COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 27, 2016

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of a Certification of an Initial Study/Mitigated Negative Declaration, a Coastal Development Permit, a Design Review, and a Certificate of Compliance (Type B) to allow construction of a new 2,200 sq. ft. single-family residence, on a 6,350 sq. ft. undeveloped parcel, located on San Carlos Avenue in the El Granada area of San Mateo County. This project is appealable to the California Coastal Commission.

County File Number: PLN 2016-00011

PROPOSAL

The applicant proposes to legalize the subject parcel which is located within the mapped buffer zone of the Montecito Riparian Corridor and to construct a new 2,200 sq. ft. single-family residence, including minimal grading and no tree removal.

RECOMMENDATION

That the Planning Commission certify the Initial Study/Mitigated Negative Declaration (IS/MND) and approve the Coastal Development Permit, Design Review, and Certificate of Compliance (Type B), County File Number PLN 2016 00011.

SUMMARY

Setting: The project site is undeveloped and zoned for single-family residential use and borders other single-family development. The parcel is directly accessible from San Carlos Avenue, a County-maintained and improved roadway, with water and sanitary infrastructure located within the road right-of-way and available services. The project biological report identified an unnamed intermittent drainage channel that flows southbound, approximately 300 feet west of the project site.

General Plan Compliance: The project is consistent with applicable General Plan policies, Urban Land Use Policy 7.16 (*Land Use Objectives for Urban Area*), Urban Land Use Policy 7.17 (*Appropriate Land Use Designations for Urban Areas*), and Urban Land Use Policy 8.30 (*Infilling*). The proposed single-family residence is located within

a developed urban residential area of El Granada that is designated for medium density residential land use.

Local Coastal Program (LCP) Compliance:
The project complies with applicable LCP Policies 1.23 (*Timing of New Housing Development*), 1.29(d) (*Legalizing Parcels*), 7.12 (Permitted Uses in Buffer Zones), 7.13 (Performance Standards in Buffer Zones), 8.12 (*Application of Design Review Standards*), and 8.13 (*Special Design Guidelines for Midcoast*). The Coastside Design Review Committee (CDRC) recommended approval of this project on April 19, 2016, with conditions to achieve compliance with applicable Design Standards. Regarding policies pertaining to sensitive habitat, while the MRC's mapped buffer zone bisects the parcel, the applicant's biologist found that the unnamed perennial blue-line stream is located approximately 300 feet west of the project site, whereby the site is separated from this riparian buffer zone by adjacent residential development. Therefore, there are no areas of riparian buffer zone at the project site. With proposed mitigation measures to be implemented upon construction, the project is compliant with applicable LCP Riparian Corridor Policies 7.7 through 7.13.

Certificate of Compliance: As required by both the County Subdivision Regulations and cited LCP Policy, a Certificate of Compliance (Type B) is required to legalize the subject parcel, since its initial deed conveyance did not occur until 1955.

Zoning and Design Review Compliance: The project complies with the R-1/S-17 Zoning Regulations, including those regarding parcel size, setbacks, lot coverage, floor area, height, and parking requirements. As previously stated, the project was found to comply with the Design Review Standards pursuant to the CDRC's recommendation for approval and associated conditions.

CEQA Compliance: Due to the project site's location within the buffer zone of the MRC, an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and circulated from July 1, 2016 through July 20, 2016. The implementation of mitigation measures included in the IS/MND, which have been incorporated as conditions of the project approval and have been agreed to by the applicant, would mitigate any potentially significant effects to the MRC and the surrounding environment.

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COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: July 27, 2016

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of a Certification of an Initial Study/Mitigated Negative Declaration, pursuant to the California Environmental Quality Act, a Coastal Development Permit, a Design Review, and a Certificate of Compliance (Type B), pursuant to Section 6328.4 and 6565.3 of the County Zoning Regulations and Section 7134.2 of the County Subdivision Regulations, respectively, to legalize a 6,350 sq. ft. undeveloped parcel and to allow construction of a 2,200 sq. ft. single-family residence located on San Carlos Avenue in the El Granada area of San Mateo County. The project is appealable to the California Coastal Commission.

County File Number: PLN 2016-00011 (Lang)

PROPOSAL

The applicant proposes to legalize the subject parcel, which is located within the mapped buffer zone of the Montecito Riparian Corridor, and construct a new 2,200 sq. ft., two-story single-family residence. No trees are proposed for removal and the project involves only minor grading. The site would have direct access from San Carlos Avenue. Because the subject parcel must be legalized prior to the approval of permits for any development, a Certificate of Compliance (Type B) is required as part of this application to comply with the County Subdivision Regulations.

RECOMMENDATION

That the Planning Commission certify the Initial Study/Mitigated Negative Declaration and approve the Coastal Development Permit, Design Review, and Certificate of Compliance (Type B) (County File Number PLN 2016-00011), by making the required findings and adopting the conditions of approval identified in Attachment A.

BACKGROUND

Report Prepared By: Kimberly Smith, Project Planner, Telephone 650/363-4582

Applicant/Owner: Justin Lang

Location: San Carlos Avenue, El Granada

APN: 047-105-240

Size: 6,350 sq. ft.

Existing Zoning: R-1/S-17/DR/CD (Single-Family Residential District/ S-17 Combining District with 5,000 sq. ft. minimum parcel size/Design Review District/Coastal Development)

General Plan Designation: Medium Density Residential (6.1 - 8.7 dwelling units/net acre)

Parcel Legality: Lot 6, Block 77, "Plat of Subdivision No. 5 of Granada," recorded in San Mateo County Records on December 7, 1908, in Book 6 at Page 50. Legalization of this lot is the purpose of this application and is discussed in Section A.4 of this report.

Existing Land Use: Vacant

Water Supply: Coastside County Water District (CCWD)

Sewage Disposal: Granada Community Services District (GCSD)

Flood Zone: FEMA Flood Insurance Rate Map designation indicates parcel as Zone X, Areas of 0.2% Annual Chance of Flood, Community Panel No. 06081C0138E, dated October 16, 2012.

Environmental Evaluation: Initial Study/Mitigated Negative Declaration, circulated July 1, 2016 through July 20, 2016.

Setting: The current vacant parcel is nearly rectangular in shape located on the southerly side of San Carlos Avenue (a paved County-maintained roadway between Montecito and Paloma Avenues). The parcel is bordered by an adjacent vacant parcel to the east, as well as two vacant parcels across the street, but otherwise borders single-family residences built mostly during the 1980s through the 1990s. There are two residences (built in 1989 and 1998) on the south side of San Carlos Avenue between the subject parcel and the Montecito Riparian Corridor (MRC). The MRC is located about 300 feet to the west, which runs generally parallel to Montecito Avenue. Sanitary and water utility lines are located within the San Carlos Avenue right-of-way.

