Equipment manufacturer to confirm optimum mixing rates.*
5. *All HP-FGM should be completely loaded before water level reaches 75% of the top of tank.*
6. *Top off with water and mix until all fiber is fully broken apart and hydrated (minimum of 10 minutes — increase mixing time when applying in cold conditions). This is very important to fully activate the bonding additives and to obtain proper viscosity.*
7. *Add fertilizer*
8. *Shut off recirculation valve to minimize potential for air entrainment within the slurry.*
9. *Slow down agitator and start applying with a 50-degree fan tip nozzle.*
10. *Spray in opposing directions for maximum soil coverage.*

D. Application Rates: These application rates are for standard conditions. Designers may wish to reduce rates to encourage faster vegetation establishment or may need to increase application rates on rough surfaces.

Slope Gradient / Condition	English	SI
≤ 4H to 1V	2500 lb/ac	2800 kg/ha
> 4H to 1V and ≤ 3H to 1V	3000 lb/ac	3400 kg/ha
> 3H to 1V and ≤ 2H to 1V	3500 lb/ac	3900 kg/ha
> 2H to 1V and ≤ 1H to 1V	4000 lb/ac	4500 kg/ha
> 1H to 1V	4500 lb/ac	5100 kg/ha
Below ECB or TRM	1500 lb/ac	1700 kg/ha
As infill for TRM*	3500 lb/ac	3900 kg/ha

**Use only approved and tested TRMs to create the GreenArmor™ System*

3.03 CLEANING AND PROTECTION

A. After application, thoroughly flush the tank, pumps and hoses to remove all material. Wash all material from the exterior of the machine and remove any slurry spills. Once dry, material will be more difficult to remove.

B. Clean spills promptly. Advise owner of methods for protection of treated areas. Do not allow treated areas to be trafficked or subjected to grazing.

Revision Date: 06/2010

HYDROSEED APPLICATION SPECIFICATIONS - SEED MIX RATE AND RANGE BELOW TO BE ASSEMBLED BY S&S SEEDS
CONTACT: (805) 684-0436 info@ssseeds.com

Hydroseeding Guide

Standard Hydroseeding conditions are consistent with the following parameters:

Soil Conditions	Surface Conditions
pH range 6.5 – 7.5	Surface is track-walked up & down the slope
Total Dissolve Salts < 256	No concentrated flows
Sodium Absorption Ratio <2	Energy dissipaters (e.g., slope interruption devices) are used
Organic Matter 2-4 %	

Every mulch and erosion control project has a unique set of conditions: soil type (e.g., non-cohesive sand vs. cohesive clay), time of year, weather conditions, slope length, slope severity, requirement for functional longevity prior to vegetation establishment, and more. Below are guidelines for selecting the right combination of materials and application rates to meet the erosion prevention and vegetation establishment requirements of your project. Please call us so that we can help you select the perfect combination of products for your project.

A) For Flat Ground and Gentle Sloped Installations in Seasons Other than Winter:

- Slope angles no steeper than 4:1
- Slope length maximum of 40 ft. (without slope interruption devices)
- Low erosive soil types
- Functional longevity requirement of up to 3 months

Use the following materials:

• Conwed 1000 Wood Fiber Hydraulic Mulch	1,500 – 2,500 lbs./acre, depending upon site factors
• Hydropost Premium Compost	1,000 lbs./acre
• Ecology Control M-Binder/Tack	150 lbs./acre
• Biosol Forte 7-2-1 Organic fertilizer	800 lbs./acre
• AM 120 Mycorrhizae inoculum	60 lbs./acre
• Tri-C Soluble Humate	1 lb./acre
• Seed mix as prescribed by S & S Seeds	

B) For Mild to Moderate Slopes and Installations Any Time of the Year:

- Slope angles up to 2:1
- Slope length maximum of 50 ft. (without slope interruption devices)
- Low to moderately erosive soil types
- Functional longevity requirement of up to 6 months

Use the following materials:

• ProMatrix EFM/BFM	2,500 - 3,500 lbs./acre, depending upon site factors
• Hydropost Premium Compost	1,000 lbs./acre
• Biosol Forte 7-2-1 Organic fertilizer	800 lbs./acre
• AM 120 Mycorrhizae inoculum	60 lbs./acre
• Tri-C Soluble Humate	1 lb./acre
• Seed mix as prescribed by S & S Seeds	

C) For Moderate to Steep Slopes and Installations Any Time of the Year:

- Slope angles up to 1:1
- Slope length maximum of 70 ft. (without slope interruption devices)
- Low to moderately erosive soil types
- Functional longevity of 6-12 months

Use the following materials:

• Hydro Blanket BFM	3,000-4,000 lbs./acre, depending upon site factors
• Hydropost Premium Compost	1,000 lbs./acre
• Biosol Forte 7-2-1 Organic fertilizer	800 lbs./acre
• AM 120 Mycorrhizae inoculum	60 lbs./acre
• Tri-C Soluble Humate	1 lb./acre
• Seed mix as prescribed by S & S Seeds	

D) For Moderate to Severe Slopes and Installations Any Time of the Year or for Critical Areas Where Maximum Performance is Essential. For Installations onto already Wet Ground and for Installations During a Light Rainfall. For sensitive environmental areas where soil erosion is Unacceptable or for Hydraulic Infilling of Enkamat TRM to Create the GreenArmor™ System.

- Slope angles up to 0.25:1
- Slope length maximum of 75 ft. (without slope interruption devices)
- Erosive soil types
- Functional longevity up to 18 months

Use the following materials:

• Flexterra HP	3,000-4,500 lbs./acre, depending upon site factors
• Humate Organic Soil Conditioner	500 lbs./acre
• Biosol Forte 7-2-1 Organic fertilizer	800 lbs./acre
• AM 120 Mycorrhizae inoculum	60 lbs./acre
• Tri-C Soluble Humate	1 lb./acre
• Seed mix as prescribed by S & S Seeds	

E) For Moderate to Severe Slopes and for Installations Any Time of the Year. For Critical Areas Where Maximum Performance is Essential and for Maximum Functional Longevity:

- Slope angles up to 0.25:1
- Slope length maximum of 100 ft. (without slope interruption devices)
- Erosive soil types
- Functional longevity up to 24 months

Use the following materials:

• Cocoflex	3,000-4,500 lbs./acre, depending upon site factors
• Humate Organic Soil Conditioner	500 lbs./acre
• Biosol Forte 7-2-1 Organic fertilizer	800 lbs./acre
• AM 120 Mycorrhizae inoculum	60 lbs./acre
• Tri-C Soluble Humate	1 lb./acre
• Seed mix as prescribed by S & S Seeds	

Althouse and Meade, Inc. – 1338

TABLE 1. RECOMMENDED NECTAR PLANT LIST FOR THE MEADOW AREA

Common Name	Scientific Name	Plant Type	Flowering Season
California Native Nectar and Pollinator Plants			
Yarrow	*Achillea millefolium*	Perennial herb	Spring, Summer
Deerweed	*Acmispon glaber*	Perennial herb	Winter, Spring, Summer
Bur marigolds	*Bidens laevis*	Perennial herb	Summer, Fall
Coyote brush	*Baccharis* spp.	Shrub	All year
Ceanothus	*Ceanothus* spp.	Shrub	Winter, Spring
Coast Sunflower	*Encelia californica, Encelia farinosa*	Shrub	Winter, Spring
Seaside fleabane	*Erigeron glaucus*	Perennial herb	Winter, Spring, Summer
California Fuchsias	*Epilobium canum*	Perennial herb	Summer, Fall
California Buckwheat	*Eriogomum fasciculatum*	Shrub	Spring, Summer, Fall
Sea Cliff Buckwheat	*Eriogomum parvifolium*	Shrub	All year
Flannel bush	*Fremontodendron* "California Glory"	Shrub	Spring, Summer
Great Valley Gumweed	*Grindelia camporum*	Perennial herb	Spring, Summer, Fall
Silver Lupine	*Lupinus albifrons*	Shrub	Winter, Spring, Summer
Holly Leaf Cherry	*Prunus ilicifolia*	Shrub, Tree	Winter, Spring
Black Sage	*Salvia mellifera*	Shrub	Winter, Spring, Summer
Hummingbird Sage	*Salvia spathacea*	Perennial herb	Winter, Spring, Summer
Elderberry	*Sambucus nigra*	Shrub, Tree	Spring, Summer
Goldenrod	*Solidago velutina*	Perennial herb	Summer, Fall
Landscape/Cultivated Nectar and Pollinator Plants			
Asters	*Aster spp.*	Shrub	Summer, Fall
Bougainvillea	*Bougainvillea* spp.	Vine	All year
Butterfly bush	*Buddleia davidi*	Shrub	Spring, Summer, Fall

Recommended Nectar Plant List 2

Althouse and Meade, Inc. – 1338

Red valerian	*Centranthus ruber*	Shrub	Summer, Fall
Joe Pye weed	*Eupatorium purpureum*	Perennial herb	Summer, Fall
Heliotrope	*Heliotropium arborescens*	Shrub	All year
Lantana	*Lantana* spp.	Shrub	All year
Blazing star	*Liatris spicata*	Perennial herb	Summer, Fall
Bee balm, bergamot	*Monarda* spp.	Perennial herb	Summer, Fall, Winter
Goldenrod	*Solidago* spp.	Perennial herb	Summer, Fall
Lilac bush	*Syringa vulgaris*	Shrub	Spring
Red sunflower	*Tithonia rotundifolia*	Shrub	Summer, Fall
Plants to AVOID Planting			
Milkweed (ALL Species)	*Asclepias* spp.	Perennial herb	Summer, Fall

Sincerely,

Charis van der Heide

Charis van der Heide, Senior Biologist, Althouse and Meade, Inc.

References

California Native Plant Society (CNPS). 2022. Calscape Plant Database. CalScape.org.

The Xerces Society for Invertebrate Conservation. 2019. Monarch Nectar Plants: California.. https://xerces.org/publications/plant-lists/monarch-nectar-plants-california

North American Butterfly Association. 2022. Butterfly Garden Guides. http://nababutterfly.com/butterfly-garden-plants/

Recommended Nectar Plant List 3

ISSUE DATES

Δ	DATE	DESCRIPTION

HYDROSEED INFORMATION SHEET

3393 Padaro Lane

Carpinteria, CA 93013

Date: 10/17/23
Scale:
Drawn: Author
Job Number: 2006.00
Sheet
L1.3

LANDSCAPE PLANTING TREES						
Key	Symbol	Botanical Name	Common Name	Box size	O.C. Spacing	Qnty
TREE						
	PLA RAC	PLANTANUS RACEMOSA	CALIFORNIA SYCAMORE	48" BOX	20-50'	3
	QUE TOM 48	QUERCUS TOMENTELLA	ISLAND OAK	48" BOX	25'-0"	1
	QUE TOM 108	QUERCUS TOMENTELLA	ISLAND OAK	108" BOX	25'-0"	6
	SEQ SEM	SEQUOIA SEMPERVIRENS	COAST REDWOOD	48" BOX	15-30'	5

PLANTING - GROUND COVERS							
Key	Symbol	Botanical Name	Common Name	Size	O.C. Spacing	Area (SF)	Qnty
	CAL MIX	CALIFORNIA MEADOW MIX	SEE LEGEND	SEED MIX	NA	7,509 SF	1
	ARC CAR	ARCHTOSAPHYLOS EDMUNDSII 'CARMEL SUR'	CARMEL SUR MANZANITA	5 GAL	7'-0"	2,422 SF	58
	CAR GRE	CARISSA MACROCARPA	GREEN CARPET	5 GAL	4'-0"	2,880 SF	159
	CEA YAN	CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT'	YANKEE POINT CEANOTHUS	5 GAL	4'-0"	6,076 SF	360
	PAS VAG	PASPALUM VAGINATUM	SEASHORE PASPALAM	SOD	NA	4,707 SF	1
	TRA JAS	TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	5 GAL	3'-0"	800 SF	133

LANDSCAPE PLANTING SHRUBS						
Key	Symbol	Botanical Name	Common Name	Size	O.C. Spacing	Qnty
SHRUB						
	AZA ALA	AZALEA INDICA 'ALASKA'	ALASKA AZALEA	15 GAL	3'-0"	47
	BOU SIN	BOUGAINVILLEA 'SINGAPORE WHITE'	MS. ALICE BOUGAINVILLEA	5 GAL	2'-0"	181
	CAM JAP	CAMELLIA JAPONICA	(VARIETIES TO BE DETERMINED)	24" BOX	5'-0"	5
	CAM SAS	CAMELLIA SASANQUA	SASANQUA CAMELLIA	24" BOX	5'-0"	38
	CIS PUR	CISTUS X PURPUREUS	ORCHID ROCKROSE	5 GAL	3'-0"	18
	CIS SAL	CISTUS SALVIFOLIUS	SAGELEAF ROCKROSE	5 GAL	4'-0"	7
	COP MAR	COPROSMA REPENS 'MARBLE QUEEN'	MARBLE QUEEN MIRROR PLANT	5 GAL	2'-0"	105
	FIC GRE	FICUS MICROCARPA NITIDA 'GREEN GEM'	GREEN GEM FIG	24/36" BOX	5'-0"	115
	GAR AIM	GARDENIA JASMINOIDES 'AIMEE'	FIRST LOVE GARDENIA (GRAFTED)	5 GAL	3'-0"	15
	HEL ARB	HELIOTROPIUM ARBORESCENS	HELIOTROPE	5 GAL	2'-0"	2
	HYD MAC	HYDRANGEA MACROPHYLLA	BIG LEAFED HYDRANGEA	5 GAL	2'-0"	28
	LIM PER	LIMONIUM PEREZII	STATICE	1 GAL	3'-0"	82
	PIT COM	PITTOSPORUM CRASSIFOLIUM 'COMPACTUM'	DWARF KARO	5 GAL	3'-0"	31
	POL PET	POLYGALA FRUTICOSA 'PETITE BUTTERFLY'	BUTTERFLY PEA SHRUB	5 GAL	2'-6"	41
	RHA CAL	RHAMNUS CALIFORNICA	COFFEEBERRY	15 GAL	6'-0"	48
	SAL MID	SALVIA LEUCOPHYLLA 'MIDNIGHT'	PURPLE SAGE	1 GAL	3'-0"	33
	VER DEL	VERBENA LILACINA 'DE LA MINA'	DE LA MINA VERBENA	5 GAL	2'-0"	9
	WES BLU	WESTRINGIA BLUE GEM	BLUE GEM COAST ROSEMARY	5 GAL	3'-0"	11

ISSUE DATES

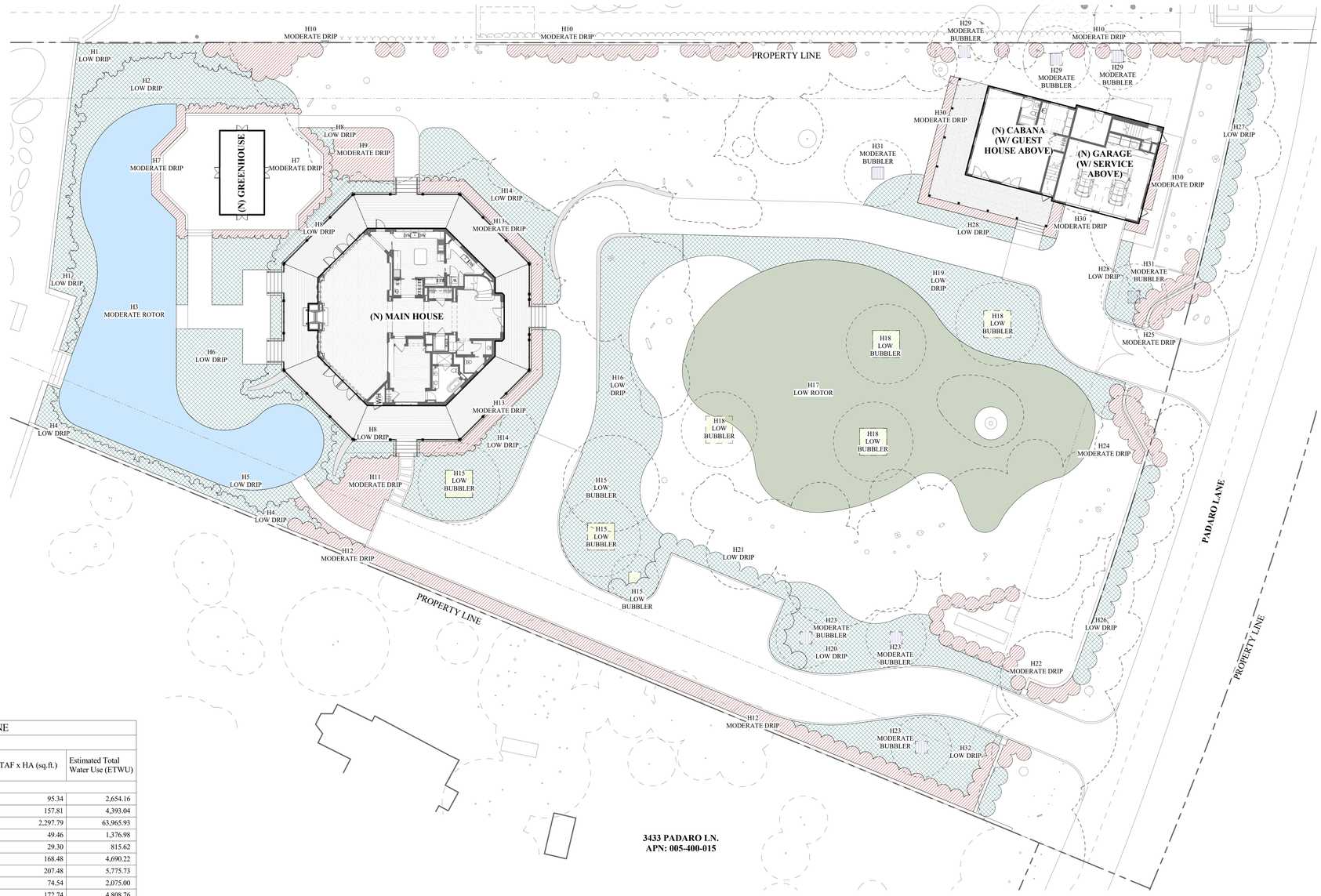
Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

LANDSCAPE PLANTING SCHEDULES

3393 Padaro Lane
Carpinteria, CA 93013

Date: 10/18/23
Scale:
Drawn: JY, FB
Job Number: 2006.00
Sheet
L1.2



1 LANDSCAPE - HYDRO-ZONE PLAN
1/16" = 1'-0"

ABBREVIATIONS

WATER USE TYPE:

HW=HIGH WATER USE PLANTS
MW=MEDIUM WATER USE PLANTS
SLA=SPECIAL LANDSCAPE AREA

IRRIGATION METHOD:

MS=MICRO-SPRAY
S=SPRAY
R=ROTOR
D=DRIP
O=OTHER
N/A=NONE (POOLS/PONDS)

ETo=REFERENCE EVAPOTRANSPIRATION (44.9 FOR CARPINTERIA)
0.55=ET ADJUSTMENT FACTOR
LA=LANDSCAPED AREA (SQ.FT.)
0.62=CONVERSION FACTOR (TO GALLONS PER SQ.FT.)
SLA=(N/A THIS PROJECT)
0.45=ET ADJUSTMENT FACTOR FOR SLA
PF=PLANT FACTOR (FROM WUCOLS)
HIGH (0.7 - 0.9)
MODERATE=(0.4 - 0.6)
LOW=(0.1 - 0.3)
VERY LOW = (0.1)
HA=HYDROZONE AREA
IE=IRRIGATION EFFICIENCY (MIN. 0.71)
DRIP=(0.81)
ROTARY=(0.75)
BUBBLER=(0.90)
POOLS/PONDS=(1.0)

APPENDIX B - WATER EFFICIENT LANDSCAPE WORKSHEET AT 3393 PADARO LANE

Reference Evapotranspiration (Eto): 44.9 for Carpinteria

Hydrozone # /Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (HA) (sq.ft.)	ETAF x HA (sq.ft.)	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
H1	0.10	DRIP	0.81	0.1235	772.28	95.34	2,654.16
H2	0.10	DRIP	0.81	0.1235	1,278.24	157.81	4,393.04
H3	0.40	ROTOR	0.75	0.5333	4,308.36	2,297.79	63,965.93
H4	0.10	LOW	0.81	0.1235	400.66	49.46	1,376.98
H5	0.10	DRIP	0.81	0.1235	237.32	29.30	815.62
H6	0.10	DRIP	0.81	0.1235	1,364.71	168.48	4,690.22
H7	0.40	DRIP	0.81	0.4938	420.14	207.48	5,775.73
H8	0.10	DRIP	0.81	0.1235	603.76	74.54	2,075.00
H9	0.40	DRIP	0.81	0.4938	349.80	172.74	4,808.76
H10	0.40	DRIP	0.81	0.4938	1,004.48	496.04	13,808.75
H11	0.40	DRIP	0.81	0.4938	450.93	222.68	6,199.01
H12	0.40	DRIP	0.81	0.4938	1,235.34	610.04	16,982.42
H13	0.40	DRIP	0.81	0.4938	510.96	252.33	7,024.25
H14	0.10	DRIP	0.81	0.1235	1,794.71	221.57	6,168.04
H15	0.10	BUBBLER	0.90	0.1111	175.15	19.46	541.76
H16	0.10	DRIP	0.81	0.1235	2,319.52	286.36	7,971.70
H17	0.10	ROTOR	0.75	0.1333	7,516.74	1,002.23	27,900.13
H18	0.10	BUBBLER	0.90	0.1111	324.00	36.00	1,002.17
H19	0.10	DRIP	0.81	0.1235	1,767.10	218.16	6,073.15
H20	0.10	DRIP	0.81	0.1235	1,092.63	134.89	3,755.14
H21	0.10	DRIP	0.81	0.1235	545.59	67.36	1,875.08
H22	0.40	DRIP	0.81	0.4938	400.77	197.91	5,509.45
H23	0.40	BUBBLER	0.90	0.4444	48.00	21.33	593.88
H24	0.40	DRIP	0.81	0.4938	245.09	121.03	3,369.29
H25	0.40	DRIP	0.81	0.4938	255.50	126.17	3,512.40
H26	0.10	DRIP	0.81	0.1235	493.20	60.89	1,695.02
H27	0.10	DRIP	0.81	0.1235	453.62	56.00	1,559.00
H28	0.10	DRIP	0.81	0.1235	599.69	74.04	2,061.01
H29	0.40	BUBBLER	0.90	0.4444	48.00	21.33	593.88
H30	0.40	DRIP	0.81	0.4938	351.13	173.40	4,827.04
H31	0.40	BUBBLER	0.90	0.4444	32.00	14.22	395.92
H32	0.10	DRIP	0.81	0.1235	831.61	102.67	2,858.07
				Totals	(A) 32,231.03	(B) 7,789.07	216,832.00
Special Landscape Areas							
	[redacted]			1			
				1			
				1			
				Totals	(C) 0.00	(D) 0.00	-
						ETWU Total	216,832.00
				Maximum Allowed Water Allowance (MAWA)			493,486.08

Hydrozone # / Planting Description
e.g.
1.) Front lawn
2.) Low water use plantings
3.) Medium water use planting
MAWA (Annual Gallons Allowed) = (Eto) (0.62) x (ETAF x LA)
+((1-ETAF) x SLA))

Irrigation Method
Overhead spray or drip

Irrigation Efficiency
0.75 for spray head
0.81 for drip

ETWU (Annual Gallons Required)
Eto x 0.62 x ETAF x Area

where 0.62 is conversion factor that converts acre-inches per acre per year to gallon per square foot per year. LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is .55 for residentail areas and 0.45 for non-residential areas

where 0.62 is conversion factor that converts acre-inches per acre per year to per square foot per year.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area	(B)	7,789.07
Total Area	(A)	32,231.03
Average ETAF	B / A	0.24

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential area, and 0.45 of below for non-residential areas.

All Landscape Areas

Total ETAF x Area	(B + D)	7,789.07
Total Area	(A + C)	32,231.03
Average ETAF	(B + D) / (A +C)	0.24

HYDROZONE LEGEND

- MODERATE DRIP IRRIGATION
- LOW DRIP IRRIGATION
- MODERATE ROTOR
- LOW ROTOR
- HIGH DEEP ROOT BUBBLER
- MODERATE DEEP ROOT BUBBLER
- LOW DEEP ROOT BUBBLER

TRUE NORTH

ISSUE DATES

Δ	DATE	DESCRIPTION

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

LANDSCAPE HYDRO-ZONE PLAN

3393 Padaro Lane
Carpinteria, CA 93013

Date: 10/18/23
Scale: As indicated
Drawn: JY
Job Number: 2006.00
Sheet
L3.1

August 14, 2020

Appleton Partners, LLP

Lab ID : SP 2010204-001
Customer ID : 2-25700
Description : 3393 Padaro Lane, Carpinteria,

LANDSCAPE SOIL ANALYSIS

Test Description	Result	Units	Optimum Range
Others			
Soil Salinity	1.20	dS/m	0.0 - 2.0
SAR	1.2		0.0 - 6.0
Limestone	< 0.10	%	0.0 - 0.50
Lime Requirement	0	Tons/AF	---
Gypsum Requirement	< 0.50	Tons/AF	---
Moisture	7.3	%	4.8 - 34
Saturation	48.3	%	40 - 50
% Organic Matter	6.35	%	---

Graphical Results Presentation: Satisfactory / Possible Problem / Moderate Problem / Increasing Problem; 0 1 2 3 4 5 6; Very Low / Moderately Low / Optimum / Moderately High / Very High; Loamy Sand / Sandy Loam / Loam / Silt Loam / Clay Loam / Clay / Organic; Mineral / Organic

Good Problem Indicates physical conditions and/or phenological and amendment requirements.

Note: Soils with gypsum requirements over 10 tons should be applied incrementally at a maximum of 10 tons per acre per year and reanalyzed yearly after each application.

Soil pH & Limestone levels are important to consider when making plant selections. Soil pH levels above 7.0 are not suitable for acid loving plants. Soils containing limestone are not suitable for plants sensitive to Limestone.

FRUIT GROWERS LABORATORY, INC.

Ben Waddell, Director of Ag. Services

BRW1:EHB

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573
Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563
Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670
Office & Laboratory 3442 Empresa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775
Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

August 14, 2020

Appleton Partners, LLP
911 Chapala Street
Santa Barbara, CA 93101-3089

Lab ID : SP 2010204-001
Customer ID : 2-25700
Sampled On : July 29, 2020
Sampled By : Jesiy Brown
Received On : July 31, 2020
Depth : N/A

Description : 3393 Padaro Lane, Carpinteria,
Project : Appleton Partners, LLP

LANDSCAPE SOIL ANALYSIS

Test Description	Result	Units	Optimum Range
Primary Nutrients			
Nitrate-Nitrogen	0.432	Lbs/1000ft	1.8 - 3.6
Phosphorus-P_2O_5	8.41	Lbs/1000ft	6.0 - 8.1
Potassium-K_2O (Exch)	31.4	Lbs/1000ft	10 - 60
Potassium-K_2O (Sol)	3.28	Lbs/1000ft	4.6 - 13
Secondary Nutrients			
Calcium (Exch)	307	Lbs/1000ft	260 - 340
Calcium (Sol)	13.2	Lbs/1000ft	5.9 - 17
Magnesium (Exch)	60.9	Lbs/1000ft	26 - 52
Magnesium (Sol)	5.33	Lbs/1000ft	1.3 - 4.6
Sodium (Exch)	5.5	Lbs/1000ft	0.0 - 24
Sodium (Sol)	6.19	Lbs/1000ft	< 31
Sulfate	20.5	Lbs/1000ft	7.1 - 95
Micro Nutrients			
Zinc	1.32	Lbs/1000ft	0.15 - 3.8
Manganese	1.30	Lbs/1000ft	0.30 - 5.7
Iron	4.90	Lbs/1000ft	1.3 - 6.7
Copper	0.156	Lbs/1000ft	0.035 - 3.7
Boron	0.0533	Lbs/1000ft	0.036 - 0.15
Chloride	8.50	Lbs/1000ft	0.62 - 15
CEC	23.1	meq/100g	14 - 35
% Base Saturation			
CEC - Calcium	72.3	%	60 - 80
CEC - Magnesium	23.6	%	10 - 20
CEC - Potassium	3.15	%	1.0 - 6.0
CEC - Sodium	1.13	%	0.0 - 5.0
CEC - Hydrogen	< 1.00	%	0.0 - 3.0
pH	7.08	---	6.5 - 7.5

Very Low / Moderately Low / Optimum / Moderately High / Very High; Strongly Acidic / Moderately Acidic / Near Neutral / Moderately Alkaline / Strongly Alkaline

Good Problem Indicates physical conditions and/or phenological and amendment requirements.

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573
Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563
Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670
Office & Laboratory 3442 Empresa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775
Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

August 14, 2020

Appleton Partners, LLP
911 Chapala Street
Santa Barbara, CA 93101-3089

Lab ID : SP 2010204-001
Customer ID : 2-25700
Sampled On : July 29, 2020-:
Sampled By : Jesiy Brown
Received On : July 31, 2020-10:30
Matrix : Soil

Description : 3393 Padaro Lane, Carpinteria,
Project : Appleton Partners, LLP

Sample Results - Ag

Constituent	Result %Retained	PQL	Units	Note	Sample Preparation Method	Sample Preparation Date/ID	Sample Analysis Method	Sample Analysis Date/ID
Physical Char.								
% Sand	60.8	0.5	%		CSSS47.3	08/11/20:208716	CSSS47.3	08/12/20:212697
% Silt	19.2	0.5	%		CSSS47.3	08/11/20:208716	CSSS47.3	08/12/20:212697
% Clay	20.0	0.5	%		CSSS47.3	08/11/20:208716	CSSS47.3	08/12/20:212697
Soil Texture	Loam							

ND = Non-Detected. PQL = Practical Quantitation Limit.

Note: The infiltration Rate is approximately 0.54 inches per hour based on soil texture.

Reviewed and Approved By: **Ben Waddell** Digitally signed by Ben Waddell DN: cn=Ben Waddell, o=Ag Services, Date: 2020.08.14

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573
Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563
Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670
Office & Laboratory 3442 Empresa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775
Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

August 14, 2020 Lab ID : SP 2010204-001

Application Notes

The application instructions listed below apply only if the material(s) is recommended in this report on page 1. Materials not included in the recommendations are excluded either because the analyses data did not indicate a need or the analysis to determine if a need existed was not requested.

Organic Materials

Nitrolized redwood compost is preferred but other organic soil amendment mixes may be substituted depending upon the site requirements. Organic soil amendments should thoroughly be composted and certified free of weeds and pathogens. Particle size should be less than 1/2 inch in diameter and relatively uniform. Organic materials should be spread uniformly over the surface soils and should be incorporated to a depth of four to six inches.

Limestone, Dolomite & Sulfur

These materials should be broadcast uniformly over the surface soils and then incorporated to a depth of four to six inches.

Gypsum

This material should be broadcast uniformly over surface soils for water penetration. For best results do not incorporate.

Preplant Phosphorus, Zinc, Manganese, Iron & Copper

These materials should be broadcast uniformly over the surface soils and then incorporated to a depth of four to six inches. Post-plant applications can be surface applied for water penetration.

Nitrogen, Potassium & Magnesium

These materials are water soluble and can be applied uniformly over the soil surface, or they can be incorporated with other recommended materials. Magnesium sources for plant nutrition include Epsom salts (Magnesium Sulfate), and the double salt of Potassium-Magnesium Sulfate (Sulfate of Potash-magnesia).

August 14, 2020 Lab ID : SP 2010204-001

B. Tree and Shrub Backfill Mix

1.	Native (site) soil	66%
2.	Organic Soil Amendment	33%
3.	Commercial Fertilizer (15-15-15)	1 lb./cu. yd.
4.	Iron	2 oz./cu. yd.
5.	Zinc	1 oz./cu. yd.
6.	Manganese	1 oz./cu. yd.

When planting specifications do not call for a separate backfill mix, as specified above, use the same soil amended and prepared for your "turf and groundcover(II. A. 1,2)" on page 1 as your backfill mix for container plants, shrubs and trees.

III. Leaching Requirement

None

IV. Post-Plant Fertilization - lbs./1000 sq. ft. (To be applied 6 - 8 weeks after initial planting).

Nitrogen	1/2 lb.
Phosphorus	1/2 lb.
Potassium	1/2 lb.

The actual post-plant requirements for fertilizers and soil amendments will vary depending upon the specific site conditions. Periodic post-plant analyses can be used to assure proper soil conditions and balanced levels of plant nutrition.

V. Irrigation

Make certain that the irrigation water being applied is penetrating to a depth slightly greater than the root zone of the plants being grown. Water with a frequency needed to maintain moist soil at all times - never wet for long periods and never let the soil dry out.

VI. Mulch (Surface Applied Organic Materials)

Surface mulching is not recommended based on the soil analysis. However, there are many benefits to applying mulches to landscape plantings. The primary benefits are water savings, weed control and improved soil physical,chemical and biological characteristics. Mulches also create a more aesthetically pleasing landscape. Mulches are usually applied to a depth of 3-6 inches and consist of numerous organic materials such as tree bark, wood shavings and shredded green waste materials. Mulches that consist of woody particles and larger particles breakdown more slowly and do not require replenishment nearly as often as other smaller size mulch materials. * Do not apply organic mulches directly to plants, trunks or crown areas. Always keep mulches 3-18 inches away from the crown of the plant or tree (3 inches for small plants - 18 inches for trees).

August 14, 2020

Appleton Partners, LLP
911 Chapala Street
Santa Barbara, CA 93101-3089

Lab ID : SP 2010204-001
Customer ID : 2-25700

Recommendation for Appleton Partners, LLP

The following report presents the results of analyses conducted on your soil. See page 4 for sample information and analyses results. The following recommendations are based upon the current conditions of the soil. All application recommendations are for each 1,000 square feet of growing area. Please be sure to read the standard application notes presented on page 3.

I. Plant Selection

The Analyses of this soil indicates the following plant selection requirements:

A. Select only non-acidic loving plants for this soil.

II. Preplant Soil Amendments and Fertilizers

A. Turf and Groundcover

		Apply per 1000 sq. ft.
1.	Soil Amendments	
a.	Organic (Well-composted)	4.00 cu. yds.
b.	Limestone	0.00 lbs.
c.	Soil Sulfur	25.00 lbs.
		Apply per 1000 sq. ft.
2.	Fertilizers	
a.	Nitrogen (N)	1.10 lbs.
b.	Phosphorus (P2O5)	0.00 lbs.
c.	Potassium (K2O)	0.00 lbs.
d.	Magnesium (Mg)	0.00 lbs.
e.	Zinc (Zn)	0.00 lbs.
f.	Manganese (Mn)	0.00 lbs.
g.	Iron (Fe)	0.00 lbs.
h.	Copper (Cu)	0.00 lbs.
i.	Boron (B)	0.00 lbs.

Corporate Offices & Laboratory 853 Corporation Street Santa Paula, CA 93060 TEL: (805)392-2000 Env FAX: (805)525-4172 / Ag FAX: (805)392-2063 CA ELAP Certification No. 1573
Office & Laboratory 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563
Office & Laboratory 563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670
Office & Laboratory 3442 Empresa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775
Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

Appleton Partners LLP
ARCHITECTS
911 Chapala Street
Santa Barbara, CA 93101
805 965-0304
FAX 805 560-6815

LANDSCAPE SOILS TEST

3393 Padaro Lane

Carpinteria, CA 93013

Date: 06/23/23
Scale:
Drawn:
Job Number: 2006.00
Sheet
L4.1

6/27/2023 11:30:51 AM

Watershed Environmental, Inc.
3324 State Street, Suite B, Santa Barbara, CA 93105
Phone (805) 729-1070 | Fax (805) 456-3987
www.WatershedEnvironmental.com

County of Santa Barbara
Planning and Development
123 East Anapamu
Santa Barbara, CA 93101

August 2, 2021

RE: Biological Report for Coastal Development Permit (20CDH-00000-00022) at 3393 Padaro Lane (APN: 005-400-041), Summerland, California

INTRODUCTION

This letter report evaluates project consistency with applicable Santa Barbara County biological resource protection policies and development standards, and assesses potential effects to biological resources caused by project construction. The project is located at 3393 Padaro Lane (APN: 005-400-041) near Summerland, California in an unincorporated area of Santa Barbara County that is in the coastal zone[1] and within the Toro Canyon Community Plan[2] planning area. This report has been prepared by Watershed Environmental, Inc. under contract to the property owner, PLSB LLC.

The 3393 Padaro Lane property is 2.02 acres in size and is zoned for residential (8-R-1) use. The property is developed with a 2,931-sq.-ft. two-story single-family residence and the following ancillary structures: a secondary residence; a two-car garage; a garage, office and carport structure; a garage/workshop; a greenhouse; and a gazebo. All of these structures have hardscape patios and walkways around and/or adjacent to them. The single family residence was built in 1935; the construction dates of the ancillary structures are unknown but they appear to have been built after 1935. The entire property, except for about 12,050 sq ft. that extends onto the beach, is landscaped with a variety of ornamental trees, shrubs, herbs, a small fruit orchard, and a small turfgrass lawn. The property is accessed via a gated gravel driveway that begins at Padaro Lane and extends to the main residence and the ancillary structures. This property was once part of a larger estate that included the adjacent parcels to the east and west.

This property is an ocean front property in a designated "rural" area (existing developed rural neighborhood). The entire northern edge of the property is fenced with a wooden 6-ft. tall fence. The western and eastern edges of the property are fenced with 6-ft tall wooden and metal wire fencing. The southern edge of the landscaped portion of the property is fenced with a 4 ft. tall brick wall. A boulder seawall exists 20 ft. south of the brick wall and separates the developed and landscaped portion of the property from the beach. The portion of the property that extends onto the beach is not fenced and is open to the public. The seawall protects this property and other coastal properties on Padaro Lane.

---

[1] **SBCO.** 1982. *Coastal Land Use Plan*. Santa Barbara County, Planning and Development: Santa Barbara, California. Available online at: https://cosantabarbara.app.box.com/s/cx95k0r4hnfo58hg291fi5gzf5rrdurd.

2 **SBCO.** 2004. *Toro Canyon Community Plan*. Santa Barbara County, Planning and Development: Santa Barbara, California. Available online at: http://longrange.sbcountyplanning.org/planareas/torocanyon/Toro%20Canyon%20Plan/Toro_Canyon_Plan_web.pdf

PROJECT DESCRIPTION

The proposed project includes demolition of all existing structures and hardscaping on the property, except for an existing 237 sq. ft. gazebo, and removal of all the existing landscape vegetation, except for 17 trees (1 blue gum eucalyptus, 7 Monterey cypress, 5 palm, 3 pine, and 1 giant sequoia).

After the demolition is complete, the following new structures will be built (Figure 1):

- Single-family dwelling (2,499 sq. ft.) with basement (1,137 sq. ft.)
- Two car detached garage (689 sq. ft.) with second story loft (616 sq. ft.)
- Guest house (800 sq. ft.) with attached cabana (460 sq. ft.)
- Cabana (356 sq. ft.)
- Greenhouse (406 sq. ft.)

As part of this new development, 6,000 sq. ft. of new 17-ft. wide driveway will be built with parking spaces for 4 cars and a hammerhead turnout for fire trucks. Approximately 6,150 sq. of new pathway will be built from the driveway and garage to the single-family dwelling and the cabana. A 1,200 sq. ft. patio will be built around the perimeter of the cabana. Grading quantities are estimated to be ___ cu. yds, of which approximately ___ cu. yds. of soil will be imported by truck to the project site. The material from the demolition of the existing structures and existing landscaping will be loaded into metal dumpsters and dump trucks and will be taken offsite to waste processing and appropriate recycling facilities. Demolition and construction is expected to take ___ months to complete. The entire developed portion of the property will be re-landscaped with a variety of native and ornamental vegetation.

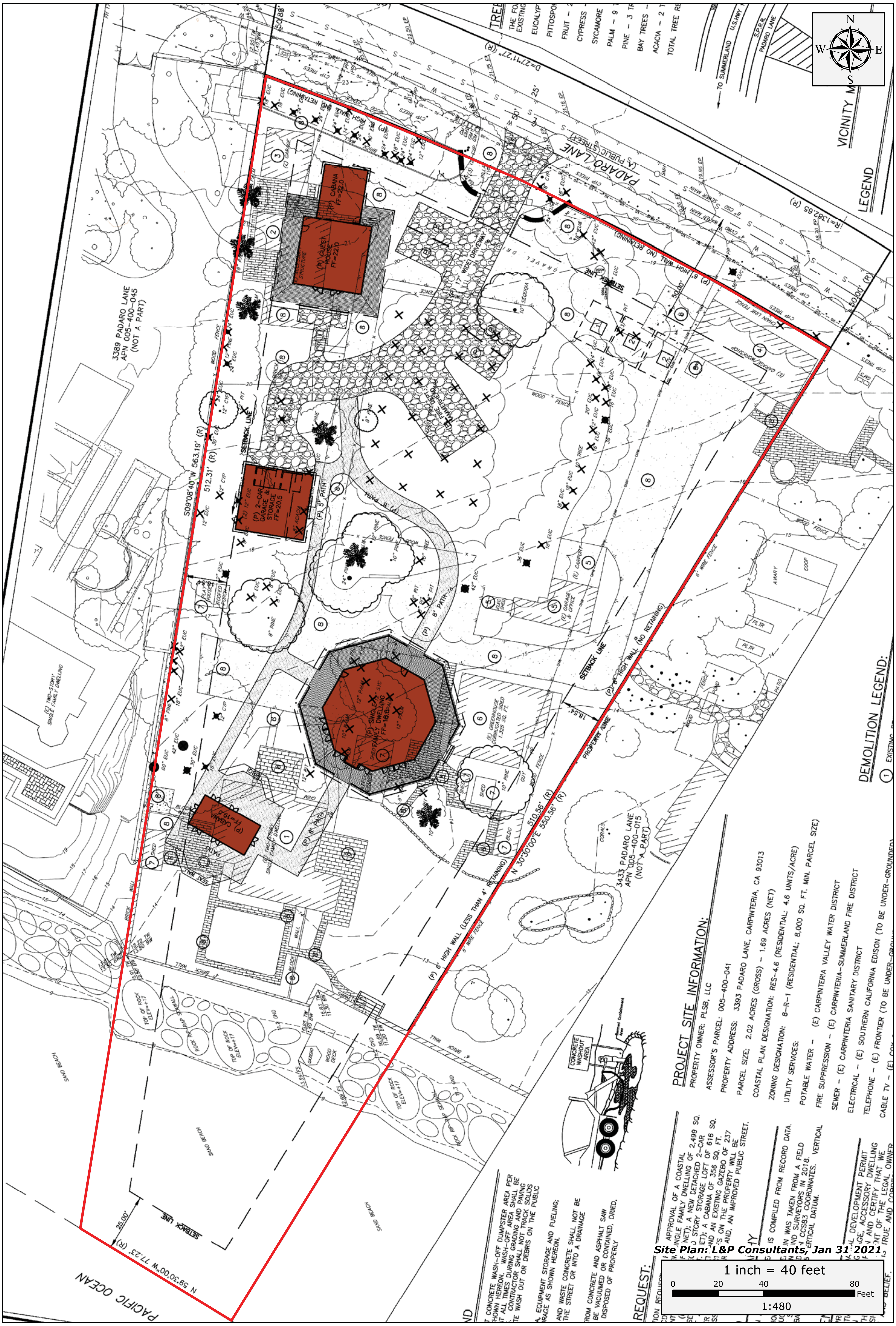
SURVEY METHODS

Watershed Environmental, Inc. biologist Mark de la Garza and environmental/GIS analyst Dominick Burnham performed a survey of the property on July 16, 2021 between the hours of 10:00 am and noon. Weather conditions were overcast and calm with a temperature of 65° F. Mark and Peter Gaede (biologist) performed an additional survey of the property on the morning of July 28, 2021 between the hours of 7:30 and 10:30 am. Weather conditions were overcast and calm with a temperature of 63° F.

Our field survey was performed on foot and consisted of walking the entire developed portion of the property. Surveys did not extend onto the beach in the southern portion of the property. Field notes were used to record flora and fauna observed on the property. Vegetation and land cover mapping was performed on a 1-in.=50-ft.-scale field map with a March 1, 2021 color aerial photograph background obtained from Google Earth. Photographs of the property were taken to document existing conditions at the time of our July 16 and 28, 2021 surveys and are provided in Attachment 1.

Botanical surveys followed the US Fish and Wildlife Service's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants*[3], and

[3] **USFWS.** 2001. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants.* Sacramento, California. Available online at: http://www.fws.gov/sacramento/es/documents/listed_plant_survey_guidelines.htm



Map Items

Property Boundary

Figure 1. Site Plan

Biological Report for Coastal Development Permit (20CDH-00000-00022)
3393 Padaro Lane (APN: 005-400-041), Summerland, California

Watershed Environmental, Inc. 8/2/2021

the California Department of Fish and Wildlife *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*[4].

Wildlife surveys followed standard professional practices and the County of Santa Barbara's *Biological Survey Guidelines*[5]. Background biological information was obtained from the most recent California Department of Fish and Wildlife July 2021 California Natural Diversity Data Base[6], and County of Santa Barbara 2020 Environmentally Sensitive Habitat Geographic Information System Data[7].

ENVIRONMENTAL SETTING

Topography

Elevations on the 3393 Padaro Lane property range from a high of 23 ft. in the northern corner of the property to a low of 6 ft. along the southern property boundary on the beach. This property gently slopes 2-3 percent toward the south, toward the Pacific Ocean.

Soils

Soils on the property are mapped by the Natural Resource Conservation Service[8] as "Ballard fine sandy loam (BaA), 0 to 2 percent slopes" and as "Beaches".

Ballard fine sandy loam soil is classified as having a medium runoff rate and light erosion hazard. This soil is used for estates and urban development. This soil occurs in the northern 75% of the property, and is not listed as a hydric soil type by the NRCS[9].

Beaches soil exists in the southernmost portion of the property, between the seawall and the Pacific Ocean. Beach soils occur on narrow, sandy, and stony areas along the Pacific Ocean that fluctuate between being covered with water during high tide and exposed during low tide. Beaches have no agricultural value. This soil is listed as a hydric soil on the National Hydric Soils list because it is inundated by the ocean during high tide.

Creeks and Watercourses

There are no watercourses, creeks, streams, freshwater or brackish wetlands, vernal pools, or seeps on the 3393 Padaro Lane property. The nearest waterbody is the Pacific Ocean and the nearest watercourse is Arroyo Paredon Creek located 700 ft. southeast of the property. This creek flows in a north-south direction into the Pacific Ocean and is mapped by the

---

[4] **California Department of Fish and Wildlife.** 2018. *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*. March 2018. Sacramento, California. Available online at: file:///C:/Users/Mark/AppData/Local/Temp/2018%20Protocols%2013%20rev1.pdf.

[5] **Santa Barbara County.** 1995, Amended January 2021. *Environmental Thresholds and Guidelines Manual*. Santa Barbara County Planning and Development Department: Santa Barbara, California. Available online at: https://cosantabarbara.app.box.com/s/vtxutffe2n52jme97lgmv66os7pp3lm5.

[6] **California Department of Fish and Wildlife.** 2021. California Natural Diversity Data Base. July 2021. CDFW: Sacramento, California.

[7] **Santa Barbara County.** 2020. *Digital Map of Environmentally Sensitive Habitat-GIS Database*. Santa Barbara, California.

[8] **Natural Resources Conservation Service.** 2018. Web Soil Survey. South Coastal Santa Barbara Area, Version 13, September 12, 2018. US Department of Agriculture: Washington, DC. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

[9] **Natural Resources Conservation Service.** 2019. "Santa Barbara County – South Coastal Part Hydric Soils List: California." US Department of Agriculture: Washington, DC. Available online at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316620.html.

USGS[10] as a dashed blue line stream indicating it flows intermittently. This creek is also mapped by the USGS National Hydrography Dataset[11] (NHD) as an intermittent watercourse.

Critical Habitat

The 3393 Padaro Lane property does not contain any federally designated critical habitat. There is federally designated critical habitat for six threatened and endangered species within 5 miles of the 3393 Padaro Lane property[12]. Figure 2 depicts these critical habitat locations. The species name, status, critical habitat location, and distance from project site is provided below:

- **tidewater goby** *(Eucyclogobius newberryi),* endangered, Arroyo Paredon (700 ft. southeast)
- **Southern California steelhead** DPS *(Oncorhynchus mykiss),* endangered, Arroyo Paredon (700 ft. southeast), Romero Creek (2.5 mi. northwest), Carpinteria Creek (2.85 mi. southeast), San Ysidro Creek (3.45 mi. west), and Montecito Creek (4.2 mi. west).
- **Ventura march milkvetch** *(Astragalus pycnostachyus),* endangered, Carpinteria Salt Marsh (1.05 mi. southeast).
- **California red-legged frog** *(Rana draytonii),* threatened, Los Padres National Forest Santa Ynez River Watershed (3.40 mi. north).
- **least Bell's vireo** *(Vireo bellii pusillus),* endangered, Santa Ynez River (4.65 miles north)
- **arroyo toad** (Anaxyrus californicus), endangered, Mono Creek Los Padres National Forest (4.9 mi. north)

Environmentally Sensitive Habitat (ESH)

The Toro Canyon Community Plan and County ESH Land Use Zoning Map[13] do not depict any Environmentally Sensitive Habitat (ESH) on the 3393 Padaro Lane property. The nearest mapped ESH is riparian habitat along Arroyo Paredon Creek 700 ft. southeast. Other notable mapped ESH nearby include Monarch butterfly overwintering roost habitats 0.50 mile west of the property along Padaro Lane.

---

10 **USGS.** 2018. "Carpinteria, California 7.5-minute topographic map quadrangle." United States Geological Survey: Washington, D.C. Available online at: https://www.pickatrail.com/topo-map/c/7.5x7.5/carpinteria-ca.html.

11 **USGS**. 2018. National Hydrography Dataset. Accessed in GIS. US Geological Survey: Washington, D.C. Available online at: https://www.usgs.gov/core-science-systems/ngp/national-hydrography/access-national-hydrography-products.

12 **USFWS.** 2021. "Critical Habitat Online Mapper, Critical Habitat for Threatened and Endangered Species." Washington, DC. Available online at: https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77.

13 **Santa Barbara County.** 2018. Santa Barbara County Land Use and Zoning Overlays "Environmentally Sensitive Habitat" Created December 28, 2018 updated May 15, 2020. Planning and Development Department: Santa Barbara, California. Available online at: https://www.arcgis.com/home/webmap/viewer.html?webmap=fa3545a29dac49aeacc81669b956e3e5&extent=-120.9142,34.093,-118.9408,35.4355.

Map Items

- Property Location *(APN: 005-400-041)*
- 1-, 3-, 5-mile Property Buffer

California Natural Diversity Database (CDFW July 2021 CNDDB)

- CNDDB Occurrence Records

US Fish and Wildlife Service (USFWS) Federal Critical Habitat

- Arroyo southwestern toad
- California red-legged frog
- Least Bell's vireo
- Southern steelhead
- Tidewater goby
- Ventura marsh milk-vetch
- Western snowy plover

Figure 2.
Sensitive Species and Designated Critical Habitat in Project Vicinity

Biological Report for
Coastal Development Permit (20CDH-00000-00022)
3393 Padaro Lane (APN: 005-400-041),
Summerland, California

Watershed Environmental, Inc. 8/2/2021

Sensitive Species Occurrence Records

Sensitive plant species with CDFW CNDDB occurrence records within five miles of the project site (refer to Figure 2) include[14]: Coulter's goldfields *(Lasthenia glabrata* ssp. *coulteri)*, Coulter's saltbush *(Atriplex coulteri)*, late-flowered mariposa-lily *(Calochortus fimbriatus)*, Nuttall's scrub oak *(Quercus dumosa)*, Ojai fritillary *(Fritillaria ojaiensis)*, Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), Santa Barbara honeysuckle *(Lonicera subspicata var. subspicata)*, Sonoran maiden fern *(Thelypteris puberula* var. *sonorensis)*, umbrella larkspur *(Delphinium umbraculorum)*, and white-veined monardella *(Monardella hypoleuca* subsp*. hypoleuca)*. Nuttall's scrub oak and Santa Barbara honeysuckle are large perennial shrubs that are listed by the California Native Plant Society (CNPS) as List 1B - rare, threatened, or endangered in California and elsewhere. Sonoran maiden fern is a large perennial fern that is listed by the CNPS as 2B - rare, threatened, or endangered in California but common elsewhere. Coulter's saltbush, late-flowered mariposa lily, Ojai fritillary, Palmer's mariposa-lily, salt marsh bird's-beak, umbrella larkspur, and white-veined monardella are perennial herbs that are on the CNPS 1B list - rare, threatened, or endangered in California and elsewhere. Coulter's goldfields is an annual herb that is on the CNPS 1B list.

Sensitive wildlife species with CDFW CNDDB occurrence records within five miles of the project site (refer to Figure 2) include: two federally endangered fish species—tidewater goby *(Eucyclogobius newberryi)* and southern steelhead *(Oncorhynchus mykiss)*; five bird and one bat species—federally endangered Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), federally endangered least Bell's vireo *(Vireo bellii pusillus)*, federally endangered light-footed Ridgway's rail (*Rallus obsoletus levipes*), California Department of Fish and Wildlife (CDFW) Species of Special Concern Townsend's big-eared bat (*Corynorhinus townsendii*), and federally threatened western snowy plover *(Charadrius alexandrinus nivosus)*; four reptile and amphibian species—federally threatened California red-legged frog *(Rana draytonii)*, state endangered foothill yellow-legged frog (*Rana boylii*), northern California legless lizard *(Anniella pulchra)*, and two-striped gartersnake *(Thamnophis hammondii)*, all of which are CDFW species of special concern; and two insect species—candidate state endangered Crotch bumble bee *(Bombus crotchii)*, and candidate federally endangered monarch butterfly *(Danaus plexippus)*. Monarch butterflies were listed by the USFWS on December 15, 2020 as a "candidate" endangered or threatened species and as of this date are protected by the Federal Endangered Species Act. Monarch butterfly overwintering aggregation sites are also protected by California Fish and Game Code and by the County of Santa Barbara biological resource protection policies.

SURVEY RESULTS

The 3393 Padaro Lane property does not contain any natural vegetation types. The developed portion of the property is landscaped with a variety of ornamental trees, shrubs, herbs, a small fruit orchard, and a small turfgrass lawn. The beach is sand with no vegetation. Ornamental landscaped areas and unvegetated beach are vegetation types that are not recognized by the *Manual of California Vegetation 2nd Edition*[15] or the CDFW[16].

---

[14] **CDFW.** 2021. California Natural Diversity Data Base March 2021. CDFW: Sacramento, California. Available by subscription only.

[15] **Sawyer, Keeler-Wolf** and **Evens.** 2009. *A Manual of California Vegetation.* 2nd ed. California Native Plant Society: Sacramento, California.

[16] CDFW 2020. California Natural Community List September 9th 2020. Sacramento, California. Available online at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

As part of our survey effort, we verified and updated the tree information depicted on the January 31, 2021 Site Plan. Table 1 provides a list of the tree types and quantity on the property, how many will be removed, and how many will be retained. All native trees, regardless of whether they were originally planted for landscape purposes, with a DBH of 6-inches or larger and all non-native trees with a DBH of 25 inches or larger meet Toro Canyon Community Plan Policy BIO-TC-13 (coastal) to be classified as "protected trees". Table 2 provides an inventory of all trees on the property with a DBH of 6 inches or larger. Figure 3 depicts the tree locations on the property.

Table 1. Summary of Trees on the Property

Tree Type	No. Retained	No. Removed	Total No. on Property with DBH ≥ 6"
acacia	0	5	5
carrotwood	0	2	2
cypress	8	2	10
eucalyptus	0	56	56
fruit tree	0	25	25
maple	0	1	1
myoporum	0	8	8
palm	5	9	14
pine	3	3	6
pittosporum	0	3	3
redwood	1	1	2
sycamore	0	2	2
Total	**17**	**117**	**134**

Table 3. Inventory of All Trees on the Property
Protected Trees Shown in Bold, Trees to Be Retained Are Shaded Green

ID	Common Name	Latin Name	DBH (Inches)	Proposed Action
1	**eucalyptus**	***Eucalyptus globulus***	**60**	**Remove**
2	**eucalyptus**	***Eucalyptus globulus***	**30**	**Remove**
3	**eucalyptus**	***Eucalyptus globulus***	**42**	**Remove**
4	eucalyptus	*Eucalyptus globulus*	18	Remove
5	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
6	**pine**	***Pinus muricata***	**8**	**Remove**
7	eucalyptus	*Eucalyptus globulus*	18	Remove
8	eucalyptus	*Eucalyptus globulus*	18	Remove
9	eucalyptus	*Eucalyptus globulus*	12	Remove
10	eucalyptus	*Eucalyptus globulus*	18	Remove
11	maple	*Acer* sp.	12	Remove
12	palm	*Syagrus romanzoffiana*	10	Retain
13	palm	*Washingtonia robusta*	8	Remove
14	carrotwood	*Cupaniopsis anacardioides*	6	Remove
15	carrotwood	*Cupaniopsis anacardioides*	8	Remove
16	**pine**	***Pinus muricata***	**10**	**Retain**

ID	Common Name	Latin Name	DBH (Inches)	Proposed Action
17	palm	*Washingtonia robusta*	8	Remove
18	palm	*Washingtonia robusta*	10	Remove
19	**sycamore**	***Platanus racemosa***	**12**	**Remove**
20	palm	*Washingtonia robusta*	12	Remove
21	**sycamore**	***Platanus racemosa***	**10**	**Remove**
22	palm	*Washingtonia robusta*	8	Remove
23	palm	*Washingtonia robusta*	12	Remove
24	palm	*Washingtonia robusta*	12	Remove
25	palm	*Washingtonia robusta*	8	Remove
26	myoporum	*Myoporum laetum*	8	Remove
27	**eucalyptus**	***Eucalyptus camaldulensis***	**32**	**Remove**
28	eucalyptus	*Eucalyptus camaldulensis*	18	Remove
29	pine	*Pinus canariensis*	8	Retain
30	acacia	*Acacia melanoxylon*	8	Remove
31	acacia	*Acacia melanoxylon*	8	Remove
32	myoporum	*Myoporum laetum*	8	Remove
33	eucalyptus	*Eucalyptus globulus*	12	Remove
34	**cypress**	***Hesperocyparis macrocarpa***	**24**	**Retain**
35	palm	Syagrus romanzoffiana	0	Retain
36	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
37	**cypress**	***Hesperocyparis macrocarpa***	**10**	**Retain**
38	**eucalyptus**	***Eucalyptus globulus***	**44**	**Remove**
39	myoporum	*Myoporum laetum*	10	Remove
40	pittosporum	*Pittosporum undulatum*	8	Remove
41	pittosporum	*Pittosporum undulatum*	12	Remove
42	myoporum	*Myoporum laetum*	8	Remove
43	eucalyptus	*Eucalyptus globulus*	12	Remove
44	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Remove**
45	eucalyptus	*Eucalyptus globulus*	12	Remove
46	eucalyptus	*Eucalyptus globulus*	12	Remove
47	eucalyptus	*Eucalyptus globulus*	20	Remove
48	acacia	*Acacia* sp.	8	Remove
49	acacia	*Acacia* sp.	8	Remove
50	acacia	*Acacia melanoxylon*	8	Remove
51	**eucalyptus**	***Eucalyptus globulus***	**42**	**Remove**
52	**eucalyptus**	***Eucalyptus globulus***	**36**	**Remove**
53	eucalyptus	*Eucalyptus globulus*	18	Remove
54	eucalyptus	*Eucalyptus globulus*	18	Remove
55	eucalyptus	*Eucalyptus globulus*	18	Remove
56	myoporum	*Myoporum laetum*	10	Remove
57	eucalyptus	*Eucalyptus globulus*	16	Remove
58	eucalyptus	*Eucalyptus globulus*	12	Remove
59	**eucalyptus**	***Eucalyptus globulus***	**36**	**Remove**
60	eucalyptus	*Eucalyptus globulus*	16	Remove

ID	Common Name	Latin Name	DBH (Inches)	Proposed Action
61	eucalyptus	*Eucalyptus globulus*	20	Remove
62	eucalyptus	*Eucalyptus globulus*	18	Remove
63	eucalyptus	*Eucalyptus globulus*	18	Remove
64	eucalyptus	*Eucalyptus globulus*	14	Remove
65	**eucalyptus**	***Eucalyptus globulus***	**30**	**Remove**
66	palm	*Washingtonia robusta*	10	Retain
67	pine	*Pinus canariensis*	8	Retain
68	**pine**	***Pinus muricata***	**6**	**Remove**
69	palm	*Washingtonia robusta*	24	Remove
70	fruit tree	*Ficus* sp.	8	Remove
71	pittosporum	*Pittosporum undulatum*	12	Remove
72	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
73	eucalyptus	*Eucalyptus globulus*	24	Remove
74	eucalyptus	*Eucalyptus globulus*	24	Remove
75	**redwood**	***Sequoia sempervirens***	**7**	**Remove**
76	**pine**	***Pinus muricata***	**12**	**Remove**
77	eucalyptus	*Eucalyptus globulus*	24	Remove
78	palm	*Washingtonia robusta*	10	Retain
79	eucalyptus	*Eucalyptus globulus*	24	Retain
80	palm	*Washingtonia robusta*	12	Retain
81	eucalyptus	*Eucalyptus globulus*	12	Remove
82	eucalyptus	*Eucalyptus globulus*	12	Remove
83	eucalyptus	*Eucalyptus globulus*	12	Remove
84	eucalyptus	*Eucalyptus globulus*	12	Remove
85	eucalyptus	*Eucalyptus globulus*	12	Remove
86	eucalyptus	*Eucalyptus globulus*	12	Remove
87	eucalyptus	*Eucalyptus globulus*	12	Remove
88	eucalyptus	*Eucalyptus globulus*	12	Remove
89	eucalyptus	*Eucalyptus globulus*	12	Remove
90	eucalyptus	*Eucalyptus globulus*	12	Remove
91	eucalyptus	*Eucalyptus globulus*	12	Remove
92	eucalyptus	*Eucalyptus globulus*	12	Remove
93	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
94	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
95	**cypress**	***Hesperocyparis macrocarpa***	**12**	**Retain**
96	**redwood**	***Sequoia sempervirens***	**10**	**Retain**
97	eucalyptus	*Eucalyptus globulus*	14	Remove
98	myoporum	*Myoporum laetum*	6	Remove
99	myoporum	*Myoporum laetum*	6	Remove
100	myoporum	*Myoporum laetum*	6	Remove
101	eucalyptus	*Eucalyptus globulus*	17	Remove
102	eucalyptus	*Eucalyptus globulus*	12	Remove
103	eucalyptus	*Eucalyptus globulus*	12	Remove
104	eucalyptus	*Eucalyptus globulus*	18	Remove

ID	Common Name	Latin Name	DBH (Inches)	Proposed Action
105	eucalyptus	*Eucalyptus globulus*	24	Remove
106	**cypress**	***Hesperocyparis macrocarpa***	**18**	**Remove**
107-134	fruit trees	*Citrus, Ficus, Persea, Prunus, & Malus*	2-8	Remove

56 of the trees on this property are eucalyptus (54 are blue gum, 2 are red gum). All of these trees, except for 4, exist in rows along the western and northern property line, and in a row along the gravel driveway that leads to the garage office and carport (refer to Figure 3). These trees screen the property from the street and neighbors, but they do not provide protection against strong winds or create areas with indirect sunlight that monarch butterflies winter aggregation sites require[17]. Additionally, there is no historical record of monarch butterflies ever overwintering in the eucalyptus trees or other trees that exist on this property. There are 2 historic monarch butterfly overwintering sites and one potential site within 1 mile of the project site, and several others further to the west and northwest (Figure 4). Construction of the project will remove 56 eucalyptus trees. The removal of these trees will not impact any off-site monarch butterfly overwintering habitat.

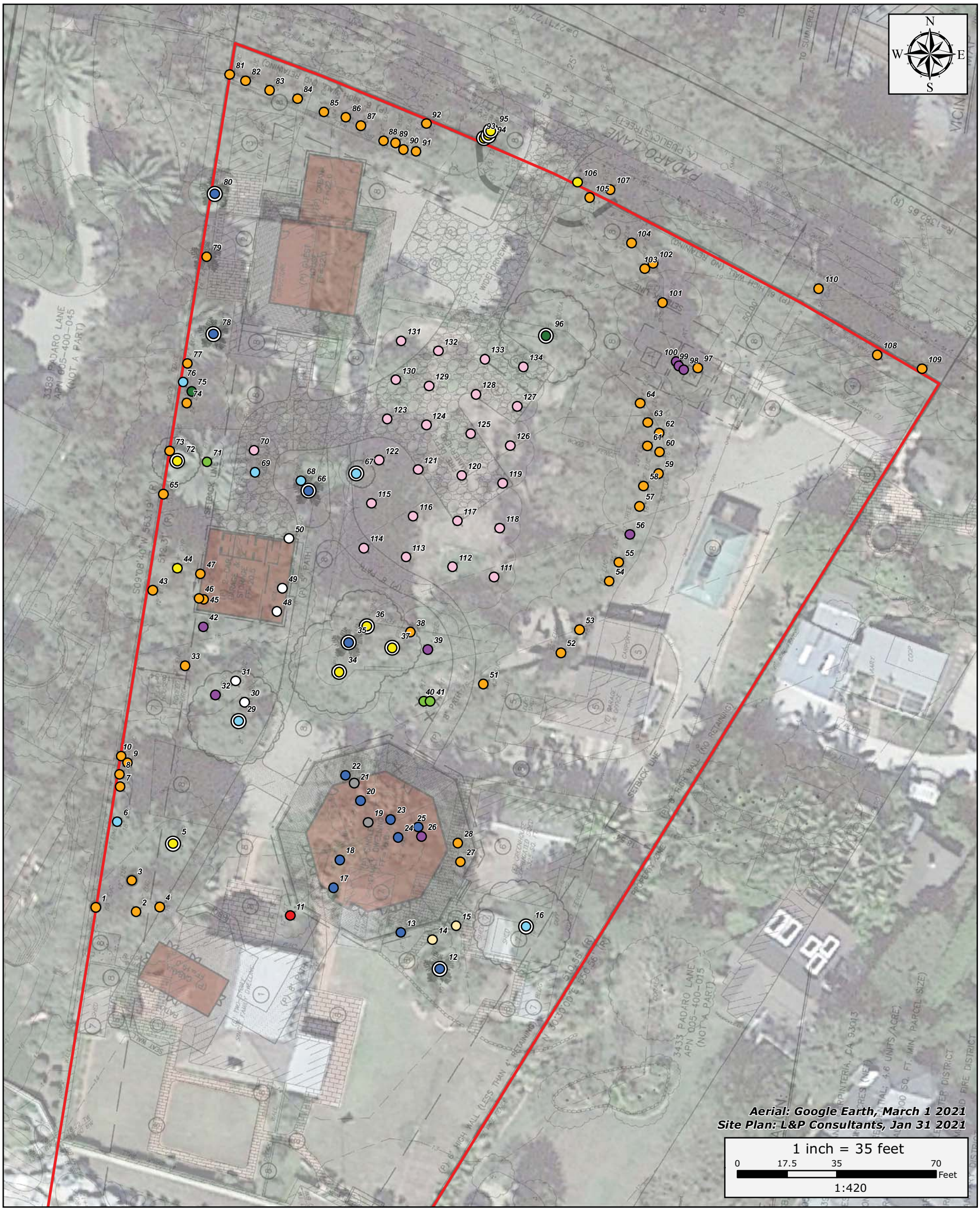
Construction of the project will remove 117 trees. Toro Canyon Community Plan Policy BIO-TC-13 states that *"Native protected trees and non-native protected trees shall be preserved to the maximum extent feasible."* Development Standard DevStd BIO-TC-13.1 9 (coastal) defines "protected native trees" as at least six inches in diameter (largest diameter for non-round trunks) as measured 4.5 feet above ground level (or as measured on the uphill side where sloped), and "nonnative protected tree" as at least 25 inches in diameter measured at this height. We applied these protected tree size thresholds to the trees on this property and determined that there are 27 protected trees on this property (refer to table 2 and Figure 3). Of the 27 protected trees, 9 are non-native (blue gum and red gum eucalyptus) and 18 are native: 4 Bishop pine *(Pinus muricata)*, 2 western sycamore *(Platanus racemose)*, 10 Monterey cypress *(Hesperocyparis macrocarpa)*, and 2 coast redwood *(Sequoia sempervirens)*. All 9 protected non-native eucalyptus trees will be removed. Of the 18 protected native trees on the property, 8 will be removed.

In order to ensure project consistency with Toro Canyon Community Plan development standard DevStd BIO-TC-13.2 (coastal), we recommend that the 8 native protected trees that are removed be replaced onsite at a 3:1 ratio with large 24-inch box size or larger native trees. We also recommend that the 9 non-native protected trees that are removed be replaced at a 1:1 ratio with native or non-native drought tolerant large 24-inch box size or larger trees.

In order to ensure project consistency with Toro Canyon Community Plan Policy BIO-TC-2 (coastal) and development standard DevStd BIO-TC-2.2 (coastal), we recommend that the landscape plans for this project be reviewed by a County approved biologist to ensure that the planting palette does not contain any invasive plants listed by the California Invasive Plan Council[18].

[17] **USFWS** 2020. Monarch (*Danaus plexippus*) Species Status Assessment Report. Available online at: https://www.fws.gov/savethemonarch/ssa.html.

[18] **California Invasive Plant Council**. 2020. CAL-IPC Inventory, Berkeley, California. Available online at: https://www.cal-ipc.org/plants/inventory/.



Map Items

Property Boundary

Trees

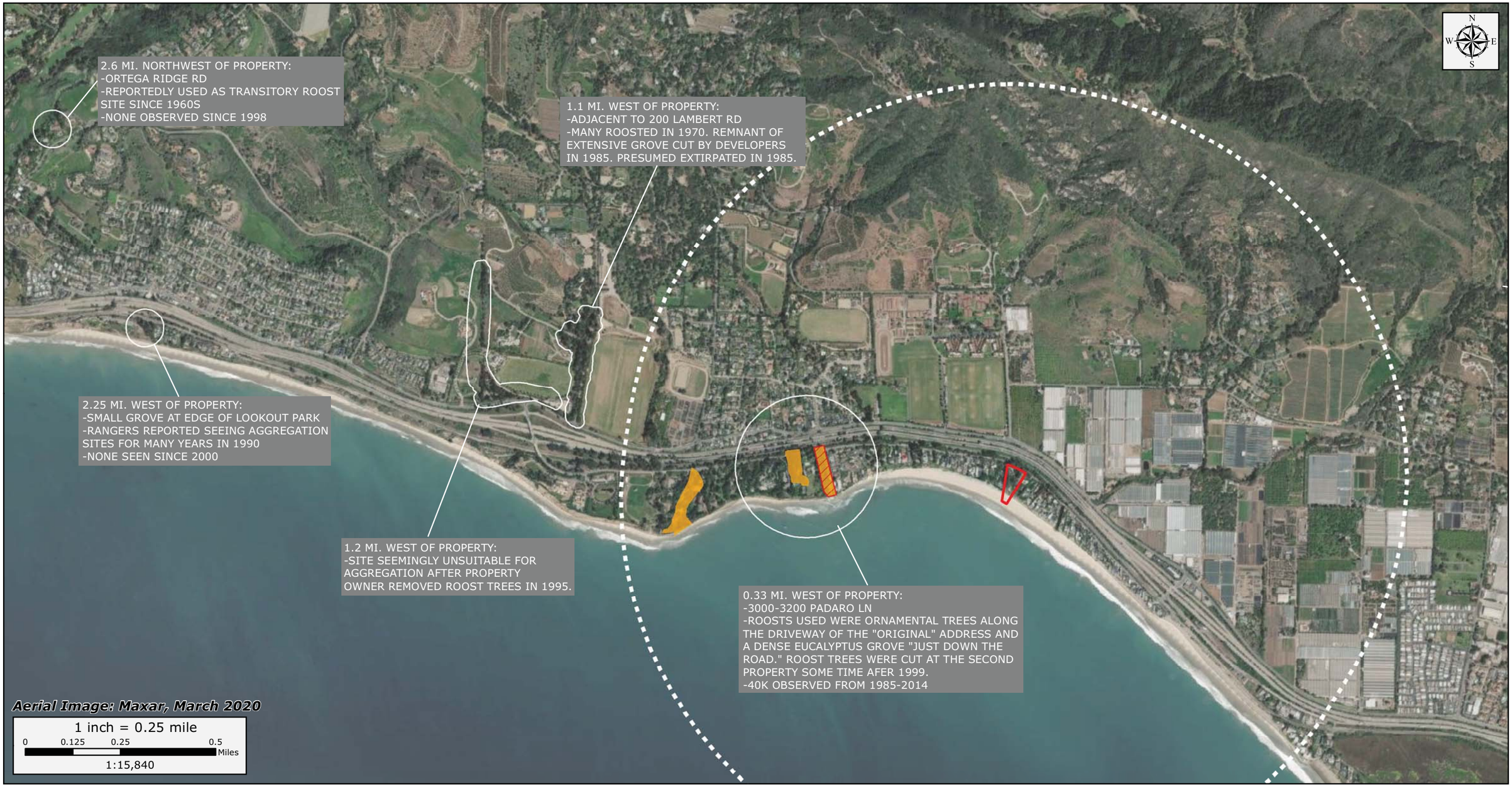
Legend	Tree Species	No. Retained	No. Removed	Total No. on Property
	acacia	0	5	5
	carrotwood	0	2	2
	cypress	8	2	10
	eucalyptus	0	56	56
	fruit tree	0	25	25
	maple	0	1	1
	myoporum	0	8	8
	palm	5	9	14
	pine	3	3	6
	pittosporum	0	3	3
	redwood	1	1	2
	sycamore	0	2	2
	Total	**17**	**117**	**134**

**Trees to be retained are depicted with additional white outline circle, example:*

Figure 3. Location of Existing Trees on Property

Biological Report for
Coastal Development Permit
(20CDH-00000-00022)
3393 Padaro Lane (APN: 005-400-041),
Summerland, California

Watershed Environmental, Inc. 8/2/2021



Map Items

- Property Location *(APN: 005-400-041)*
- 1-mile Property Buffer

Monarch Overwintering Occurrence Records (CDFW July 2021 CNDDB)

- CNDDB Occurrence Records
  Occurrence record information from CNDDB

Toro Canyon Community Plan ESH Map

- Monarch Butterfly Habitat (ESH)
- Potential Monarch Butterfly Habitat

Figure 4. Historical Monarch Butterfly Winter Roosting Sites In Project Vininity

Biological Report for
Coastal Development Permit (20CDH-00000-00022)
3393 Padaro Lane (APN: 005-400-041), Summerland, California

Watershed Environmental, Inc. 8/2/2021

Flora

We observed 55 species of plants on the property during performance of our July 16 and 28, 2021 surveys (Table 4). Approximately 91 percent are nonnative (introduced) and 9 percent are native to California. The number of nonnative plant species is high but expected, given that the entire property except for the beach is landscaped and all the adjacent properties are landscaped and developed. All of the native plant species on this property appear to have been planted as part of the landscaping. None of the existing vegetation on the property is rare, threatened, or endangered.

Table 4. List of Vegetation Observed on the Property

Common Name	Scientific Name	Native (N), Introduced (I)	Strata
acacia	*Acacia sp.*	I	Tree
African lily	*Agapanthus africanus*	I	Herb
aloe vera	*Aloe* sp.	I	Herb
apple	*Malus domestica*	I	Tree
apricot	*Prunus armeniaca*	I	Tree
avocado	*Persea americana*	I	Tree
banana	*Musa* sp.	I	Herb
bird of paradise	*Strelitzia* sp.	I	Herb
Bishop pine	*Pinus muricata*	N	Tree
blackberry	*Rubis* sp.	I	Shrub
blue gum eucalyptus	*Eucalyptus globulus*	I	Tree
bougainvillea	*Bougainvillea glabra*	I	Shrub
Canary Island pine	*Pinus canariensis*	I	Tree
cape honeysuckle	*Tecoma capensis*	I	Shrub
carrotwood	*Cupaniopsis anacardioides*	I	Tree
cherimoya	*Annona cherimola*	I	Tree
coast redwood	*Sequoia sempervirens*	N	Tree
creeping fig	*Ficus pumila*	I	Herb
daylily	*Hemerocallis* sp.	I	Herb
dwarf pittosporum	*Pittosporum tobira*	I	Shrub
fig	*Ficus carica*	I	Tree
foxtail agave	*Agave attenuata*	I	Shrub
geranium	*Pelargonium* sp.	I	Herb
giant sequoia	*Sequoiadendron giganteum*	N	Tree
grape	*Vitis vinifera*	I	Shrub
hedge bamboo	*Phyllostachys glauca*	I	Herb
heliconia	*Heliconia* sp.	I	Herb
hibiscus	*Hibiscus rosa-sinensis*	I	Shrub
horsetail	*Equisetum* sp.	I	Herb
iris	*Iris* sp.	I	Herb
jade plant	*Crassula ovata*	I	Herb

lemon	*Citrus limon*	I	Tree
magnolia	*Magnolia grandiflora*	I	Tree
maple	*Acer* sp.	I	Tree
Mexican fan palm	*Washingtonia robusta*	I	Tree
myoporum	*Myoporum laetum*	I	Tree
natal lily	*Clivia miniata*	I	Herb
nectarine	*Prunus persica* var. *nucipersica*	I	Tree
orange	*Citrus sinensis*	I	Tree
ornamental cherry	*Prunus avium*	I	Tree
peach	*Prunus persica*	I	Tree
Peruvian pepper	*Schinus mole*	I	Tree
pittosporum	*Pittosporum undulatum*	I	Tree
plum	*Prunus domestica*	I	Tree
pomegranate	*Punica granatum*	I	Shrub
privet	*Ligustrum sp.*	I	Shrub
queen palm	*Syagrus romanzoffiana*	I	Tree
red gum eucalyptus	*Eucalyptus camaldulensis*	I	Tree
strawberry tree	*Arbutus unedo*	I	Tree
sweet pea bush	*Polygala dalmaisiana*	I	Shrub
tangerine	*Citrus reticulata*	I	Tree
tipuana	*Tipuana tipu*	I	Tree
turf grass	Cynodon dactylon.	I	Herb
western sycamore	*Platanus racemosa*	N	Tree

Fauna

Wildlife observed on the 3393 Padaro Lane property during performance of our July 16 and 28, 2021 surveys was limited to a few relatively common species of birds, two reptile species and two mammal species. Peter Gaede performed a nesting bird survey the morning of July 28 and found 5 inactive passerine bird nests on the property. No raptor nests were found. At this time, active nests of 1,007 bird species are protected nationwide by the Federal Migratory Bird Treaty Act and approximately 32 raptor species in California are protected by CDFW Code.

Peter also found 8 turkey vultures roosting in four eucalyptus trees (ID No. 33, 45, 46 and 47) immediately north of an existing play house structure. Eucalyptus groves and windrows that provide known raptor nesting or major and recurrent roosting sites are protected by Toro Canyon Community Plan Policy BIO-TC-14. Based on the accumulation of bird droppings and low number of feathers on the ground, we have concluded that turkey vultures have not been roosting in these trees for very long (several months at most) and that the number of vultures roosting has been relatively small. Given the low number of turkey vultures (8) seen rootsing, we do not consider this to be a major roosting site. Turkey vultures nest in rock crevices, caves, cliff ledges, and occasionally on the ground, far from developed areas. Outside of the nesting season, turkey vultures are social creatures that communally roost

together in the evening and early morning hours. Communal roosts in California range in size from several individuals to groups of over 1,000 birds[19].

Evening surveys were not performed for bats or owls. Several species of bats and owls have a potential to forage on the property and may be roosting during the day and/or nesting in the trees on this property. No special status wildlife species were found during the performance of our surveys, and the property does not contain any suitable habitat for threatened, endangered, CDFW species of special concern, or CDFW fully protected species. Other wildlife species are expected to occur on the property, but wildlife utilization is expected to be limited to generalist species that have a high tolerance for human presence. Table 4 contains a list of wildlife species observed, expected, and with a potential to occur on the project site.

Table 4. Wildlife Observed and Expected to Occur on the Project Site

Common Name	Scientific Name	Seasonal Status	Site Status
Amphibians			
black-bellied slender salamander	*Batrachoseps nigriventris*	RB	E
California tree frog	*Pseudacris cadaverina*	RB	E
Pacific tree frog	*Pseudacris regilla*	RB	E
Reptiles			
coast gartersnake	*Thamnophis elegans terrestris*	RB	P
common king snake	*Lampropeltis getulus*	RB	P
gopher snake	*Pituophis catenifer*	RB	P
side-blotched lizard	*Uta stansburiana*	RB	P
southern alligator lizard	*Elgaria multicarinata*	RB	O
western fence lizard	*Sceloporus occidentalis*	RB	O
western skink	*Eumeces skiltonianus*	RB	P
Birds			
acorn woodpecker	*Melanerpes formicivorus*	RB	E
Allen's hummingbird	*Selasphorus sasin*	M	E
American crow	*Corvus brachyrhynchos*	RB	O
American goldfinch	*Carduelis tristis*	WV	E
American kestrel	*Falco sparverius*	RB	E
American robin	*Turdus migratorius*	WV	E
Anna's hummingbird	*Calypte anna*	RB	E
Allen's hummingbird	*Selasphorus sasin*	RB	O
ash-throated flycatcher	*Myiarchus cinerascens*	SB	P
band-tailed pigeon	*Columda fasciata*	RB	O
barn owl	*Tyto alba*	RB	E
barn swallow	*Hirundo rustica*	SB	P
Bewick's wren	*Thryomanes bewickii*	RB	E
black phoebe	*Sayornis nigricans*	RB	O
black-headed grosbeak	*Pheucticus melanocephalus*	SB	P
black-shouldered kite	*Elanus axillaris*	RB	P
Bonaparte's gull	*Chroicocephalus philadelphia*	WV	P
Brandt's cormorant	*Phalacrocorax penicillatus*	WV	P

[19] **California Nature Mapping Program** 2021. Turkey Vultures. University of Washington. Available online at: http://naturemappingfoundation.org/natmap/ca/facts/birds/turkey_vulture.html.