Chronology:

Date		Action
January 2016	-	Subject Application Submitted
March 2016	-	Referrals sent out to Review Agencies
March 2016	-	Application Deemed Complete
April 2016	-	Reviewed by CDRC, Recommendation of Approval
May 2016	-	IS/MND Preparation
June 30, 2016	-	IS/MND Notice of Intent to Adopt Posted
July 1, 2016 - July 20, 2016	-	IS/MND Review Period
July 27, 2016	-	Planning Commission Meeting

DISCUSSION

A. KEY ISSUES

1. **Conformance with the General Plan**

The proposed residential addition is consistent with the General Plan's Medium-Density Residential Urban (6.1 - 8.7 units/net acre) land use designation for the site; the proposed single-family residence on a 6,350 sq. ft. parcel is well within this allowed density range. The General Plan designates the Montara-Moss Beach-El Granada area as an existing Urban Community. As the project is located within a generally developed medium to high density residential neighborhood, the project complies with the Land Use Objectives for Urban Communities, which direct the County to provide a mix of residential, commercial, and industrial land uses in the area.

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

Urban Land Use Policy 7.16 (*Land Use Objectives for Urban Area*) requires the land use designations for Urban Areas to meet the following applicable objectives: (1) maximize the efficiency of public facilities, services and utilities, (2) minimize energy consumption, (3) encourage the orderly

formation and development of local government agencies, (4) protect and enhance the natural environment, (5) revitalize existing developed areas, and (6) discourage urban sprawl. The project complies with this policy, as it will utilize established services and utilities already in place and available. Mitigation measures have been established and agreed upon by the applicant that will protect and enhance the natural environment. The project is an infill lot which will address the objective to revitalize existing developed areas while discouraging urban sprawl.

Urban Land Use Policy 7.17 (*Appropriate Land Use Designations for Urban Areas*) deems the following land uses as appropriate land use designations for Urban Areas: (1) Residential, (2) Commercial, (3) Office, (4) Industrial, (5) Airport, (6) Institutional (7) Recreation, and (8) General Open Space. The project complies with this policy, as it is a single-family residence consistent with the Residential land use designation.

Urban Land Use Policy 8.30 (*Infilling*) encourages the infilling of urban areas where infrastructure and services are available. The project complies with this policy, as the subject site is located within a developed residential area of El Granada.

Water Supply Policy 10.10 (*Water Suppliers in Urban Areas*) and Wastewater Policy 11.5 (*Wastewater Management in Urban Areas*) require consideration of water systems as the preferred method of water supply and sewerage systems as the appropriate method of wastewater management in urban areas, respectively. The Coastside County Water District (CCWD) and the Granada Community Services District (GCSD) are the water and sewer service providers for this urban area. Both districts have confirmed that their respective service connections are available for this site.

2. Conformance with the Local Coastal Program

A Coastal Development Permit is required pursuant to Section 6328.4 of the County Zoning Regulations for development in the Coastal Development (CD) District. Staff has determined that the project complies with applicable Local Coastal Program (LCP) Policies, elaborated as follows:

a. Location and Planning New Development Component

LCP Policy 1.18 (*Location of New Development*) directs new development to existing urban areas in order to discourage urban sprawl and maximize the efficiency of public facilities, services, and utilities. Also, new development should be concentrated in urban areas by requiring the “infilling” of existing residential subdivisions. The project complies with this policy as the subject property is within the existing Granada No.5 Subdivision (recorded in 1908) in the urban

area of El Granada, where public facilities, services, and utilities are available.

Policy 1.20 (*Definition of Infill*) defines as the development of vacant land in urban areas that is subdivided and zoned for development at densities greater than one dwelling unit per 5 acres, and/or served by sewer and water. The project complies with these policies as the subject property is within the existing Granada No.5 Subdivision (recorded in 1908) in the urban area of El Granada, in an area designated for Medium Density Residential (2.1 to 6.0 dwelling units/acre), where public facilities, services, and utilities are available.

LCP Policy 1.29(d) (*Legalizing Parcels*) states that when issuing a Certificate of Compliance (CoC) Type B to legalize parcels pursuant to Section 66499.35(b) of the California Government Code, wherein parcels were illegally created without government review and approval, a Coastal Development Permit is required. For undeveloped parcels created before the Coastal Act of 1976, a Coastal Development Permit may be granted to legalize the parcel if the parcel configuration will not have any substantial adverse impacts on coastal resources. The subsequent discussions further elaborate conformance with policies that protect coastal resources.

LCP Policy 1.23 (*Timing of New Housing Development in the Midcoast*) limits the maximum number of new dwelling units built in the urban Midcoast to 40 units per calendar year so that roads, public services and facilities and community infrastructure are not overburdened by impacts of new residential development. Staff anticipates that the building permits to be issued for the 2016 calendar year will not exceed this limit, based on total applications in 2015 and estimates of current applications for building permits received thus far for 2016.

b. Sensitive Habitats Component

LCP Policy 7.1 (*Definition of Sensitive Habitats*) defines sensitive habitats as any area in which plant or animal life or their habitats are either rare or especially valuable to include, in part, intermittent streams or riparian corridors. As discussed in the IS/MND (see Attachment H), a portion of the Montecito Riparian Corridor, associated with the drainage as mapped, is located on a southern portion of the site. A Biological Constraints and Environmentally Sensitive Habitat Areas Assessment (Biological Report), dated August 14, 2015, was prepared by WRA Environmental Consultants, included as Attachment B of the IS/MND. The Biological Report identified an unnamed intermittent drainage channel that flows

southbound, approximately 300 feet west of the project site. Based upon a review of databases and a site visit to the project site on July 24, 2015, the Biological Report concludes that no sensitive habitats, including wetlands or waters, are present within the project site. The proposed project is outside of riparian setbacks.

Willows within the project site are separated from the area of the riparian buffer zone by adjacent residential developments. Non-riparian red willow woodland is comprised of red willow (40% cover) with an understory of thimbleberry (*Rubus parviflora*), Himalayan blackberry, and poison oak. The area beneath the trees did not contain any indicators of flow such as sediment sorting, culverts, or water marks. The red willow woodland was determined not to be riparian in nature because of its separation from the riparian corridor by houses and other structures; the low percent cover of willow does not meet the LCP requirements; and the lack of soil or hydrology indicators relating the willows to any waters or water features.[1] Therefore, non-riparian red willow woodland within the project site is not considered to be a sensitive community and does not require a buffer.

Regarding animal life and habitat, although the biological report determined that the project has the potential to impact two special status bird species, and these bird species have potential to nest within this area, they are not considered rare or endangered by the state. The site, project site, and any potential bird nests are protected under the Migratory Bird Treaty Act. All other sensitive biological communities located near the subject property, including riparian and wetland habitats, are beyond the required 30-ft. buffer zone. No rare, endangered or unique species are anticipated to be impacted by the proposed project.

Regarding plant life and habitat, no sensitive vegetation communities were observed within the project site. However, two vegetation communities may be affected by the proposed project: non-riparian red willow woodland and ruderal/disturbed habitat. Ruderal/disturbed habitat will be permanently and temporarily disturbed by the construction of a residence. Current plans indicate no removal of the willow trees that occur in the project site. As required by Condition No. 9, tree protection requirements during construction would protect non-riparian red willow woodland from damage during construction.

[1] The Biological Report found that red willows within the project site comprise of only 40% cover and do not meet the 50% cover requirement to be considered riparian per the LCP. Therefore, the red willow trees located within the project site are not covered under the LCP and do not require a buffer.

As discussed in the IS/MND, mitigation measures to mitigate any potentially significant effects are shown below and included as Condition Numbers 1 and 2.