Common Name	Scientific Name	Seasonal Status	Site Status
Brewer's blackbird	*Euphagus cyanocephalus*	RB	E
brown-headed cowbird	*Molothrus ater*	SB	E
brown pelican	*Pelecanus occidentalis*	RB	E
bushtit	*Psaltriparus minimus*	RB	P
California gull	*Larus californicus*	WB	P
California quail	*Callipepla californica*	RB	P
California thrasher	*Toxostoma redivivum*	RB	P
California towhee	*Pipilo crissalis*	RB	O
Cassin's kingbird	*Tyrannus vociferans*	RB	E
cedar waxwing	*Bombycilla cedrorum*	WV	P
cliff swallow	*Hirundo pyrrhonota*	SB	O
common yellowthroat	*Geothlypis trichas*	RB	P
Cooper's hawk	*Accipiter cooperii*	RB	P
dark-eyed junco	*Junco hyemalis*	RB	O
double-crested cormorant	*Phalacrocorax auritus*	WB	P
downy woodpecker	*Picoides pubescens*	RB	P
European starling	*Sturnus vulgaris*	I	E
golden-crowned sparrow	*Zonotrichia atricapilla*	WV	E
great blue heron	*Ardea herodias*	RB	P
great egret	*Casmerodius albus*	WB	P
great horned owl	*Bubo virginianus*	RB	E
Heermann's gull	*Larus heermanni*	WV	P
herring gull	*Larus argentatus*	WB	P
hooded oriole	*Icterus cucullatus*	RB	E
house finch	*Carpodacus mexicanus*	RB	O
house sparrow	*Passer domesticus*	I	E
house wren	*Troglodytes aedon*	RB	E
killdeer	*Charadrius vociferous*	RB	E
Lawrence's goldfinch	*Carduelis lawrencei*	M	P
lesser goldfinch	*Carduelis psaltria*	RB	E
loggerhead shrike	*Lanius ludovicianus*	WV	P
mourning dove	*Zenaida macroura*	SB	O
mew gull	*Larus canus*	WB	P
northern flicker	*Colaptes auratus*	RB	E
northern mockingbird	*Mimus polyglottos*	RB	E
northern oriole	*Icterus bullockii*	M	P
Nuttall's woodpecker	*Picoides nuttallii*	RB	E
oak titmouse	*Bacolophus ridgwayi*	RB	P
Pacific-slope flycatcher	*Empidonax difficilis*	SB	E
purple finch	*Carpodacus purpurius*	RB	E
red-shouldered hawk	*Buteo lineatus*	RB	P
red-tailed hawk	*Buteo jamaicensis*	RB	E
red-winged blackbird	*Agelaius phoeniceus*	RB	P
ring-billed gull	*Larus delawarensis*	WB	P
rock pigeon	*Columba livia*	RB	E
Rufous hummingbird	Selasphorus rufus	WV	E
ruby-crowned kinglet	*Regulus calendula*	WV	P
Say's phoebe	*Sayornis saya*	RB	E
sharp-shinned hawk	*Accipiter striatus*	WV	P
song sparrow	*Melospiza melodia*	RB	E
spotted towhee	*Pipilo maculatus*	RB	O
turkey vulture	*Cathartes aura*	V	O
western bluebird	*Sialia Mexicana*	RB	P
western gull	*Larus occidentalis*	RB	E

Common Name	Scientific Name	Seasonal Status	Site Status
western kingbird	*Tyrannus verticalis*	V	P
western screech-owl	*Otus kennicottii*	RB	P
western scrub-jay	*Aphelocoma californica*	RB	E
western tanager	*Piranga ludoviciana*	WV	P
white-breasted nuthatch	*Sitta carolinensis*	RB	E
white-crowned sparrow	*Zonotrichia leucophrys*	WV	E
white-tailed kite	*Elanus leucurus*	RB	P
white-throated swift	*Aeronautes saxatalis*	V	P
wrentit	*Chamaea fasciata*	RB	P
yellow warbler	*Dendroica petechia*	V	P
yellow-rumped warbler	*Dendroica coronata*	WV	P
Mammals			
big brown bat	*Eptesicus fuscus*	SB	P
big-eared woodrat	*Neotoma macrotis*	RB	P
black rat	*Rattus rattus*	I	E
Botta's pocket gopher	*Thomomys bottae*	RB	O
Brazilian free-tailed bat	*Tadarida brasiliensis*	RB	P
broad-footed mole	*Scapanus latimanus*	RB	E
brush rabbit	*Sylvilagus bachmani*	RB	P
California ground squirrel	*Spermophilus beecheyi*	RB	E
California mouse	*Peromyscus californicus*	RB	E
California myotis	*Myotis californicus*	SB	E
California vole	*Microtus californicus*	RB	E
coyote	*Canis latrans*	V	P
deer mouse	*Peromyscus maniculatus*	RB	E
gray fox	*Urocyon cinereoargenteus*	RB	P
Merriam's chipmunk	*Eutamias merriami*	RB	O
ornate shrew	*Sorex ornatus*	RB	P
raccoon	*Procyon lotor*	V	E
striped skunk	*Mephitis mephitis*	V	E
Virginia opossum	*Didelphis virginiana*	I	E
western harvest mouse	*Reithrodontomys megalotis*	RB	E
western spotted skunk	*Spilogale gracilis*	V	P

Codes
Seasonal Status: RB = Resident Breeder; SB = Summer Breeder; M = Migrant; V = Visitor; WV = Winter Visitor; I = Introduced Species
Site Status: E = Expected to occur at the project site; O = Observed on or in the immediate vicinity of the project site; P = Potential to occur

In order to ensure project consistency with the Federal Migratory Bird Treaty Act[20] and Section 3503.5 of the CDFW Code[21] that protects active migratory bird and raptor nests, we recommend that vegetation removal and demolition activities occur outside the February 1-September 1 bird breeding season.

[20] **Federal Register.** 2013. "General Provisions; Revised List of Migratory Birds; Final Rule." *Federal Register* Vol. 78, No. 212. November 1, 2013. 50 CFR Parts 10 and 21. Department of the Interior, US Fish and Wildlife Service: Washington D.C. Available online at: https://www.fws.gov/migratorybirds/pdf/policies-and-regulations/MBTAListofBirdsFinalRule.pdf.

[21] **CDFW.** 2014. "Section 3503, and 3503.5 - Protection of Birds' Nests." The Resources Agency, CDFW: Sacramento, California. http://www.dfg.ca.gov/wildlife/nongame/regcode.html.

If these activities must occur during the bird breeding season, a County-approved biologist familiar with identifying raptors and other birds shall conduct pre-construction breeding bird surveys. Nesting bird pre-construction surveys shall occur within the area to be disturbed and extend outward approximately 500 ft. or to the property boundary. If any occupied bird nests or cavity roosts are found, the biologist shall determine an appropriate nest/cavity roost buffer zone (500 ft. for raptor nests and 300 ft. for passerine nests) that considers the bird species, nest location, nest height, existing pre-construction level of disturbance in the nest vicinity, and proposed construction activities. The nest/cavity roost buffer zone shall be sized to ensure that birds do not abandon their nests or cavity roosts due to project activities. The nest buffer zone boundary shall be demarcated with signage, survey tape, or fencing to be clearly visible to personnel. All personnel shall be told about the nest buffer and prohibited from entering the area. No ground disturbance or removal of vegetation shall occur within the nest buffer zone until the biologist has confirmed that breeding/nesting is completed and all young birds have fledged the nest. Additional nesting bird surveys are not needed during construction after vegetation removal and demolition have been completed.

CONCLUSIONS

Construction of the 3393 Padaro Lane project will not impact any special status species, any native plant communities, any federally designated critical habitat, or any Santa Barbara County designated environmentally sensitive habitat. In this report, we recommend that the following biological resource impact avoidance, reduction and mitigation measures be implemented by the applicant:

- The 8 native protected trees that are removed should be replaced onsite at a 3:1 ratio with large 24-inch box size or larger native trees and the 9 non-native protected trees that are removed should be replaced at a 1:1 ratio with native or non-native drought tolerant large 24-inch box size or larger trees.
- Landscape plans for this project should be reviewed by a County approved biologist to ensure that the planting palette does not contain any invasive plants listed by the California Invasive Plant Council.
- In order to ensure project consistency with the Federal Migratory Bird Treaty Act and Section 3503.5 of the CDFW Code that protect active migratory bird and raptor nests, we recommend that vegetation removal and demolition activities occur outside the February 1-September 1 bird breeding season. If these activities must occur during the bird breeding season, a County-approved biologist familiar with identifying raptors and other birds shall conduct pre-construction breeding bird surveys.

The recommended biological mitigation measures listed above are intended to ensure project consistency with applicable Santa Barbara County biological resource protection policies and development standards contained in the Toro Canyon Community Plan, the Federal Migratory Bird Treaty Act and Section 3503.5 of the CDFW Code. The County may, at its discretion, impose these recommendations upon the applicant as conditions of approval for this project. Should the County planning department staff have any questions regarding the contents of this letter report, please give me a call.

Sincerely,

Mark de la Garza
Biologist/Environmental Scientist
Watershed Environmental Inc.
Ph: 805 729-1070

cc: Mark Lloyd
Jim Sangster

Attachments:
Photographs of Project Site

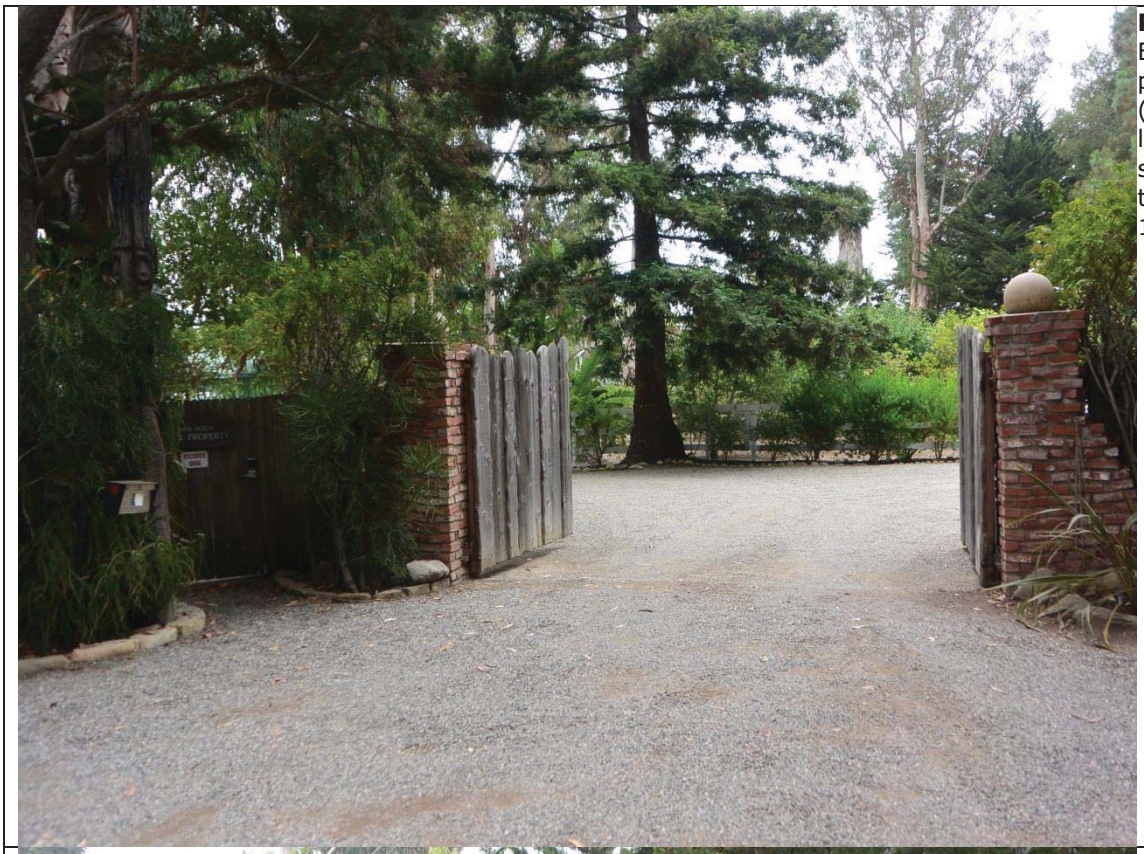


Photo 1. Entrance to property (view looking south taken July 16, 2021)

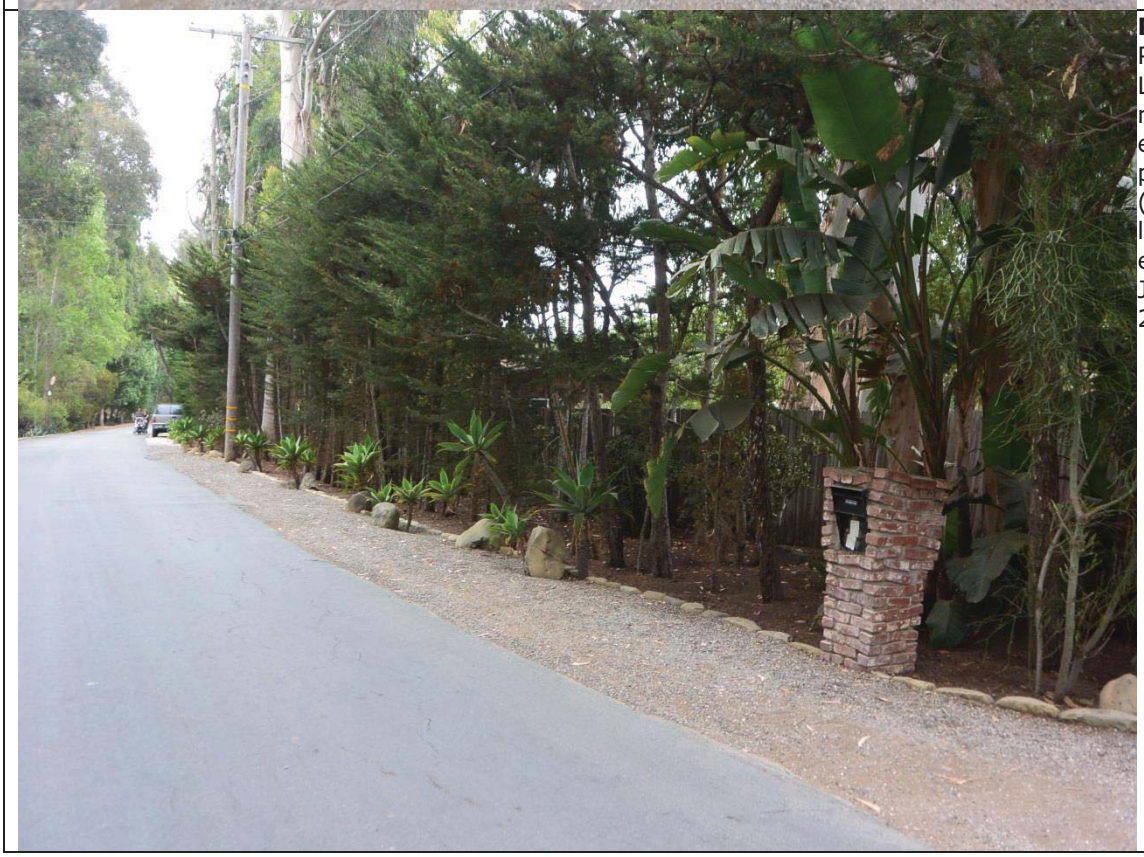


Photo 2. Padaro Lane and northern edge of property (view looking east taken July 16, 2021)

Photo 3. Gravel driveway and entrance gate (view looking north taken July 16, 2021)

Photo 4. A secondary residence northwest corner of property and row of eucalyptus trees along northern property line (view looking north taken July 16, 2021)

Photo 5. Garage and office, with row of eucalyptus trees along edge of gravel driveway (view looking south taken July 16, 2021)

Photo 6. Two story single family residence southwestern corner of property (view looking south taken August 2, 2021)

Photo 7. Sea wall in southern portion of property on the beach, protecting the two story single family residence (view looking north taken August 2, 2021)

Duke McPherson, Arborist
201 East Mountain Drive
Santa Barbara, CA 93108
Phone 805 705-9529
E-mail: treemanduke@cox.net

September 2, 2022

Paul Rubison, AIA
Associate
Appleton Partners LLP
prubison@appleton-architects.com

Arborist Report/Tree Protection Plan

Regarding: 3393 Padaro Lane, Summerland, CA.

Table of Contents

Introduction

This report supersedes one I prepared on December 6, 2020. That report was intended as a tree inventory to be used for the development of the property in terms of building removal and installation. Specifically, the inventory was to highlight any specially valued mature trees and those which are native to the area.
The present report is in a 180 degree contrast to the original due to the discovery of significant Monarch butterfly aggregation sites in January of this year.

The Purpose of this Report

A. Tree Pruning and Removal

1. An effort is being made to safety prune many of the trees on the property to maintain the butterfly roosting zone as free of tree work activity over as long a period as is necessary. In addition, three designated trees are to be removed (See Comments in the Tree Inventory, pages 3-4).

Tree Pruning and Removal (continued)

2. Safety pruning will largely be limited to the large population of Eucalyptus species most of which are very tall and present the greatest possibility of branch breakage with consequent liability and injury. The pruning is to be performed in such a manner as to prevent vigorous and weakly attached upper level sucker growth in response to over pruning.
3. It will be of paramount importance to maintain the wind buffering quality of trees throughout the property, thereby protecting butterfly aggregation sites (see Figure 4, page 6 for an architect's plan which includes the planting of additional 'filler' trees)..
4. In general, tree removals are to be restricted to those which are unstable or diseased, the general idea being to preserve an environment free of potential tree failure of any kind over at least a 5 year period (10 years would be preferable but I think that would be unrealistic owing to the healthy growth of this property's trees and the varieties which are present). In the tree inventory on pages 3-4, various trees have been noted for removed due to building placement.

B. The Ultimate Goal

Through the activities outlined above, the goal is to provide an environment for future Monarch butterfly aggregation on the property while still allowing for development activities. This property has been selected by Monarch butterflies to congregate, a rare phenomenon in the Santa Barbara area. Every effort is to be provided to encourage return visits.

Tree Inventory and Butterfly Aggregation Sites Northern Section of Property

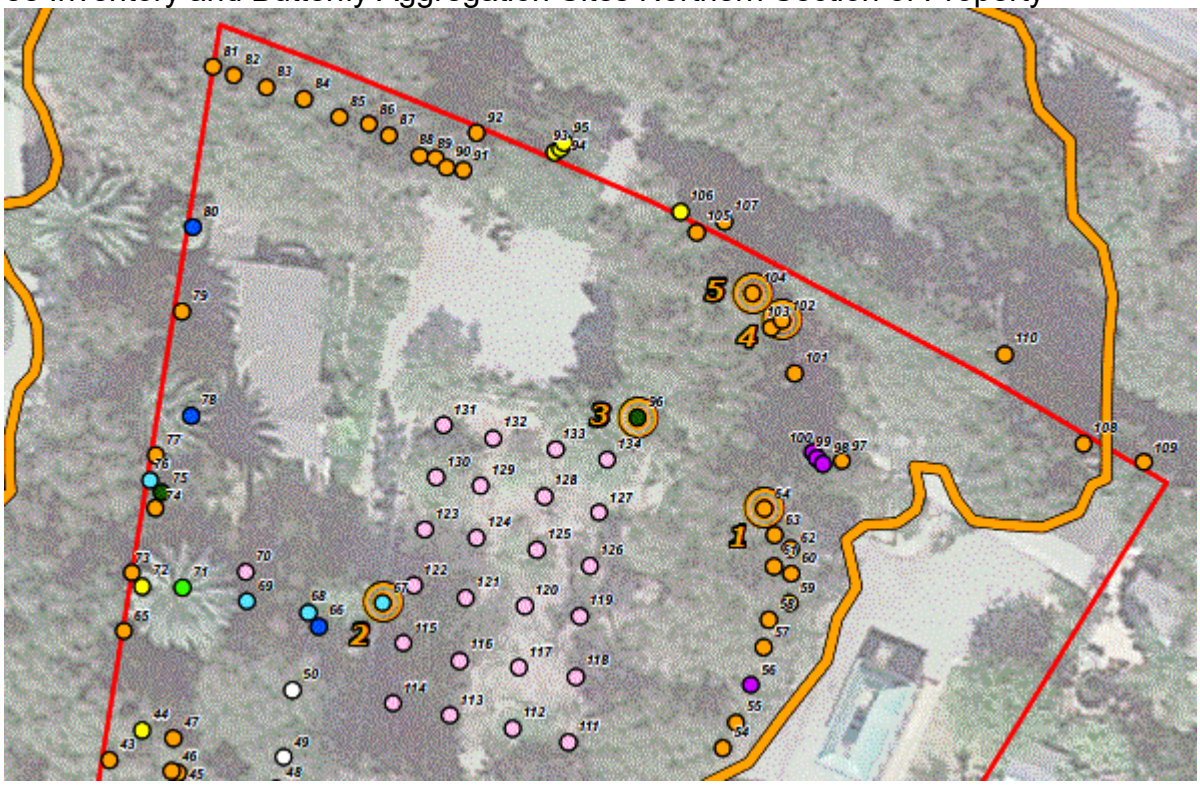


Figure 1. An aerial view of the north half of the property with all trees numbered and highlighted in designated colors (refer to the color key in Figure 2, page 3 below). The irregular orange line represents the outline of potential roosting sites. Five aggregation sites are noted. Graphic is courtesy of Watershed Environmental, Inc., the organization which performed the survey. A key to the colored tree representations can be found in Figure 2, page 3.

Tree Inventory Showing the Southern Section of the Property

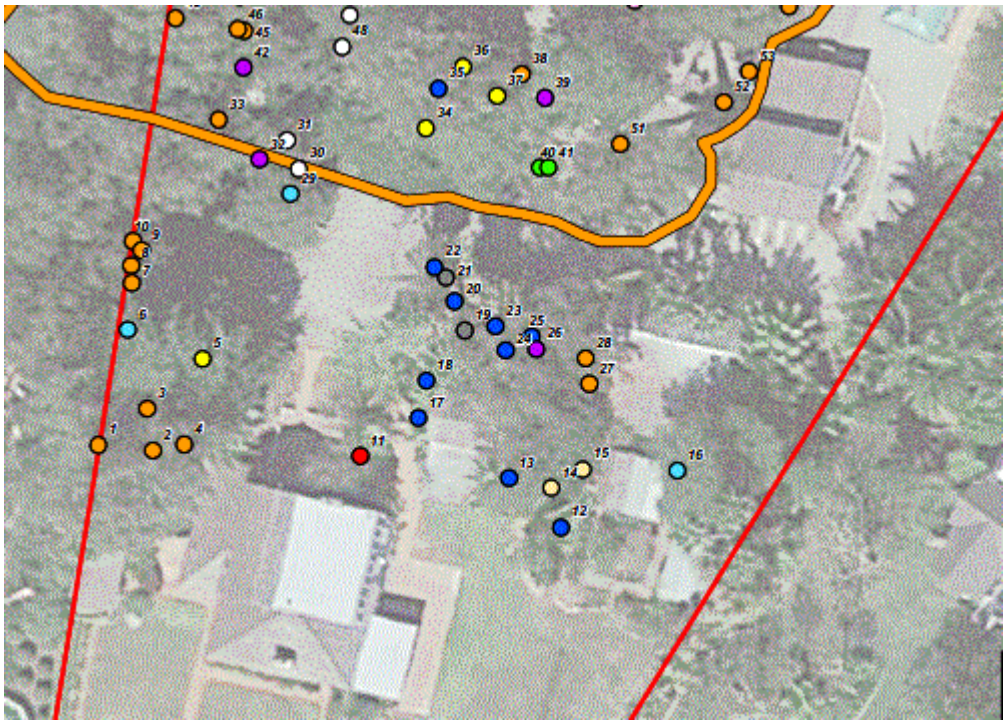


Figure 2. Graphic shows the south half of the property. No current butterfly roosting sites are found here. Potentially, there may be future sites within the irregular orange line.

Tree Inventory Plan Legend

Trees

Legend	Tree Species	Total No. on Property
	acacia	6
	carrotwood	1
	cypress	10
	eucalyptus	49
	fruit tree	26
	maple	1
	myoporum	9
	palm	12
	pine	5
	pittosporum	4
	redwood	3
	sycamore	3
	Total	**129**

Figure 3. In some cases tree names were slightly modified in the Tree Inventory below.

Tree Inventory

Name	Number	Health	Comments	Butterfly Use?
Black Acacia	29-31, 48-50	Good	Not pruned at this time.	No
Carrotwood	14, 15	Good	**Both to be removed for building construction**.	No
Monterey Cypress	5, 34, 36, 37, 44, 72, 93-95, 106	Good	Not pruned	No
Tasmanian Blue Gum	7-10, 33, 43, 45-47, 51-54, 57, 59-60, 63-64, 65, 73, 76, 79, 81-92, 98, 101-107	Good	All to be pruned at some future date.	Yes (#'s 64, 102, 103, 104)
Eucalyptus polyanthemos	27, 28	Fair	**Both to be removed for building construction**.	No
30" DBH Eucalyptus sp.	56	Good	To be pruned at some future date.	No
Fruit tree orchard	111-134	Good	No pruning needed	No
Small Maple	11	Good	**To be removed for building construction**	No
Myoporum	32, 39, 42, 98, 99, 100	Variable	No pruning needed	No
Myoporum	26	Fair	**To be removed or relocated for building construction**	No

Tree Inventory (continued)

Name	Number	Health	Comments	Butterfly Use?
Palm varieties	12, 13, 18, 20, 22, 23, 24, 25, 66, 78, 80	Good	No pruning needed. **Some may be removed or translocated for building installation.**	No
Howea palm	17	Poor	**Remove. A diseased tree**	No
Miscellaneous pine varieties	29, 67, 68, 69, 75	Good	No pruning needed	Yes (#67)
Aleppo Pine	16	Good health. Leans dangerously	**To be removed for reasons of safety.**	No
Pittosporum	40, 41, 71	Fair-good	No pruning needed	No
Coast Redwood	96	Good	No pruning needed	Yes
Sycamore/ London Plane mix	19, 21	Good	**Removal recommend-ed** as they are not genetically pure Sycamores.	No

A Discussion Regarding the Mature Black Acacias and Monterey Cypress

I elected to pass up the pruning of these two species represented on the property at this time. It is my belief that with the occasionally strong southeast winds coming from off the ocean, these particular trees are better off full rather than thinned out. In addition, they afford two of the best wind buffers on the property.

Future Tree Pruning and Maintenance

As mentioned in the subsection on page 1, A- 4 titled Tree Pruning and Removal, there is no guarantee the trees on the property will go without pruning maintenance for a period as long as ten years. Of particular focus will be the fast growing Black Acacias, Monterey Pines, and Eucalyptus varieties. The dead fronds of the mature Canary Island Palm on the northwest side will need occasional removal as well. I suggest that every two years the entire tree population be surveyed for changes in health and the possible need for pruning.

Any tree pruning work on the property shall be monitored and guided by a qualified monarch butterfly specialist familiar with the site. The project arborist will be on call for specific tree issues.

Tree Removal and Proposed Building Construction

Aside from Monarch butterfly protection, issues between new building construction and trees will become a major factor. The site plan section in Figure 4, page 6 shows new building overlays along with circles representing trees near or within their footprints. As noted in the Tree Inventory table on pages 4-5, **selected non-native non-specimen trees and palms will be removed and possibly relocated to facilitate building installation.**

Site Plan Section with Proposed Building Overlays and Proposed New Tree Planting Locations

Figure 4. Plan section shows proposed building footprint overlays. Trees are represented with dashed line circles. Also, the planting locations of six 24" boxed Island Oaks are represented with dark green circles. The project biologist recommended their placement for maximum wind buffering. The new octagonal building will also add to the general wind blockage.

Report prepared by:

Duke McPherson

Certified Arborist with the
International Society of Arboriculture
Certification # WE-0690A

Monarch Butterfly Habitat Conservation and Enhancement Plan

3393 Padaro Lane, Carpinteria, CA

Prepared for

PLSB

by

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

CREEKSIDE SCIENCE

May 2023

Table of Contents

List of Tables

List of Figures

List of Exhibits

List of Appendices

Cover Page: Coast redwood (*Sequoia sempervirens*) monarch aggregation tree at 3393 Padaro Lane

1 INTRODUCTION

The Western North American monarch butterfly has experienced large population fluctuations over the last 30 years. Millions of monarch butterflies were present at California winter aggregations sites in the 1980's. Since then, the western monarchs have experienced a general downward decline with natural fluxtuations. Less than 2,000 monarch individuals were observed in all western aggregation sites at the overwintering population peak during the 2020-2021 overwintering season. Remarkably, the western population bounced back to about 250,000 in the 2021-2022 season and over 300,000 in the 2022-2023 season.

During the 2021-2022 season, 25,000 monarchs, or 10 percent of the entire western population, aggregated at 3393 Padaro Lane on one redwood tree, several surrounding eucalyptus trees, and one pine tree (Table 1). All the 25,000 butterflies clustered in an area less than three-fourths of an acre on the property. This large number of monarch butterflies indicates the site has the appropriate configuration of trees and topographic location to provide microclimate and light conditions desirable for monarch butterflies during the fall. By January 2022 about 5,900 monarch butterflies remained at the aggregation site. The significant reduction in monarch numbers suggests there are vulnerabilities at the site that affect the duration of site suitability. Weather conditions during the winter may have caused butterflies to leave the site for other protected locations. Similarly, during the next season of 2022-2023 the western population peaked with over 300,000 butterflies and a total of 25,710 monarchs were observed in November 2022 in the same area at 3393 Padaro Lane. This similar number suggests consistent site suitability in fall. Significant, strong storms hit California in late December 2022 and January 2023 and greatly impacted the aggregating monarch butterflies along the California coast and at 3393 Padaro Lane. By early January 2023, the aggregation of monarchs at 3393 Padaro Lane was reduced to less than half with 11,700 individuals.

We studied this site to characterize site conditions, assess site vulnerabilities, identify protective features andanalyze the effect of proposed changes on the property. This plan provides protective and enhancement recommendations to both preserve and improve the site for monarch butterfly overwintering into the future.

TABLE 1. MONARCH BUTTERFLIES IN AGGREGATION AT 3393 PADARO LANE

Count data from the Xerces Society (2023a) and Watershed Environmental (2022).

Count Date	Monarch Count	Location	Behavior
Thanksgiving 11/19/2021	25,081	Redwood	Clustering
New Year 1/8/2022	5,900	Redwood	Clustering
1/17/2022	15,395	Redwood, pine, eucalyptus	Clustering, sunning, fliers
2/9/2022	4,749	Eucalyptus, redwood	Clustering
2/16/2022	2,470	Redwood, eucalyptus, cypress	Clustering, flying, sunning
2/25/2022	2,125	Redwood, cypress	Clustering
3/2/2022	30	Aggregation area	Sunners, fliers

Count Date	Monarch Count	Location	Behavior
11/15/2022	25,081	Redwood, eucalyptus	Clustering
1/1/2023	11,700	Redwood, eucalyptus	Clustering
2/16/2023	>1,000	Eucalyptus and cypress	Clustering, flying, sunning

1.1 Report Preparers

This document was prepared by Daniel E. Meade, Ph.D., Stu Weiss, Ph.D. and Kyle Nessen who conducted data acquisition, analysis and modeling. Charis van der Heide provided monarch butterfly population estimates and project support.

Contact information for the project proponent, biological consultant, permitting agency, and project architect are provided in Table 2.

TABLE 2. CONTACT INFORMATION

Project Representatives		Biological Consultants	
Mark Lloyd L&P Consultants 3 W. Carrillo St., #205 Santa Barbara, CA 93101 mlloyd@landconsutants.net (805) 962-4611	Jim Sangster Management P.O. Box 149 Ojai, CA 93024 jim@sangstermgt.com (805) 640-5953	Althouse & Meade, Inc. c/o Kyle Nessen 1602 Spring Street Paso Robles, CA 93446 kylen@alt-me.com (805) 237-9626 Althouse & Meade, Inc. c/o Charis van der Heide 1602 Spring Street Paso Robles, CA 93446 charisvdh@alt-me.com (805) 453-6801	Creekside Science c/o Dr. Stu Weiss P.O. Box 1553 Los Gatos, CA 95031 stu@creeksidescience.com (605) 269-2876
Permitting Agency		Project Architect	
County of Santa Barbara Department of Planning & Development Atten: Katie Nall 123 E. Anapamu Street Santa Barbara, CA 93101 nallk@countyofsb.org 805-884-8050		Paul Rubison, AIA Associate, Appleton Partners LLP 911 Chapala Street Santa Barbara, CA 93101 PRubison@appleton-architects.com (805) 965-0304	

1.2 Revisions to the February 2023 Report

The County of Santa Barbara requested the Xerces Society to conduct a peer review of our report, initially prepared in February 2023. The Xerces Society provided insightful and detailed feedback aimed at improving the analytical clarity and enriching our recommendations. The feedback letter submitted by the Xerces Society is available for review in Appendix A.

In light of their comments, we have revised our report and included a table of a summarized list of the questions and concerns raised, along with our responses to each, in Appendix B. Furthermore, we've indicated the areas within the report where revisions have been implemented in response to the feedback.

2 EXISTING SITE CONDITION

2.1 Project Location and Existing Conditions

The proposed project is located at 3393 Padaro Lane, Carpinteria, California (Figure 1). An aerial photo of the subject property shows trees that create the aggregation site (Figure 2).

Padaro Lane has supported large aggregations of overwintering monarch butterflies for at least four decades at several locations along Padaro Lane. Aggregations are documented to have occurred over the last 30 years at 2825, 3177, 3197, 3393, and 3453 Padaro Lane (Calvert 1991, Meade 1999, Meade et al. 2018). Movement of aggregations from place to place has occurred with changes to trees at the various sites along Padaro Lane. This includes pruning and/or tree removals at three of the sites. Increase in vegetation mass and tree height at 3393 Padaro Lane may also have encouraged movement to a location with improved protection.

The 3393 Padaro Lane monarch aggregation was first documented by the Xerces Society for Invertebrate Conservation in 2015 and identified as site 3223. Their annual Western Monarch Thanksgiving count in 2015 documented approximately 3,400 monarchs at the location (Table 3). In following years 5,700 monarchs were counted in 2016, and then the entire western population declined rapidly. None were observed in 2020, and then the population recovered from an all-time low resulting in approximately 25,000 monarchs at the site in 2021. This high count for 3393 Padaro Lane was also the highest number of monarchs counted at any site in California during the 2021-2022 overwintering season. In 2022, the monarchs maintained their presence with 25,710 individuals in November 2022 and 11,700 in January 2023.

TABLE 3. MONARCH BUTTERFLY COUNTS AT 3393 PADARO LANE

Monarch butterfly aggregation was first noted in 2015. The overwintering season begins October 1 and extends through March. In recent years the season has compressed to November 1st to mid-February. New Year counts began in 2017, however 3393 Padaro Lane was not counted for New Year until 2022.

Year	Thanksgiving	New Year
2015	3,391	---
2016	5,740	---
2017	862	---
2018	2	---
2019	6	---
2020-2021	0	---
2021-2022	25,081	5,900
2022-2023	25,710	11,700

2.2 Monarch Butterfly Aggregation

The monarch butterfly aggregation at 3393 Padaro Lane embraces a coast redwood tree (*Sequoia sempervirens*) and adjacent blue gum eucalyptus (*Eucalyptus globulus*) trees to the north and east (see Photos 1, 2 and 5). A single pine tree at the west edge of the fruit orchard also held monarch clusters. The aggregation area is protected by a circle of trees that creates wind protection with the redwood tree located near the northeast wall of the circle (see Photos 3 and 4). The site is almost

enclosed by a mix of eucalyptus trees, pine, palm, and Monterey cypress trees. Clusters were concentrated on the redwood tree with monarchs also clustering on blue gum trees east and north of the redwood. Monarch clusters were not present at the site on March 2, 2022 (Watershed Environmental 2022).

The aggregation area appeared to be well protected from wind and provided desirable dappled light typical of monarch aggregations (Weiss et al. 1991).

Overwintering monarchs, butterflies that migrated from inland breeding sites in Western North America, seek groves of trees in mild coastal climates where freezes rarely occur (Pelton et al. 2016, Xerces Society 2017). Within those groves, they seek wind-sheltered areas which requires a dense wall of foliage from ground to canopy top in the windward direction, or sheltering hillslopes. Monarchs prefer microsites that receive a combination of full direct and dappled insolation (sunlight) for basking, but also have shaded areas for resting at cool temperatures. Large areas of deep shade are rarely occupied for long. Forests can be either too open, or too dense for cluster sites (Weiss et al. 1991).

Monarchs adjust their microdistribution among trees and branches as winds and insolation shift, and will completely abandon sites if the microclimate, primarily wind, exceeds their tolerance. Winds greater than 2 m/s (5.2 mph) at ground level appear to be a limit for cluster sites (Leong 1990, Leong et al. 1991, Leong 2016). When weather is mild, monarchs will use a wide variety of sites and have an expansive microdistribution. When storms approach, with the strongest winds from the SE, monarchs concentrate in the most SE-wind-sheltered spots. As the front passes, winds shift though S, SW, W, and NW and monarchs may readjust their cluster sites when they can fly again. But strong winds are possible from all directions, including dry N, NE, and E winds, so wind shelter over the entire 360° circle needs to be available somewhere in a site. It takes a delicate balance between dense canopy cover and more open areas to attract and retain monarchs, as they dynamically "crowd source the microclimate."

In Carpinteria during December 2021 high wind events occurred on December 9th (20 mph with gusts to 25 mph), December 13th (22 mph with gusts to 30 mph) and from December 22 through December 31st (18 mph with gusts to 30 mph). Another high wind day occurred on January 21st (18 mph). Monarch numbers decreased from the high count of 25,081 on November to 5,900 on January 8th following the December weather. By January 17th the monarch aggregation recovered to 15,395 butterflies. After the high wind event on January 21st numbers on February 9th had decreased to 4,749. Wind data was obtained from Weather Underground Carpinteria station. Although these changes cannot be directly attributed to wind events, the fluctuation in monarch butterfly numbers at the aggregation site is consistent with the premise that wind protection is an important factor at a monarch overwintering site and suggests the Padaro site may have vulnerabilities to storm winds.

Dense perimeter trees and/or sheltering topography for wind protection in all directions, with an interior canopy gap for a varied insolation environment, is an ideal habitat configuration.

Figure 1. United States Geological Survey Topographic Map

Legend

★ Project Location

N

0 1,000 2,000 Feet

3393 Padaro Lane
Map Center: 119.56036°W 34.41475°N
Carpinteria, Santa Barbara County

USGS Quadrangle: Carpinteria

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

Map Updated:
February 20, 2023 12:48 PM by SRH

Figure 2. Aerial Photograph

Legend

Study Area (2 acres)

N

0 50 100 Feet

3393 Padaro Lane
Map Center: 119.56036°W 34.41475°N
Carpinteria, Santa Barbara County

Imagery Source: Althouse and Meade, 02/25/2022

3 METHODS

3.1 Hemispherical Photography

Hemispherical photography has been a standard method for assessing forest canopy structure at monarch overwintering sites (Weiss et al. 1991, Weiss and Murphy 1992, Weiss 1998, Weiss 2011, Weiss 2016). Photographs are taken using a Nikkor 8mm lens on a Nixon D610 camera body, mounted on self-leveling gimbals so that the photograph is pointed straight up at the zenith. A compass is used to orient to north. Figure 3 provides hemispherical photo point locations to cover habitat contributing to protection of monarch clustering locations. Photos taken at these points were used to produce Exhibit 5 that shows the interpolated exposure from 8 different directions and the maximum exposure from all directions.

Photographs are analyzed with Hemiview 2.0 software (Delta-T Devices). The photographs are aligned, and a gray-scale threshold is interactively selected to differentiate sky from obstructions. Photographs are best taken under uniform overcast conditions, or at sunrise or sunset, when there is no direct illumination of the canopy (which can be brighter than the sky).

Hemiview overlays a "sky grid" (gray) that divides the upward hemisphere into 5° zenith angle increments (18 total = 90°) and 45° azimuth wedges centered on the eight cardinal directions. The fraction of open sky in each segment is calculated, and weighted by the geometry of the segment depending on the analysis. Hemiview also overlays a "sun grid" (yellow) based on site latitude, with monthly increments through the year, and half-hourly increments over the day. The December 21 sunpath (winter solstice) is the lowest path, the middle path is March 21, and the highest path is June 21. The fraction of open sky in each of the segments is calculated, and the specified solar model is used to calculate insolation. Here, the units are MJ m-1 month-1, which is directly proportional to the LiDAR derived watt-hours m-2 d-1.

An example photograph, taken in the cluster site, shows both grids. The following "site factors" are extracted:

(1) ISFU – Indirect Site Factor Uncorrected, the fraction of visible sky in all directions.
(2) DSFU – Direct Site Factor Uncorrected, the fraction of potential radiation across all months.
(3) October, Nov/Feb and Dec/Jan potential direct insolation – calculated from fraction of unobstructed monthly sunpaths assuming clear skies.
(4) Wind Site Factors (WSF) – the fraction of sky visible in eight compass directions, a measure of relative wind exposure.

A brief description of these site factors is in an example photograph (Exhibit 1). WSF values are posted in each octant. Note that East and West are reversed in upward-looking photographs.

3.1.1 Reading a Hemispherical Photograph

The important thing to look at in the photographs is the amount of open sky in various sectors – in the 8 cardinal 45° compass directions (azimuth) and in the various elevation angle bands. Note how much larger the area of each sector is near the horizon. For wind at ground level, the most important sectors are the first 10° above the horizon. However, as one ascends in height, the higher elevation angle sectors become more important. WSF uses visible sky in the entire 45° sector as

an approximation, one that provides a good measure of relative wind exposure. The basic relationship is monotonic – more open sky equals more wind exposure.

The sun paths are divided into monthly bands going E to W (left to right) across the photo, divided into half-hour time slices (Exhibit 3). Fully shaded is when a sector is totally blocked, dappled light of varying intensities is where many small holes in the canopy are visible, and full sun when the sky is open. Apparent sunpaths are quite sensitive to the height of observation – sites that are completely shaded at ground level may be in bright sun 20 ft up in the canopy, depending on the exact configuration of branches and canopy gaps.

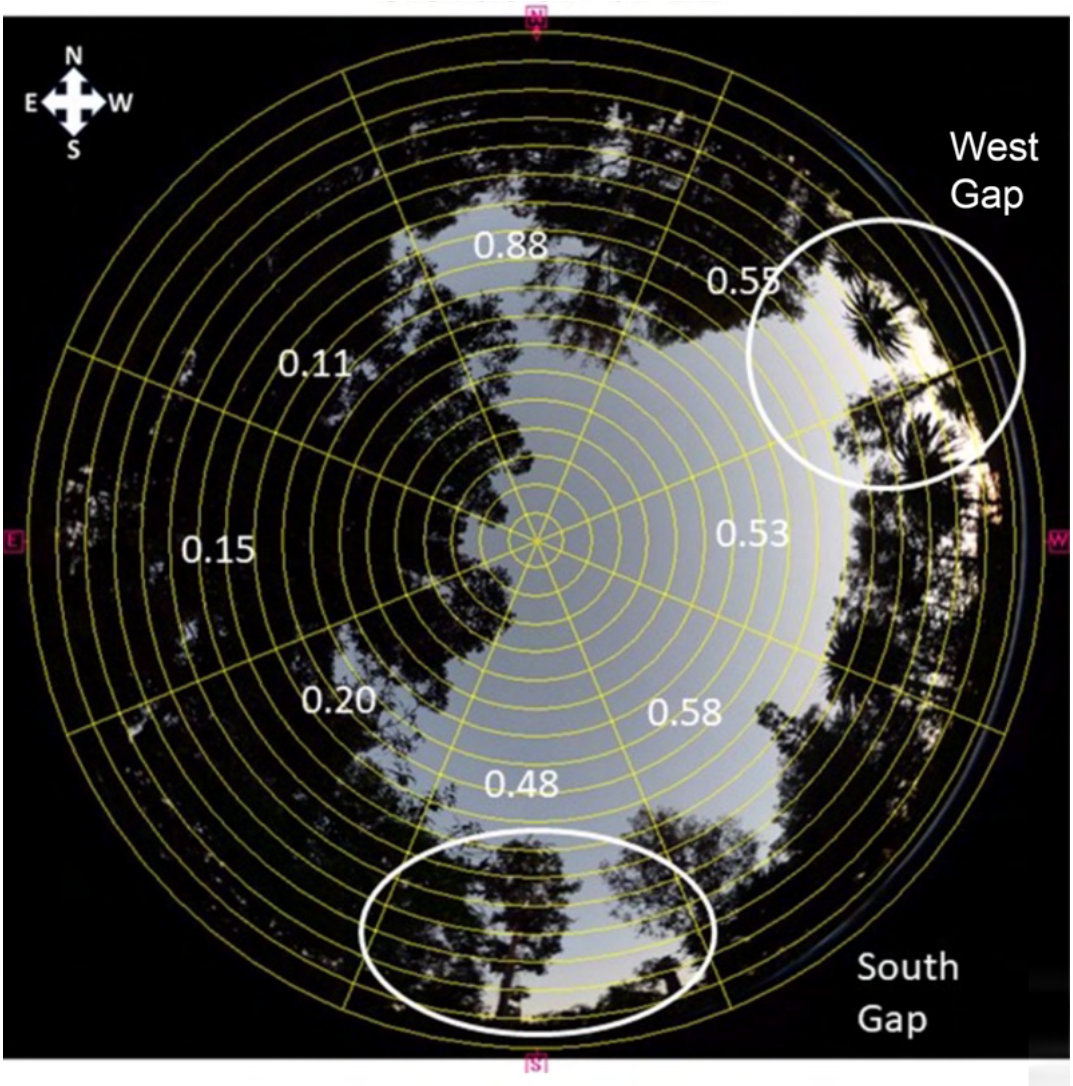


EXHIBIT 1. HEMIPHOTO AT CLUSTER TREE

This photo was taken SW of the cluster tree, at an elevation of 11' (3.5 m), to obtain a view unobstructed by the short trees in the orchard. Exposure factors are posted in each azimuth octant. The West Gap is a wind vulnerability. The palms on the adjacent property provide the primary wind shelter in that gap above 10° elevation.

Figure 3. Hemispherical Photo Points

Legend

- Hemispherical Photo Points
- Study Area (2 acres)

N

0 50 100 Feet

3393 Padaro Lane
Map Center: 119.56036°W 34.41475°N
Carpinteria, Santa Barbara County

Imagery Source: Althouse and Meade, 02/25/2022

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

Map Updated:
February 20, 2023 12:48 PM by SRH

3.2 Wind Modeling

To assess changes in sheltering dynamics around the monarch aggregation site, we modeled existing and proposed wind conditions using microclimate airflow simulations.

A three-dimensional model of the Study Area was recreated in Rhinoceros 3D 7 (McNeel et. al. 2010). Local terrain, nearby buildings, and site-specific tree geometries were added using the landscape architecture plugin, Lands Design (Asuni 2022). The location of the trees was directed from a georeferenced topographic survey of the property, and tree dimensions were determined from a canopy height model generated by Althouse and Meade drone surveys conducted on February 25, 2022. Onsite buildings were drawn in place and to the correct height.

Appleton Partners provided geometries and site plans for the proposed buildings, which were then georeferenced to the Study Area model. Trees and buildings that would be changed by the proposed plans were removed, and additional tree plantings were placed in areas that would benefit wind protection the most.

Both existing and proposed conditions were modeled using Eddy3D, a plugin for Rhino 7 that uses OpenFOAM, a computational fluid dynamic simulator, to model microclimate conditions (Weller et. al. 1998). An atmospheric flow boundary condition, informed by weather data collected at Santa Barbara Municipal Airport, was used for all simulations. Turbulence parameters used the kOmegaSST model. Relaxation factors and solution and control algorithms were both set to robust. The model treated trees as momentum sinks, using the default "dense tree" Darcy-Forcheimer coefficients. Models were allowed to run until residuals did not exceed $1x10^{-4}$, indicating a solution to the simulation was reached.

Modeling dynamic systems is challenging, even in tightly controlled environments. A large natural system, such as a grove of eucalyptus trees found within the Study Area, is subject to some inaccuracy. However, modeling both conditions using identical parameters can robustly explore the general character of change.

Iterations of various scenarios were conducted to produce configurations of trees and structures that at least did not result in increased wind speeds within the aggregation area. For example, we placed trees in several locations in the South Gap and tested whether they would adequately reduce windspeeds (Figure 6). The models presented here are the result of testing these iterations.

3.2.1 Wind Direction and Speed Records

Two wind directions were chosen based on vulnerabilities in the grove identified by hemiphotos and changes to the site by the proposed project (see Section 4.1). To model the West Gap, we choose a wind direction of 290 degrees. The South Gap used 200 degrees. These directions were chosen as the most likely directions to pass through the gaps and directly affect the main clustering site in the aggregation (the redwood tree). All simulations used the storm condition wind speeds for their respective direction at 12 m/s (Exhibit 2).

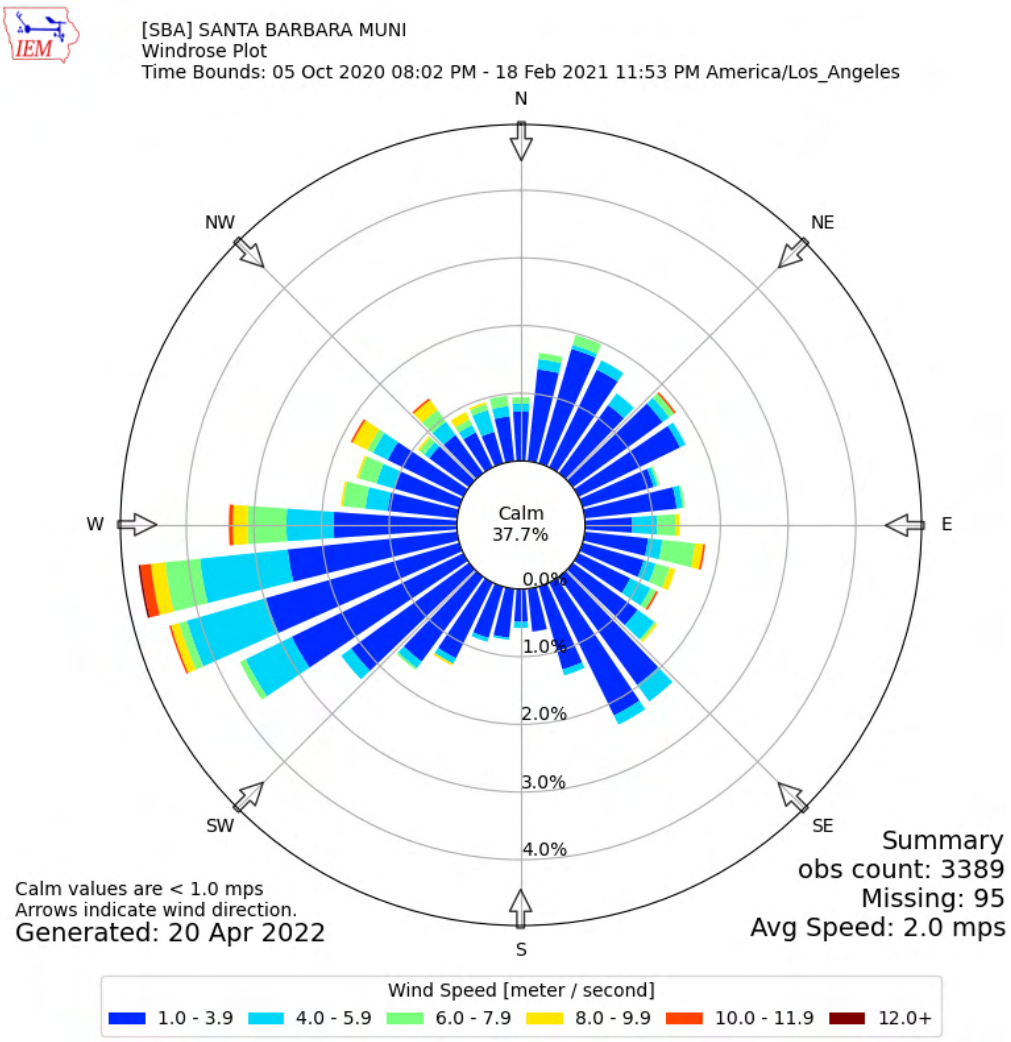


EXHIBIT 2. WIND DATA

Windrose chart showing wind conditions observed at nearby Santa Barbara Municipal Airport during the 2021-2022 overwintering period.

3.2.2 Wind Speed Validation

To validate the effect of vegetation and structures on reducing wind speed at the aggregation site and to obtain a calibration metric (wind speed reduction percent) for the wind modeling runs, wind speed was measured on the property at a control point south of wind buffering vegetation and structures, and at points within sheltered locations on the property. Link enabled Kestrel 5500 weather meters with rotating vanes were utilized to simultaneously record wind data at the control point and at points within the property. The control meter was mounted on a 13-foot-tall stand and placed near the beach. The second wind meter was mounted on a 13-foot-tall pole and hand carried to various locations within the wind shelter. Wind speed was measured on a day with steady southwest wind for a 10-minute duration at each measurement point and average, high and low wind speed recorded for the period. Observed conditions at the control point were then inputted

into the wind simulation model and predicted values were compared to on the ground measurements.

3.2.3 Model Scenarios Investigated

Model runs were selected to investigate changes in wind patterns and specifically wind velocities at the aggregation locations that would occur if the proposed project is constructed. The goal is to illuminate differences between current wind patterns on the property and those patterns that would exist with elimination of several structures and trees, and placement of new structures and landscape. Large trees would be added to the site and several tall palms already on site would be moved. Reduction of wind speeds at aggregation areas would improve protection of the clustering areas. Increase of wind speed at clustering locations would reduce protection of clustering butterflies and be detrimental to stability of the aggregation.

For each identified vulnerability, we modeled the existing conditions and proposed project to compare wind sheltering effects of the project. Three views were created for the west and south gap scenarios: an overview of the Study Area, and an oblique view of the site, and a vertical profile of the aggregation tree.

4 RESULTS

4.1 Hemispherical Photography

Hemispherical photography identified two distinct areas of vulnerability in the protective wind cover at the aggregation site (Figure 4). The fisheye 180° shown below (Exhibit 3) reveals significant gaps to the south and north northwest of the primary aggregation tree. The South Gap is a wind vulnerability. The clump of trees in that gap (including the palm just visible) provides the only wind shelter for the cluster tree from that direction, and the shelter does not extend to higher elevations. Plugging this gap with the building itself and tall trees could improve wind protection at the cluster tree. The West Gap is a wind vulnerability. This gap is probably the most important vulnerability as storm winds are strongest and most frequent from this direction.

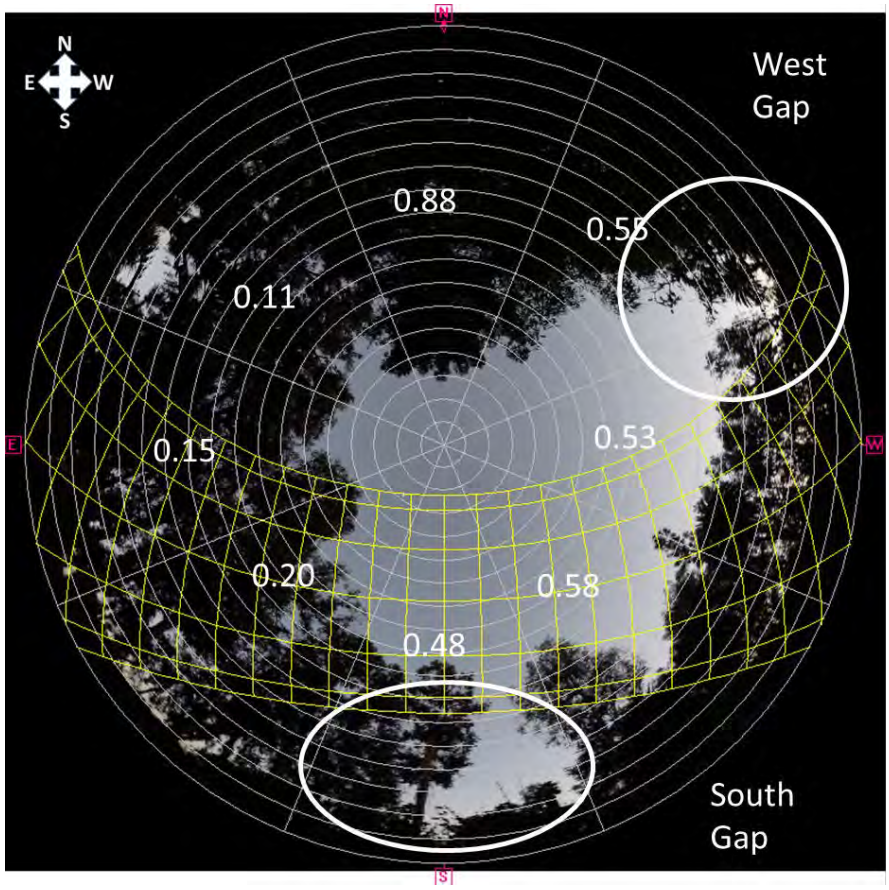


EXHIBIT 3. HEMISPHERICAL PHOTO AT THE SW SIDE OF THE PRIMARY CLUSTERING TREE

Wind vulnerabilities are circled. Percent of open sky is given in each octant. This photo was taken SW of the cluster tree, at an elevation of 11' (3.5 m), to obtain a view unobstructed by the short trees in the orchard. Exposure factors are posted in each azimuth octant. The West Gap is a wind vulnerability. The palms on the adjacent property provide the primary wind shelter in that gap above 10' elevation. The South Gap is a wind vulnerability. The clump of trees in that gap (including the palm just visible) provides the only wind shelter for the cluster tree from that direction, and the shelter does not extend to higher elevations. Plugging this gap with the building itself and tall trees would improve wind protection.

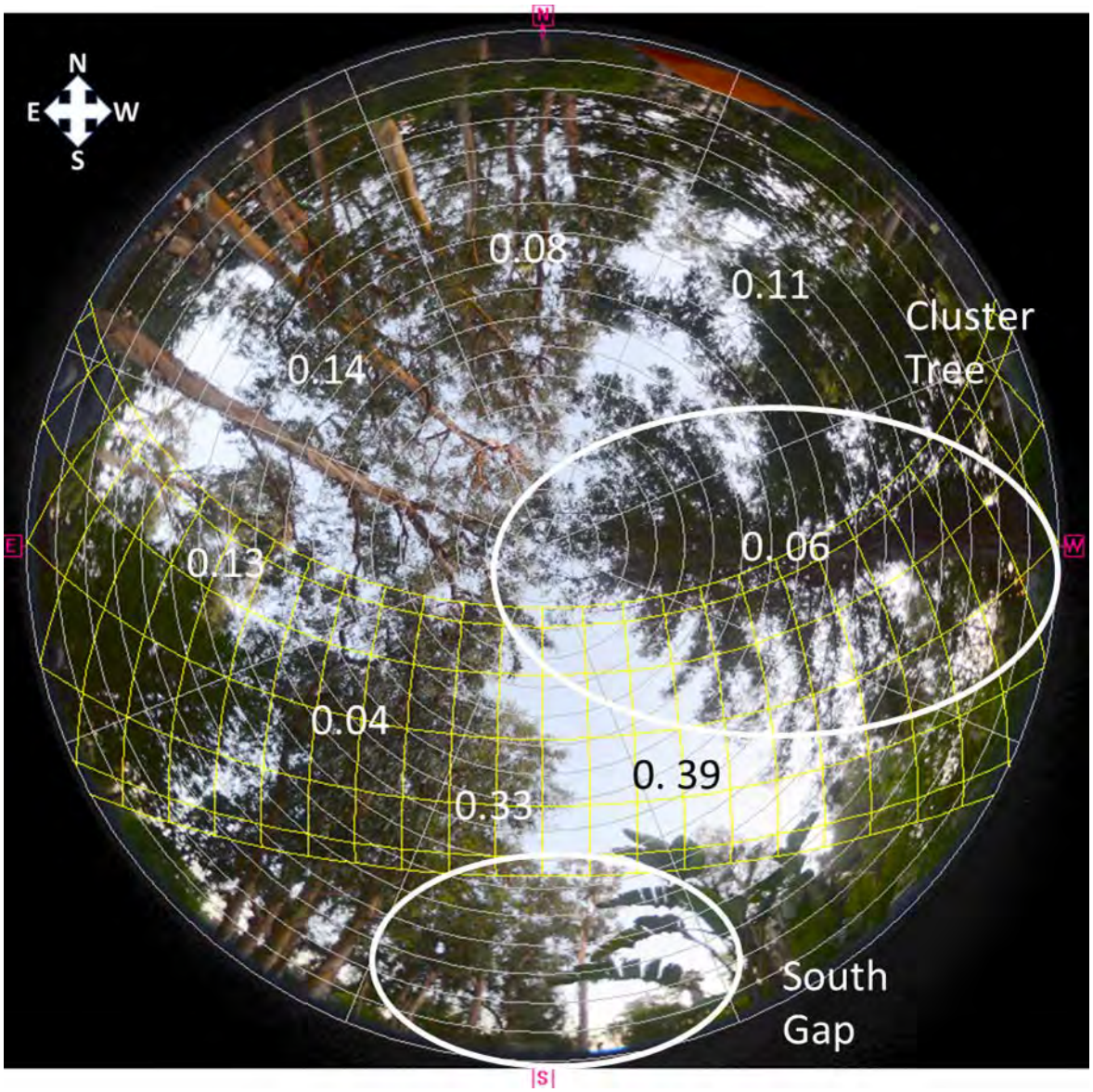


EXHIBIT 4. HEMISPHERICAL PHOTO AT THE ENE SIDE OF THE PRIMARY CLUSTERING TREE

This photo is on the opposite side of the primary clustering tree from the previous photo, ENE of the cluster tree at elevation 6'. It explains why most clusters formed and remained on the well protected ENE side of the redwood primary clustering tree. It also shows that the South Gap is a vulnerability even at this location. Monarchs clustered 3-7 meters above this hemiphoto elevation, on the ENE side of the cluster tree. Exposure factors are posted in each azimuth octant. This site is the black outlined circle in the exposure maps, below. The West Gap is not visible. Cluster branches are sheltered from the South Gap by the tree itself.

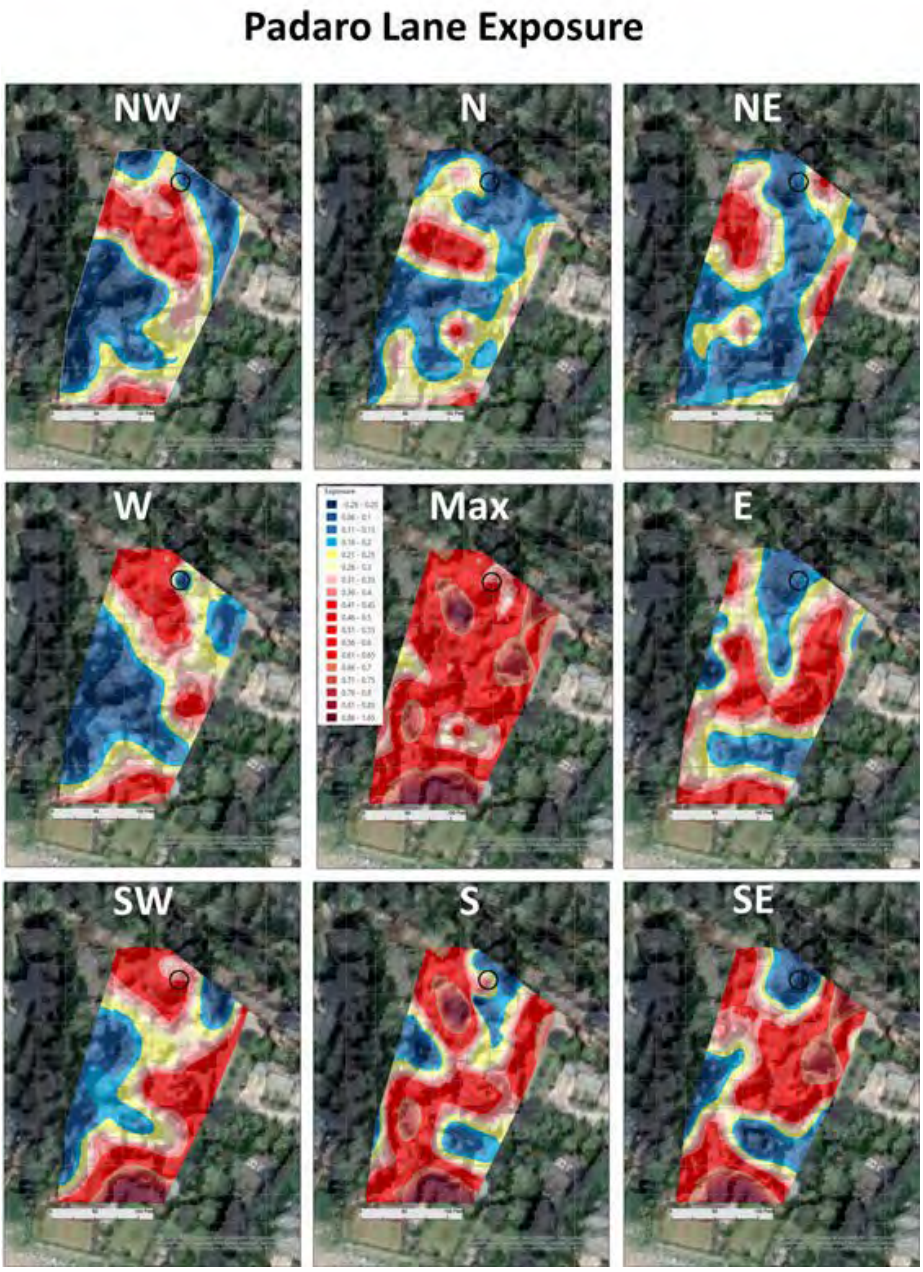


EXHIBIT 5. INTERPOLATED WIND EXPOSURE

Interpolated exposure from 8 different directions, and the maximum exposure (center). The cluster site (small black outlined circle) is sheltered (blue) from most directions. Exposure is higher (red to white) from SW and S. But the cluster tree itself provides the last line of shelter – exposure attenuates sharply from high exposure on windward side, and low exposure on leeward side (especially noticeable in S, SW, W and NW maps). Monarchs cluster on the NE side of the redwood tree, where Max exposure is lower (white) than surrounding areas (red).

Figure 4. Identified Wind Vulnerabilities

Legend

- Study Area (2 acres)
- Identified Vulnerability Areas
- Aggregation Site

N

0 50 100 Feet

3393 Padaro Lane
Map Center: 119.56036°W 34.41475°N
Carpinteria, Santa Barbara County

Imagery Source: Althouse and Meade, 02/25/2022

4.2 Wind Modeling and Planting Design

4.2.1 General Conclusions

- Wind conditions for overwintering monarchs were assessed for current and proposed conditions.
- Overall, the proposed project will improve habitat quality by reducing wind speeds under storm conditions at monarch aggregation sites.
- The size of proposed buildings create advantageous wind breaks that help reduce strong winds, and the locations are placed strategically in the most vulernable gaps identified in existing canopy.
- The addition of proposed tree plantings, particularly large island oaks around the aggregation tree, further reinforce wind protection improvements.
- Wind models assume the preservation and maintenance of existing large *Eucalyptus* trees with full canopies, and if they are lost, the habitat quality will rapidly degrade.

4.2.2 Description of Changes Between Current and Proposed Conditions

In the analytical phase of this project, we undertook multiple design iterations. The final design, detailed in the subsequent sections, has been crafted to integrate modifications to the proposed building layout. This design strategically utilizes both existing and newly planted trees to conserve and augment the overwintering habitat of the monarch butterfly. Figure 5 provides a detailed visual representation of the buildings and trees slated for removal, addition, or relocation within the Study Area.

The current plan necessitates the removal of the nine existing buildings within the Study Area for the construction of the three proposed buildings. However, our model retains several neighboring buildings on adjacent lots, bridging the gap between the current and proposed condition simulations. In the northeastern corner of the Study Area, a section of a hedge row is slated for removal to accommodate a second gate to the property. This additional gate ensures site accessibility while minimizing disturbance to the resident monarch butterflies.

In the heart of the grove opening, an existing orchard is proposed for removal. Our simulations indicate that this removal will not substantially impact wind protection. However, it is important to highlight that three large island oaks, strategically positioned to the west, southwest, and south of the monarch clustering site, will serve as a secondary inner wind break, compensating for the loss of the orchard trees. The current orchard location is planned to be repurposed for the planting of a variety of nectaring plants, specifically chosen for their suitability to overwintering monarchs. The list of nectar plants is included in Appendix C. These plants will not include milkweed and will adhere to the best practices for home gardening as outlined by Xerces (2023b).

A group of trees beneath the South Gap is marked for removal or, in the case of existing palms, relocation, to accommodate the proposed main building. The relocated palm trees will be positioned to the north, filling the South Gap (shown in orange arrows in Figure 5). This arrangement will also include a large island oak to the north of the palms, further sealing the gap. Along the eastern boundary of the main grove, additional island oaks will be planted to mitigate wind flow from the main building. The site design also incorporates the planting of several smaller

trees, including sycamores. For a comprehensive discussion on how the addition of the main building, greenhouse, and changes to tree structure impact wind dynamics, please refer to Section 4.2.4.

An accessory building is proposed for construction in the West Gap of the site. Section 4.2.5 provides a detailed analysis of how this building will influence wind speeds at the monarch clustering site.

4.2.3 Wind Speed Validation

Wind speeds were measured on site, inside and outside the grove (See 3.2.2). Observed conditions outside the grove for each sampling period were inputted into the existing conditions model and resulting wind speed output were compared to measurements on the ground. In general, modelled and measured wind speeds at each validation point did not differ by more than 1 m/s and were within range of acceptable values.

4.2.4 South Gap Wind Model Results

To evaluate the effects of the proposed project on monarch overwintering habitat in regards to wind protection, we ran various simulation scenarios under storm conditions (See Methods Section 3). We chose a wind direction of 200 degrees, as this was the most vulnerable direction from the existing South Gap (See section 3.1) to the primary monarch clustering site.

We found that under existing conditions, the interior space of the *Eucalyptus* trees provided suitable to marginal wind protection. Along the periphery of the west and east Eucalyptus wind rows, wind conditions were predominately suitable, with the aggregation site experiencing the calmest wind speeds (Figure 6). The center of the interior space experiences marginal wind conditions, primarily explained by the South Gap and single row of trees that separate strong wind speeds from the rest of the overwintering habitat (Figure 7).

Under proposed conditions, the main house provides wind shelter by being placed directly in front of the South Gap (Figure 7). Wind is redirected from the main house to the west, where it is dissipated by the large *Eucaylptus* trees that buffer the western side of the property, and to the east where it is redirected away and around the eastern side of the interior grove (Figure 6). Large plantings of island oak (*Quercus tomentella*) around the aggregation tree reinforce this wind proctection, providing still winds near where monarchs have historically clustered (Figure 7). Marginal wind speeds still persist under proposed conditions, but is substaintially reduced, resulting in primarily suitable wind speeds within the interior.

In the current conditions, the monarch clustering site has suitable protection from storm conditions, illuminating why monarchs choose this area to roost. Figure 7 shows a vertical profile of winds speeds that intersect the South Gap and the aggregation site, and both the current and proposed conditions show suitable wind protection, particularly on the north side of the aggregation tree where monarchs cluster. However, the proposed additional trees and main house height, bulk and scale contribute to a greater wind reduction in the proposed condition, providing a meaningfully increased wind protection condition and reduced wind speeds in the interior grove, and resulting in an enhanced habitat condition for monarch roosting.

4.2.5 West Gap Wind Model Results

Effects of the proposed project on wind protection was also examined for the West Gap using wind simulations. Current and proposed conditions were subjected to identical storm conditions of 12 m/s (28 mph). We chose a wind direction of 290 degrees, as this was the most vulnerable direction from the existing West Gap to the monarch clustering site.

Under existing conditions, there is considerable wind penetration from the West Gap, creating unsuitable and excessive wind speeds within the interior grove (Figure 9). This stream of excessive wind spills over the existing building on the west side of the grove and collides with the monarch overwintering site and eastern tree break. Only a few pockets of suitable wind conditions occur, primarily behind the aggregation tree where monarchs have been observed, and along the periphery of some of the *Eucalyptus* trees (Figure 10). Overall, wind conditions are poor from a westerly wind and the West Gap creates conditions that may cause monarchs to abandon the site.

Under proposed conditions, wind dynamics are improved considerably with the addition of the guest house. The two story building fills the West Gap and reduces wind speeds around the aggreagation site (Figure 9 and Figure 10). The additional plantings of island oak reinforce this wind protection, creating suitable conditions in and around the monarch clustering area.

The vertical profile of the aggregation site shows the wind vulnerability clearly under existing conditions (Figure 11). Excessive wind speeds reach the aggregation tree on the west side, while a suitable wind shadow is created on the opposite side. The addition of the guest house and island oak help reduce wind speeds before it reaches the aggregation tree, but excessive speeds are still present at higher reaches. To assess if wind protection will improve with time as the planted trees are allowed to grow, we ran a second simulation where trees were allowed to grow for 10-15 years. Overall, wind protection increases to suitable conditions, even at the highest extent of the aggregation tree (Figure 12).

Figure 5. Changes from Current to Proposed Conditions

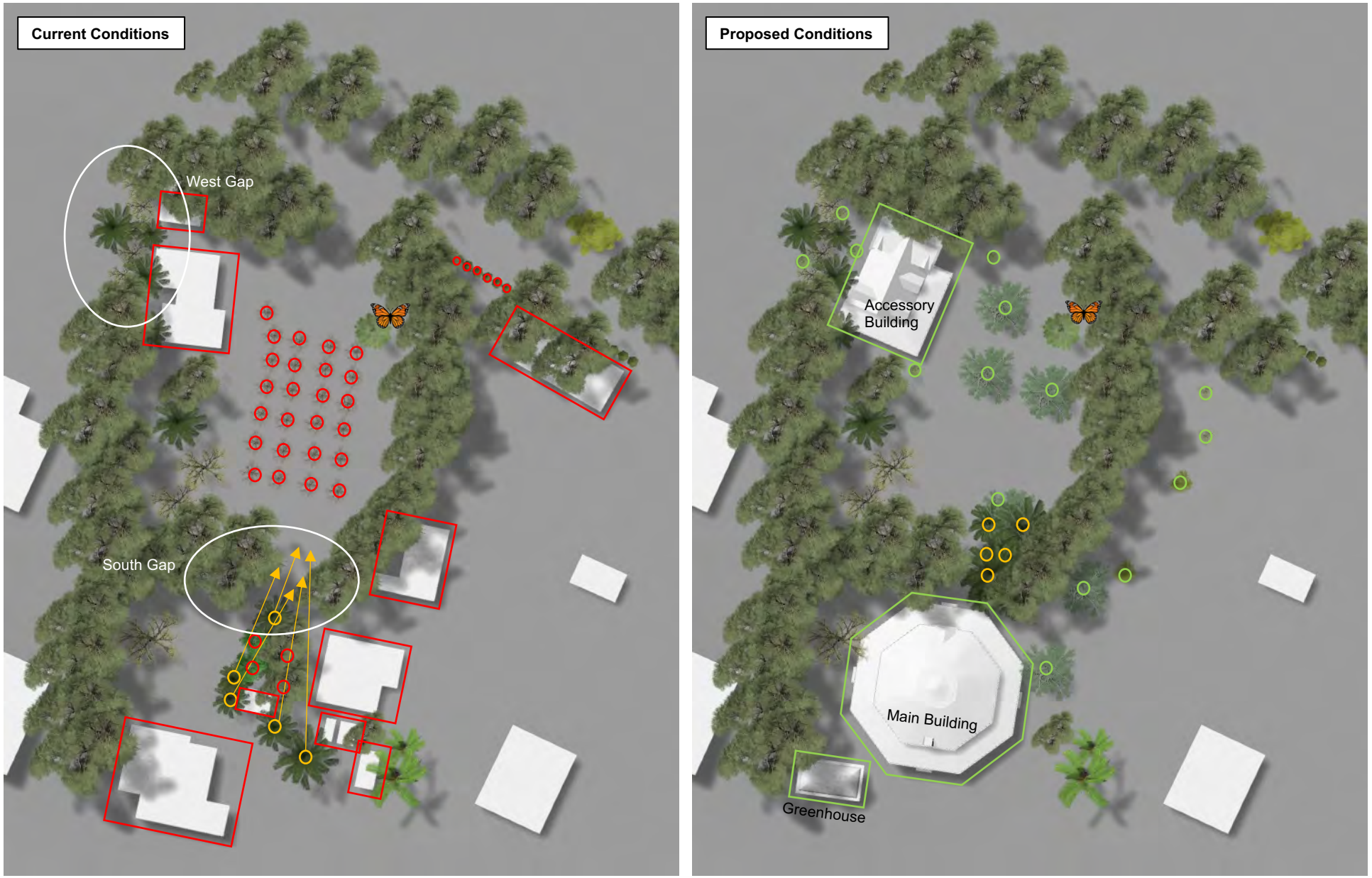


Figure 6. South Gap - Overview (25 ft Above Ground)

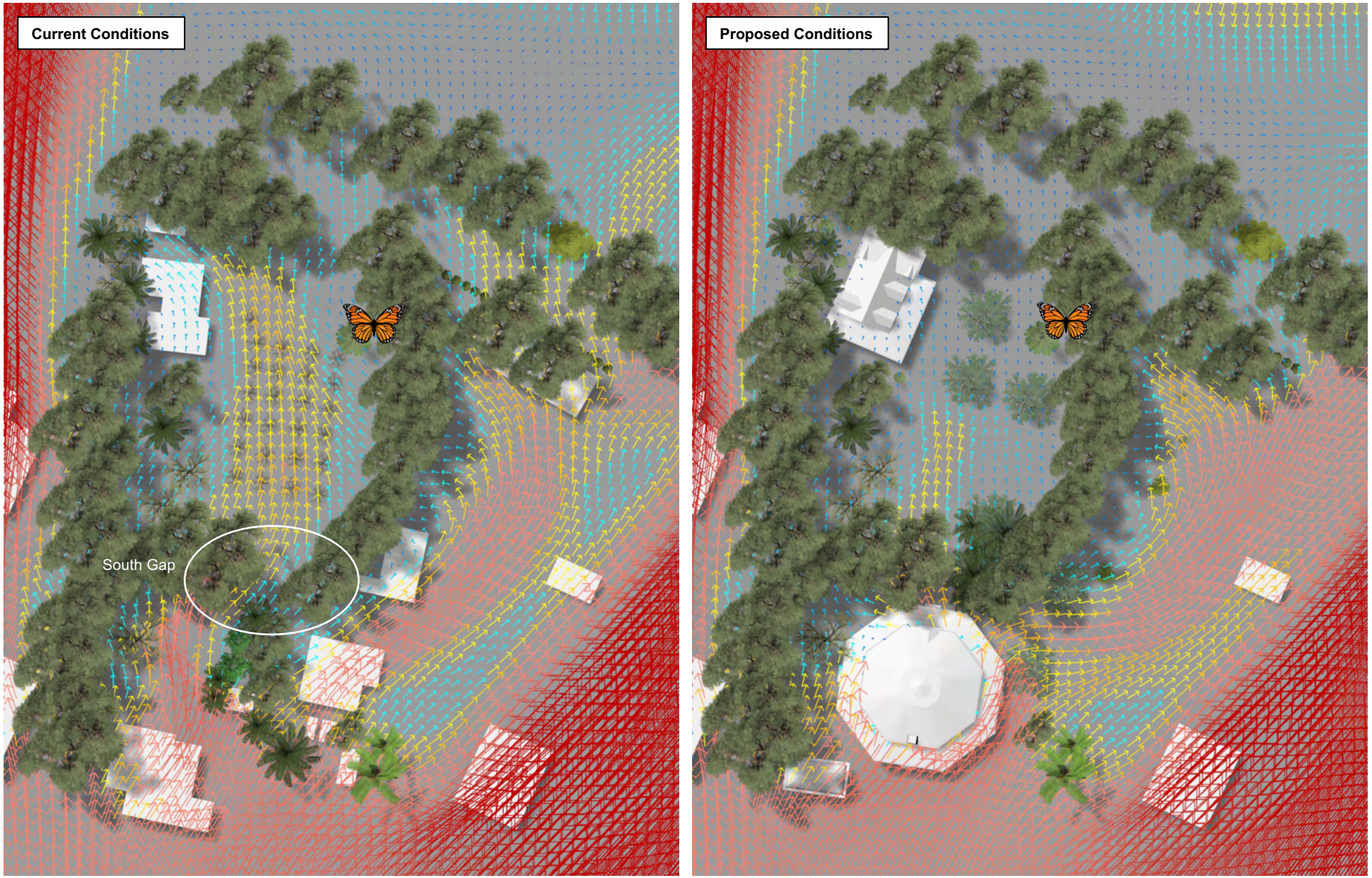
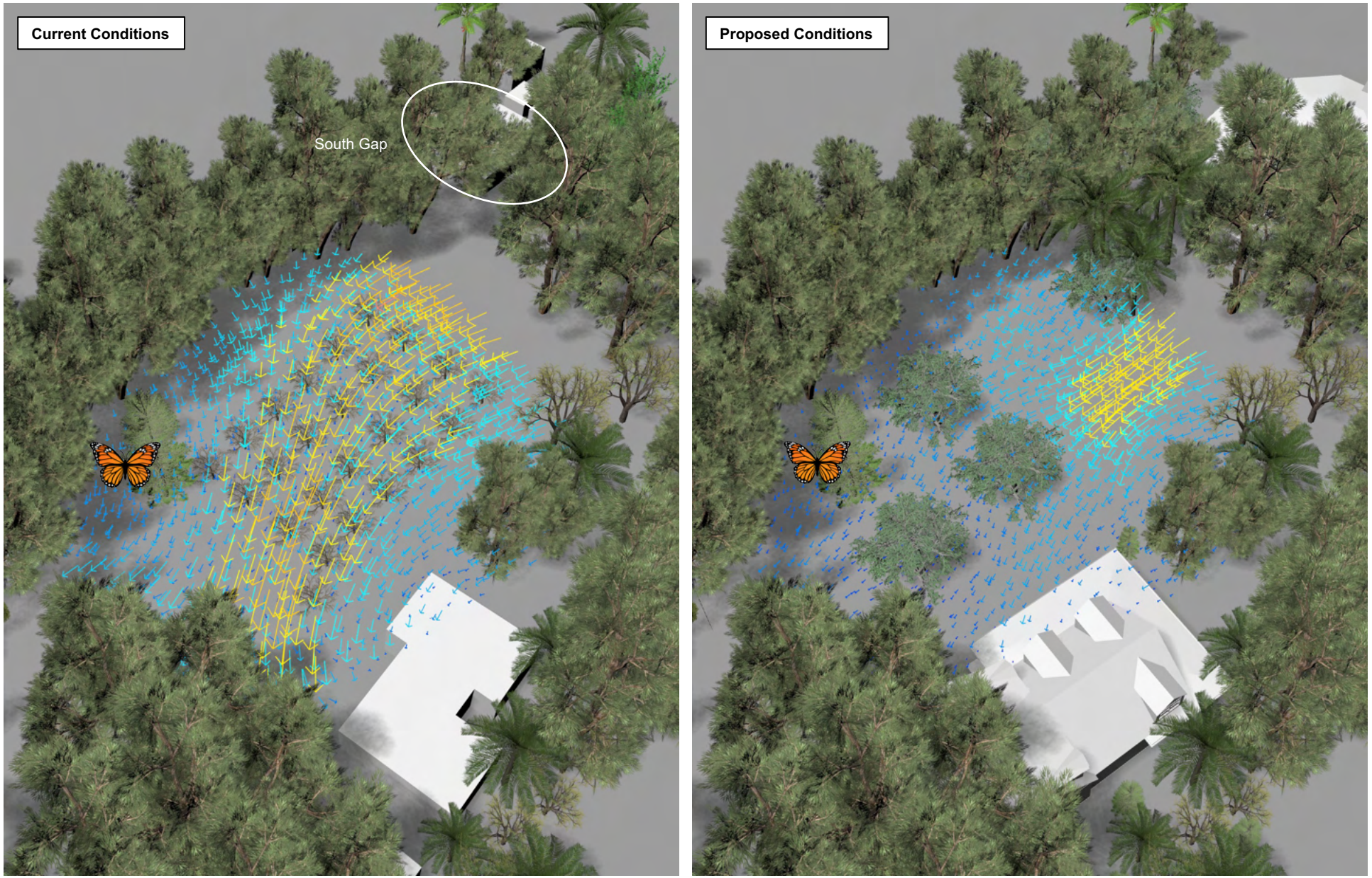