Mitigation Measure 1: Any proposed trimming or removal of trees shall occur only during non-nesting bird season (September 1 - February 14), to the extent feasible. In the event of any removal of vegetation and/or project grading- and construction-related activities occurring during the nesting season (February 15 - August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

Mitigation Measure 2: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species observed, project grading and construction activities occurring, and nest locations, to include 25- to 75-ft. buffers for passerine birds and up to 250-ft. buffers for raptors.

LCP Policy 7.11 (*Establishment of Buffer Zone*) requires a buffer zone of at least 30 feet outward from the limit of riparian vegetation for intermittent streams. Where no riparian vegetation exists, buffer zones along intermittent streams extend 30 feet from the stream midpoint. While the County's Montecito Riparian Corridor Map prepared in 2014 show a potential buffer zone area running through the center of the subject site, the Biological Report estimates that the unnamed perennial blue-line stream is located approximately 300 feet west of the project site, whereby the site is separated from this riparian buffer zone by adjacent residential development. Therefore, there are no areas of riparian buffer zone at the project site.

LCP Policy 7.34 (*Rare and Endangered Species - Permit Conditions*) requires submittal of a biological report that assesses the presence or potential presence of rare and endangered species in areas that are in/near sensitive habitats, including riparian corridors. As previously discussed, the Biological Report finds that two Special-Status and several non-special-status bird species have potential to nest within the project site. Project compliance with Mitigation Measures 1 and 2 would reduce potential project impact to a less than significant impact level.

c. Visual Resources Component

LCP Policy 8.12(a) (*General Regulations*) applies the Design Review Zoning District to urbanized areas of the Coastal Zone, which includes

El Granada. The project is, therefore, subject to Section 6565.20 of the Zoning Regulations. As discussed in Section 3.b. of this report, the Coastside Design Review Committee (CDRC) considered this project at their meeting of April 19, 2016, and determined it is in compliance with applicable Design Review Standards and recommended approval with conditions.

LCP Policy 8.13 (*Special Design Guidelines for Coastal Communities*) establishes design guidelines for Montara, Moss Beach, El Granada, and Miramar. The proposed home complies with these guidelines as follows, as discussed in Section 3.b. of this report.

3. Conformance with the Zoning Regulations

a. Conformance with R-1/S-17 District Development Standards

The proposal complies with the property's R-1/S-17 Zoning Designation, as described in the following table:

	S-17 Development Standards	**Proposed**
Minimum Site Area	5,000 sq. ft.	6,350 sq. ft. (existing)
Maximum Floor Area	2,650 sq. ft.	2,200 sq. ft.
Maximum Building Site Coverage	1,750 sq. ft. (35% max.)	1,260 sq. ft. (20.3 %)
Minimum Front Setback	20 ft.	9 ft. - 5 in. *
Minimum Rear Setback	20 ft.	57 ft. - 11 in.
Minimum Right and Left Side Setbacks (Combined Side Yard Setback)	Minimum 5 ft. on each side with Combined 15 ft. total	Right: 8 ft. - 5 in. Left: 8 ft. - 7 in. Combined: 17 ft. - 1 in.
Maximum Building Height	28 ft.	28 ft.
Minimum Covered Parking	2 spaces	2 spaces
Façade Articulation	Finding by CDRC	Complies
* Note: Complies pursuant to SMC Zoning Regulations, Chapter 22, ARTICLE 3. YARDS: GENERAL PROVISIONS AND EXCEPTIONS, SEC. 6411 (a).Where the slope of the front half of the lot is greater than one (1) foot rise or fall in a distance of seven (7) feet from the established street elevation at the property line, or where the elevation of the lot at the street line is five (5) feet or more above or below the established street elevation, a garage or carport, attached or detached, may be built to the front line. Such garage shall hold the side yard setbacks required for the main building and a maximum height specified for such carports and garages by the district, or when not specified by the district, a maximum height of 28 feet.		

The proposed two-story single-family residence meets the zoning district standards and includes a design, scale, and size compatible with other residences located in the vicinity. The general S-17 District

development standards requires a minimum front yard setback of 20 feet, except when the property qualifies under the Yards General Exceptions regulation due to the slope of the front half of the lot being greater than one (1) foot rise or fall in a distance of 7 feet from the established street elevation at the property line. This exception does apply to the proposed project site and will therefore allow an attached or detached garage to be built to the front property line providing a zero-foot minimum front yard setback. The subject property is proposing a 9 ft. -5 in. front yard setback and is therefore in compliance with this standard.

b. Conformance with Design Review Standards

The project was reviewed by the Coastside Design Review Committee on April 19, 2016. They reviewed the design and found it to comply with the Community Design Manual Standards for Review and Section 6565.20 of the County Zoning Regulations, specifically elaborated with that Section's applicable standards, as follows:

(1) The project design orients windows, entrances, decks, and balconies to minimize and mitigate direct views into neighboring houses and outdoor decks and patios.

(2) The roof form for the second story helps minimize the effect on views from neighboring houses.

(3) The project design minimizes unused, enclosed space between the lowest floor and the grade below.

(4) The project's contemporary design uses building shapes and materials, including Hardie Board siding, stucco, and sloped roof, that complement other homes in the neighborhood and make the design compatible with the character of the area.

4. Conformance with Subdivision Regulations

A conditional Certificate of Compliance (CoC) Type B is required to legalize the subject parcel under the provisions of the County and State subdivision laws in effect at the time of parcel creation. This process is required before or concurrent with the approval of any new development.

As a result of two 2007 court case decisions, the subject parcel's legality must be confirmed because it is an undeveloped parcel of an antiquated subdivision. In this case, the subject parcel comprises Lot 6, Block 77, of the "Plat of Subdivision No. 5 of Granada," recorded on December 7, 1908. The County Subdivision Regulations, Section 7134, allow for either a

CoC (Type A) or CoC (Type B) to resolve and confirm a parcel's legality. To qualify for a CoC (Type A) (pursuant to Section 7134.1), it must be confirmed that the subject parcel was first conveyed separately from any surrounding parcels prior to the County's adoption of its first Subdivision Ordinance on July 15, 1945. Otherwise, if such conveyance is determined to have occurred after that date, a CoC (Type B) (pursuant to Section 7134.2) shall be required if no other basis for a Type A exists, as is the case with this application.

The submitted chain of title confirms that the subject parcel (consisting of Lot 6) was not conveyed by deed separately from any adjacent parcels until 1955. Only at that time was there a separate conveyance of the parcel from surrounding adjacent lots, thus triggering the need for the CoC (Type B). Section 7134.2.c allows for the approval and recordation of a CoC subject to a public hearing, and allows for the placement of conditions to ensure that development on the parcel complies with public health and safety standards.

Regarding the conditions of approval, Section 7134.2.c(a) of the County Subdivision Regulations states that the Community Development Director may impose "any conditions which would have been applicable at the time the applicant acquired his or her interest in the property, and which had been established at the time of the Map Act or the County Subdivision Regulations." In 1955, this area was zoned R-1 (Single-Family Residence) with 5,000 sq. ft. minimum lot sizes.