Figure 7. South Gap - Inner Grove 10-30 ft



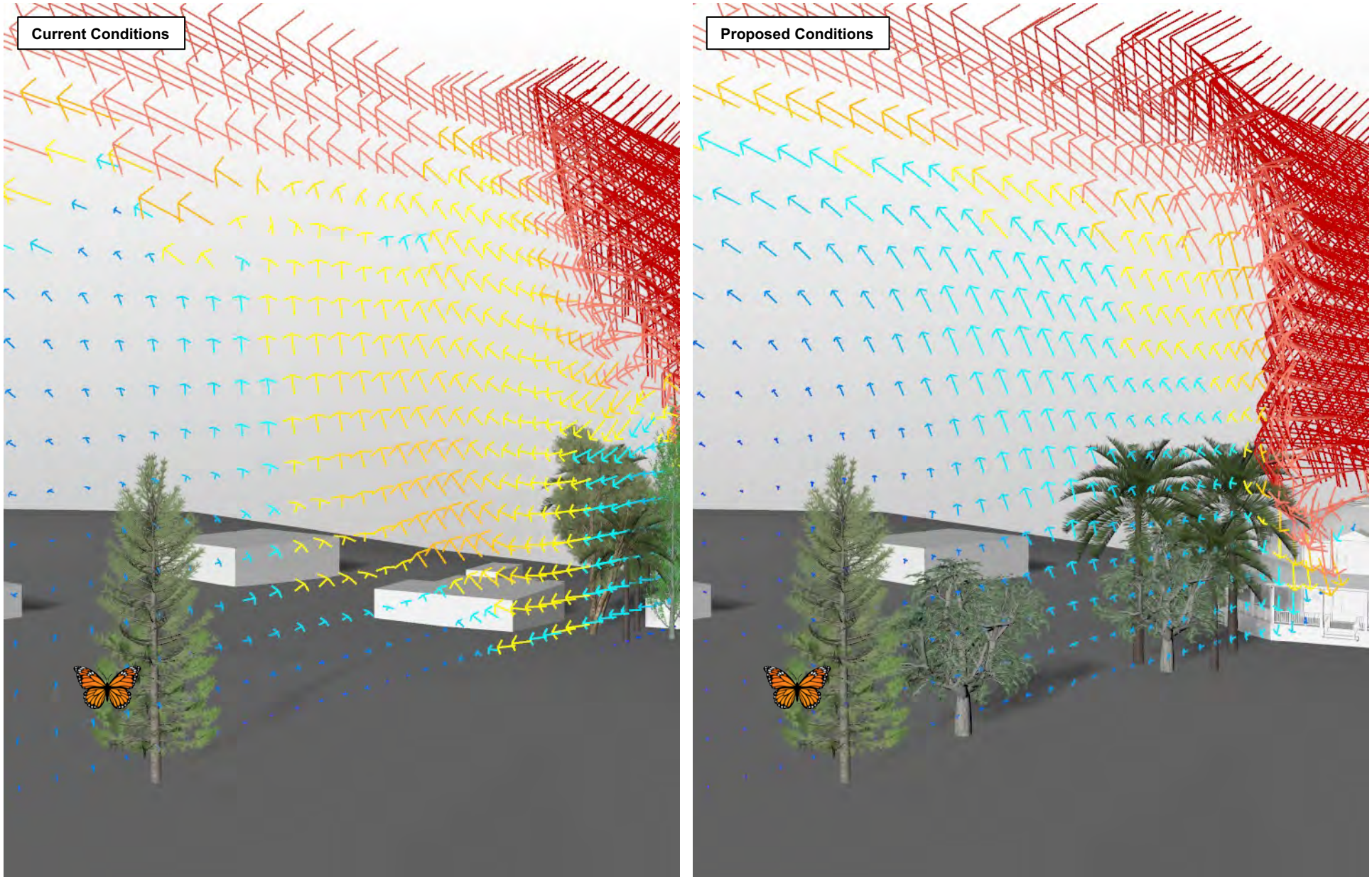
0 5 9 30+ mph

Suitable Marginal Excessive

Monarch clustering site

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

Figure 8. South Gap - Vertical



0 5 9 30+ mph

Suitable Marginal Excessive

Monarch clustering site

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

Figure 9. West Gap Overview (25 ft above ground), Current and Proposed

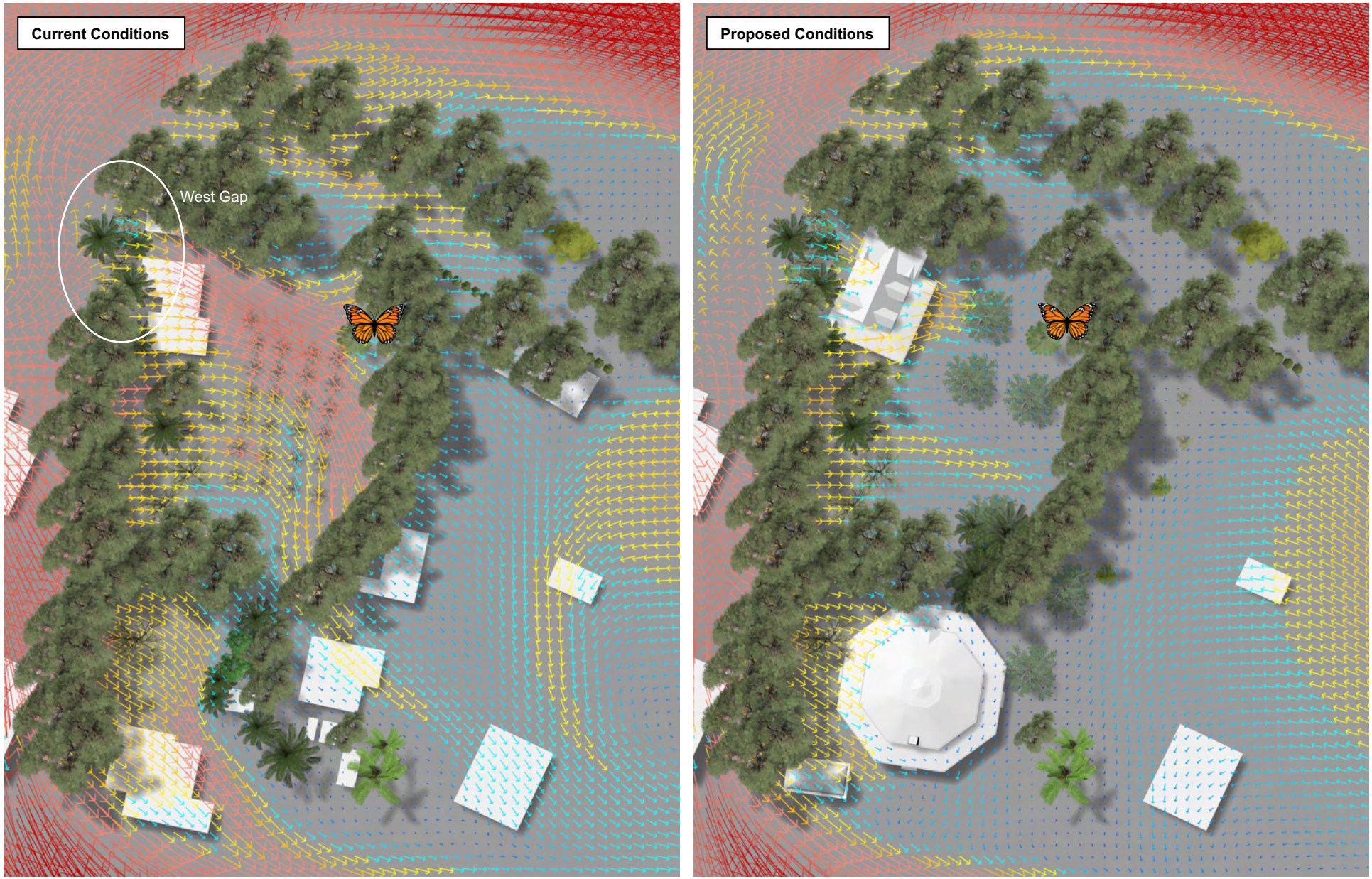


Figure 10. West Gap - Inner Grove

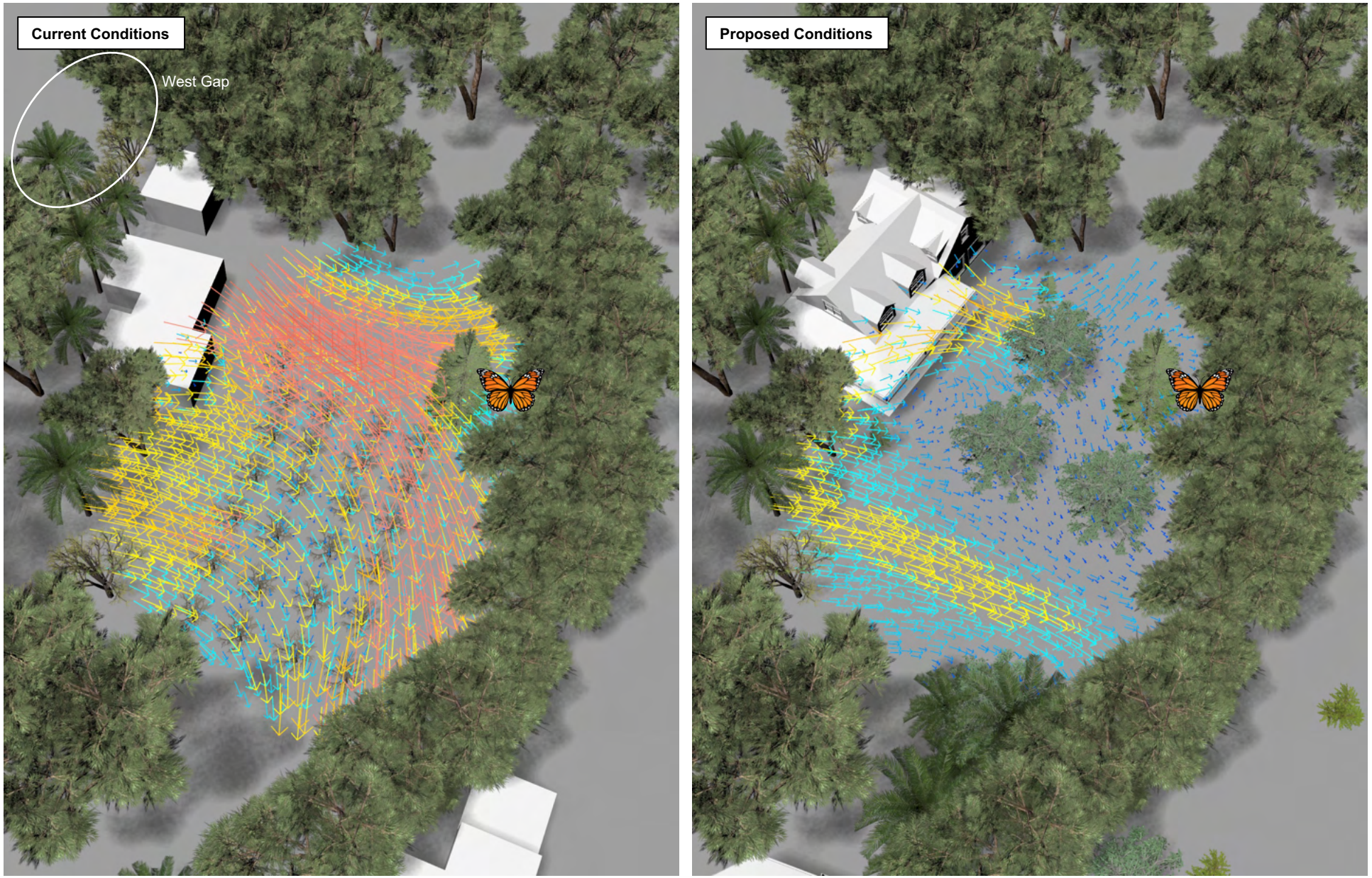


Figure 11. West Gap – Vertical, Current and Proposed

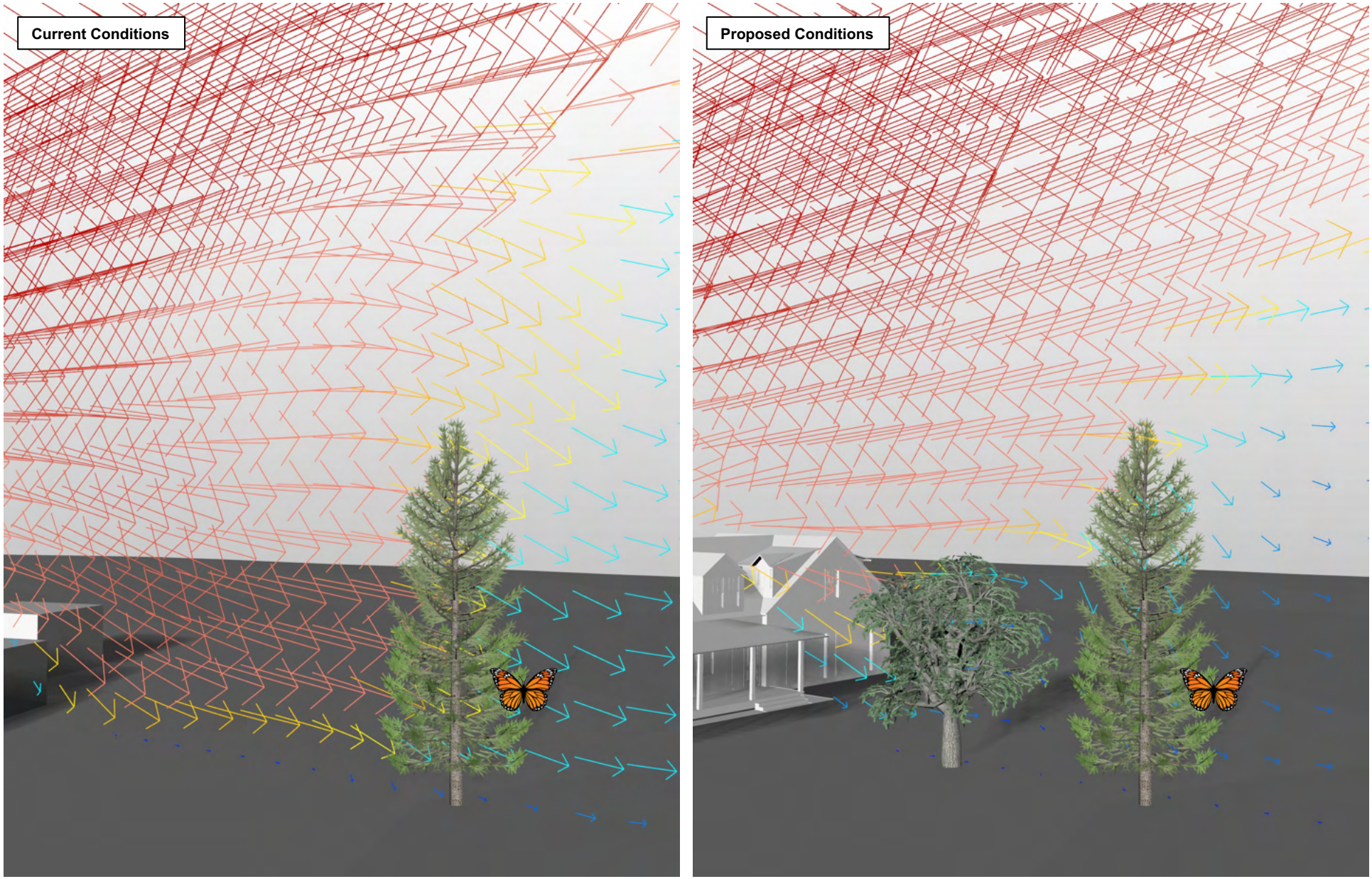
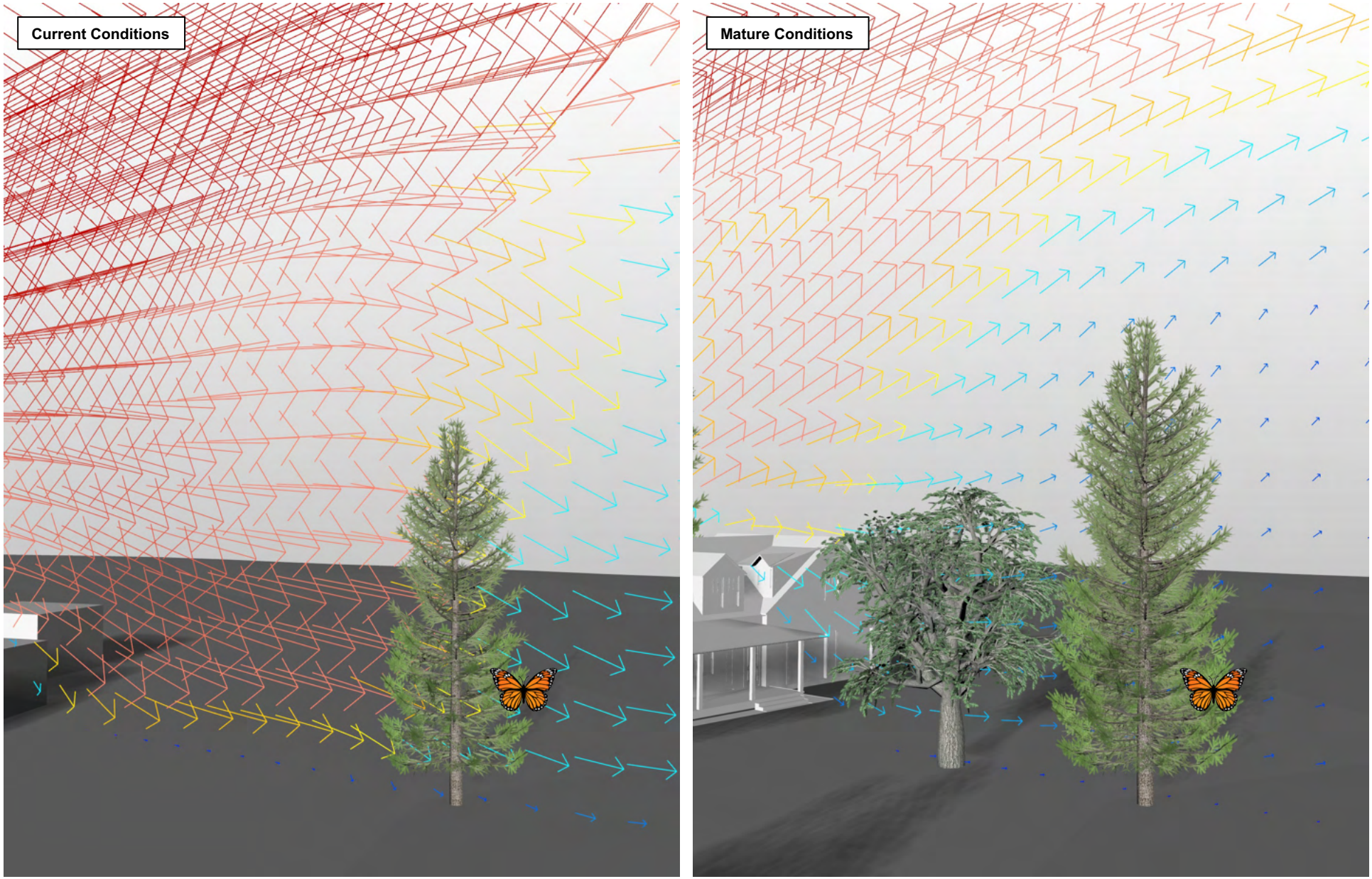


Figure 12. West Gap - Vertical, Current and Mature Proposed



0 5 9 30+ mph

Suitable Marginal Excessive

Monarch clustering site

N

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

5 DISCUSSION AND RECOMMENDATIONS

5.1 Proposed Project

Construction of the proposed residence partially within the southern wind shelter belt, in combination with moving some palm trees and planting large oak trees, would provide increased wind blockage as compared to the current wind protection from the south at the South Gap. Our modeling runs found improvement in south and southwest wind protection at the clustering trees with the proposed building and vegetation enhancements present when compared to existing vegetation and structures.

Construction of the proposed ancillary building on the west side of the property would provide wind blockage equivalent or better than the current wind protection from the west at the West Gap. Modeling found significant improvement in westerly wind buffering at cluster locations when the western gap is reduced by the proposed ancillary building.

The resulting enhancement of monarch habitat is consistent with the Toro Canyon Plan policy goals and objectives, particularly Policy Bio-TC-1 which states that “Environmentally Sensitive Habitat (ESH) areas shall be protected and, where appropriate, enhanced”.

5.2 No Action Alternative

The history of monarch aggregation sites along Padaro Lane includes the occurrence and disappearance of at least four monarch aggregation locations within the past thirty years. This demonstrates a common problem with identifying and preserving aggregation locations; they often require management to maintain as viable aggregation sites. In Santa Barbara County most monarch butterfly aggregation locations are in non-native trees, many on private land. Without active care and management, it has been common for these sites to degrade over time either by neglect or mismanagement. The proposed project includes a Conservation and Enhancement Plan designed to manage, protect and enhance the aggregation phenomena on the property. The Plan would prescribe care for tree health, protection of the clustering locations, restrictions on actions that could degrade monarch habitat, enhancement of buffers and nectar sources, and maintenance of the protective configuration of the aggregation grove. It is a rare situation on private property that such protections are offered and long-range preservation of a significant aggregation location is possible. Just leaving the status quo is no guarantee that the aggregation will persist on the property. To the contrary, long term observations have demonstrated that such aggregation sites will degrade without protection and enhancement.

5.3 Monarch Aggregation Site Enhancements

Monarch butterfly overwintering habitats are typically composed of trees and shrubs that provide structure and protection. These vegetated habitats are not static, but change as vegetation grows, sheds branches, dies, and inevitably falls. Without management aggregation sites can cease to provide the conditions attractive to monarch overwintering, especially at locations such as the subject property that are not extensive groves but combinations of trees and structures providing windbreaks and roosting branches. Non-management of an aggregation habitat, largely composed

of non-native trees, is not a long-term solution for protection of aggregation sites. At a minimum regular care of trees by an arborist is required to maintain healthy trees.

Recommendations for site maintenance and enhancement include:

- Arborist recommended care for all trees on the property and specifically for the redwood tree.
- Careful reduction of weight on large eucalyptus along western property line to prevent branch failures with monitoring by a qualified monarch biologist. Tree care should be staggered over time to prevent excessive canopy reduction at any one time. We recommend selective pruning be conducted on 20% of the trees in the shelter zone per year over a five year period.
- Continue supplemental watering for landscape to maintain tree vigor.
- Installation of nectar sources within the central open space and throughout the property.
- Management Plan that addresses both short and long-term management of the monarch habitat. The Plan should include measures to protect aggregations during the overwintering period and during proposed construction activities.

5.4 Timing

Monarch butterfly aggregation season is October through March. In recent years most monarchs have arrived at coastal California aggregation sites in November and dispersed sometime in February. Demolition and construction activities should avoid disturbance to the aggregation area while monarch butterflies are present. An alternative entrance is proposed east of the existing driveway that would allow access to the main building site that does not pass through the aggregation area. A detailed site management plan should be prepared prior to any site disturbance that specifies appropriate scheduling of activities.

6 PHOTOGRAPHS

Photo 1. This redwood tree is the primary aggregation location. Photo by D. Meade. February 7, 2022

Photo 2. The dark clusters in branches above the pickup truck are monarch butterflies. Clusters formed from approximately 12 feet off the ground to 30 feet in the primary aggregation redwood tree. Photo by D. Meade. February 7, 2022

Photo 3. Aerial view of the aggregation tree through the West Gap. Monarch cluserting site is circled in white. Looking east, taken June 24, 2022.

Photo 4. Aerial view of the aggregation tree through the South Gap. Monarch cluserting site is circled in white. Looking north, taken June 24, 2022.

Photo 5. Clusters of monarch butterflies in branches of the coast redwood tree. Photo by Charis van der Heide. December 9, 2022

7 REFERENCES

Asuni CAD. 2022. Lands Design, Version 5.6.2.7780. Barcelona, Spain.

Calvert, William H. 1991. Monarch butterfly overwintering site locations in Santa Barbara County, California. Center for Conservation Biology, Department of Biological Sciences, Stanford University.

Leong, K.L.H. 1990. Microenvironmental factors associated with the winter habitat of the Monarch Butterfly (Lepidoptera: Danaidae) in central California. Annals Entomological Society of America 83:906–910.

Leong KLH, Frey D, Brenner G, Baker S, Fox D. 1991. Use of multivariate analyses to characterize the monarch butterfly (Lepidoptera, Danaidae) winter habitat. Annals of the Entomological Society of America 84: 263-267.

Leong, KLH. 2016. Evaluation and Management of California Monarch Winter Sites. Western Wildlife 3:19-26.

McNeel, R. et. al., 2010. Rhinoceros 3D, Version 7.0. Robert McNeel & Associates, Seattle, WA.

Meade, D. E. 1999. Monarch Butterfly Overwintering Sites in Santa Barbara County. Report for the County of Santa Barbara. Althouse and Meade, Inc. 114 pp.

Meade, Daniel E., Jessica Griffiths, Charis van der Heide, Francis Villablanca. 2018. Monarch Butterfly Overwintering Sites, Santa Barbara County. Althouse and Meade, Inc., Paso Robles, California.

Pelton, E., S. Jepson, C. Shultz, C. Fallon, S.H. Black. 2016. State of the Monarch Butterfly Overwintering Sites in California. 40+vi pp. Portland Oregon. The Xerces Society for Invertebrate Conservation.

Watershed Environmental, Inc. 2022. Western Monarch Overwintering Habitat Assessment Data Sheet, FIGURE. Monarch Butterfly Survey Results (January 31, 2022, February 9, 2022, February 16, 2022, February 25, 2022, March 2, 2022). Unpublished exhibits.

Weiss, Stuart B., Paul M. Rich, Dennis D. Murphy, William H. Calvert, and Paul R. Ehrlich. 1991. Forest Canopy Structure at Overwintering Monarch Butterfly Sites: Measurements with Hemispherical Photography. Conservation biology. Volume 5, No. 2. June 1991.

Weiss, S.B. 1998. Habitat Suitability, Restoration, and Vegetation Management at Monarch Grove Sanctuary, Pacific Grove California. Revised final report to the City of Pacific Grove.

Weiss, S.B., and Murphy, D.D. 1992. Scientific investigations of overwintering monarch butterfly habitat at Ardenwood and Point Pinole. Report to the East Bay Regional Park District, Oakland, CA.

Weiss, S.B. 2011. Management Plan for Monarch Grove Sanctuary: Site Assessment and Initial Recommendations Revised final report to the City of Pacific Grove.

Weiss, S.B. 2016. Assessment of Overwintering Monarch Butterfly Habitat at Ardenwood Regional Preserve, East Bay Regional Park District. Final report to East Bay Regional Park District

Weller, H. G., G. Tabor, H. Jasak, and C. Fureby. 1998. A Tensorial Approach to Computational Continuum Mechanics Using Object-Oriented Techniques. Computers in Physics 12 (6): 620–31. https://doi.org/10.1063/1.168744.

Xerces Society for Invertebrate Conservation. 2017. Protecing California's Butterfly Groves: Management Guidelines for Monarch Butterfly Overwintering Habitat. Portland, OR. The Xerces Society for Invertebrate Conservation., 32 pp.

Xerces Society for Invertebrate Conservation. 2023a. Western Monarch Count Data. https://www.westernmonarchcount.org/data/ The Xerces Society for Invertebrate Conservation.

Xerces Society for Invertebrate Conservation. 2023b. Letter: Review of Monarch Butterfly Habitat Conservation and Enhancement Plan for 3393 Padaro Lane. Prepared for Katie Nall, County of Santa Barbara Planning & Development Department. May 4, 2023.

8 APPENDICES

- **Appendix A. Peer Review Letter (Xerces Society)**
- **Appendix B. Peer Review Response Table**
- **Appendix C. List of Recommended Nectar Plants**

APPENDIX A. PEER REVIEW LETTER (XERCES SOCIETY)

May 4, 2023

Katie Nall
County of Santa Barbara
Planning & Development Department
123 E. Anapamu Street, 3rd Floor
Santa Barbara, CA 93101

Re: Review of Monarch Butterfly Habitat Conservation and Enhancement Plan for 3393 Padaro Lane

Per your request, I have reviewed the Monarch Butterfly Habitat Conservation and Enhancement Plan (MBHCE plan) for the Construction Project at 3393 Padaro Lane, in Carpentaria, California. The MBHCE plan assesses the quality of current monarch overwintering habitat currently, and how the proposed construction of new buildings as well as changes in the landscape that may affect the habitat quality.

The report's initial review of monarch biology is accurate and provides a good description of what characteristics are required of an overwintering site. Documentation of monarch use of the site provides enough information to capture the relative importance of this site and the key features that make it suitable for the animal.

One recommendation I have for improving the clarity of this report is more clearly identifying the specific trees and buildings set for removal and proposed tree plantings through a summary map, and on specific wind model figures. Changes are mentioned in section 3.2.0 (Wind Modeling) when authors describe how winds were modeled under "proposed conditions" but specifics are not elaborated upon. I recommend a subsection is added to this report that includes a summary and map showing specifically which (and how many) trees and structures are being removed or added and their location relative to the primary monarch cluster location. This would greatly clarify what is being modeled in the "proposed conditions" and will help quantify tree loss and gain in different areas. Similar modifications could also be made to the wind model results (Figures 5-11) where new trees and buildings are visually denoted, as are those slated for removal or movement. As the plan is currently written, it's unclear if a net loss of trees will occur which ultimately may decrease other benefits such as cluster substrate availability, locations for sunning behavior, and sources of dappled sunlight.

Section 4.2.1 describes general conclusions of the analysis of the proposed conditions. One conclusion states planting of large island oaks around the aggregation tree would improve wind conditions at the aggregation site. The "proposed conditions" included these trees in combination with the new buildings, and it is unclear whether the benefits would remain without

said trees. Therefore, I recommend clearly enumerating these tree plantings as a requirement of the mitigation plan.

I'm generally in agreement with the majority of Section 5 (Discussion and Recommendations) though I would recommend more specific mitigation guidance to avoid unnecessary harm to monarchs or their overwintering habitat is included here, rather than only in a future "detailed site management plan". For example, monarch clusters are less disturbed by noise than they are by a lot of movement near the clusters, or heavy construction or demolition activity that would move, shake, or vibrate cluster trees. To mitigate these risks I recommend incorporating the following guidelines into the report:

- Activities that could result in vibration, or movement of monarch clusters should be avoided during the overwintering season, from October 1st – March 1st. This work may continue as early as February 1st if biological surveys determine clusters have completely disaggregated by the end of January (and no ongoing biological monitoring would be needed in February)
- To prevent disturbance of monarchs during the overwintering season by construction personnel or activity, snow fencing, or a similar technique should be used to cordon off cluster trees on the property at a reasonable distance away from the cluster.
- To prevent any accidental damage to cluster trees, those that have been used for clustering should be marked in advance of work with tags or flagging to ensure tree crews and personnel do not trim, cut, or damage them.
- If new cluster locations are found by the biological monitor outside the already described locations, these new trees should be similarly marked and protected.
- Additional guidance to protect and enhance monarch overwintering habitat can be found in the voluntary Section 7 guidance by the US Fish and Wildlife Service posted here: https://xerces.org/sites/default/files/publications/21-015_03.pdf

Regards,

Ashley Fisher

APPENDIX B. PEER REVIEW RESPONSE TABLE

	Reviewer's Questions/Concerns	Our Response
1.	More clearly identify the specific trees and buildings set for removal and proposed tree plantings through a summary map, and on specific wind model figures.	Refer to Section 4.2.2 for a comprehensive map detailing all changes from Current to Proposed Conditions within this study.
2.	Add a subsection to the report that includes a summary and map showing specifically which (and how many) trees and structures are being removed or added and their location relative to the primary monarch cluster location	Section 4.2.2 provides a detailed map and summary of all changes from Current to Proposed Conditions within this study, including specific trees and structures being removed or added.
3.	Modify the wind model results (Figures 5-11) where new trees and buildings are visually denoted, as are those slated for removal or movement.	We found that incorporating this information into Figures 6-12 complicated the visual presentation, thereby reducing the figures' effectiveness. We have added Figure 5 and we trust that Section 4.2.2 adequately addresses queries regarding the locations of new and removed trees and buildings.
4.	Clarify if a net loss of trees will occur which ultimately may decrease other benefits such as cluster substrate availability, locations for sunning behavior, and sources of dappled sunlight.	While a net loss of trees is anticipated, we do not foresee this impacting the quality of the overwintering habitat negatively. No trees where monarchs have been observed roosting (Section 2.1) are slated for removal. Ample locations for sunning will remain, and trees planned for removal are either too low or too far away to provide sources of dappled light.
5.	Clearly enumerate tree plantings around the aggregation tree as a requirement of the mitigation plan.	We are currently preparing a detailed mitigation and monitoring plan that will provide comprehensive details on the project's construction. Enumerating tree plantings around the aggregation tree is a crucial step, and we will ensure its inclusion in our forthcoming report.
6.	Include more specific mitigation guidance to avoid unnecessary harm to monarchs or their overwintering habitat in Section 5 (Discussion and Recommendations), rather than only in a future "detailed site management plan".	A comprehensive mitigation and monitoring plan is currently under preparation. This plan will provide specific guidance on how to conduct the construction of this project while minimizing harm to the monarchs and their habitat.
7.	Incorporate guidelines into the report to mitigate risks such as activities that could result in vibration, or movement of monarch clusters during the overwintering season, from October 1st – March 1st.	These guidelines will be included in our forthcoming report to ensure the protection of the monarch clusters during the overwintering season.

	Reviewer's Questions/Concerns	Our Response
8.	Use snow fencing, or a similar technique to cordon off cluster trees on the property at a reasonable distance away from the cluster to prevent disturbance of monarchs during the overwintering season by construction personnel or activity.	We acknowledge the importance of this suggestion and will include these guidelines in our forthcoming report to prevent any disturbance to the monarchs during the overwintering season.
9.	Mark cluster trees in advance of work with tags or flagging to ensure tree crews and personnel do not trim, cut, or damage them.	We understand the importance of protecting the cluster trees. Guidelinesfor marking and protecting these trees will be included in our forthcoming report to ensure they are not damaged during the construction process.
10.	Mark and protect new cluster locations found by the biological monitor outside the already described locations.	We appreciate this suggestion and will include guidelines for marking and protecting any new cluster locations discovered by the biological monitor in our forthcoming report.
11.	Follow additional guidance to protect and enhance monarch overwintering habitat as found in the voluntary Section 7 guidance by the US Fish and Wildlife Service.	We are committed to protecting and enhancing the monarch overwintering habitat. We will ensure that our forthcoming report incorporates the additional guidance provided in the voluntary Section 7 guidance by the US Fish and Wildlife Service.

APPENDIX C. LIST OF RECOMMENDED NECTAR PLANTS

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

1650 Ramada Drive
Suite 118
Paso Robles, CA 93446
(805) 237-9626 • Fax (805) 237-9181 • www.althouseandmeade.com

Memo

To: Paul Rubison and Mark Lloyd

From: Charis van der Heide, Althouse and Meade, Inc.

Date: January 11, 2023

Re: **Padaro Lane (1338)**
Recommended Nectar Plant List

Recommended Nectar Plant List for the Meadow Area of Padaro Lane Property

Nectar and pollinator plants are recommended for planting in the meadow area of the Padaro Lane property, shown in Table 1. These species are selected based on their nectar availability for monarch butterflies and other pollinators (The Xerces Society for Invertebrate Conservation 2019, NABA 2022). The table includes species which are native to the region based on data from CalScape (CNPS 2022) and have flowering seasons between fall, winter and spring, when overwintering monarchs are present. Since this property is a residence, common landscaping plants are also included in this plant list.

For the Padaro Lane meadow area, we recommend planting a diverse selection of the plants listed below to ensure that a source of nectar is available to the monarchs through the overwintering season (October to March).

The only plant which is critical to avoid planting on the Padaro Lane property is milkweed (*Asclepias* spp.). The presence of milkweed is discouraged in the immediate vicinity of the monarch overwintering sites because it can cause the monarchs to break their reproductive diapause during overwintering season and reduce their life span.

TABLE 1. RECOMMENDED NECTAR PLANT LIST FOR THE MEADOW AREA

Common Name	Scientific Name	Plant Type	Flowering Season
California Native Nectar and Pollinator Plants			
Yarrow	*Achillea millefolium*	Perennial herb	Spring, Summer
Deerweed	*Acmispon glaber*	Perennial herb	Winter, Spring, Summer
Bur marigolds	*Bidens laevis*	Perennial herb	Summer, Fall
Coyote brush	*Baccharis* spp.	Shrub	All year
Ceanothus	*Ceanothus* spp.	Shrub	Winter, Spring
Coast Sunflower	*Encelia californica*, *Encelia farinosa*	Shrub	Winter, Spring
Seaside fleabane	*Erigeron glaucus*	Perennial herb	Winter, Spring, Summer
California Fuchsias	*Epilobium canum*	Perennial herb	Summer, Fall
California Buckwheat	*Eriogonum fasciculatum*	Shrub	Spring, Summer, Fall
Sea Cliff Buckwheat	*Eriogonum parvifolium*	Shrub	All year
Flannel bush	*Fremontodendron* "California Glory"	Shrub	Spring, Summer
Great Valley Gumweed	*Grindelia camporum*	Perennial herb	Spring, Summer, Fall
Silver Lupine	*Lupinus albifrons*	Shrub	Winter, Spring, Summer
Holly Leaf Cherry	*Prunus ilicifolia*	Shrub, Tree	Winter, Spring
Black Sage	*Salvia mellifera*	Shrub	Winter, Spring, Summer
Hummingbird Sage	*Salvia spathacea*	Perennial herb	Winter, Spring, Summer
Elderberry	*Sambucus nigra*	Shrub, Tree	Spring, Summer
Goldenrod	*Solidago velutina*	Perennial herb	Summer, Fall
Landscape/Cultivated Nectar and Pollinator Plants			
Asters	*Aster spp.*	Shrub	Summer, Fall
Bougainvillea	*Bougainvillea* spp.	Vine	All year
Butterfly bush	*Buddleia davidii*	Shrub	Spring, Summer, Fall

Red valerian	*Centranthus ruber*	Shrub	Summer, Fall
Joe Pye weed	*Eupatorium purpureum*	Perennial herb	Summer, Fall
Heliotrope	*Heliotropium arborescens*	Shrub	All year
Lantana	*Lantana* spp.	Shrub	All year
Blazing star	*Liatris spicata*	Perennial herb	Summer, Fall
Bee balm, bergamot	*Monarda* spp.	Perennial herb	Summer, Fall, Winter
Goldenrod	*Solidago* spp.	Perennial herb	Summer, Fall
Lilac bush	*Syringa vulgaris*	Shrub	Spring
Red sunflower	*Tithonia rotundifolia*	Shrub	Summer, Fall
Plants to AVOID Planting			
Milkweed (ALL Species)	*Asclepias* spp.	Perennial herb	Summer, Fall

Sincerely,

Charis van der Heide, Senior Biologist, Althouse and Meade, Inc.

References

California Native Plant Society (CNPS). 2022. Calscape Plant Database. CalScape.org.