The roadway, sanitary, water distribution and energy infrastructure currently exists within the road right-of-way in this developed and improved area of El Granada. Given these facts, there are no additional road or infrastructure improvements (typical of an urban subdivision) that must be required via conditions. The only additional and applicable improvements (i.e., building permits, sewer/water connections and energy line laterals from the street to the proposed residence) will be required at the time of the submittal and issuance of the project's associated building permit.

The approval of a Certificate of Compliance (Type B) therefore does not require the imposition of any unusual conditions to bring it into legal status.

B. REVIEW BY THE MIDCOAST COMMUNITY COUNCIL

The Midcoast Community Council (MCC) responded to staff's requests for comments and had no comments during the design review comment period. The Initial Study/Mitigated Negative Declaration (IS/MND) was sent to the MCC. They have been notified of the Planning Commission's review of this project.

C. ENVIRONMENTAL REVIEW

Due to the subject site's proximity to the Montecito Riparian Corridor, a Mitigated Negative Declaration has been prepared for the project, pursuant to the California Environmental Quality Act (CEQA). The Initial Study/Mitigated Negative Declaration (see Attachment H) was released on June 30, 2016. The review period began on July 1, 2016 and ended on July 20, 2016. Planning staff did not receive any comments during the review period, as of the writing of this report. Any comments received will be addressed at the public hearing. In order to reduce biological, geologic, and cultural resource impacts to a less than significant level, six (6) mitigation measures have been included as part of the Conditions for Approval (see Attachment A).

Biological Resources

Based upon a review of databases and a site visit to the project site on July 24, 2015, the Biological Report concluded that no sensitive habitats are present within the project site. No wetlands or waters are present within the project site, the proposed Project is outside riparian setbacks, and the tree species within the project site do not qualify as riparian habitat as defined in the LCP. No special-status plant species have potential to be present.

As discussed in the IS/MND, mitigation measures to mitigate any potentially significant effects are shown below and included as Condition Numbers 1 and 2.

Cultural Resources

Staff obtained comments and recommendations from the California Historical Resources Information System (CHRIS) during the referral process. According to CHRIS representatives, no record of any previous cultural resource studies were found for the proposed project area, and because the parcel itself is located on a steep slope, there is a low possibility of it containing unrecorded archaeological sites. CHRIS recommended that staff contact Native American tribes regarding traditions, cultural, and religious heritage values. Six (6) Native American tribes were contacted. No additional comments or recommendations were provided outside of the recommendations that are already included as Mitigation Measure Nos. 3 through 5, and identified as Conditions of Approval Nos. 3 and 5.

Mitigation Measure 3: The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American

Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Mitigation Measure 4: If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

Mitigation Measure 5: A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Geology and Soils

A Geotechnical Study (Report) prepared by Sigma Prime Geosciences, Inc., (Geotechnical Report), dated December 29, 2015, reviewed the potential for geological hazards that impact the site, considering the geological setting, and the soils encountered during the investigation. The Geotechnical Report found that the potential for fault rupture, differential compaction, and liquefaction are low to nil. Regarding ground shaking, the site is located in an active seismic area. Moderate to large earthquakes are probable along several active faults in the greater Bay Area over a 30- to 50-year design life. Strong ground shaking should therefore be expected several times during the design life of the structure, as is typical for sites throughout the Bay Area. The improvements should be designed and constructed in accordance with current earthquake resistance standards, as required by Mitigation Measure 6.

The Geotechnical Report concluded that the site is suitable for the proposed construction, provided the recommendations presented in the report are followed during design and construction.

As discussed in the IS/MND, Mitigation Measure 6 is shown below and included as a condition of approval to mitigate any potentially significant geologic hazards that could impact the site.

Mitigation Measure 6: Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the

recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015. This approval applies only to the proposal as described in those plans, supporting materials, and reports submitted on January 12, 2016 and approved by the Planning Commission. Minor revisions or modifications to the project may be made subject to the review and approval of the Community Development Director if they are consistent with the intent of and in substantial conformance with this approval.

D. REVIEW BY THE CALIFORNIA COASTAL COMMISSION

The California Coastal Commission (CCC) did not forward a response to staff's referral for this project during the design review comment period. The IS/MND was sent to the CCC. They were notified of the Planning Commission's review of this project. Since the CDP is appealable to the CCC, they will be duly notified of our final decision if applicable, which will initiate their appeal period.

E. OTHER REVIEWING AGENCIES

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

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Plans
D. Coastside Design Review Committee Decision Letter, dated May 10, 2016
E. Site Photos
F. Copy of 1908 Subdivision
G. Montecito Riparian Corridor Map
H. Initial Study/Mitigated Negative Declaration
I. Mitigation Concurrence Letter for Initial Study/Mitigated Negative Declaration

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2016-00011 Hearing Date: July 27, 2016

Prepared By: Kimberly Smith
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

For the Environmental Review, Find:

1. That the Planning Commission does hereby find that this Initial Study/Mitigated Negative Declaration reflects the independent judgment of San Mateo County.

2. That the Initial Study/Mitigated Negative Declaration is complete, correct, and adequate and prepared in accordance with the California Environmental Quality Act and applicable State and County guidelines.

3. That, on the basis of the Initial Study/Mitigated Negative Declaration, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project will have a significant effect on the environment.

4. That the conditions of approval, which incorporate the mitigated measures identified in the Initial Study/Mitigated Negative Declaration and agreed to by the applicant, satisfy the Mitigation Monitoring and Reporting Plan requirements established by California Public Resources Code Section 21081.6.

For the Conditional Certificate of Compliance (Type B), Find:

5. That the processing of the Certificate of Compliance (CoC) (Type B) is in full conformance with the County Subdivision Regulations Section 7134 (*Legalization of Parcels; Certificate of Compliance*), particularly Section 7134.2(a), (b), and (c).

6. That the processing of the Conditional CoC (Type B) is in full conformance with Government Code Section 66499 et seq.

For the Coastal Development Permit, Find:

7. That the project, as described in the application and accompanying materials required by Section 6328.7 and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements, and standards of the San Mateo County Local Coastal Program. Based upon a review of databases and a site visit to the project site on July 24, 2015, the Biological Report concludes that no sensitive habitats, including wetlands or waters, are present within the project site. The proposed project is outside of riparian setbacks.

8. That the project conforms to the specific findings required by policies of the San Mateo County Local Coastal Program. The project complies with policies pertaining to sensitive habitats. The Coastside Design Review Committee (CDRC) considered this project at their meeting of April 19, 2016, and determined that the project is in compliance with applicable Design Review Standards, as required by LCP policies pertaining to visual resources.

9. That the project conforms to the applicable policies of the Local Coastal Program (LCP) as discussed in the staff report. Based upon a review of databases and a site visit to the project site on July 24, 2015, the Biological Report concludes that no sensitive habitats, including wetlands or waters, are present within the project site. The proposed project is outside of riparian setbacks.

For the Design Review Permit, Find:

10. The project, as proposed and conditioned, has been reviewed under and found to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Zoning Regulations, specifically elaborated as follows:

    a. The design orients windows, entrances, decks, and balconies to minimize and mitigate direct views into neighboring houses and outdoor decks and patios Condition No. 2.b requires that the rear plate be lowered to 8’6” in height with a slope of the roof to remain at the same angle (Section 6565.20(C)2.a).

    b. The design uses roof form for the second story which helps minimize the effect on views from neighboring houses. Condition No. 2.a requires that a stone partial wall be added on the north side of the lower bedroom to extend upward six feet (6’) above the upper deck floor for privacy (Section 6565.20(C) 2.b).

    c. The design minimizes unused, enclosed space between the lowest floor and the grade below. Condition No. 2.c requires that a lower-level deck configuration be added that transitions from the master bedroom to the rear and integrates with the existing side stairs (Section 6565.20(D)1.a).

d. The architectural style and contemporary design use building shapes and materials, including Hardie Board siding, stucco, and sloped roof, that complement other homes in the neighborhood and make the design compatible with the character of the area (Section 6565.20(D)2.a).

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. **Mitigation Measure 1:** Any proposed trimming or removal of trees shall occur only during non-nesting bird season (September 1 - February 14) to the extent feasible. In the event of any removal of vegetation and/or project grading- and construction-related activities occurring during the nesting season (February 15 - August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

2. **Mitigation Measure 2**: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species observed, project grading and construction activities occurring, and nest locations, to include 25- to 75-ft. buffers for passerine birds and up to 250-ft. buffers for raptors.

3 **Mitigation Measure 3:** The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

4. **Mitigation Measure 4:** If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

5. **Mitigation Measure 5:** A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

6. **Mitigation Measure 6:** Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015. This approval applies only to the proposal as described in those plans, supporting materials, and reports submitted on January 12, 2016 and as approved by the Planning Commission. Minor revisions or modifications to the project may be made subject to the review and approval of the Community Development Director, if they are consistent with the intent of and in substantial conformance with this approval.

7. The subject Certificate of Compliance (Type B), which shall confirm that APN 047-105-240 represents one single legal parcel, shall be recorded prior to the issuance of any other permits related to any development on this property. The applicant shall submit a recording fee of $34 in a check made payable to San Mateo County, which will be transmitted to the Recorder's Office by the Planner for the document's recordation.

8. The project shall be constructed in compliance with the approved plans, and as recommended for approval by the Coastside Design Review Committee on April 19, 2016. Any changes or revisions to the approved plans shall be submitted to the Design Review Officer for review and approval prior to implementation. Minor adjustments to the project may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.

9. Maintain natural vegetation buffer areas that protect riparian habitats throughout the life of the project. Prior to any grading or construction activity on the project site, the property owner/applicant/contractor shall implement the following tree protection plan:

    a. Establish and maintain tree protection zones throughout the entire length of the project.

    b. Delineate tree protection zones using 4-foot tall orange plastic fencing supported by poles pounded into the ground, located at the driplines as described in the arborist's report.

c. Maintain tree protection zones free of equipment and materials storage; contractors shall not clean any tools, forms, or equipment within these areas.

d. Should any large roots or large masses of roots need to be cut, the roots shall be inspected by a certified arborist or registered forester prior to cutting as required in the arborist's report. Any root cutting shall be monitored by an arborist or forester and documented. Roots to be cut should be severed cleanly with a saw or toppers. A tree protection verification letter from the certified arborist shall be submitted to the Planning Department within five (5) business days from the site inspection following root cutting.

e. Normal irrigation shall be maintained, but oaks should not need summer irrigation, unless the arborist's report directs specific watering measures to protect trees.

f. Street tree trunks should be wrapped with straw wattles, orange fence, and 2 x 4 boards in concentric layers to a height of six feet.

10. The applicant shall indicate the following on plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

a. Lower the rear plate height to 8' 6" with the slope of the roof to remain at the same angle.

b. Add a stone partial wall at the north side of the lower bedroom to extend up 6' above the upper deck floor for privacy.

c. Add a lower-level rear deck whose configuration transitions from the master bedroom to the rear yard and integrates with the existing side stairs.

11. The applicant shall submit the following to the Current Planning Section: Within four (4) working days of the final approval date for this project, the applicant shall pay an environmental filing fee of $2,210.25, as required under the Department of Fish and Game Code Section 711.4, plus a $50.00 recording fee. Thus, the applicant shall submit a check in the total amount of $2,260.25, made payable to San Mateo County, to the project planner to file with the Notice of Determination. Please be aware that the Department of Fish and Game environmental filing fee will increase on January 1, 2017.

12. The applicant shall provide "finished floor elevation verification" to certify that the structure is actually constructed at the height shown on the submitted plans. The applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site.

a. The applicant shall maintain the datum point so that it will not be disturbed by the proposed construction activities until final approval of the building permit.

b. This datum point and its elevation shall be shown on the submitted site plan. This datum point shall be used during construction to verify the elevation of the finished floors relative to the existing natural or to the grade of the site (finished grade).

c. Prior to Planning approval of the building permit application, the applicant shall also have the licensed land surveyor or engineer indicate on the construction plans: (1) the natural grade elevations at the significant corners (at least four) of the footprint of the proposed structure on the submitted site plan, and (2) the elevations of proposed finished grades.

d. In addition, (1) the natural grade elevations at the significant corners of the proposed structure, (2) the finished floor elevations, (3) the topmost elevation of the roof, and (4) the garage slab elevation must be shown on the plan, elevations, and cross-section (if one is provided).

e. Once the building is under construction, prior to the below floor framing inspection or the pouring of the concrete slab (as the case may be) for the lowest floor(s), the applicant shall provide to the Building Inspection Section a letter from the licensed land surveyor or engineer certifying that the lowest floor height, as constructed, is equal to the elevation specified for that floor in the approved plans. Similarly, certifications on the garage slab and the topmost elevation of the roof are required.

f. If the actual floor height, garage slab, or roof height, as constructed, is different than the elevation specified in the plans, then the applicant shall cease all construction and no additional inspections shall be approved until a revised set of plans is submitted to and subsequently approved by both the Building Official and the Community Development Director.

13. During project construction, the applicant shall, pursuant to Chapter 4.100 of the San Mateo County Ordinance Code, minimize the transport and discharge of stormwater runoff from the construction site into storm drain systems and water bodies by:

a. Using filtration materials on storm drain covers to remove sediment from dewatering effluent.

b. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.

c. Removing spoils promptly, and avoiding stockpiling of fill materials, when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.

d. Storing, handling, and disposing of construction materials and wastes so as to avoid their entry to the storm drain system or water body.

e. Avoiding cleaning, fueling or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

f. Limiting and timing application of pesticides and fertilizers to avoid polluting runoff.

14. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed upon the commencement of construction in order to maintain the stability of the site and prevent erosion and sedimentation off-site.

15. All new power and telephone utility lines from the street or nearest existing utility pole to the main dwelling and/or any other structure on the property shall be placed underground.

16. The applicant shall apply for a building permit and shall adhere to all requirements from the Building Inspection Section, the Department of Public Works, and the Coastside Fire Protection District.

17. No site disturbance shall occur, including any grading, until a building permit has been issued.

18. To reduce the impact of construction activities on neighboring properties, comply with the following:

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

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

    c. The applicant shall ensure that no construction-related vehicles shall impede through traffic along the right-of-way on San Carlos Avenue. All construction vehicles shall be parked on-site outside the public right-of-way

or in locations which do not impede safe access on San Carlos Avenue. There shall be no storage of construction vehicles in the public right-of-way.