The Xerces Society for Invertebrate Conservation. 2019. Monarch Nectar Plants: California. https://xerces.org/publications/plant-lists/monarch-nectar-plants-california

North American Butterfly Association. 2022. Butterfly Garden Guides. http://nababutterfly.com/butterfly-garden-plants/

Appleton Partners LLP

Clarification/Revision

	Drawing Title	SITE DIAGRAM - EXISTING		Job	2006.00 3393 Padaro Lane
	Drawing Ref	0.1	Drawing Scale 1/64" = 1'-0"	Contractor	
	Date	06/02/23	Drawn By PR	Fax/Email	
	Notes				
911 Chapala Street		Santa Barbara, CA 93101		805 965 0304	FAX 805 560 6815

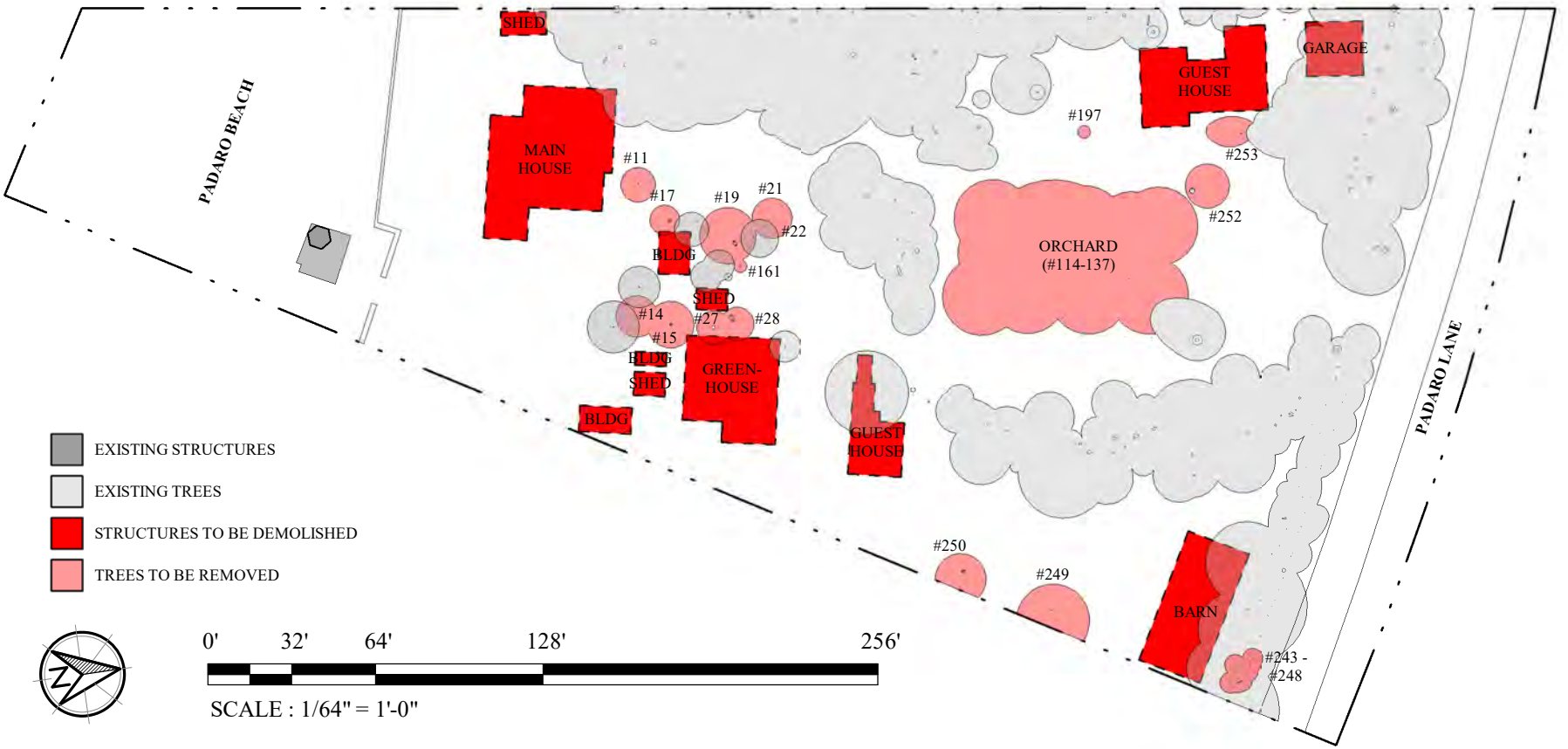
SITE DIAGRAM - EXISTING CONDITIONS

Appleton Partners LLP

Clarification/Revision

	Drawing Title	SITE DIAGRAM - REMOVED		Job	2006.00 3393 Padaro Lane
	Drawing Ref	0.2	Drawing Scale 1/64" = 1'-0"	Contractor	
	Date	06/02/23	Drawn By PR	Fax/Email	
	Notes				
911 Chapala Street		Santa Barbara, CA 93101		805 965 0304	FAX 805 560 6815

SITE DIAGRAM - TO BE REMOVED



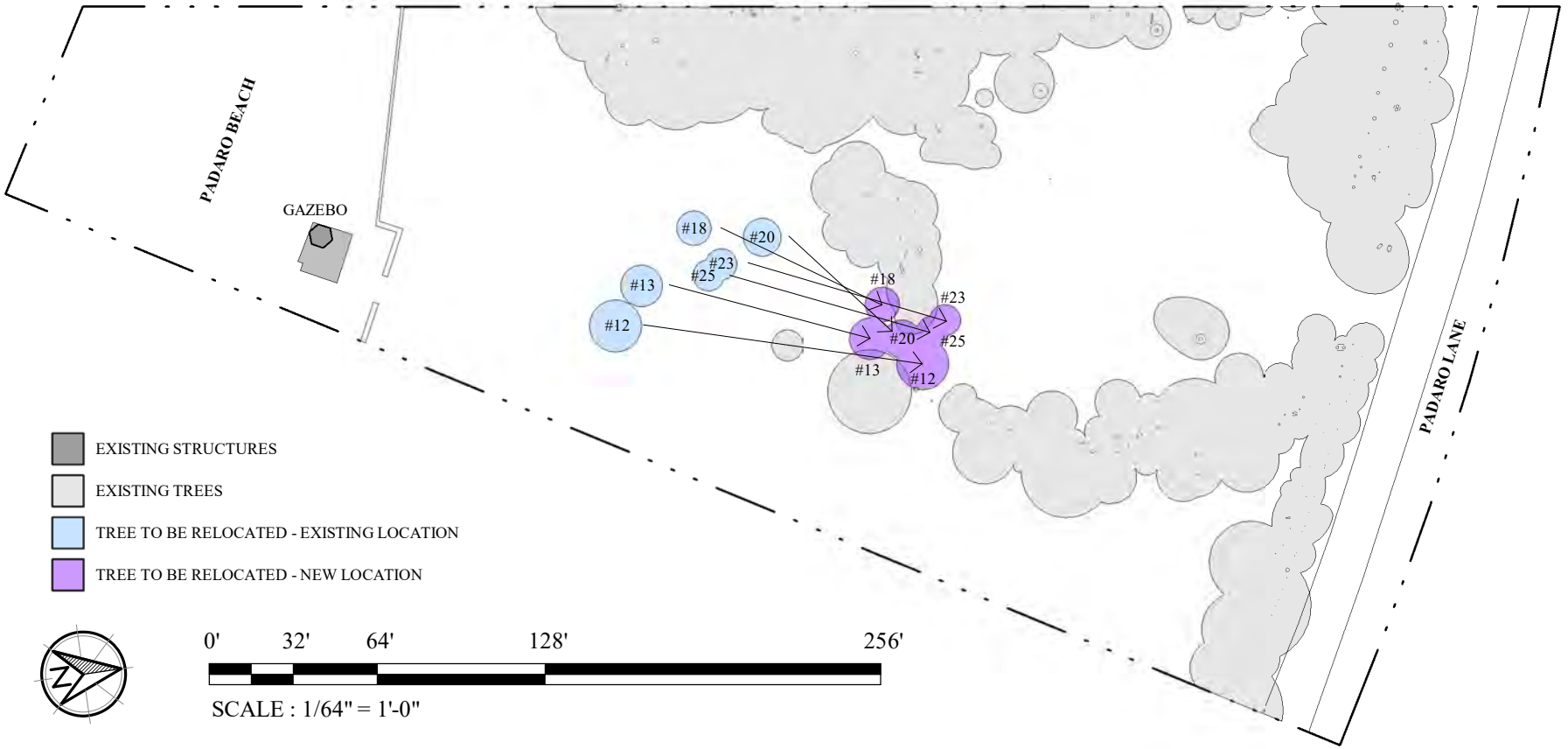
Appleton Partners LLP

Clarification/Revision

	Drawing Title	SITE DIAGRAM - RELOCATED		Job	2006.00 3393 Padaro Lane
	Drawing Ref	0.3	Drawing Scale 1/64" = 1'-0"	Contractor	
	Date	06/02/23	Drawn By PR	Fax/Email	
	Notes				

911 Chapala Street Santa Barbara, CA 93101 805 965 0304 FAX 805 560 6815

SITE DIAGRAM - TREES TO BE RELOCATED



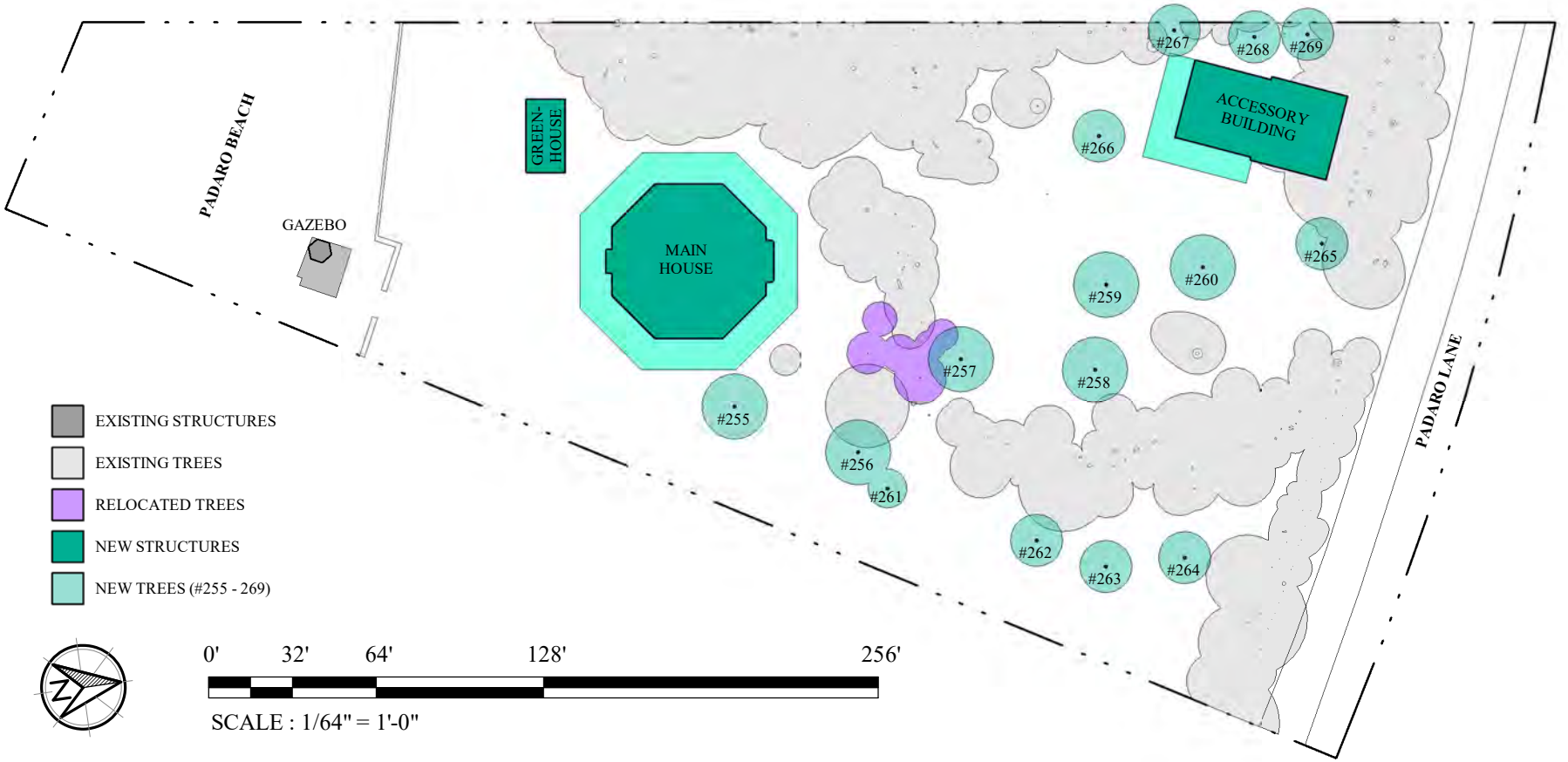
Appleton Partners LLP

Clarification/Revision

Drawing Title	SITE DIAGRAM - PROPOSED			Job	2006.00 3393 Padaro Lane
Drawing Ref	0.4	Drawing Scale	1/64" = 1'-0"	Contractor	
Date	06/02/23	Drawn By	PR	Fax/Email	
Notes					

911 Chapala Street Santa Barbara, CA 93101 805 965 0304 FAX 805 560 6815

SITE DIAGRAM - PROPOSED



PHASE 1 HISTORIC RESOURCES TECHNICAL REPORT:
3393 Padaro Lane
Carpinteria, CA 93013

APN 005-400-041

Prepared For:
PLSB, LLC
Attn: Angelo Garcia
P.O. Box 29374
San Francisco, CA 94129-0374

Prepared By:
Jay Carlander, Ph.D.
3617 Rockcreek Road
Santa Barbara, CA 93105
805-421-6857
jrcarlander@gmail.com

January 5, 2021

Phase 1 Historic Resources Technical Report:
3393 Padaro Lane, Carpinteria, CA

EXECUTIVE SUMMARY

The main house at 3393 Padaro Lane is not eligible for listing as a historic resource under County of Santa Barbara criteria. The twelve attendant buildings also located on the property are not historically or architecturally significant and therefore none are eligible for listing as a historic resource under County of Santa Barbara criteria. The proposed demolition of existing buildings will not result in a significant impact to a historic resource. Despite institutional closures due to the COVID-19 pandemic that have precluded access to some archival research material, I am confident in the findings of this report.

Introduction

The purpose of this report is to determine whether the main house and attendant buildings located at the above-referenced address are historically or architecturally significant under Santa Barbara County guidelines. The scope of the work for this assessment encompassed a site visit, historical research, document analysis, and the preparation of this report. Research included a review of historical materials at the following sources: Santa Barbara County Planning and Development Department, Ancestry.com, UCSB Library's FrameFinder website, owner-provided documents, and the author's personal library. The Gledhill Library of the Santa Barbara Historical Museum, the Carpinteria Valley Museum, and the Santa Barbara Public Library are all closed until further notice due to the COVID-19 pandemic.

Project Description

The owner plans to demolish the existing buildings on the site.

Field Inventory

1) *Main Residence,* 1935

The study property contains a two-story, vernacular house built in 1935 with board and batten siding, short eaves, and wood shingle roofing. The north, or front, elevation features a glazed, x-paneled front door flanked by a group of three fixed, wood-sash, twelve-light windows to left, and two double hung windows to the right. The first story has a wood shingled, skirt roof that wraps around the second story front gable to the west. There is a wood-sash, center opening casement window with a row of five vertical wood panels underneath on the second story. To the left of the front gable stands an irregular course brick chimney.

The east elevation features a two-story extension from the main north-south gable axis. The first story exhibits an x-panel, nine-light door flanked to the right by two single hung, wood-sash windows and a double hung, wood-sash window. The second story exhibits a horizontal row

of windows grouped in three trios. Each trio consists of a wood sash, fixed, twelve-light center window flanked on either side by double hung windows with awning screens. A row of ten lobster buoys linked by nautical rope hangs beneath the row of grouped windows. The south end of the east elevation features a one-story sun room extension with a flat roof. The north and south elevations of the sun room feature an x-panel, nine-light door flanked to the left by two wood-sash, double hung, six-over-six light windows. The east elevation of the sun room exhibits a fixed, wood-sash, 24-light window flanked on either side by wood-sash, double hung, six-over-six light windows.

The south elevation features a one-story hipped roof extension from the two-story gable with a wood-shingled roof and a slope chimney consisting of an irregular course brick pattern. There are two window groupings on the first story elevation, each consisting of fenestration similar to the east elevation of the sun room. A low, brick wall runs the length of the elevation beneath the windows. The second story gable exhibits a small, wood-sash square window with an awning screen and a slightly off-center, sliding sash, six-by-six light window. There is a life preserver ring displayed at the top of the gable. The east extension features grouped windows consisting of a fixed, wood-sash, twelve-light window flanked on either side by a wood-sash, double hung, six-over-six light window.

The west elevation features a one-story hipped roof addition with wood shingles. The first-story elevation exhibits two wood-sash, double hung, six-over-six light windows flanking either side of a small utility closet. There is a small, aluminum-sash sliding window just to the right of the utility closet.

2) *Small Hedgerow Building*, unknown

Just opposite the west elevation of the main house there is a small building with a wood-shingled shed roof that backs up to the west property line hedgerow. The building has board and batten siding on the east and north elevations, and brick siding covered in ivy on the south elevation. The west elevation is not visible. The south elevation features a fixed, wood-sash, twelve-light window. The east elevation exhibits an x-panel, nine-light door flanked by a row of three wood-sash, double hung, six-over-six light windows to the left, and one similar window to the right.

3) *Small Guest Cottage*, 1956-1965

East of the main residence there is a small guest cottage with wood shingle roofing and board and batten siding. The south elevation exhibits a trellis, with corrugated fiberglass roofing, that encloses a tile entrance patio. Some faded buoys hang on the south façade of the trellis enclosure. The south elevation of the cottage features a French door with a two-light vertical sidelight and one-over-one, metal-sash window to the left. There is a sliding, metal-sash window to the right of the French door. The west elevation exhibits two sliding-sash windows. There are no windows on the north elevation. The east elevation features a sliding, wood-sash window.

4) *Bathroom Shed*, unknown

East of the small guest cottage there is a grouping of three small buildings that include a bathroom, change room, and shed. The bathroom consists of a small, gabled shed with wood shingle roofing and T-111 siding that gives the appearance of board and batten siding. There is a two-panel, four-light door on the west elevation of the bathroom shed. There are aluminum, sliding-sash windows with opaque glass on the other elevations.

5) *Change Room*, unknown

Adjacent to the bathroom shed is another small, gabled shed with corrugated metal roofing that functions as a change room for beachgoing. The south elevation features a two-panel door with a single hung, aluminum-sash window in the center with a screen cover. Flanking the door on either side are single hung, vinyl-sash windows. There is a fan light near the top of the gable on the south elevation. On the north elevation there is a small, six-light window near the top of the gable.

6) *Bunk Room*, unknown

A third gabled shed with manufactured, ribbed siding and a corrugated tin roof functions as a bunk room for children. The west elevation features an unglazed, five-panel door flanked on either side by paired, wood-sash, casement windows. A similar window is exhibited on the south elevation. The north elevation features a four-light casement window.

7) *Greenhouse*, unknown

North of the three small buildings there is a one-story greenhouse with corrugated fiberglass siding and roofing. The building is gabled on the west and east elevations with a secondary roof extending to the south. There are two three-paneled, glazed, entrance doors with aluminum sash single hung windows with screen coverings on the east elevation. There is a low brick wall cladding with a brick rowlock on the west and north elevations. There are four side trellises on the north elevation and metal venting throughout the building.

8) *Office/Garage*, 1956-1965

North of the greenhouse there is a two-story guest house that functions as an office and garage. The building has wood shingle roofing, board and batten siding and a series of cascading gables that end in a half-story shed on the west elevation. On the south elevation, the first story features a one-story side-gabled wing with an x-panel, nine-light door flanked on either side by fixed, wood-sash, four-light windows. To the right of the side-gabled wing, there are two single-car garage spaces covered with pairs of center-opening batten garage doors. The second story above the garage doors features two wood, sliding-sash, nine-by-nine-light windows each flanked by wood fixed shutters. The east elevation features a wall staircase leading to a small second-story balcony landing with an x-panel, nine-light door flanked to the right by a fixed, wood-sash, sixteen-light window with fixed wood shutters. An identical window without shutters is located on the first story underneath the balcony landing. The north elevation features a two-

car carport with a wood-shingle roof. Above the carport roof there is a wood, sliding-sash, four-by-four-light window with fixed wood shutters.

9) *Garage/Workshop*, 1956-1965

North of the office/garage close to the Padaro Lane property line wall, there is one-story, side-gabled garage/workshop with wood-shingle roofing and redwood board and batten siding. There is a small gabled cupola along the center-ridge of the roof and the roofline has moderate eaves with exposed, sawcut rafters. There are three single-car, top-opening garage doors on the south elevation.

10) *Caretaker's House*, before 1959; addition 1960

West of the garage/workshop there is a one-story guest cross-gabled house with wood-shingle roofing, board and batten siding on the north portion of the house, and stucco siding on the south addition. There is brick cladding at the base of all elevations except for a shed roof extension on the west elevation. The east elevation features, on the north end, a large, wood-cased, picture window with a vertical, casement sidelight to the left. There is a center-opening, two-light casement window in the center of the elevation. On the south end of the elevation there is a brick, gable wall chimney flanked on either side by a metal-sash, casement, three-by-three-light window. The north elevation features a glazed door entrance flanked on either side by metal-sash, two-light casement windows. There is a small entrance porch with a flat roof and wood trellis wall siding. The west elevation, on the north end, exhibits a shed roof extension with aluminum, sliding-sash windows on each of its three façades and an unglazed, wood door on the west façade. The center of the west elevation features a two-light casement window and a single-light casement window. The south end of the west elevation exhibits two unglazed, paneled doors flanked on either side by metal-sash, three-by-three light casement windows. The south elevation features four metal-sash, three-by-three-light, casement windows and an x-panel, six-light door with a small brick porch.

11) *Garage*, 1961

North of the one-story guest house there is a front gabled, two-car garage with composition shingle roofing and board and batten siding. The east elevation features two top-opening, rabbeted bevel, horizontal board garage doors. The north and south elevations each exhibit one fixed, wood-sash, six-light window. The west elevation has no windows.

12) *Playhouse*, unknown

A gabled children's playhouse stands south of the one-story guest house with composition shingle roofing and horizontal clapboard bevel siding. The east elevation features a porch with a wood railing, three square columns supporting the porch roof, a screen door, and a fixed, wood-sash, single-light window. The south elevation features an unglazed, vertical board, wood door, and a wood-sash, single-light window. There is a fixed, wood-sash, six-light window on the west elevation.

13) *Tree House*, unknown

A gabled tree house perched between two eucalyptus trees is located south of the playhouse and just northeast of the main residence. The tree house has wood shingle roofing, board and batten siding, and features a screen door and wood-sash, single-light window on the east elevation. There is a wood-sash, single light window on the south elevation. The tree house is supported by tall, square columns and is accessible by a wood staircase that encircles a eucalyptus tree abutting the north elevation.

Building History

The Carpinteria Valley was first inhabited by Native Americans some 10,000 years ago. At the time of European exploration, the area was occupied by Chumash Indians who lived in a settlement named "Mishopshno." Witnessing the highly skilled Chumash practice of boat making, eighteenth century Spanish explorers dubbed the coastal plain, "La Carpinteria," the carpenter's shop. European settlers pursued a variety of agricultural pursuits in the region and agriculture – lima beans, lemons, walnuts, avocados – has characterized local economic production since the later nineteenth century, though asphalt mines also played an early role in encouraging expanded settlement.[1]

The study property is located approximately three miles northwest of the city of Carpinteria on land that was once part of the "Pueblo Lands" granted in 1782 by the King of Spain to support the Santa Barbara Presidio and its soldiers. As Anglo settlers moved into the unincorporated areas that comprise Montecito, Summerland, and Carpinteria, the pueblo lands and large land grants were gradually divided up into smaller plots of acres that have continually been subdivided down to the present day. Recorded survey maps indicate that the study property was perhaps once encompassed by the large Martha J. Nidever property, in an area called "Serena" by locals. The former Martha Jane Callis (1849-1930) was born in Houston, Texas, and joined the prominent Nidever clan in Santa Barbara County when she married John Marion Nidever II (1837-1912) in 1862. Upon her husband's death, she inherited a large 193-acre property in the Carpinteria Valley which was subdivided among her surviving children in 1914. Her daughter Ruth Idella Nidever (1888-1932) inherited a 9.5-acre tract located just north of the study property. It is not clear whether this tract encompassed the study property. Upon her death, Ruth Idella's land was bequeathed to her daughter Alethe Elizabeth Fryman (1908-1998), a nurse, though there is no indication that Fryman ever occupied the study property.[2]

No evidence is available to indicate ownership of the study property at the time of the construction of the main house in 1935. Building permits reveal that the study property was owned in 1959 by John M. "Jack" Morehart (1923-2007) and his wife Francis (née Scheller;

[1] Owen H. O'Neill, ed., *A History of Santa Barbara County* (1939), 376-382; Jim Campos et al., *Carpinteria* (2007), 7-36.
[2] Yda Addis Storke, *A Memorial and Biographical History of the Counties of Santa Barbara, San Luis Obispo and Ventura, California* (1891), 94; Michael Redmon, "What is the History of the Serena Wharf?" *Santa Barbara Independent*, August 29, 2009; recorded survey maps on file at the Santa Barbara County Surveyor's Office; United States Census and probate records on file at Ancestry.com.

1924-2018). Jack Morehart was born in Los Angeles and became a successful real estate developer, business owner, and rancher. Francis and Jack married in 1944 and raised a family of nine children together. Until 1974, the Moreharts lived primarily in Pacific Palisades and maintained the study property as a summer home before relocating full time to the Serena coast. Building records indicate that the south wing of the single-story caretaker's house was added in 1959. The garage adjacent to the same house was added in 1961. In 1974, a one-story addition was added to the west elevation of the main house. The study property remained in the possession of the Morehart family until the 2000s.[3]

County of Santa Barbara Significance Criteria

According to County of Santa Barbara guidelines,[4] a property is eligible for identification as a significant historical resource if:

1) Possess integrity based on an evaluation of its location, design, setting, materials, workmanship, feeling, and association.
2) Generally, but not in all cases, be at least fifty years old.
3) Demonstrate one or more of the following association-related criteria:

   A. It exemplifies or reflects special elements of the county's cultural, social, economic, political, archaeological, aesthetic, engineering, architectural or natural history; and/or
   B. It is identified with persons or events significant in local, state or national history; and/or
   C. It embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship; and/or
   D. It is representative of the work of a notable builder, designer, or architect; and/or
   E. It contributes to the significance of a historic area, being a geographically definable area possessing a concentration of historic, prehistoric, archaeological, or scenic properties, or thematically related grouping of properties, which contribute to each other and are unified aesthetically by plan or physical development; and/or
   F. It has a location with unique physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the County of Santa Barbara; and/or
   G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation; and/or

[3] Building and zoning permits on file at the County of Santa Barbara Planning and Development Department; aerial photographs as reproduced at UCSB FrameFinder website: Flight C-11792, Frame 2-101, September 23, 1947; Flight HA-AN, Frame 1-62, February 2, 1956; Flight HB-FV, Frame 56, November 29, 1965; Flight HB-NN, Frame 90, January 1, 1969; Flight HB-XQ, Frame 29, February 23, 1975.

[4] County of Santa Barbara Historic Landmark Designation Criteria (County Code Section 18A-3), as incorporated in County of Santa Barbara, Planning and Development Department, "Appendix B to the Environmental Thresholds and Guidelines Manual: Fieldwork and Reporting Guidelines for Cultural Resources," February 27, 2018, 22-23, 35-40.

H. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particularly transportation modes or distinctive examples of park or community planning; and/or
I. It is one of the few remaining examples in the county, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen.

PHASE 1 ASSESSMENT: APPLICATION OF CRITERIA

The County of Santa Barbara criteria for significance were applied to the main residence at 3393 Padaro Lane and based on research and field inventories, the following findings were made:

County of Santa Barbara Significance Criteria

Historic Integrity: Integrity is the ability of a property to convey its significance. To retain integrity a property must possess several of the following elements:

Location: The residence has retained its original location.

Setting: The house has retained its setting despite considerable residential subdivision and property development along Padaro Lane.

Design: The house has not retained design integrity because it does not represent a high-quality example of vernacular beachside residential architecture. Additionally, the original form of the building has been altered by a substantial west elevation addition within the last 50 years.

Materials: The residence has not retained integrity of materials because while the windows and siding appear to be mostly original, the doors are newer replacements and the materials of the west addition are newer materials added within the last fifty years.

Workmanship: The residence has not retained integrity of workmanship because it features standard methods of construction rather than evidence of outstanding workmanship. Moreover, the newer materials used on the exterior and the west addition cannot reflect the workmanship of the original building.

Feeling: The house does not retain integrity of feeling because its lack of design, materials, and workmanship integrity preclude it from expressing a strong aesthetic or historic sense of a particular period of time.

Association: The house does not retain integrity of association because it is not associated with persons or events significant to County history. Jack Morehart was a successful businessman and rancher who nonetheless did not attain notable historical achievements in residence at the study property.

Summary of integrity analysis: The study property has not retained its historic integrity.

Age: The residence meets this criterion because it is 86 years old.

A) It exemplifies or reflects special elements of the County's cultural, social, economic, political, archaeological, aesthetic, engineering, architectural, or natural history.

The house does not meet this criterion because its lack of historic integrity precludes it from exemplifying or reflecting special elements of the County's cultural, social, economic, aesthetic, or architectural history.

B) It is identified with persons or events significant in local, state or national history.

The house does not meet this criterion because research has uncovered no significant persons or events that are associated with the building.

C) It embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.

The residence does not meet this criterion because its lack of historic integrity prevents it from embodying elements of style, construction methods, or craftsmanship characteristic of the original building's era of origin.

D) It is representative of the work of a notable builder, designer, or architect.

The residence does not meet this criterion because research has identified no known architect, builder, or designer for the barn or any of the attendant buildings.

E) It contributes to the significance of a historic area, being a geographically definable area possessing a concentration of historic, prehistoric, archaeological, or scenic properties, or thematically related grouping of properties, which contribute to each other and are unified aesthetically by plan or physical development.

The house does not meet this criterion because it is not situated in a neighborhood that can be described as a geographically definable area containing a concentration of historic structures, nor is its context that of a thematically related group of properties that are unified aesthetically by plan or development.

F) It has a location with unique physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the County of Santa Barbara.

The residence does not meet this criterion because its location does not have unique physical characteristics or views that distinguish its setting as unique from other neighborhood properties. Visibility of the study property and its buildings from Padaro Lane is almost entirely obscured by a wall, front gate enclosure, and many trees and verdure on the north end property line.

G) It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation.

The house does not meet this criterion because its lack of historic integrity precludes it from embodying design, detail, materials, craftsmanship, or innovative architecture of a historic era.

H) It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particularly transportation modes or distinctive examples of park or community planning.

The house does not meet this criterion because the site location did not exemplify settlement and growth that could be attributed to new transportation modes in the era of the World Wars; nor was the study property an example of park or community planning.

I) It is one of the few remaining examples in the County, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen.

The residence does not meet this criterion because its lack of historic integrity precludes it from possessing distinguishing characteristics of an architectural or historical type. Board and batten siding, and row groupings of double hung, wood-sashed and wood-cased windows are common features of vernacular seaside residential architecture.

Attendant Buildings

Like the main residence, the attendant buildings on the study property have not retained their overall historic integrity and are therefore not eligible for listing as historic resources under Santa Barbara County criteria for significance. The buildings do remain in their original *location* and seaside, Padaro Lane *setting,* but they do not retain integrity of *design, workmanship,* or *materials*, as many original features such as windows, doors, siding, and roofing are replaced, or the buildings are of more recent origin and consisting of standardized, manufactured materials. The buildings do not possess the element of *feeling* because their lack of historic integrity precludes them from conveying an aesthetic or historic sense of a particular period of time.

With regard to the County significance criteria, the attendant buildings are not associated to with persons or events significant in local, state, or national history, nor are they the work of a notable builder, designer, or architect. The attendant buildings do not qualify as a familiar visual feature of the neighborhood because they do not possess significant integrity to convey a unique visual character distinguishable from other, similar buildings in the area. The attendant buildings do not embody a significant structural or architectural achievement and therefore are not eligible for listing as historic resources under County guidelines.

Summary of Buildings Assessment

The residence and twelve attendant buildings at 3393 Padaro Lane are not eligible for listing as historic resources under County of Santa Barbara criteria.

Potential Project Impacts

Because the buildings located at 3393 Padaro Lane are not eligible for listing as historic resources under County of Santa Barbara criteria, the proposed demolition of existing buildings will not result in a significant impact to a historic resource.

SUMMARY OF REPORT FINDINGS

The main house at 3393 Padaro Lane is not eligible for listing as a historic resource under County of Santa Barbara criteria. The twelve attendant buildings also located on the property are not historically or architecturally significant and therefore none are eligible for listing as a historic resource under County of Santa Barbara criteria. The proposed demolition of existing buildings will not result in a significant impact to a historic resource. Despite institutional closures due to the COVID-19 pandemic that have precluded access to some archival research material, I am confident in the findings of this report.

SELECTED SOURCES CONSULTED

Published Documents

Campos, Jim, Dave Moore, Tom Moore, and Lou Panizzon. *Carpinteria*. 2007.
Campos, Jim, Bonnie Kelm, Dave Moore, Tom Moore, and the Carpinteria Valley Museum of History. *Greater Carpinteria, Summerland, and La Conchita*. 2009.
Ching, Francis D. K. *A Visual Dictionary of Architecture*. 1995.
McAlester, Virginia and Lee. *A Field Guide to American Houses*. 2005.
O'Neill, Owen H. *A History of Santa Barbara County.* 1939.
Storke, Yda Addis. *A Memorial and Biographical History of the Counties of Santa Barbara, San Luis Obispo and Ventura, California*. 1891.

Public Agencies

County of Santa Barbara
- Assessor's Office
- Planning and Development Department
- Surveyor's Office

Websites

Ancestry.com
FindAGrave.com
Newspapers.com
UCSB FrameFinder

Site Photographs

Main house, north elevation, looking south.

Main house, north elevation, looking southeast.

Main house, east elevation, looking west.

Main house, south elevation, looking north.

Main house, west elevation, looking east.

Main house, west elevation, looking east.

Main house, west elevation, looking southeast.

Small hedgerow building, south and east elevations, looking northwest.

Small guest house, south elevation, looking north.

Bathroom shed, west elevation, looking east.

Change room, south elevation, looking north.

Bunk room, west elevation, looking northeast.

Greenhouse, north and west elevations, looking southeast.

Office/Garage, south elevation, looking northeast.

Office/Garage, east elevation, looking west.

Garage/Workshop, south elevation, looking north.

Caretaker's house, east elevation, looking west.

Caretaker's house, south elevation, looking north.

Garage, east elevation, looking west.

Playhouse, east elevation, looking west.

Treehouse, north and east elevations, looking southwest.

GeoSoils, Inc.

Geotechnical • Geologic • Coastal • Environmental

5741 Palmer Way • Carlsbad, California 92010 • (760) 438-3155 • FAX (760) 931-0915 • www.geosoilsinc.com

March 8, 2021 WO S8032

PLSB, LLC
P.O. Box 29374
San Francisco, CA 94129-0374

SUBJECT: Coastal Hazard & Wave Runup Study for 3393 Padaro Lane, Carpinteria, California, 93013.

Dear PLSB, LLC:

The following report is in response to your request for a coastal hazard and wave runup study for the proposed new residence at 3393 Padaro Lane in Carpinteria, California. The proposed project includes the removal of the existing residential and accessory structures and construction of a new residence, guest house with attached cabana, detached garage and a greenhouse. The analysis is based upon site elevations, existing published reports concerning the local coastal processes, our site inspection, and knowledge of local coastal conditions. This report constitutes an investigation of the oceanographic conditions expected at the site in consequence of extreme storm and wave action over the life of the development, including the California Coastal Commission (CCC) Sea Level Rise (SLR) Update Guidance (November 2018). It includes an analysis of wave runup and overtopping of the shoreline, the resulting impacts on the proposed development, and the potential coastal hazards at the site over the project life (assumed to be 75 years). The purpose of this study is to provide the necessary information for a Coastal Development Permit, required by the County of Santa Barbara ([CSB] County of Santa Barbara guidelines in the draft Coastal Resiliency Local Coastal Plan Amendment), and the CCC. The analysis uses design storm conditions typical of the January 18-19, 1988, and 1982-83 type storm waves and beach conditions.

SITE VISIT & INFORMATION

The shoreline fronting 3393 Padaro Lane was visually inspected in January of 2020. The project site is fronted by a quarry stone revetment that originally predates the Coastal Act. The County of Santa Barabra issued a Conditional Use Permit (83-CP-58) and a Coastal Development Permit (85-CDP-97) for repair and augmentation of the original revetment. The permit was issued to the Padaro Lane Association and covered addresses 3199 Padaro Lane to 3611 Padaro Lane. The revetment is backed by a ~4 feet high brick wall, and the site is backed by Padaro Lane, the railroad, and Highway 101. Figure 1 is a 2019 oblique aerial photograph of the site and Figure 2 is a 1972 aerial of the site (showing the revetment), downloaded with permission from the California Coastal Records Project web

site. The site is mapped in the FEMA X Zone, with the FEMA VE Zone, with a maximum base flood Elevation (BFE) of 15 feet, at the beach in front of the site (see Figure 3). Site elevations and the preliminary plans for the proposed development were provided by the project architect, Appleton Partners, LLP. Site elevations were taken from a topographic map (APPENDIX I) using the NAVD88 datum. The following historical aerial photographs from 1937 to the 2020 were examined for shoreline position changes.

University of Santa Barbara Library Aerial Photographs

C-4950 SF 128	Photo taken on 1-9-1938
C-11792 2-101	Photo taken on 9-23-1947
HB XQ Frame 307	Photo taken on 2-23-75

Coastal Records Website (californiacoastline.org)

7232075	Photo taken circa 1972
7945066	Photo taken Oct 1979
3355	Photo taken Sept 2002
200600854	Photo taken Sept 2006
200800980	Photo taken Sept 2008
201000844	Photo taken Sept 2010
201308422	Photo taken Sept 2013

Google Earth Photos for various years using the View-Historical Imagery pull down.

Figure 1. Subject site, revetment, shoreline, and Padaro Lane in 2019.

Figure 2. Subject site, adjacent properties, revetment and Highway 101 in 1972.

Figure 3. Current FEMA map showing the site in the FEMA X Zone.

COASTAL PROCESSES

The subject site lies within the Santa Barbara Littoral Cell. A littoral cell is a coastal compartment that contains a complete cycle of littoral sedimentation including sources, transport pathways, and sediment sinks. The Santa Barbara Littoral Cell extends from Point Conception to Point Mugu, a distance of 96 miles. It is one of the longest littoral cells in Southern California and contains a variety of coastal types and shoreline orientations. An extensive shoreline management study was conducted for the section of the littoral cell

from Goleta to Point Mugu by Noble Consultants (BEACON, 1989). The coastal processes sections of that report remain valid to this date, and have been used (updated as needed) as a database for this analysis.

The BEACON study divided the Santa Barbara Littoral Cell into sub cells based upon shoreline characteristics and the location of sediment sources and sinks. The subject site, 3393 Padaro Lane, lies within the subcell from Santa Barbara Harbor to Rincon Point. This coastal segment has been dominated by the construction of Santa Barbara Harbor in 1927. Prior to the construction of the harbor, historical photographs suggest that the beaches near the site were wider in the area. After completion, the harbor became almost a complete littoral barrier and an erosion wave propagated down coast as far as Carpinteria (BEACON, 1989). By 1934, a series of groins had been installed from East Beach to Miramar Beach in an effort to stop the recession. These groins did help stabilize the shoreline, but they deteriorated over time with only small remnants visible at this time. The U.S. Army Corps of Engineers (USACOE) has an ongoing maintenance dredging/bypassing program at the harbor, which has mitigated much of the potential for long-term shoreline recession. A comparison of Figure 1, taken in 2019, and Figure 2, taken in 1972, shows no visible shoreline recession or deepening of the intertidal beach fronting the sites. The beach in 2019 actually appears wider than the beach in 1972. However, this could be due to seasonal beach width changes.

Based upon the site topographic map (and confirming site measurements), the top of the crest of the revetment is at about elevation +17 feet NAVD88. The revetment ocean toe is at about elevation +2.5 feet NAVD88 (estimated from the 1972 photograph). The proposed house is setback ~129 feet landward from the crest of the revetment and the cabana ~80 feet from the revetment crest. The proposed garage and ADU are more than 200 feet and 300 feet, respectively, from the revetment crest. While the shoreline is relatively stable in the long-term, sand deposits are subject to short-term erosion from significant wave events. The beach sand can erode at the toe of the revetment and waves can runup onto, and over, the revetment.

EXISTING CONDITIONS

Tides are taken from the National Oceanic and Atmospheric Administration (NOAA) tidal station at Santa Barbara, see Figure 3. The historical design ocean water level will be 7.6 feet NAVD88, the “100 Year” water level. Site topography, attached as APPENDIX I, shows site elevations from the beach at ~+10 feet NAVD88 through the site from about +14 feet NAVD88 to about ~+11 feet NAVD88, with Padaro Lane at about elevation +10.5 feet NAVD88. The “natural” beach slope is taken from the closest BEACON beach profile monitoring range line at Padaro Lane, see Figure 4. While there may be some additional profile data taken by USGS, the information is not ready for public use (Dan Hover, USGS, personal communication). The Design Beach Profile (DBP) for both the current condition and “natural beach” (no revetment) analysis is provided in APPENDIX II.

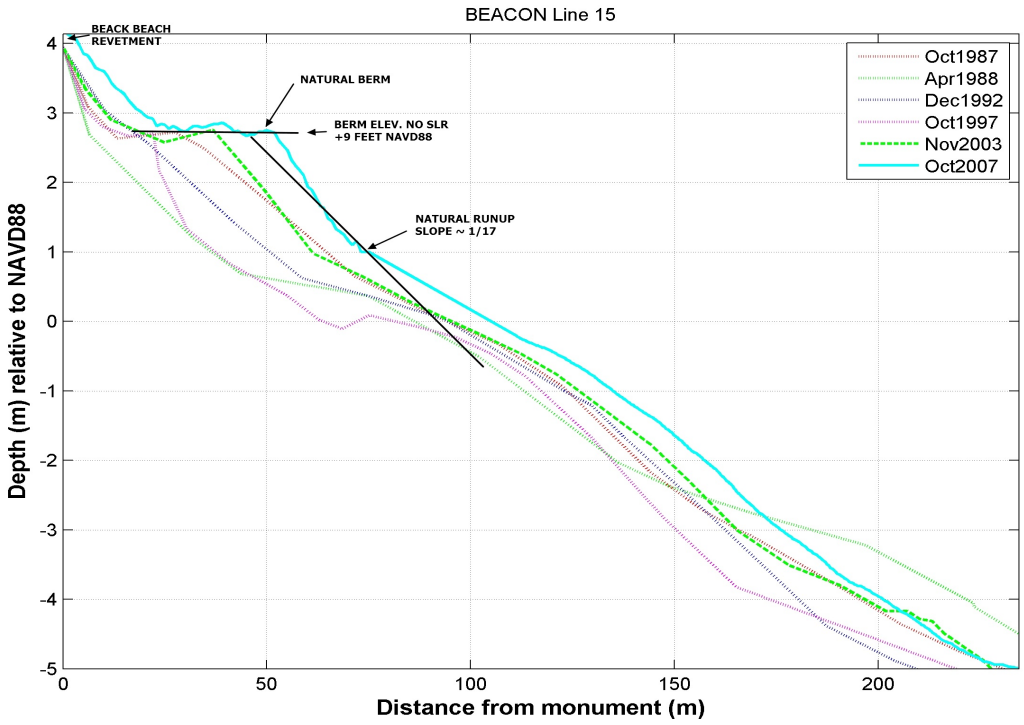


Figure 3.

Table 1 - NOAA Tide Data, Santa Barbara (9411340)

Tidal Datum	Vertical Datum			
	MLLW (m)	MLLW (ft)	NAVD88 (ft)	NGVD29 (ft)
100 Year	2.35	7.71	7.57	4.93
Highest Observed	2.25	7.39	7.25	4.61
MHHW	1.65	5.40	5.26	2.62
MHW	1.42	4.64	4.50	1.86
MTL	0.86	2.81	2.67	0.03
MSL	0.85	2.79	2.65	0.01
NGVD29	0.85	2.78	2.64	0.00
MLW	0.30	0.98	0.84	-1.80
NAVD88	0.04	0.14	0.00	-2.64
MLLW	0.00	0.00	-0.14	-2.78
Lowest Observed	-0.88	-2.89	-3.03	-5.67

Figure 4.

The site is currently fronted by a pre-coastal act revetment. With the revetment in place and maintained, NO shoreline erosion is expected over the 75-year life of the development. In 2006, the USGS published a comprehensive report about shoreline change for the coast of California (Hapke, et al., 2006). This report uses data from the late 1800s to the early 2000s, and covers the section of shoreline fronting the subject site. Using Figure 35 from the report and the ruler/path tool on Google Earth, the distance from the site to the Santa Barbara Harbor is ~11.6 kilometers. A portion of Figure 35 from the USGS report is reproduced below as Figure 5 to show the historical short-term and long-term shoreline change rates at the site.

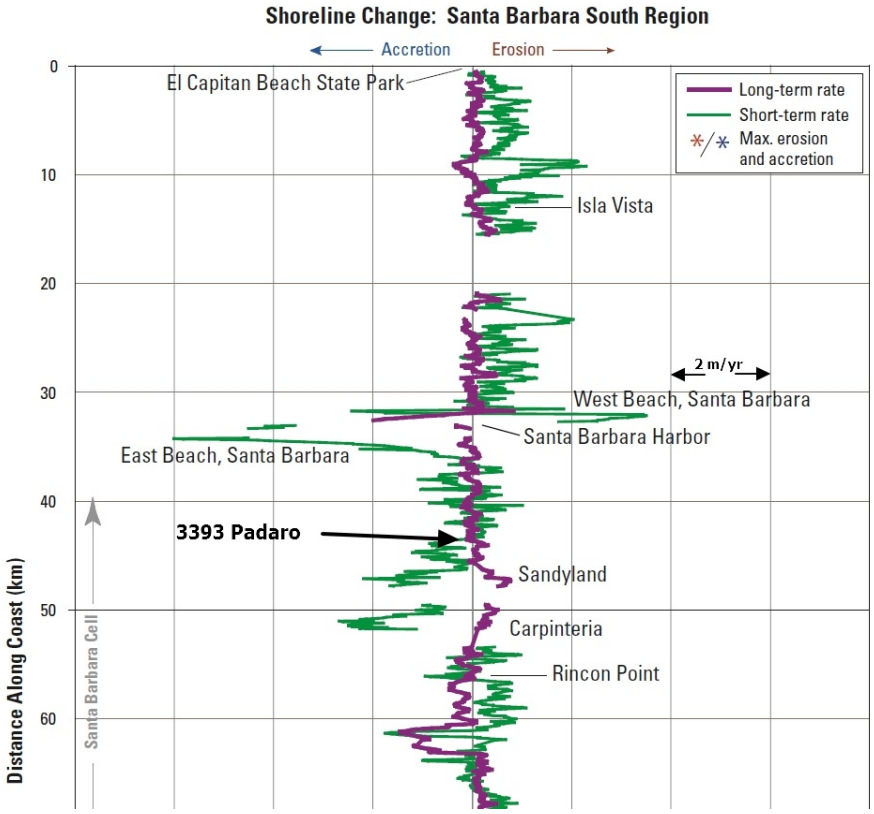


Figure 5. Short-term and long-term shoreline change at the subject site (USGS, 2006).