19. The exterior color samples submitted to the CDRC are approved. Color verification shall occur in the field after the applicant has applied the approved materials and colors but before a final inspection has been scheduled.

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

21. Installation of the approved landscape plan, which includes native and drought-tolerant plant species appropriate to the coastal environment, as approved by the Coastside Design Review Committee, is required prior to final inspection. The landscape plan shall comply with the Water Efficient Landscape Ordinance.

Building Inspection Section

22. The applicant shall apply for a building permit.

Granada Community Services District

23. Prior to the issuance of a building permit, the applicant shall obtain a sewer permit for a sewer connection via the required approval process.

Coastside County Water District

24. Prior to the issuance of a building permit, the applicant shall obtain a water service connection to include fire suppression plans for review and approval.

Department of Public Works

25. Prior to the issuance of the building permit, the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.

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

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

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

Coastside Fire Protection District

29. As per the California Building Code, State Fire Marshal Regulations, and Coastside Fire Protection District Ordinance No. 2013-03, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hardwired, interconnected, and have battery backup. These detectors are required to be placed in each new and reconditioned sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final.

30. Add note to plans: Smoke alarms/detectors are to be hardwired, interconnected, or with battery backup. Smoke alarms to be installed per manufacturer's instruction and NFPA 72.

31. Add note to plans: Escape or rescue windows shall have a minimum net clear openable area of 5.7 sq. ft.; 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor.

32. Identify rescue windows in each bedroom and verify that they meet all requirements. Add this to plans.

33. As per Coastside Fire Protection District Ordinance No. 2013-03, building identification shall be conspicuously posted and visible from the street. (TEMPORARY ADDRESS NUMBERS SHALL BE POSTED PRIOR TO COMBUSTIBLES BEING PLACED ON-SITE.) The letters/numerals for permanent address signs shall be 4 inches in height with a minimum 3/4-inch stroke. Such letters/numerals shall be internally illuminated and facing the direction of access. Finished height of bottom of address light unit shall be greater than or equal to 6 feet from the finished grade. When the building is served by a long driveway or is otherwise obscured, a 6-inch by 18-inch green reflective metal sign with 3-inch reflective numbers/letters similar to Hy-Ko 911 or equivalent shall be placed at the entrance from the nearest public roadway. See Fire Ordinance for standard sign.

34. Add the following note to the plans: New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. Residential address numbers shall be at least 6 feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall be required by the Coastside Fire Protection District. This remote signage shall consist of a 6-inch by 18-inch green reflective metal sign with 3-inch reflective numbers/letters similar to Hy-Ko 911 or equivalent.

35. As per Coastside Fire Protection District Ordinance No. 2013-03, the roof covering of every new building or structure, and materials applied as part of a roof covering assembly, shall have a minimum fire rating of Class “B” or higher as defined in the current edition of the California Building Code.

36. As per the Coastside Fire Protection District Ordinance No. 2013-03, the 2013 California Fire Code, and the Public Resources Code 4291:

    a. A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. In SRA (State Responsible Area), the fuel break is 100 feet or to the property line.

    b. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 to 10 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.

    c. Remove that portion of any existing tree, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure. Maintain any tree adjacent to or overhanging a building free of dead or dying wood.

37. Add the following note to the plans: The installation of an approved spark arrester is required on all chimneys, existing and new. Spark arresters shall be constructed of woven or welded wire screening of 12-gauge USA standard wire having openings not exceeding 1/2 inch.

38. The applicant must have a maintained asphalt surface road for ingress and egress of fire apparatus. The San Mateo County Department of Public Works, the Coastside Fire Protection District Ordinance No. 2013-03, and the California Fire Code shall set road standards. As per the 2013 CFC, dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Half Moon Bay Fire District specifications. As per the 2007 CFC, Section Appendix D, the road width shall not be less than 20 feet. Fire access roads shall be installed and made serviceable prior to combustibles being placed on the project site and maintained during construction. Approved signs and painted curbs or lines shall be provided and maintained to identify fire access roads and state the prohibition of their obstruction. If the road width does not allow parking on the street (20-ft. road) and on-street parking is desired, an additional improved area shall be developed for that use.

39. Fire apparatus access roads shall be an approved all weather surface. Grades 15% or greater to be surfaced with asphalt, or brushed concrete. Grades 15% or greater shall be limited to 150 feet in length with a minimum of 500 feet between the next section. For roads approved less than 20 feet, 20-foot wide turnouts shall be on each side of 15% or greater section. No grades over 20% (plan and profile required), CFC 503.

40. “No Parking - Fire Lane” signs shall be provided on both sides of roads 20 to 26 feet wide and on one side of roads 26 to 32 feet wide, CFC D103.6.

41. Show location of fire hydrant on a site plan. A fire hydrant is required within 250 feet of the building and flow a minimum of 1,000 gallons per minute (gpm) at 20 per square inch (psi). This information is to be verified by the water purveyor in a letter initiated by the applicant and sent to San Mateo County Fire/Cal-Fire or Coastside Fire Protection District. If there is not a hydrant within 250 feet with the required flow, one will have to be installed at the applicant’s expense.

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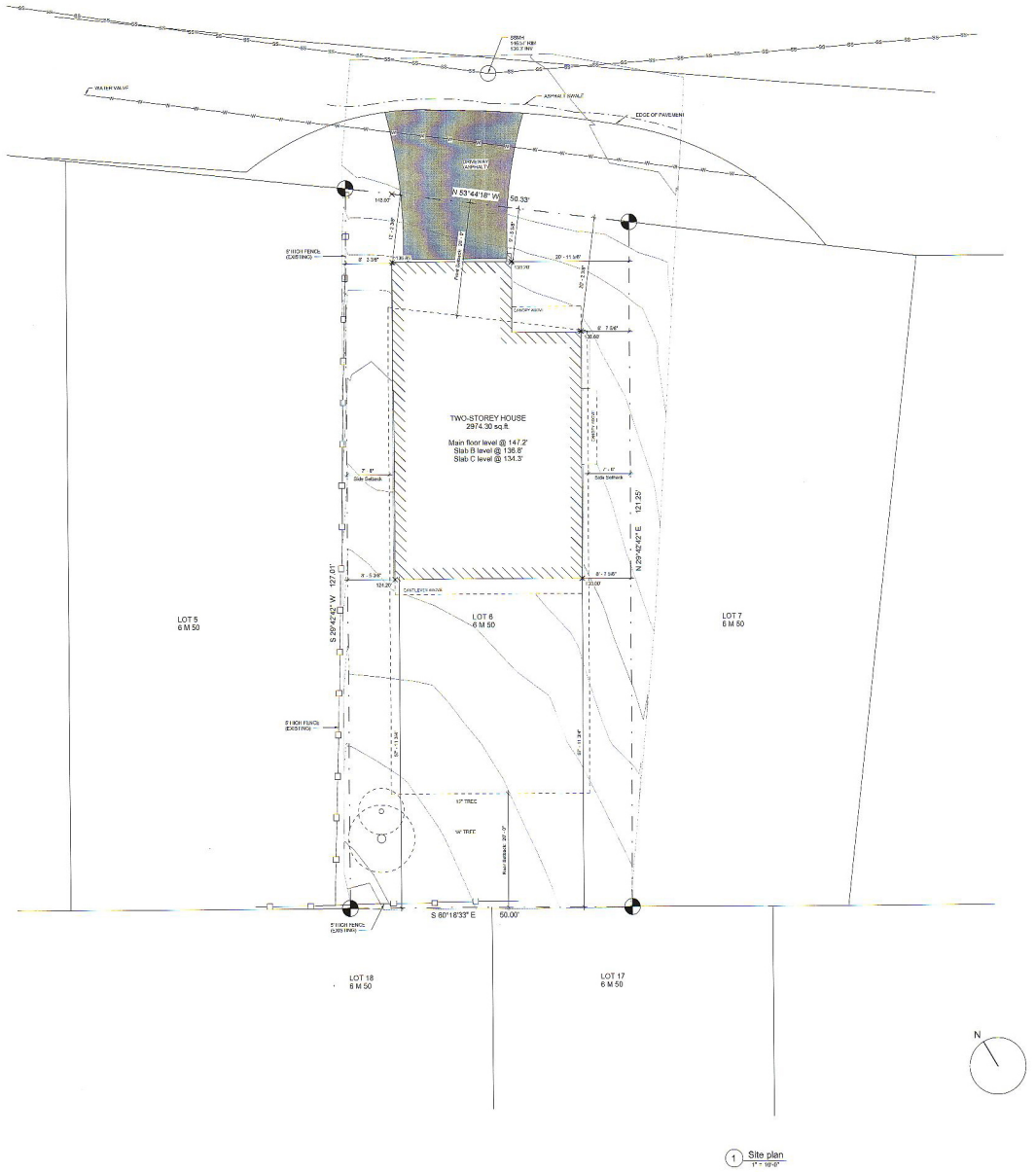
San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **B**

File Numbers: **PLN2016-00011**



1 Site plan

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **C**

File Numbers: **PLN2016-00011**

1 Elevation - Southwest
1/4" = 1'-0"

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **C**

File Numbers: **PLN2016-00011**

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **C**

File Numbers: **PLN2016-00011**

1 Elevation - Southwest
1/4" = 1'-0"

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **C**

File Numbers: **PLN2016-00011**

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
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www.planning.smcgov.org

May 16, 2016

Justin Lang
3189 Berryessa Street, #2
Palo Alto, CA 94303

Dear Mr. Lang:

SUBJECT: Coastside Design Review - Recommendation of Approval
San Carlos Avenue, El Granada, CA
APN 047-105-240; File No. PLN 2016-00011

At its meeting of April 19, 2016, the San Mateo County Coastside Design Review Committee (CDRC) considered your application for a new 2,200 sq. ft., two-story single-family residence on a 6,350 sq. ft. parcel. The project requires a Coastal Development Permit (CDP) and a Certificate of Compliance (COC) Type B to legalize the parcel. A decision on the Design Review Permit, CDP and COC will occur at a public hearing after April 19, 2016. The CDP is appealable to the California Coastal Commission. No significant trees are proposed for removal and only minor grading is necessary.

Based on the plans, application forms, and accompanying materials submitted, the Coastside Design Review Committee recommended approval of your project based on and subject to the following findings and recommended conditions:

FINDINGS

The Coastside Design Review Officer found that:

1. For the Environmental Review

   This project is not exempt from environmental review, due to its proximity to the Montecito Riparian and requires the preparation of an Initial Study and a Negative Declaration.

2. For the Coastal Development Exemption

   The project requires a Coastal Development Permit as a Certificate of Compliance (Type B) is required.

ATTACHMENT D

The Coastside Design Review Committee found that:

3. For the Design Review

The project, as proposed and conditioned, has been reviewed under and found to be in compliance with the Design Review Standards for One-Family and Two-Family Residential Development in the Midcoast, Section 6565.20 of the San Mateo County Zoning Regulations, specifically elaborated as follows:

a. The design orients windows, entrances, decks, and balconies to minimize and mitigate direct views into neighboring houses and outdoor decks and patios. Condition No. 2.b requires that the rear plate be lowered to 8'6" in height with a slope of the roof to remain at the same angle (Section 6565.20(C)2.a).

b. The design uses roof form for the second story which helps minimize the effect on views from neighboring houses. Condition No. 2.a requires that a stone partial wall be added on the north side of the lower bedroom to extend upward six feet (6') above the upper deck floor for privacy (Section 6565.20(C) 2.b).

c. The design minimizes unused, enclosed space between the lowest floor and the grade below. Condition No. 2.c requires that a lower-level deck configuration be added that transitions from the master bedroom to the rear and integrates with the existing side stairs (Section 6565.20(D)1.a).

d. The architectural style and contemporary design use building shapes and materials, including Hardie Board siding, stucco, and sloped roof, that complement other homes in the neighborhood and make the design compatible with the character of the area (Section 6565.20(D)2.a).

RECOMMENDED CONDITIONS

Current Planning Section

1. The project shall be constructed in compliance with the plans once approved, and as recommended for approval by the Coastside Design Review Committee on April 19, 2016. Any changes or revisions to the approved plans shall be submitted to the Design Review Officer for review and approval prior to implementation. Minor adjustments to the project may be approved by the Design Review Officer if they are consistent with the intent of and are in substantial conformance with this approval. Alternatively, the Design Review Officer may refer consideration of the revisions to the Coastside Design Review Committee, with applicable fees to be paid.

2. The applicant shall indicate the following on the plans submitted for a building permit, as stipulated by the Coastside Design Review Committee:

a. Lower the rear plate height to 8' 6" with the slope of the roof to remain at the same angle.

b. Add a stone partial wall at the north side of the lower bedroom to extend upward, six feet (6') above the upper deck floor for privacy.

c. Add a lower-level rear deck configuration that transitions from the master bedroom to the rear yard and integrates with the existing side stairs.

3. The applicant shall provide "finished floor elevation verification" to certify that the structure is actually constructed at the height shown on the submitted plans. The applicant shall have a licensed land surveyor or engineer establish a baseline elevation datum point in the vicinity of the construction site.

a. The applicant shall maintain the datum point so that it will not be disturbed by the proposed construction activities until final approval of the building permit.

b. This datum point and its elevation shall be shown on the submitted site plan. This datum point shall be used during construction to verify the elevation of the finished floors relative to the existing natural or to the grade of the site (finished grade).

c. Prior to Planning approval of the building permit application, the applicant shall also have the licensed land surveyor or engineer indicate on the construction plans: (1) the natural grade elevations at the significant corners (at least four) of the footprint of the proposed structure on the submitted site plan, and (2) the elevations of the proposed finished grades.

d. In addition, (1) the natural grade elevations at the significant corners of the proposed structure, (2) the finished floor elevations, (3) the topmost elevation of the roof, and (4) the garage slab elevation must be shown on the plan, elevations, and cross-section (if one is provided).

e. Once the building is under construction, prior to the below floor framing inspection or the pouring of the concrete slab (as the case may be) for the lowest floor(s), the applicant shall provide to the Building Inspection Section a letter from the licensed land surveyor or engineer certifying that the lowest floor height, as constructed, is equal to the elevation specified for that floor in the approved plans. Similarly, certifications on the garage slab and the topmost elevation of the roof are required.

f. If the actual floor height, garage slab, or roof height, as constructed, is different than the elevation specified in the plans, then the applicant shall cease all construction and no additional inspections shall be approved until a revised set of plans is submitted to and subsequently approved by both the Building Official and the Community Development Director.