Figure 5 shows in the short-term (green line), the beach is accreting. In addition, accretion of the beach clearly shows up when comparing historical photos of the beach in front of the site on the Coastal Records website. The USGS study does show that there is a nearby long-term trend of erosion of less than 0.30 m/yr = 1 ft/yr. This long-term erosion trend is likely the result of the construction of Santa Barbara Harbor, which prior to the by-passing program, resulted in erosion on all of the beaches to the southeast of the harbor. The reason the shoreline fronting the site has been determined to be relatively stable in the last

several decades is because the bypassing program has returned the sand to the littoral system. The long-term trend determined by USGS is basically movement of the sand at the shoreline. The USGS long-term trend may not take into account that the beach is made up of sand overlying cobbles. Once the sand is eroded, the beach will likely be composed of cobble.

As the coastal engineering consultant of record for the project, GSI is professionally obligated to discuss the site development requirements as dictated by the CSB, the CCC, and including site development conditions that may likely occur over the life of the development, regardless of the regulatory requirements. That is to say the CSB and CCC require that the development be designed without the benefit of the existing revetment. However, it is likely that the revetment will be in place for a portion, if not all, of the life of the development. The analysis of wave overtopping with the revetment in place represents a very real site scenario and not including it in the coastal engineering analysis could potentially be professionally negligent. The purpose of the inclusion of the analysis is to provide relevant information to the client in order to better understand the potential for coastal hazards to impact the property and proposed development. To be perfectly clear, the recommendations herein with regrading the coastal engineering design conditions, (such as the BFE and potential wave/bore forces), are based upon the "no revetment" scenario.

FUTURE WAVE RUNUP & OVERTOPPING

Sea Level Rise

Currently, the best available science for SLR estimates as determined by the CCC is by Kopp, et al., (2014). This paper is the scientific basis for the California Ocean Protection Council (COPC) 2018 SLR document, which the CCC SLR 2018 Guidance states is the best available science. The Kopp, et al. paper does state that “local decisions require local projections that accommodate different risk tolerances that can be linked to storm surge projections.” The CSB has specified local SLR projections based on the local risk tolerances. The CSB has a maximum SLR under the COPC 2018 and high emission scenario of 60.2 inches (5.0 feet) in the year 2100. The CSB has adopted a SLR range in their 2017 Sea Level Rise Vulnerability Assessment (see below). Plotting these estimate and fitting a curve shows that the SLR in 2095 is about 55 inches. A reasonable design SLR for the project using the CSB projections is 4.6 feet (55 inches).

Table I-1. Sea Level Rise Projections for Santa Barbara County (inches)

Time Period	Low Sea Level Rise Scenario	Medium Sea Level Rise Scenario	High Sea Level Rise Scenario
By 2030	0.04	3.5	10.2
By 2060	2.8	11.8	27.2
By 2100	10.6	30.7	60.2

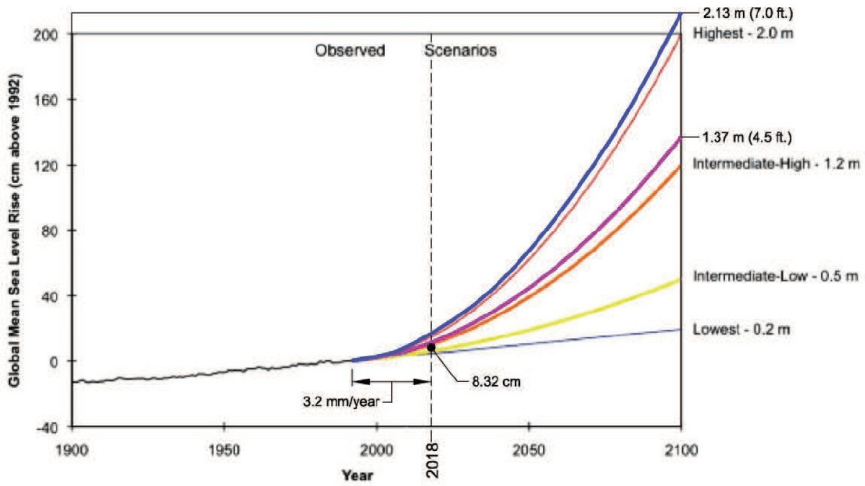
Source: Santa Barbara County Sea Level Rise and Coastal Hazards Vulnerability Assessment, July 2017.

The SLR tables in the CCC 2018 Guidance have been modified by the CCC and do not provide the complete data set from the COPC document with the best available science. Figure 6 is the SLR probabilities for the Santa Barbara tide station and is taken from the COPC document (Table 22). Table 22 illustrates that SLR in the year 2100 for the likely range and, considering the most severe RCP (8.5), is 1.2 feet to 3.1 feet above the 1991-2009 mean. Interpolating Table 22, the very low probability SLR (0.5%) for the year 2095, low emissions, SLR is ~4.8 feet, and the high emissions, SLR is ~6 feet. Based upon this table there is a much lower probability (0.5%) of SLR of about 5.4 feet ((4.8+6.0)/2).

Santa Barbara COPC Table 22		Probabilistic Projections (in feet) (based on Kopp et al. 2014)					H++ scenario (Sweet et al. 2017) *Single scenario
		MEDIAN	LIKELY RANGE		1-IN-20 CHANCE	1-IN-200 CHANCE	
		50% probability sea-level rise meets or exceeds...	66% probability sea-level rise is between...		5% probability sea-level rise meets or exceeds...	0.5% probability sea-level rise meets or exceeds...	
				Low Risk Aversion		Medium - High Risk Aversion	Extreme Risk Aversion
High emissions	2030	0.3	0.2 -	0.4	0.5	0.7	1.0
	2040	0.5	0.3 -	0.7	0.8	1.1	1.6
	2050	0.7	0.4 -	1.0	1.2	1.8	2.5
Low emissions	2060	0.7	0.4 -	1.0	1.4	2.2	
High emissions	2060	0.9	0.6 -	1.3	1.6	2.5	3.6
Low emissions	2070	0.9	0.5 -	1.3	1.7	2.8	
High emissions	2070	1.1	0.7 -	1.7	2.1	3.3	4.9
Low emissions	2080	1.0	0.5 -	1.5	2.0	3.6	
High emissions	2080	1.4	0.9 -	2.1	2.7	4.3	6.3
Low emissions	2090	1.1	0.6 -	1.8	2.4	4.4	
High emissions	2090	1.7	1.1 -	2.6	3.3	5.3	7.9
Low emissions	2100	1.2	0.6 -	2.0	2.9	5.3	
High emissions	2100	2.1	1.2 -	3.1	4.1	6.6	9.8

Figure 6. COPC probabilities that SLR will meet or exceed, from best available science.

The Kopp et al. paper used 2009 to 2012 SLR modeling for the probability analysis, which means the “best available science” as determined by the CCC is almost 10 years old. The CCC SLR Guidance requires the use of the “best available science.” Dr. Reinhard Flick from the Scripps Institution of Oceanography has provided information that global sea level from 1992 to 2018 has resulted in 8.32 centimeters of relatively uniform SLR in the past 26 years. This information is shown on Figure 7 taken from the CCC SLR Guidance (2015). This current measurement shows that SLR is tracking more on the intermediate SLR prediction curves, which is more like a 50% (median) probability SLR in the year 2100, as shown in Figure 6.



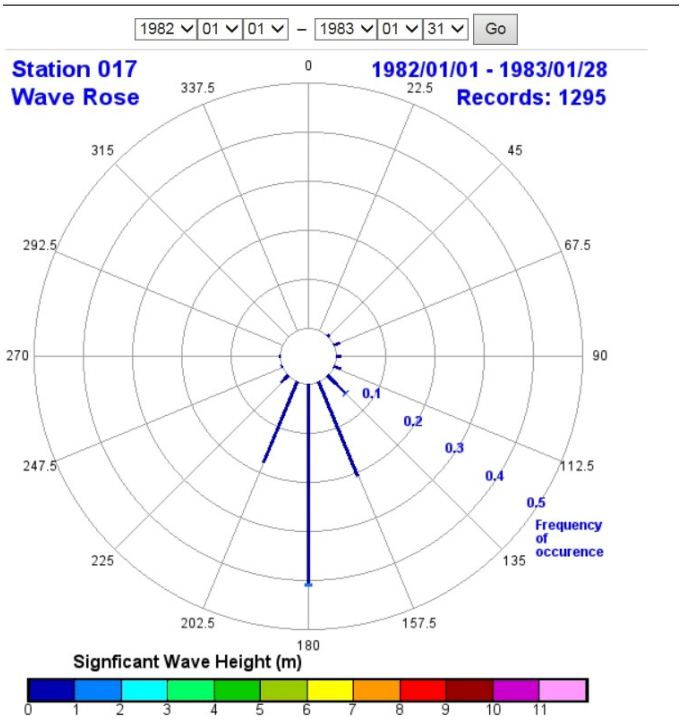
Modified from Figure 5 of the California Coastal Commission Sea Level Rise Policy Guidance document adopted August 12, 2015.

Figure 7. Current (2018) global SLR plotted on SLR prediction curves (graphic taken from TerraCosta Consulting).

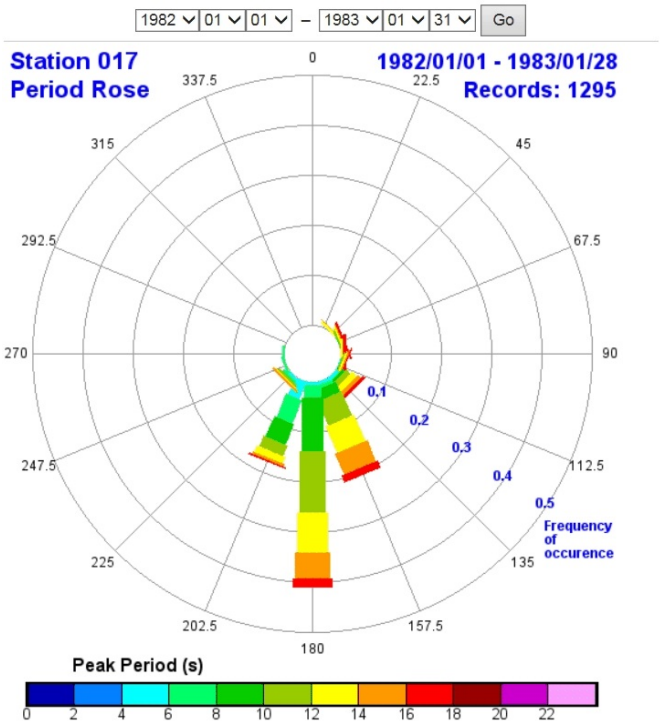
Future Overtopping Revetment In Place

This section is not provided for regulatory determination and project design parameters, but rather to describe conditions that will likely occur over the life of development. The site is currently protected by a double crested shore protection structure, which will be modeled as a wide crested revetment. The wave runup and overtopping calculation on the revetment will use Equation VI-5-22 from the Coastal Engineering Manual ([CEM] USACOE). The equation coefficients will be chosen from page VI-5-25 of the CEM. This equation uses the significant wave height (not the highest wave), the mean wave period (not the longest period), does not rely on the nearshore slope, and is not depth limited. The following variables from the source noted will be the input foro the equation.

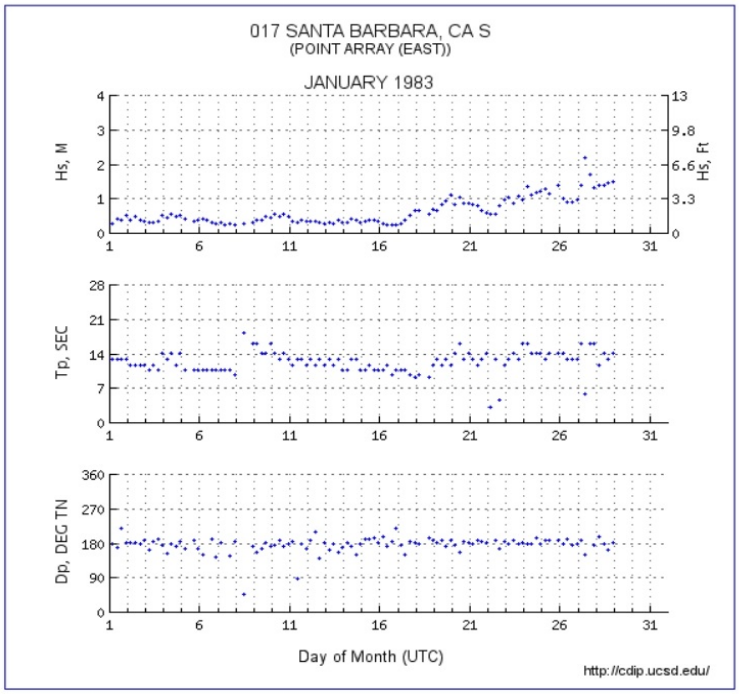
The revetment slope is one-half (½) based upon revetment design plans and survey, the lowest top of rocks ~+16.5 feet NAVD88 from site observations. The historical highest water is ~+7.6 feet NAVD88 from NOAA tide station (94511340) at Santa Barbara. The mean wave period and significant wave height are taken from the Santa Barbara CDIP Station during the 1982-83 storms. Future design water elevation will be 13 feet NAVD88 (7.6 feet NAVD88 + 5.4 feet SLR). Below is the Period Rose and Wave Rose for the design wave conditions during the 1982-83 El Niño winter. In addition, a wave statistics compendium of January 1983, which had the larger wave event and is CCC approved design conditions, is also below.



CDIP Period Rose from CDIP



CDIP Wave Rose from CDIP



CDIP Compendium from CDIP

Based upon this data during the design winter (1982-83), the significant wave height was maximum of about 7 feet. Based upon this data, the mean period is about 14 seconds. The output for the CEM overtopping analysis is below.

	DATE	1-Apr-20	
	W.O	S7810	
3525 Padaro Lane Carpinteria			
OVERTOPPING BY OWEN			
EQUATION VI 5-22			
INPUT	SYMBOL	VALUE	
SIGNIFICANT WAVE HEIGHT	Hs	7	
MEAN WAVE PERIOD	Tom	14	
COEFFICIENT	a	0.013	
COEFFICIENT	b	22	
FREEBOARD	Rc	4	
SURFACE ROUGHNESS	Y	0.5	
	Som	0.006965395	
*			
OVERTOPPING	**q**	**17.75694582**	**Ft^3/Sec.Ft**

The calculated revetment mean overtopping rate for the design condition is 17.8 ft^3/s-ft for 5.4 feet SLR. For the calculated overtopping rate, the height of water can be calculated using the following empirical formula provided by the USACOE (Protection Alternatives for Levees and Floodwalls in Southeast Louisiana, May 2006, equations 3.1) based upon the calculated overtopping rate Q for the SLR case.

$$q = 0.5443\sqrt{g}\,h_1^{3/2}$$

For 17.8 ft^3/s-ft, the height of the overtopping bore is about 3.2 feet. This bore will be reflected almost entirely by the ~4 feet high brick wall behind the revetment. The proposed habitable structure is about 140 feet setback from the top of the landward revetment. The wave overtopping bore will be reduced in height before it reaches the proposed structure. Post construction site elevation at the proposed structure is about +16 feet NAVD88 and, with an overtopping bore of less than 1 foot in height (due to distance from the revetment if brick wall is removed), the effective future flood elevation in consideration of SLR at the proposed development is less than +17 feet NAVD88 with the revetment in place and maintained, and the brick wall removed.

Future Overtopping NO Revetment In Place

Wave runup and overtopping for the proposed project is calculated using the United States Army Corps of Engineers (USACOE) Automated Coastal Engineering System (ACES). ACES is an interactive computer based design and analysis system used in the field of coastal engineering. The methods to calculate runup and overtopping implemented herein are discussed in greater detail in Chapter 7 of the Shore Protection Manual (1984) and in Chapter 6 of the CEM. Figure 8, taken from the ACES manual, shows the runup variables.

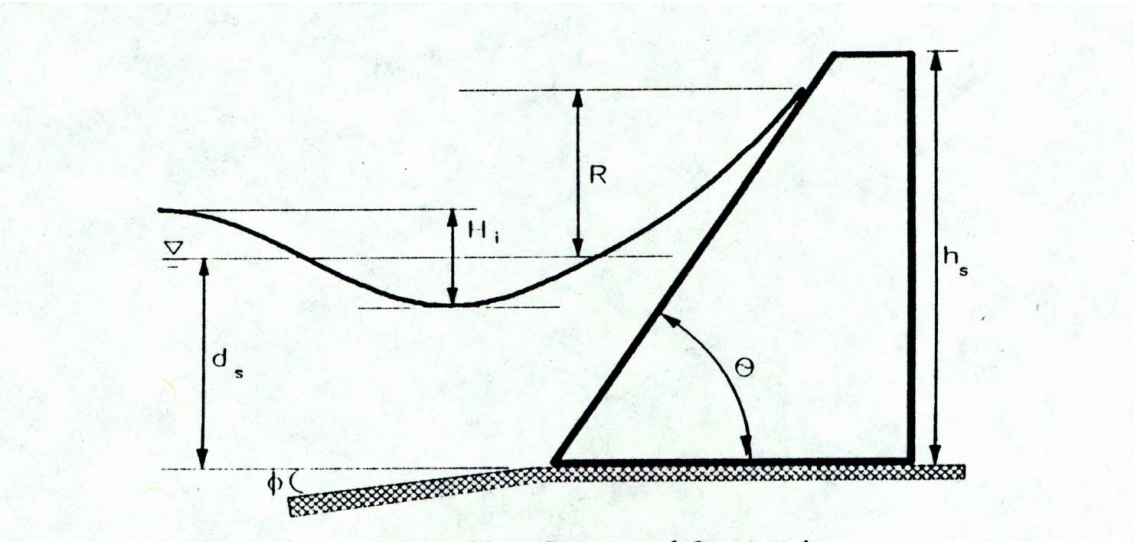


Figure 8. Wave runup terms from ACES manual.

d_s is the depth of the water at the break point on of the beach slope
H_i is the design breaking wave height
R is the height of the wave runup above the still water elevation
h_s is the height of the revetment above the toe
Θ is the ~slope of the revetment
ϕ is the nearshore slope or slope from the shoreline to beyond the breakers. This variable is only used to back calculate the deepwater wave height for comparison to wave height statistics.

The future beach slope will be the current beach slope (see Figure 4) or ~1/17. The nearshore slope will also be taken from BEACON Line 15. The future beach berm elevation will be the current elevation plus about 75% of the SLR or about +13.5 feet NAVD88 (+9.5 feet NAVD88 + 0.75X5.4). The slope and the berm elevation are determined by using the coastal engineering principal of equilibrium beach profile (Dean, 1991). The equilibrium beach profile principal is illustrated in the graphic below provided as Figure 9. The design wave will be the depth limited wave based upon the water depth at the toe (+13.0 feet - 2.0 feet = 11). The depth limited design wave is 0.78 X 11= 8.6 feet. The top of the berm after the beach has adjusted to SLR is at ~13.5 feet NAVD88. The future beach can be composed of sand or cobbles, or a combination of sand and cobbles. Both the sand (smooth) and cobble (rough) cases will be analyzed. The output for the ACES analysis is provided after Figure 9.

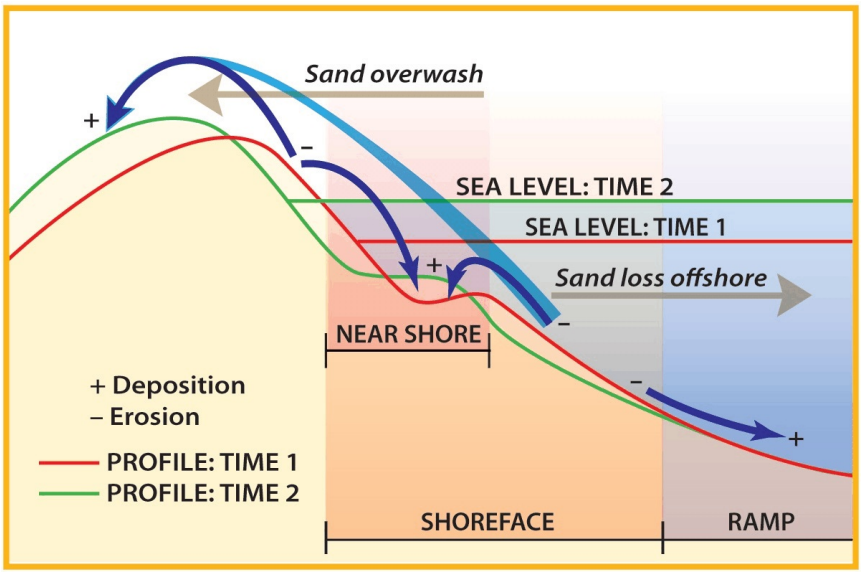


Figure 9.

ACES | Mode: Single Case | Functional Area: Wave - Structure Interaction

Application: Wave Runup and Overtopping on Impermeable Structures

Item		Unit	Value
Incident Wave Height	Hi:	ft	8.600
Wave Period	T:	sec	14.000
COTAN of Nearshore Slope	COT(ø):		280.000
Water Depth at Structure Toe	ds:	ft	11.000
COTAN of Structure Slope	COT(θ):		17.000
Structure Height Above Toe	hs:	ft	11.600
Rough Slope Coefficient	a:		0.692
Rough Slope Coefficient	b:		0.500
Wave Runup	R:	ft	2.870
Onshore Wind Velocity	U:	ft/sec	8.439
Deepwater Wave Height	H0:	ft	6.124
Relative Height	ds/H0:		1.796
Wave Steepness	H0/(gT^2):		0.000971
Overtopping Coefficient	α:		0.050000
Overtopping Coefficient	Qstar0:		0.140000
Overtopping Rate	Q:	ft^3/s-ft	12.808

Rough Slope Runup and Overtopping

3393 Padaro Lane

5.4 FT SLR

No Revetment Cobbles

ACES | Mode: Single Case | Functional Area: Wave - Structure Interaction

Application: Wave Runup and Overtopping on Impermeable Structures

Item		Unit	Value
Incident Wave Height	Hi:	ft	8.600
Wave Period	T:	sec	14.000
COTAN of Nearshore Slope	COT(ø):		280.000
Water Depth at Structure Toe	ds:	ft	11.000
COTAN of Structure Slope	COT(θ):		17.000
Structure Height Above Toe	hs:	ft	11.600
Wave Runup	R:	ft	5.476
Onshore Wind Velocity	U:	ft/sec	8.439
Deepwater Wave Height	H0:	ft	6.124
Relative Height	ds/H0:		1.796
Wave Steepness	H0/(gT^2):		0.000971
Overtopping Coefficient	α:		0.070000
Overtopping Coefficient	Qstar0:		0.070000
Overtopping Rate	Q:	ft^3/s-ft	16.173

Smooth Slope Runup and Overtopping

3393 Padaro Lane

5.4 FT SLR

No Revetment

The calculated sand beach overtopping rate for the design condition of 5.4 feet of SLR is ~16 ft^3/s-ft and 12.8 ft^3/s-ft for the cobble beach. For the calculated overtopping rate, the height of water can be calculated using the empirical formula provided by the USACOE (Protection Alternatives for Levees and Floodwalls in Southeast Louisiana, May 2006, equations 3.1) based upon the calculated overtopping rate Q for the SLR case. For ~16 ft^3/s-ft, the height of the overtopping bore is about 3 feet and for 12.8 ft^3/s-ft the overtopping bore is 2.6 feet.

The historical long-term erosion trend near the site is less than 1.0 ft/yr (Figure 5). For the future natural beach condition, an estimated beach retreat over the design life (assuming that the revetment is removed), using erosion on average of 1.0 ft/yr over 75 years, is about 75 feet. To be conservative, GSI will estimate the beach retreat to be ~112 feet in 75 years (1.5 ft/yr on average). This is shown on the DBP in APPENDIX II. While an unlikely scenario, if the revetment were removed today, the shoreline could retreat such that the new beach berm is under the cabana but not under the residential structure. The elevation of the future berm is estimated to be about +13.5 feet NAVD88. When the design bore height of 3 feet is added, the effective flood elevation at the cabana string line is +16.5 feet NAVD88. Due to the site topography, sloping back towards the ocean, and the fact that the

bore height dissipates as it travels, this is the site flood elevation over the design life of the structure.

The CCC suggests the use of the high emission scenario over the design life but clearly states the Guidance document is advisory, not regulatory, and not a check list. The design life of the project is 75 years. Using Figure 1 and the 0.5% probability high emissions, the SLR in the year 2096 is between 5.3 feet (2090) and 6.6 feet (2100). The average of these two estimates is 5.95 feet. However, SLR does not increase linearly over time, the SLR estimates increase more exponentially. This means that the SLR is likely between about 5.8 feet for the 0.5% high emissions case in the year 2096. To be responsive to the comment, GSI will provide a wave overtopping and breaking wave analysis for 6.0 feet SLR.

Using the same methodology as used above, the design water elevation is 7.6 feet NAVD88 + 6 feet = 13.6 feet. The future beach slope will be the current beach slope or ~1/17. The nearshore slope will also be approximated from BEACON Line 15. The future beach berm elevation will be the current elevation plus about 75% of the SLR or about +13.5 feet NAVD88 (+9 feet NAVD88 + 0.75X6). The slope does not change with SLR, and the new (SLR induced) berm elevation is determined by using the coastal engineering principal of equilibrium beach profile. The design wave will be the depth limited wave based upon the water depth at the toe (+13.5 feet - 1.4 feet = 12.1 feet). The depth limited design wave is 0.78X 12.1 = 9.4 feet. The top of the berm after the beach has adjusted to SLR is at 14.1 feet NAVD88. The output for the ACES analysis is provided below**.**

ACES | Mode: Single Case | Functional Area: Wave - Structure Interaction

Application: Wave Runup and Overtopping on Impermeable Structures

Item		Unit	Value
Incident Wave Height	Hi:	ft	9.400
Wave Period	T:	sec	14.000
COTAN of Nearshore Slope	COT(ø):		200.000
Water Depth at Structure Toe	ds:	ft	12.100
COTAN of Structure Slope	COT(θ):		17.000
Structure Height Above Toe	hs:	ft	12.600
Rough Slope Coefficient	a:		0.956
Rough Slope Coefficient	b:		0.398
Wave Runup	R:	ft	4.398
Onshore Wind Velocity	U:	ft/sec	3.376
Deepwater Wave Height	H0:	ft	6.843
Relative Height	ds/H0:		1.768
Wave Steepness	H0/(gT^2):		0.001085
Overtopping Coefficient	α:		0.070000
Overtopping Coefficient	Qstar0:		0.070000
Overtopping Rate	Q:	ft^3/s-ft	18.855

Rough Slope Runup and Overtopping

3393 Padaro Lane

6.0 FT SLR

No Revetment

The overtopping rate is used to calculate a bore height of 3.3 feet. When this is added to the future berm height the highest elevation of the wave runup is 17.1 feet NAVD88 (14.1 feet NAVD88 + 3.3 feet bore). This raises the calculated future flood level in 75 years from ~ 16.5 feet NAVD88 to ~17.4 feet NAVD88.

Breaking Wave Elevation

Because the design beach profile berm, under the no revetment condition, will be just landward of the proposed cabana structure and well seaward of the residential structure, the additional hazard due to breaking waves at the cabana structure string line does not need to be analyzed. The design waves of interest will break on or before the beach slope before reaching the cabana structure string line. The flood elevation will be the site grade added to the overtopping bore and not the breaking wave height at the structure.

DESIGN FLOOD ELEVATIONS

Typically the height limit, the building/deck string line, and other setbacks (building envelope) are provided by the County or other consultants. The coastal engineer typically provides the future potential flood elevation. With the revetment in place and maintained, including SLR of about 5.4 feet, the highest flood elevation will be at the crest of the revetment. This would be the height of the overtopping water plus the height of the revetment or about 16.5 feet NAVD88 + 3.2 feet or 19.7 feet NAVD88. This height of the overtopping bore will approach 0.0 feet as it travels about 100 feet past the top of the revetment. The flood elevation beneath the structure will be no greater than the eroded grade elevation + 3 feet or about +16.5 feet NAVD88. With the revetment removed the flood hazards is the flooding elevation of the wave overtopping at the future berm, which may be located just seaward of the structure. This elevation would be the elevation of the berm, ~+13.5 feet NAVD88, plus the maximum overtopping bore height of 3 feet or 16.5 feet NAVD88. The development will be reasonably safe from wave runup, overtopping, and flooding due to the pile foundation and provided the elevation of the building accounts for these future flood elevations.

Based upon the County requirement that the finished floor (FF) be 2 feet above the potential BFE, the FF elevation should be at or above +18.5 feet NAVD88. This is based upon GSI analysis of the broken wave bore height at the building with 5.4 feet of SLR and no shore protection in place.

BUILDING DESIGN

The location of the project exposes the proposed development to coastal hazards when high tide events coincide with extreme storm events and SLR. During these events, wave run-up extends into the seawall rock revetment along the ocean side of the property and then dissipates into the sand between the revetments and underlying sand berm. This condition may be exacerbated if the higher predicted sea level rise scenarios were to occur. Therefore, the proposed improvements will be designed to accommodate and withstand the extreme tidal and run-up events assuming that the revetments were removed. The design of the new structure is adapted to resist impacts from coastal hazards which will, in turn, reduce potential impacts on the environment. It should be noted that if the revetment is removed, the beach berm could be located at about the existing residence string line at the

very end of the proposed development design life depending on the sea level rise that occurs (DBP APPENDIX II).

With the revetment in place and maintained, wave overtopping will not impact (erode) the site and the access road/utilities. However, overtopping of the revetment will flow through the site with a maximum elevation of less than 3 feet above grade. The design wave bore height is 3 feet at the design beach profile berm, if the revetment is gone. Typically, according to the CEM, a wave bore is reduced in height about 1 foot for every 25 feet it propagates across a sand beach. It is GSI's opinion that the 3-foot high wave bore will dissipate over the rough natural surface in a distance of less than 100 feet. In addition, the overtopping water is a pulse of water that is spread out across the site as it travels landward. It is NOT a continuous flow, but rather a discrete volume of water. The road will not be flooded in the future.

If the revetment is removed, any space below the proposed structure should be designed with a minimum of 3 feet clearance from grade, with the exception of waterproofed vaults that can be at grade to protect mechanical equipment. This will allow for wave overtopping to flow through the site. The garage should be fitted with venting per the County standard. The 5.4 feet SLR prediction was computed to inform the owner and allow planning for the currently anticipated, worst case scenario.

According to the FEMA Coastal Construction Manual, design within flood hazard zones should follow the guidance of Flood Resistant Design and Construction standards provided in ASCE 7-05 & 24-05. It is recommended that the structural design for this residence follow these guidelines, as well as the current County of Santa Barbara Building Code provisions. The CCC Draft Residential Adaptation Policy Guidance was also reviewed and implemented into the design of the project. The piles for the structure are to be designed to include both hydrodynamic and hydrostatic forces with a 1 percent chance of being exceeded in any year. According the ASCE standards, this development is classified as a Category II structure and is located in a high hazard zone. Therefore, the structure should be constructed in compliance with Section 4 of ASCE 24-05. For this category and location, it is recommended that perpendicular, lowest supporting horizontal structural members for habitable structures should be 1 foot above the BFE and parallel. The lowest supporting horizontal structural members may be positioned at the BFE. According to County Flood Control, the freeboard to be applied at the site is 2 feet. Applying this freeboard to the GSI BFE gives a minimum FF (finished floor) elevation of 18.5 feet NAVD88, which will be the minimum elevation for living space. The lower level space is to be considered uninhabited space and shall be left open to allow the passage of water between the piles. The cabana and garage can use louvered screens that allow the passage of water in lieu of solid or breakaway walls. The only solid structure proposed at the ground floor are the piles and the flood proof utility vaults.

Wave Forces

Using the identified water levels and overtopping bore elevations with respect to the proposed development, it was determined that, although the proposed structure is above

the design water level, wave run-up may extend to the proposed residence if the rock revetment is not present. Since the existing grade along the beach in front of the residence is above the design water level, direct forces from wave transmission and breaking will not affect the structure. However, the wave run-up bore that could extend to the proposed development will exert a force on the structure (piles). The force is related to the height of the bore (Hw) at the structure. As indicated in the CEM, the force of the surge per unit horizontal width to be as follows:

$$F_{surge} \approx 4.5\rho g(Hw)^2$$

where ρ is the density of the water, Hw is the bore height, and g is gravity.

Since the design wave run-up could extend to the residence if the revetments were removed, the force of the surge will be conservatively computed to the full height of the wave run-up above the eroded grade in front of the structure that could occur at the end of 75 years if SLR continues as predicted. Using a bore height of 3 feet, the estimate wave bore force is about 3,000 lbs per foot. These force values should be used to design the improvements along the ocean side of the site by multiplying the force values by the width of the improvement subject to the storm surge. Since other similar conditions will likely occur depending on the final design configuration, the project coastal engineer should review proposed improvements within the surge area and identify appropriate loadings resulting from the predicted wave run-up conditions at the site.

Wave Forces on Piles

If the revetments are removed the structure piles may be subject to breaking wave forces. The pile loads are taken from FEMA equation 8.5, provided below, using a depth limited design wave height of 7.6 feet at the structure and a 30-inch round pile.

F = 1/2(1.75)(64)(2.5)(7.6)(7.6) = ~8100 lb acting at the still water elevation of 13 feet NAVD88. The relationship between the diameter of the pile and the wave force are linear and provided in the equation.

EQUATION 8.5. BREAKING WAVE LOAD ON VERTICAL PILES

$$F_{brkp} = \frac{1}{2} C_{db} \gamma_w D H_b^2 \qquad \text{(Eq. 8.5)}$$

where:

- F_{brkp} = drag force (lb) acting at the stillwater elevation
- C_{db} = breaking wave drag coefficient (recommended values are 2.25 for square and rectangular piles and 1.75 for round piles)
- γ_w = specific weight of water (62.4 lb/ft³ for fresh water and 64.0 lb/ft³ for saltwater)
- D = pile diameter (ft) for a round pile or 1.4 times the width of the pile or column for a square pile (ft)
- H_b = breaking wave height (0.78 d_s), in ft, where d_s = design stillwater flood depth (ft)

TSUNAMI

The site is adjacent to the Pacific Ocean, which would allow for both near field (Channel Island faults) and far field (Alaska and Japan faults) generated tsunami to approach the site. The State of California (2009) Carpenteria Quadrangle, shows that the site is in a tsunami inundation zone. The tsunami inundation map use is for evacuation planning only. The CSB has developed a tsunami alert and evacuation plan. This plan recommends that coastal communities within the potential areas of inundation upgrade their tsunami education programs. The County has posted signs throughout the community showing tsunami evacuation routes, tsunami evacuation center locations, and the limits of the tsunami hazard zones. The limit of the tsunami inundation zone at the site is just landward of the proposed residential structure. The limitation on the use of the maps is clearly stated in the **PURPOSE OF THIS MAP** on every quadrangle of California coastline, as provided below.

> *Inundation projections and resulting planning maps are to be used for emergency planning purposes only. They are not based on a specific earthquake and tsunami. Areas actually inundated by a specific tsunami can vary from those predicted. The inundation maps are not a prediction of the performance, in an earthquake or tsunami, of any structure within or outside of the projected inundation area.*

The following provides some measures that can be taken by the owner to help protect against tsunami.

- Create a disaster plan: Know where to go to survive a tsunami like an inland location that is elevated. After an earthquake or other disaster, roads may be blocked so plan for multiple evacuation routes and be prepared to walk.

- Assemble a disaster supply kit: Have a kit available at home, in your car, and at work. Put your kit in a backpack and leave it in an easy to reach location.

- Turn off utilities: Teach family members how and when to turn off gas, electricity, and water. Know which radio stations to listen to for official information. Hold earthquake tsunami drills.

- Emergency contact: Ask an out-of-area relative or friend to serve as the family "contact." After a disaster, it's often easier to call long distance. Make sure everyone knows the name, address, and phone number of the contact person so that they can provide support if the family is separated or in need of outside assistance.

- Take a first aid class: Learn survival skills, talk with your family, friends, and neighbors. Knowledge is your greatest defense against any potential disaster.

- Be familiar with the tsunami warning signs: People living along the coast should

consider a coastal earthquake (5.0 or greater) or a sizable rumbling as a warning signal. A noticeable or rapid rise or fall in coastal waters is also a sign that a tsunami is approaching. A loud roaring noise from the ocean can also be an indication that a tsunami is approaching.

- Count the seconds of shaking during an earthquake: Twenty to 30 seconds of severe shaking is a warning sign that a tsunami may follow. Don't wait for officials to issue a warning. Evacuate immediately to higher ground.

- Identify and Listen to your local EAS station(s): The Emergency Alert System will provide information on location of epicenter, magnitude, and when it is safe to return.

The County of Santa Barbara also has several resources to help prepare for, mitigate and manage emergencies including tsunami. Information regarding tsunami warning signs and how to react if a tsunami watch or warning are issued can be found at http://awareandprepare.org/aware/tsunami. The County has also developed an Emergency Management Plan for the Santa Barbara Operational Area as well as a multi jurisdiction Hazard Mitigation Plan. These are tools to increase public awareness of local hazards including Tsunami and provide information about options and resources available to reduce those risks as well as a response plan to provide support after an emergency has occurred. These resources should be used and referenced during the development of the emergency preparedness and evacuation plan for the proposed improvements.

SITE ACCESS AND UTILITIES

Site access is provided by Padaro Lane. As sea level rise continues, the potential for increased flooding of off site lower portions of the roadway during significant storm events should be anticipated. However, the location of the roadway, about 500 feet from the shoreline, eliminates the potential for erosion and wave induced scour. Tides may periodically begin to affect access but not till the very end of the design life for the 0.5% SLR projection. If SLR continues and appears to be approaching the higher projections, raising the offsite sections of the roadway and improving erosion resistance to provide more reliable access during flood events should be considered.

The property is served by public water and sewer service that extend along easements parallel to Padaro Lane. Since they are positioned along the landward side of the property, wave run-up and potential erosion are not anticipated to impact these utilities. The design of the stormwater system will incorporate measures to mitigate and clean-out the system as a result of periodic inundation and sediment/sand build-up.

Safely extending the underground utility services (power, water, sewer and other franchises) up into the structure should be considered. The area below the structure should be designed to accommodate future inundation and storm surge by keeping the ground level mostly open, maximizing spans between caissons, and enclosing the non-critical accessory improvements with blow out or louvered screens. To avoid these hazards and impacts, the

design can incorporate a utility vault (water tight, reinforced concrete enclosure) within the lower level to safely transmit the underground utilities up into the structure. The vault will have the ability to be pumped out and also contain other mechanical equipment that will be elevated within the vault to further protect from potential, future flooding.

HAZARD ANALYSIS VERIFICATION

The USGS has also developed a model called the Coastal Storm Modeling System (CoSMoS) for assessment of the vulnerability of coastal areas to SLR and the 100-year storm, http://walrus.wr.usgs.gov/coastal_processes/cosmos/. Using the modeling program the vulnerability of the site to different SLR scenarios, shoreline erosion, and the100-year storm can be assessed. While GSI considers the CoSMoS analysis to be very conservative, it has been used by the CCC to assess coastal site vulnerability in project hearings. However, the following are the limitations as to the use of the CoSMoS model.

> *Inundated areas shown should not be used for navigation, regulatory, permitting, or other legal purposes. The U.S. Geological Survey provides these data "as is" for a quick reference, emergency planning tool but assumes no legal liability or responsibility resulting from the use of this information.*

Figure 10 and Figure 11 below are the output of the CoSMoS program for the site for 75 cm SLR and 150 cm SLR under extreme design conditions. The modeling shows that offsite portions of the road, with 75 cm (2.5 feet) of SLR, are flood prone. However, the site proper is safe from wave runup, flooding, and shoreline erosion. The modeling also shows that the a portion of the site will flood during the 100-year event with 150 centimeters (~4.9 feet) of SLR. In addition, Figure 11 shows that the shoreline will retreat to a location that is seaward of the proposed structure as shown on the DBP (APPENDIX II). This conservative analysis verifies that the GSI analysis and conclusions are reasonable and justified.

Figure 10. CoSMoS output at the site for the 100-year storm, 2.5 feet SLR and erosion.

Figure 11. CoSMoS output at the site for the 100-year storm, 4.9 feet SLR and erosion.

ADDITIONAL STUDIES

GSI was able to find and download the "Coastal Processes Study of Santa Barbara and Ventura Counties, California," (2009) by USGS, the "2016 County of Santa Barbara Sea Level Rice Coastal Resiliency Project, Phase 2, Final Technical Report," by Revell Coastal, LLC, and the 2017 County of Santa Barbara, "Sea Level Rise & Coastal Hazards Vulnerability Assessment." The historical erosion rates reported in the 2009 USGS are in general agreement with the historical erosion rate determined by GSI. "No systematic narrowing of the regional beach widths," Figure 2.5 shows that the average beach width near the site is about 25 meters. Figure 2.8 shows the shoreline change rate is positive, meaning accretion. This is in agreement with the GSI report. All three reports are macro scale regional analyses, and are not necessarily specific to the subject site. Regional modeling using the Coastal Resilience California website shows that the site (Padaro Lane) may be subject to coastal flooding within about three decades using the low probability SLR scenarios.

CONCLUSIONS

With the revetment removed, the potential for coastal hazards to impact the development is mitigated by the proposed design. The structure elevation above potential future flooding, the pile foundation (depth and size), the FEMA approved design methods for the improvements below the flood elevation, and the setback from the shoreline, all combine to mitigate the potential hazards. Provided the recommendations herein are incorporated into the design, the proposed project is reasonablely safe from coastal hazards.

The opportunity to provide professional services is appreciated. If you have any questions please contact us.

Respectfully Submitted,

GeoSoils, Inc.
David W. Skelly, MS
RCE #47857

REFERENCES

APPENDIX I	Site Grading Plan.
APPENDIX II	Design Beach Profile.

REFERENCES

ASCE, 2006. Flood Resistant Design and Construction, ASCE/SEI 24-05.

BEACON (Beach Erosion Authority for Control Operations and Nourishment), 1989, "Main Report, Coastal Sand Management Plan, Santa Barbara/Ventura County Coastline" prepared by Noble Consultants, Irvine CA.

California Coastal Commission Sea Level Rise Guidance Science Update, November 2018.

Coastal Construction Manual, 2015 FEMA (Federal Emergency Management Agency) Ref # FEMA-55

Coastal Engineering Manual 2004, US Army Engineer Waterways Experiment Station, Coastal Engineering Research Center, US Government Printing Office, Washington, DC.

Dean, Robert, 1991,“Equilibrium Beach Profiles: Characteristics and Applications,” date Winter 1991, Journal of Coastal Research, 7-1 pages 53-94

Hapke, Cheryl J.; Reid, David; Richmond, Bruce M.; Ruggiero, Peter; and List, Jeff; 2006, National assessment of shoreline change part 3: historical shoreline change and associated coastal land loss along sandy shorelines of the California coast: U.S. Geological Survey Open-File Report 2006-1219.

Kopp, Robert E., Radley M. Horton Christopher M. Little Jerry X. Mitrovica Michael Oppenheimer D. J. Rasmussen Benjamin H. Strauss Claudia Tebaldi Radley M. Horton Christopher M. Little Jerry X. Mitrovica Michael Oppenheimer D. J. Rasmussen Benjamin H. Strauss Claudia Tebaldi “Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites” First published: 13 June 2014

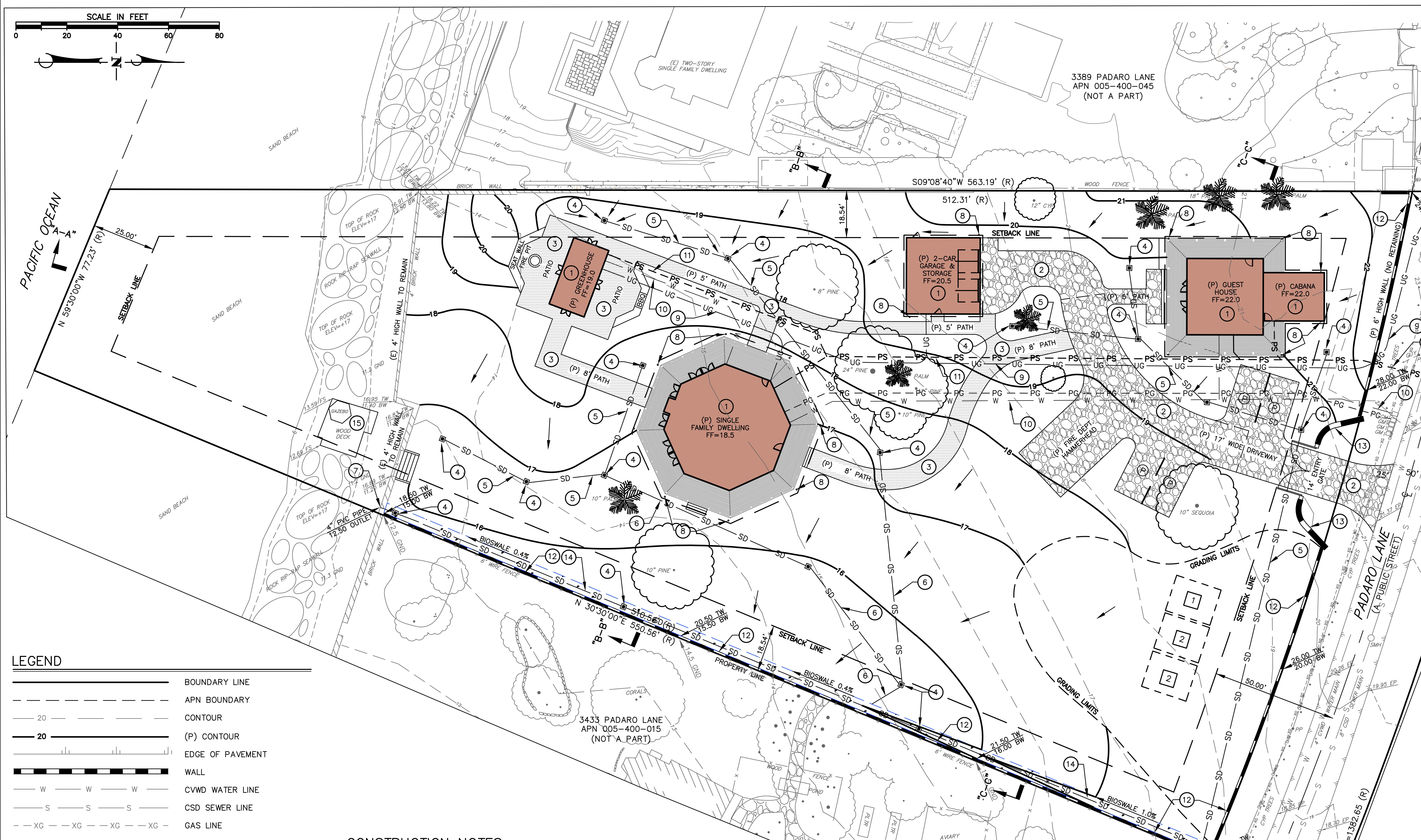
NOAA, 2020, Web Site, Maps http://anchor.ncd.noaa.gov/states/ca.htm Tidal Datums

Shore Protection Manual, 1984, 4th ed. 2 Vols, US Army Engineer Waterways Experiment Station, Coastal Engineering Research Center, US Government Printing Office, Washington, DC.

State of California, County of San Diego, 2009, “Tsunami Inundation Map for Emergency Planning, Carpenteria Quadrangle,” 1:24,000 scale, dated June 1.

USACOE (US Army Corps Of Engineers), 1986, "Southern California Coastal Processes Data Summary" Ref # CCSTW 86-1.

APPENDIX I



LEGEND

Symbol	Description
———	BOUNDARY LINE
— — —	APN BOUNDARY
—— 20 ——	CONTOUR
—— 20 ——	(P) CONTOUR
	EDGE OF PAVEMENT
	WALL
— W — W — W —	CVWD WATER LINE
— S — S — S —	CSD SEWER LINE
— XG — XG — XG — XG —	GAS LINE
— OHW — OHW —	OVERHEAD ELEC/TEL/CABLE TV
— PS — PS — PS — PS —	(P) SEWER
— W — W — W —	(P) WATER
— PG — PG — PG — PG —	(P) GAS
— UG — UG — UG —	(P) UTILITY LINES
	GRADING LIMITS
	ROOF OVERHANG LINE
	SETBACK LINE
	BIO-RETENTION SWALE
(E)	EXISTING
(P)	PROPOSED
	TREE LOCATION
	TREE TO REMAIN
	(P) BUILDING

CONSTRUCTION NOTES

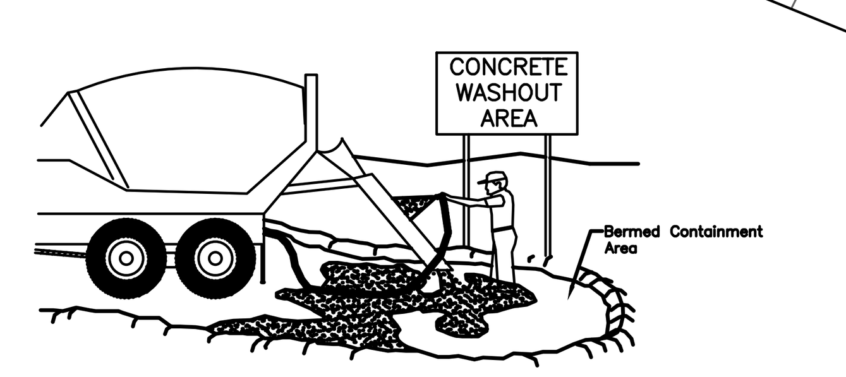
1. CONSTRUCT PROPOSED STRUCTURE PER ARCHITECTS PLAN.
2. CONSTRUCT PAVED DRIVEWAY PER SOILS REPORT RECOMMENDATIONS AND SECTION HEREON.
3. CONSTRUCT PAVED PATH PER SOILS REPORT AND LANDSCAPE PLAN.
4. CONSTRUCT 12"x12"X24" JENSEN PRECAST OR EQUAL STORM DRAIN INLET PER DETAIL SHOWN HEREON.
5. CONSTRUCT 4" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
6. CONSTRUCT 6" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
7. CONSTRUCT 8" NDS OR EQUAL PVC STORM DRAIN PIPE PER DETAIL HEREON.
8. DOWN SPOUT LOCATIONS PER ARCHITECT PLAN AND CONNECT TO 4" PVC SD35 PIPE TO STORM DRAIN SYSTEM AS SHOWN HEREON.
9. CONSTRUCT 5" PVC SCE CONDUIT FOR 800 AMP SERVICE, 3" PVC FRONTIER CONDUIT, 3" COX CABLE CONDUIT PER UTILITY COMPANY PLANS AND SPECIFICATIONS.
10. CONSTRUCT 2" PVC WATER LINE FOR POTABLE AND FIRE SUPPRESSION PER MECHANICAL PLANS.
11. CONSTRUCT 4" ABS SEWER LATERAL PER CSD APPROVED PLANS AND SPECIFICATIONS.
12. CONSTRUCT 6-FOOT HIGH CONCRETE WALL PER LANDSCAPE PLANS AND DETAILS.
13. CONSTRUCT 8-FOOT HIGH CONCRETE WALL PER LANDSCAPE PLANS AND DETAILS.
14. CONSTRUCT 4-FT. WIDE BIO-RETENTION SWALE PER DETAIL HEREON.
15. UN-PERMITTED WOOD DECK AND GAZEBO INCLUDED IN THIS COASTAL DEVELOPMENT PERMIT.

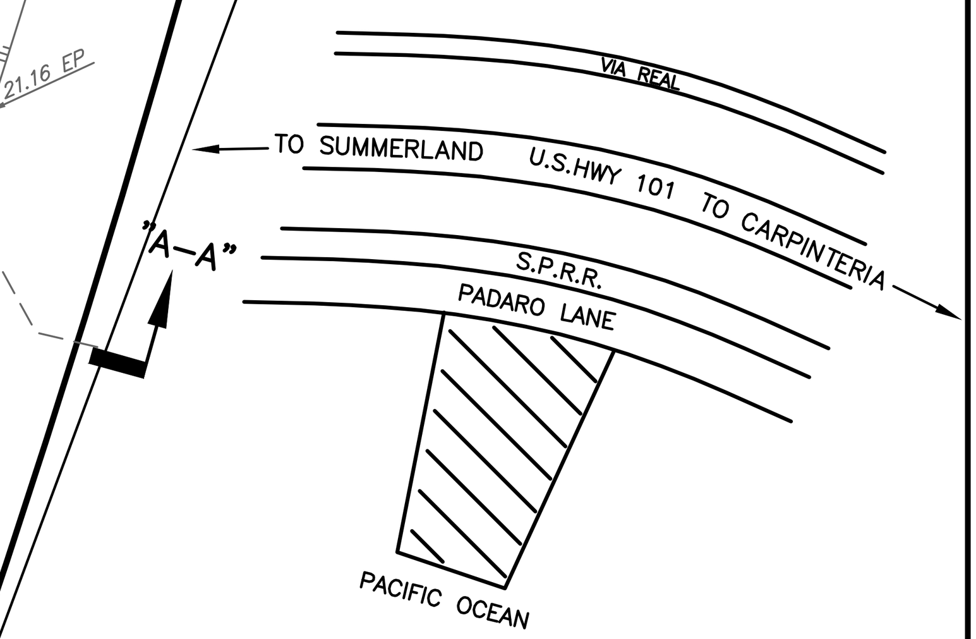
LEGEND

1. CONSTRUCT CONCRETE WASH-OFF DUMPSTER AREA PER DETAIL A SHOWN HEREON. WASH-OFF AREA SHALL BE IN PLACE AT ALL TIMES DURING GRADING AND PAVING OPERATIONS. CONTRACTOR SHALL NOT TRACK SOLIDS OR CONCRETE WASH OUT OR DEBRIS ON THE PUBLIC ROADWAY.
2. STAGING AREA, EQUIPMENT STORAGE AND FUELING; MATERIAL STORAGE AS SHOWN HEREON.

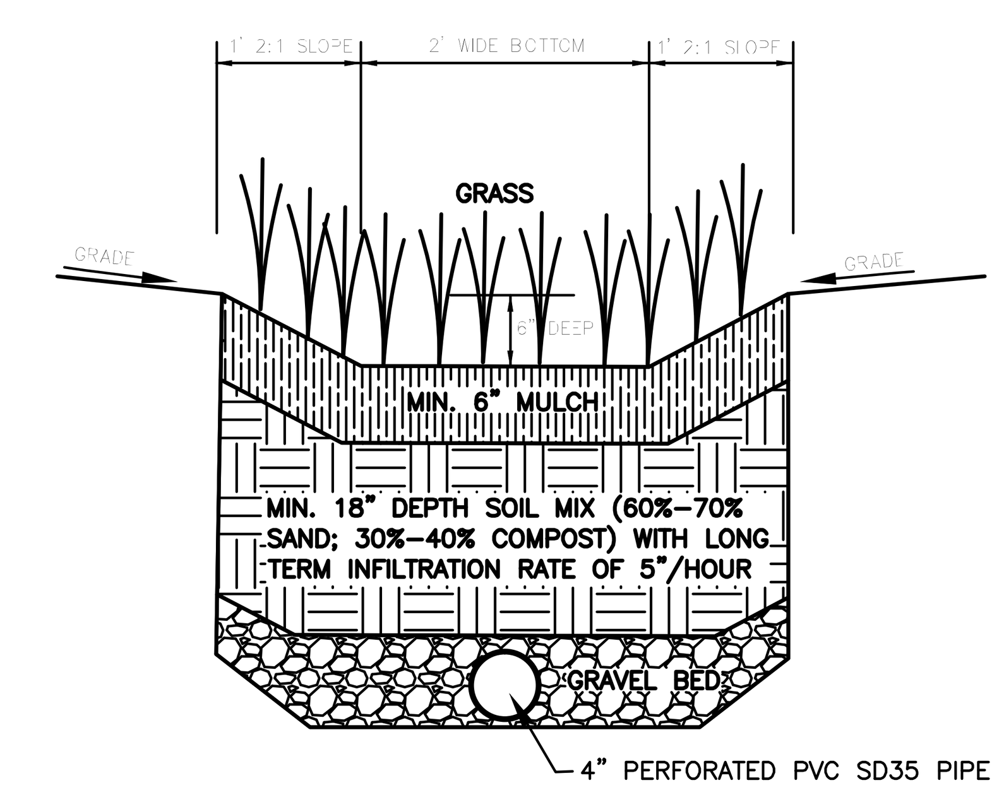
a. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.

b. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY





VICINITY MAP (NOT TO SCALE)



BIO-RETENTION SWALE DETAIL

N.T.S.

EARTHWORK QUANTITIES:

TOTAL SITE:	CUT – 1,650 CY	FILL – 3,950 CY	IMPORT – 2,300 CY
DRIVEWAY:	CUT – 75 CY	FILL – 200 CY	
STRUCTURES:	CUT – 450 CY	FILL – 275 CY (CUT INCLUDES 400 CY BASEMENT)	
REMAINING SITE:	CUT – 1,125 CY	FILL – 3,475 CY	

THE ABOVE LISTED QUANTITIES ARE IN CUBIC YARDS (CY). CUT AND FILL QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISH GRADE OR SUBGRADE. EXISTING GROUND IS DEFINED BY THE EXISTING CONTOURS ON THE PLAN. PROPOSED FINISH GRADE IS DEFINED AS THE DESIGN SURFACE ELEVATION OR CONTOUR OF EARTH TO BE CONSTRUCTED. PROPOSED SUBGRADE ELEVATION IS DEFINED AS THE DESIGN SURFACE ELEVATION OF EARTH TO BE CONSTRUCTED BENEATH PAVEMENTS OR STRUCTURES. "LOSSES" QUANTITIES ARE THE EARTHWORK QUANTITIES FACTORED TO ACCOUNT FOR SOIL REMOVAL AND RECOMPACTION ACTIVITIES AS RECOMMENDED BY THE PROJECT SOILS AND GEOTECHNICAL REPORT. THE CUT AND FILL QUANTITIES SHOWN HEREON ARE ESTIMATES ONLY, AND HAVE BEEN CALCULATED BY A "TIN" NET SURFACE TO SURFACE MODEL USING THE DIFFERENTIAL EARTH WORK CALCULATION METHODOLOGY.

PROJECT NO. 20-007.01
DRAWING NAME: GP-1
DATE: JANUARY 30, 2021

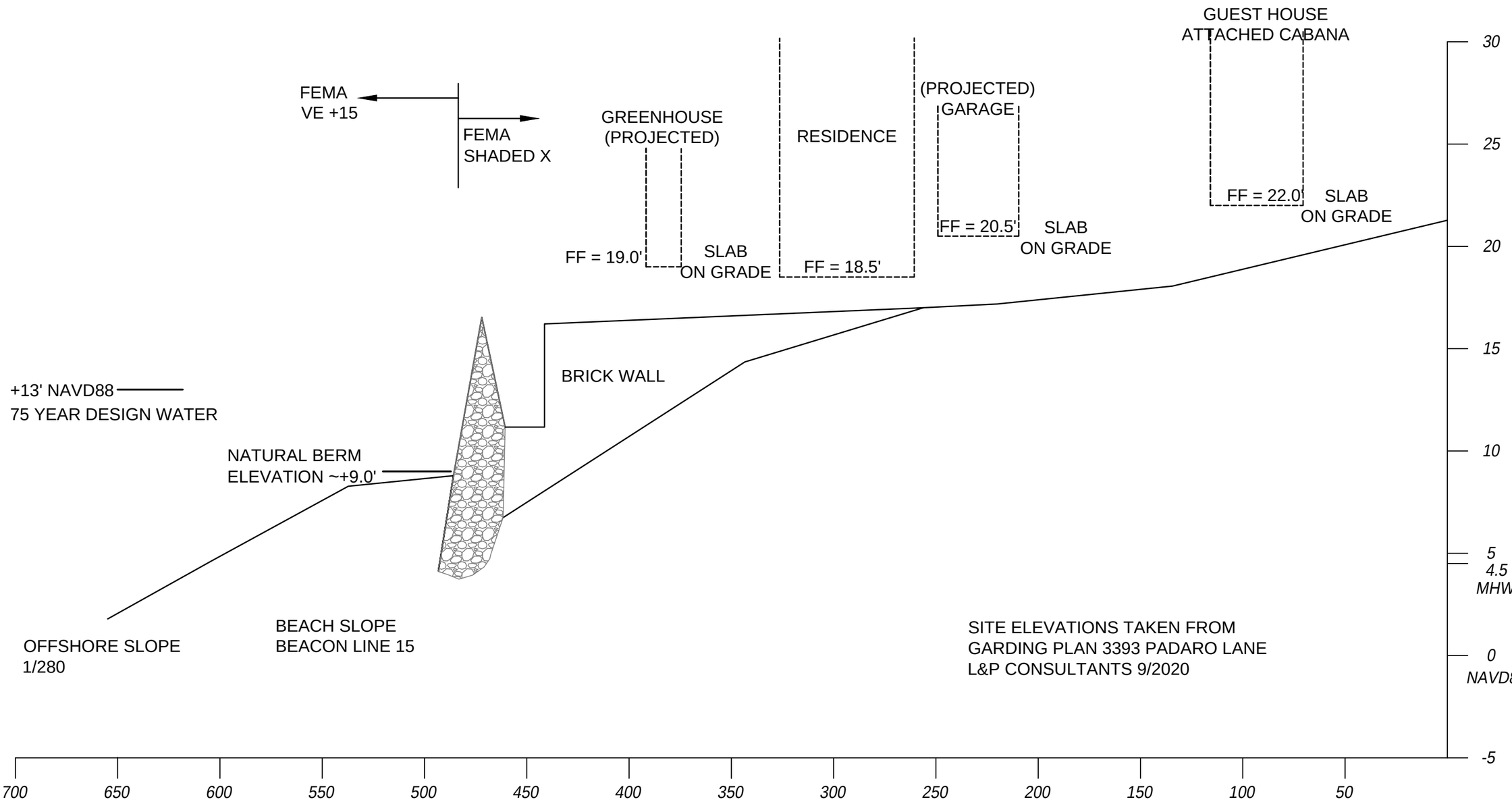
PRELIMINARY GRADING, DRAINAGE & IMPROVEMENT PLAN
COASTAL DEVELOPMENT PERMIT 20CDH-00000-00022
3393 PADARO LANE; APN 005-400-041
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT: PLSB, LLC
P.O.B. 29574
SAN FRANCISCO, CA 94129
ATTN:

3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)
L&P CONSULTANTS

APPENDIX II

3393 PADARO LANE
DESIGN BEACH PROFILE



DISTANCE FROM PCH PROPERTY LINE

REVISIONS	BY

DRAFTING BY:

PROFESSIONAL ENGINEER · REGISTERED · STATE OF CALIFORNIA
W. DAVID SKELLY
No. C 47857
EXP. 12/31/21
CIVIL

GeoSoils, Inc.
Geotechnical • Geologic • Coastal • Environmental
5741 Palmer Way, Carlsbad, CA 92010
760-438-3155

TITLE:
3393 PADARO
DESIGN BEACH PROFILE

W.O. 5803.2

CLIENT: PLSB, LLC
P.O.BOX 29374,
SAN FRANCISCO, CA – 9429–0374

CHECKED	
DATE	03/05/21
SCALE	
JOB NO.	
SHEET	S1
OF	1 SHEETS

GeoSoils, Inc.

Geotechnical • Geologic • Coastal • Environmental

5741 Palmer Way • Carlsbad, California 92010 • (760) 438-3155 • FAX (760) 931-0915 • www.geosoilsinc.com

July 12, 2023 WO S8032

PLSB, LLC
P.O. Box 29374
San Francisco, CA 94129-0374

SUBJECT: Coastal Engineering Review Response and Project Plan Compliance Review for 3393 Parado Lane, Carpinteria, CA 93013.

REFERENCES:

Coastal Hazard & Wave Runup Study for 3393 Padaro Lane, Carpinteria, California 93013. By GeoSoils Inc., dated March 8, 2021.

Response to County of Santa Barbara Coastal Engineering Review and County of Santa Barbara Review for 3393 Padaro Lane, Carpinteria, Santa Barbara County,By GeoSoils Inc., dated September 3, 2021.

Development Plans for 3393 Padaro Lane, Carpinteria, CA 93013, by Appleton Partners LLP, dated June 23, 2023

Coastal Hazard Update and Project Plan Compliance Review for 3393 Padaro Lane, Carpinteria, Santa Barbara County,By GeoSoils Inc., dated January 18, 2023.

Dear PLSB, LLC:

At your request, GeoSoils Inc. (GSI) is pleased to provide the following review response and plan review for the proposed project. The proposed project has been modified since our January 18, 2023 plan review with the following modifications:

1. The first floor elevation of the main house remains at 18.5' NAVD88 (same as previous); however, the grade has dropped to 15.5' NAVD88 (or lower) around the perimeter of the porch.
2. The elevation of the crawlspace of the main house is now at 13.5' NAVD88. Flood Control is requiring that the slab of the crawlspace is no more than 5' below the first finished floor level.
3. Flood Control also required that we have the adjacent grade at the same level as the crawlspace slab (13.5' NAVD88) on one side. Therefore, the designer dropped the grade along the southeast corner of the building.
4. At the accessory building, we kept the garage level at 22.0' NAVD88, but raised the finished floor of the cabana to 23.5' NAVD88.
5. The Planning Dept. required the designer to move the greenhouse further north on the site; so, it resulted in a lowered level of the greenhouse to 17.00' NAVD88.

In addition to the plan review, GSI will provide responses/comments on the March 28, 2023

GeoDynamics, Inc. (GDI) Coastal Engineering Review. For ease of review the GDI comment will be provided in *italics* followed by our response.

COASTAL ENGINEERING REPORT COMMENTS

1. The Project Coastal Engineer's response did not address the request for "A succinct summary of design assumptions, wave uprush and flooding elevations and recommendations based on the selected design parameters." Therefore, the reviewer has summarized the assumptions and design values below, based on a re-review of all the reports submitted. Please review and address COMMENTS where noted.

a. Coastal Protection: "To be perfectly clear, the recommendations herein with regrading [sic] the coastal engineering design conditions,(such as the BFE and potential wave/bore forces), are based upon the 'no revetment' scenario." (GSI, March 8, 2021,page 7). COMMENT: None.

As stated in the GSI report the recommendations provided are based upon the "no revetment" scenario.

b. Beach Retreat: Over the 75-year project life, retreat was estimated to be 112 feet laterally (using 1.5 feet per year). (GSI, March 8, 2021, page 14). COMMENT: Estimated beach retreat will reach the greenhouse in 65 years, 10 years less than design period of 75 years, Please discuss the potential impact and mitigation alternatives for this accessory structure.

A mitigation alternative note has been added on sheet A1.1. To adapt to SLR the owner has agreed that they will remove the greenhouse structure if it is impacted by shoreline erosion. It should also be pointed out that the greenhouse is non-habitable and may not have a 75-year design life.

c. Sea Level Rise: The Project Coastal Engineer provided the following response as justification for the choice of 5.4 feet SLR: "The California Coastal Commission (CCC) requires the use of the best available SLR science. The best available SLR science at this time is the NOAA 2022 technical report referenced above." The preceding statement and conclusion are not supported by the CCC SLR Guidance documents (adopted November 2018) nor by changes in policy adopted by the County of Santa Barbara. The Project Coastal Engineer utilized a design Sea Level Rise (SLR) of 5.4 feet which represents the Low Emissions, Medium to High-Risk Scenario. The High Emissions, Medium to High Risk Aversion scenario SLR is 6.6 feet. The Project Coastal Engineer evaluated a SLR of 6 feet, the average of the Low and High Emissions. This resulted in raising flood elevation to 17.4 feet at the end of the life of the project. ***COMMENT****: Please provide a discussion on the impact on the project resulting from the higher emissions SLR rise estimates (6.0 and 6.6 feet). Would the recommended Finished Floor Elevation, wave impact forces, or drainage recommendations be any different? Please discuss in the context of the revised project grades as depicted on the December 2022 revised plans that now reincorporate the greenhouse back into the project scope.*

The CCC SLR Guidance (CCCSLRG) document does not specify a “design” SLR but rather recommends that a 0.5% probability SLR be “considered” in the design. The stated purpose of this exercise is to determine the potential impact of the proposed development on coastal public resources (Step 3 of the CCCSLRG). Page 102 of the CCCSLRG identifies residential structures as “medium-high risk aversion” development. In the context of impact on public resources the impacts of SLR on a residence are minimal. The primary impact is to the building and the building owner, and not to the public or public resources. An argument can be made that this residential project has a “low risk aversion” to public resources and should be analyzed using the “likely range” of SLR, which is about 3.1 feet in the year 2100. This is less than ½ of the 6.6 feet and less than the 5.4 feet used for the project design. The CCCSLRG is not an actual design guideline. GSI, as the coastal engineer, is tasked to determine the design SLR using the best available science and professional opinion. Based upon the 2022 NOAA SLR data and the NASA 2023 data, the GSI design SLR of 5.4 feet is conservative.

For a conservative potential flooding analysis with 6.6 feet of SLR and the 100-year wave the USGS CoSMoS model can be used. The figure below is the output from the CoSMoS model. It shows the partial flooding of the site, total flooding of many adjacent properties, flooding of the entire southern portion of Padaro Lane, the railroad, Highway 101, and development inland of Highway 101 and Via Real. It should also be noted that the properties to the north and west of the site are not modeled to be impacted by 6.6 feet of SLR and wave runup. Understanding that CoSMoS is a simple elevation driven conservative model and does not account for elevated development (as is proposed), it is not unreasonable to opine that even with 6.6 feet of SLR the proposed development is safe. The site can flood and not have the flooding significantly impact the structures. As far as changes in the coastal hazard design forces it is GSI’s opinion that as currently designed (specifically including potential seismic forces) the proposed structure is adequate to resist coastal hazard forces with 6.6 feet of SLR.

If SLR is higher, and occurs more rapidly than currently modeled, the associated coastal hazards could be devastating to most of the nearby existing development in the area (southeast) much sooner than the proposed development at this site. With over 6 feet of SLR access along Padaro Lane may be lost, the railroad and Highway 101 will be subject to wave runup, flooding, and erosion. Access to a portion of the community will likely be lost. However, due to the elevation, the residence pile foundation, and the project design, the building proper may not be significantly impacted by coastal hazards. As stated before, the proposed structure is reasonably safe from coastal hazards due to the elevated structure, the pile foundation, and building structural design. The owner through conditions of acceptance of the permit will acknowledge that the development is in a high coastal hazard area. In addition, this will be on the property title warning future owners.

The lowering of the on site final grade in some areas does lower the potential flooding elevation from wave runup. However, GSI still recommends the lowest habitable FF elevation be at or above +18.5 feet NAVD88

d. Finished Floor Elevation: Recommended at 18.5 feet NAVD88, based on 5.4 feet SLR, beach retreat of 112 feet (measured from toe of existing revetment), berm height of 13.5 feet, and overtopping wave bore height of 3.2 feet. This represents a 75-year project life using Low Emissions, Medium to High-Risk Scenario. ***COMMENT****: Provide a summary statement -Does the recommended FFE provide adequate elevation to keep the house safe from coastal flooding during the entire life of the project?*

The recommended FFE provides adequate elevation to keep the residence safe from coastal flooding over the life of the development.

2. Because the greenhouse was removed from the project after the first review, but now has been restored to project scope, the following review comment was never addressed with respect to this structure. The glass greenhouse is the closest to the revetment and most exposed to wave forces and coastal flooding. and the flood bore will be at full height (13.5 feet plus 3.5 feet . It appears based on the current plan grades depicted that the greenhouse will be supported on an elevated patio (Elevation 19.0 ft NAVD88) and may be surrounded by low garden walls to Elevation 20.0 ft NAVD88. The Architect should provide a section or sections through the walls, patio and glass greenhouse to the Project Coastal Engineer. The Project Coastal Engineer should review and provide updated recommendations addressing flood-proofing of the greenhouse in accordance with ASCE 24 (current version) and CBC (2022 or current edition) Appendix G – Flood Resistant Design and Construction.

A site section through the greenhouse has been added to sheet A3.4. The location of the greenhouse is further from the beach than in the previous scheme, and the elevation of the greenhouse finished floor is now at 17.00' NAVD88, due to its proximity to the main house and the finished grade contours in this area of the site. Finally, the owner has agreed that they will remove the greenhouse structure if it is impacted by shoreline erosion. It should also be pointed out that the greenhouse is non-habitable and can flood under FEMA

regulations. Finally, the greenhouse may not have a 75-year design life.

PLAN-CHECK COMMENTS

The GDI "PLAN-CHECK COMMENTS" will be addressed by other project consultants during the generation of the building plan set, and also during our review of the final plans.

For the final building plans, GSI will need to confirm that utilities in the crawl space meet ASCE and FEMA design standards. The current plans are in general conformance with the recommendations of the GSI referenced reports and review responses.

If you have any questions or comments regarding this letter, please do not hesitate to contact the undersigned.

Respectfully submitted,

GeoSoils, Inc.

David W. Skelly

Civil Engineer, RCE 47857

Date: September 8, 2023
GDI #: 21.00116.0070

COUNTY OF SANTA BARBARA

COASTAL ENGINEERING REVIEW

To: Katie Nall, Planner

Project/*Location*: *3393* Padaro Lane, Carpinteria, Santa Barbara County, California.

County Project #: 20CDH-22

Coastal Engr. Report: GeoSoils, Inc. (2023*), "Coastal Engineering Review Response and Project Plan Compliance Review for 3393 Padaro Lane, Carpinteria, CA 93013,"* WO S8032, dated July 12, 2023.

GeoSoils, Inc. (2023*), "Coastal Hazard Update and Project Plan Compliance Review for 3393 Padaro Lane, Carpinteria, CA 93013,"* WO S8032, dated January 18, 2023.

GeoSoils, Inc. (2021b*), "Response to County of Santa Barbara Coastal Engineering Review and County of Santa Barbara Review for 3393 Padaro Lane, Carpinteria, Santa Barbara County,"* WO S8032, dated September 3, 2021.

GeoSoils, Inc. (2021a), "*Coastal Hazard & Wave Runup Study for 3393 Padaro Lane, Carpinteria, California, 93013*," WO S8032, dated March 8, 2021.

Plans: L&P Consultants, Preliminary Grading, Drainage and Improvement Plan, Sheet GP.1 dated May 30, 2023, no elevation datum provided on plans.

Appleton Partners LLP Architects, Civil, Architectural and Landscape plans for 3393 Padaro Lane, Carpinteria, CA, 37 sheets, dated June 23, 2023.

Reference: Appleton Partners LLP Architects, dated August 18, 2020, as referenced by GeoSoils, Inc. (plans not provided).

Previous Reviews: March 28, 2023, March 24, 2021 and February 23, 2022.

FINDINGS

Coastal Engineering Report

☒ Acceptable as Presented
☐ Response Required

REMARKS

GeoDynamics, Inc. (GDI) has reviewed the above referenced project for compliance with local applicable codes, guidelines, and standards of practice for coastal developments, including but not limited to the following:

- County of Santa Barbara, Sea Level Rise and Coastal Hazards Vulnerability Assessment, July 2017
- County of Santa Barbara Coastal Land Use Plan republished June 2019.
- Santa Barbara County Code, Chapter 35, Coastal Zoning Ordinance, updated May 2021.

- Santa Barbara County Code, Chapter 10, Building Regulations, January 2022.
- State of California, Sea Level Rise Guidance – 2018 Update (available at http://www.opc.ca.gov/updating-californias-sea-level-rise-guidance/).

GeoSoils, Inc. (GeoSoils, Project Coastal Engineer) prepared the above-referenced response to GeoDynamics, Inc.'s review of the coastal engineering report submitted in support of the proposed new replacement residence at 3393 Padaro Lane in Carpinteria, Santa Barbara County, California. The site is located on the beachfront between the Pacific Ocean and Padaro Lane in Carpinteria, California. Improvements were first constructed on this lot in 1935, and aerial photos indicate additions have been constructed since that time.

Existing Development: The existing ground surface elevation of the parcel varies between 13 to 14 feet NAVD88 at the southern (oceanward) part of the lot to Elevation 21 feet NAVD88 near Padaro Lane. Oblique aerial photographs of the site show an existing one- to two-story residential structure with accessory structures on the property, and a low block/brick site wall on the southern edge of the lot immediately adjacent to an existing rock revetment. The aerial photographs indicate the presence of a rock revetment of variable height and partially covered by sand located seaward of the existing structures. The grading and drainage plan indicates at the highest, the revetment is at plan elevation 17 feet (NAVD88, datum confirmed by GeoSoils based on referenced architectural plans). The rock revetment appears to pre-date 1972. The Project Coastal Engineer states that the County of Santa Barbara has issued a Conditional Use Permit (83-CP-58) and a Coastal Development Permit (85-CDP-97) for repair and augmentation of the original revetment. An existing deck with a finished surface between plan elevation 12.5 and 13.6 feet is built on the rock revetment, and an existing wooden gazebo rests on the deck surface. This unpermitted deck and gazebo are annotated "included in this Coastal Development Permit." Aerial photographs indicate the deck may have been there since 1972 or earlier.

Proposed Development: As proposed, the project is a complete redevelopment of the existing beachfront property. The revetment will not be modified or removed. The project is considered new shoreline development, and coastal development standards require that the new development be located outside the wave uprush zone or above the flood elevation, and designed without shoreline protection, if feasible. The analyses presented for this project indicate that it is feasible on this site as proposed without the revetment present, except for the newly added basement. GeoSoils states that the existing residence will be demolished, and a new residence will be constructed. Site plans indicate that the existing site wall behind the revetment will remain, and a new retaining wall will be constructed along the eastern property line. This will allow the site grade to be raised by placement of 0 to 4 feet of fill, as shown on the proposed grading plan, raising the finished grade to elevation 16 to 17 near the revetment, up to elevation 18 or 19 feet under the main house, tapering to match existing plan elevation 21 feet NAVD88 near Padaro Lane.

Some changes have been made to the project in response to County of Santa Barabra Planning and Flood Control corrections. The project includes a main residence in the center portion of the property, a guest house in the northwest corner of the property, and a detached two-car garage and storage unit between the dwellings. The proposed greenhouse in the southwest corner of the property (previously eliminated) has now been restored to the project scope. The proposed basement has been eliminated and a four-foot-high crawl space with flood vents will be constructed instead to house a floodproof vault for a mechanical room. Because the mechanical room will be below base flood elevation and exposed to potential coastal flooding, it is to be oriented perpendicular to the shoreline to present the least resistance to any flood waters that may pass through the site in the future. The existing wood deck and gazebo on the revetment are proposed to remain with no modification. The minimum recommended Finished Floor Elevation (FFE) is 18.5 feet NAVD88. Finished Floor Elevations for the proposed structures as depicted on the plan and section are as follows: Main Residence, 18.5 feet NAVD88, and new mechanical vault crawl space 13.5 ft. NAVD88; Garage, 20.5 feet NAVD88; and Guest House with Cabana, 23.5 feet NAVD88.

Project Evaluation: The existing lot elevation is between 13 and 21 feet NAVD88 and will be raised as depicted on the civil plans to 18 to 19 feet NAVD88 near the greenhouse, main house and garage; the grade at the proposed guest house remains unchanged. FEMA Flood panel 06083C1416H (effective 9-28-2018) indicates most of the property, landward of the rock revetment, is in Flood Zone X (area of minimal flood hazard) with no base flood elevation. The portion of the property south or oceanward of the revetment is in Flood Zone VE, with a base flood elevation of 14 to 15 feet NAVD88 (elevation transition bisects the lot).

The project design life is 75 years per the County of Santa Barbara Coastal Land Use Plan. GeoSoils utilized a still water elevation of 7.6 feet NAVD88 and 5.4 feet of sea level rise (SLR) to evaluate impacts from coastal flooding and potential wave action for this project life. This represents the 0.5 % high probability (medium to high-risk aversion) and low emissions scenario. Overtopping and wave runup were evaluated with the revetment in place (for discussion purposes) and without the revetment in place (design basis). The modelled limit of wave uprush is estimated at Elevation 19 feet NAVD88 without the revetment. The project coastal engineer recommends a proposed FFE for the main residence at Elevation +18.5 feet NAVD88, 1 foot above the estimated elevation of the overtopping wave bore, and 2 feet above the estimated flooding elevation under the main house.

The estimated coastline retreat is approximately 112 feet northward based on a factor of 1.5X the historical long-term erosion trend of 1 foot/year, the actual historical retreat rate is less. Based on the location of the proposed structures on the latest architectural site plan, the closest proposed structure is located approximately 135 feet landward of the beachside toe of the revetment, outside the projected zone of beach retreat.

The Project Coastal Engineer compared the results of their modeling with the USGS shoreline hazard mapping tool CoSMoS on the Our Coast Our Future website (https://ourcoastourfuture.org/hazard-map/). Comparison of wave uprush and shoreline retreat modeling with at least one of the publicly available coastal modelling tools is recommended by the California Coastal Commission staff. Based on review of this comparison, the projected wave uprush elevations and shoreline retreat are in good agreement for the scenarios evaluated.

Geodynamics, Inc. (GDI) review of the above-referenced report is limited to compliance with local applicable codes, guidelines, and standards of practice for coastal developments, and consistency with the Sea Level Rise and Coastal Hazards Vulnerability Assessment. Based on this review, the consultant should address the following "Coastal Engineering Report Comments" prior to Feasibility-Level approval. Plan check comments can be addressed during plan check and no response is required for these comments.

TECHNICAL NOTE RE: "BEST AVAILABLE SCIENCE": The CCC 2018 Sea Level Rise Guidance uses the phrase "best available science" to reference the 2018 OPC SLR Guidance and then bases the adoption of policies and recommended design benchmarks based on that document. The 2018 OPC SLR Guidance document states that it provides "A synthesis of the best available science on sea level rise projections and rates for California." Best available science does NOT mean adopting the latest technical study or data as policy or utilizing it as the basis for design. As stated in the document "*This Guidance will be updated periodically to address new sea level rise science, information, and approaches regarding sea level rise adaptation, and new legal precedent*." The CCC has stated that based on recent studies, they will be providing updated Guidance in 2023.

PLAN-CHECK COMMENTS

1. The project plans should incorporate design beach contours and profiles that include Storm Scour Beach Profile, Design Stillwater Elevation, Design Wave Run-Up Elevation Limit, Design Breaking Wave Height, and the Highest Tide Level with month and year on plans based on available historical surveys, storm surge and future sea level rise. A sheet showing the Design Beach Profile (DBP) and depicting site-specific information such as current topographic survey, anticipated scour depth, offshore slope gradient, MHW line, etc. included in the civil plans.
2. The project plans (architectural, civil and structural) should depict the projected limit of wave runup in plan view and on elevations/sections to ensure that all potentially affected structures and proposed improvements are identified. The Project Coastal Engineer recommendations shall be incorporated into the plans as notes and details and referenced on the project plans prior to Building Plan Check submittal. The Project Coastal Engineer shall review, sign, and wet stamp the final architectural, civil and structural plans.
3. The structural engineer should incorporate recommendations from the coastal engineer in the structural design calculations for the proposed pile foundation, including depth of scour, as appropriate and reference the appropriate civil, geotechnical and coastal project site studies in the structural design assumptions.
4. Building plans should depict all elevations, including the minimum Finished Floor Elevation and minimum elevation of lowest structural member above Base Flood Elevation for design, with respect to NAVD88

datum. The Architectural sections in the November 2021 plan set depict relative elevations referencing the ground surface.

5. Print the name, address, and phone number of the Project Coastal Engineering Consultant on the final plan and permit documents. Applications for grading and building permits shall be reviewed for adequacy relative to threats and impacts from hazards arising from flooding, tsunamis, beach erosion, and ground failure from soil liquefaction.

If you have any questions regarding this review letter, please contact GDI at (805) 496-1222.

Respectfully Submitted,
GeoDynamics, Inc.

Lauren J. Doyel
Coastal Engineering Reviewer
GE 2981 (exp. 6/30/25)