4. During project construction, the applicant shall, pursuant to Chapter 4.100 of the San Mateo County Ordinance Code, minimize the transport and discharge of stormwater runoff from the construction site into storm drain systems and water bodies by:

    a. Using filtration materials on storm drain covers to remove sediment from dewatering effluent.

    b. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.

    c. Removing spoils promptly, and avoiding stockpiling of fill materials, when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.

    d. Storing, handling, and disposing of construction materials and wastes so as to avoid their entry to the storm drain system or water body.

    e. Avoiding cleaning, fueling or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

    f. Limiting and timing application of pesticides and fertilizers to avoid polluting runoff.

5. The applicant shall include an erosion and sediment control plan to comply with the County's Erosion Control Guidelines on the plans submitted for the building permit. This plan shall identify the type and location of erosion control measures to be installed upon the commencement of construction in order to maintain the stability of the site and to prevent erosion and sedimentation off-site.

6. All new power and telephone utility lines from the street or nearest existing utility pole to the main dwelling and/or any other structure on the property shall be placed underground.

7. The applicant shall apply for a building permit and shall adhere to all requirements from the Building Inspection Section, the Department of Public Works, and the Coastside Fire Protection District.

8. No site disturbance shall occur, including any grading, until a building permit has been issued.

9. To reduce the impact of construction activities on neighboring properties, comply with the following:

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

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

c. The applicant shall ensure that no construction-related vehicles shall impede through traffic along the right-of-way on San Carlos Avenue. All construction vehicles shall be parked on-site outside the public right-of-way or in locations which do not impede safe access on San Carlos Avenue. There shall be no storage of construction vehicles in the public right-of-way.

10. The exterior color samples submitted to the CDRC are approved. Color verification shall occur in the field after the applicant has applied the approved materials and colors but before a final inspection has been scheduled.

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

12. Installation of the approved landscape plan is required prior to final inspection. The landscape plan shall comply with the Water Efficient Landscape Ordinance.

Building Inspection Section

13. The applicant shall apply for a building permit.

Granada Community Services District

14. Prior to the issuance of a building permit, the applicant shall obtain a sewer permit for a sewer connection via the required approval of a sewer permit variance.

Coastside County Water District

15. Prior to the issuance of a building permit, the applicant shall obtain a water service connection to include fire suppression plans for review and approval.

Department of Public Works

16. Prior to the issuance of the building permit, the applicant shall have prepared, by a registered civil engineer, a drainage analysis of the proposed project and submit it to the Department of Public Works for review and approval. The drainage analysis shall consist of a written narrative and a plan. The flow of the stormwater onto, over, and off of the property shall be detailed on the plan and shall include adjacent lands as appropriate to clearly depict the pattern of flow. The analysis shall detail the measures necessary to certify adequate drainage. Post-development flows and velocities shall not exceed those that existed in the pre-developed state. Recommended measures

shall be designed and included in the improvement plans and submitted to the Department of Public Works for review and approval.

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

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

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

Coastside Fire Protection District

20. Smoke Detectors which are hard wired: As per the California Building Code, State Fire Marshal regulations, and Coastside Fire District Ordinance 2013-03, the applicant is required to install State Fire Marshal approved and listed smoke detectors which are hard wired, interconnected, and have battery backup. These detectors are required to be placed in each new and reconditioned sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. In existing sleeping rooms, areas may have battery powered smoke alarms. A minimum of one detector shall be placed on each floor. Smoke detectors shall be tested and approved prior to the building final.

21. Add note to plans: Smoke alarms/detectors are to be hardwired, interconnected, or with battery back-up. Smoke alarms to be installed per manufacturer's instruction and NFPA 72.

22. Add note: Escape or rescue windows shall have a minimum net clear openable area of 5.7 square feet, 5.0 sq. ft. allowed at grade. The minimum net clear openable height dimension shall be 24 inches. The net clear openable width dimension shall be 20 inches. Finished sill height shall be not more than 44 inches above the finished floor.

23. Identify rescue windows in each bedroom and verify that they meet all requirements. Add this to plans.

24. New attached garage to meet occupancy separation requirements. Provide note/detail. CRC R302.5 / R302.6.

25. Add the following note to the plans: New residential buildings shall have internally illuminated address numbers contrasting with the background so as to be seen from the public way fronting the building. Residential address numbers shall be at least six feet above the finished surface of the driveway. Where buildings are located remotely to the public roadway, additional signage at the driveway/roadway entrance leading to the building and/or on each individual building shall be required by the Coastside Fire District. This remote signage shall consist of a 6-inch by 18-inch green reflective metal sign with 3-inch reflective numbers/letters similar to Hy-Ko 911 or equivalent.

26. Roof Covering: As per Coastside Fire District Ordinance 2013-03, the roof covering of every new building or structure, and materials applied as part of a roof covering assembly, shall have a minimum fire rating of Class "B" or higher as defined in the current edition of the California Building Code.

27. Vegetation Management: The Coastside Fire District Ordinance 2013-03, the 2013 California Fire Code, and the Public Resources Code 4291.

28. A fuel break of defensible space is required around the perimeter of all structures to a distance of not less than 30 feet and may be required to a distance of 100 feet or to the property line. In SRA (State Responsible Area), the fuel break is 100 feet or to the property line.

29. Trees located within the defensible space shall be pruned to remove dead and dying portions, and limbed up 6 to 10 feet above the ground. New trees planted in the defensible space shall be located no closer than 10 feet to adjacent trees when fully grown or at maturity.

30. Remove that portion of any existing tree, which extends within 10 feet of the outlet of a chimney or stovepipe or is within 5 feet of any structure.

31. Fire Access Roads: The applicant must have a maintained asphalt surface road for ingress and egress of fire apparatus. The San Mateo County Department of Public Works, the Coastside Fire District Ordinance 2013-03, and the California Fire Code shall set road standards. As per the 2013 CFC, dead-end roads exceeding 150 feet shall be provided with a turnaround in accordance with Half Moon Bay Fire District specifications. As per the 2007 CFC, Section Appendix D, road width shall not be less than 20 feet. Fire access roads shall be installed and made serviceable prior to combustibles being placed on the project site and maintained during construction. Approved signs and painted curbs or lines shall be provided and maintained to identify fire access roads and state the prohibition of their obstruction. If the road width does

not allow parking on the street (20-foot road) and on-street parking is desired, an additional improved area shall be developed for that use.

32. Fire apparatus roads to be a minimum of 20 ft. wide with a minimum of 35 ft. centerline radius and a vertical clearance of 15 ft. CFC503, D103, T-14 1273.

Please note that the decision of the Coastside Design Review Committee is a recommendation regarding the project's compliance with design review standards, not the final decision on this project. Consideration of a Coastal Development Permit and Design Review, pursuant to Sections 6328.4 and 6565.3 of the County Zoning Regulations respectively; a Certificate of Compliance (Type B), pursuant to Section 7134 of the Subdivision Regulations, to legalize the parcel; and certification of a Mitigated Negative Declaration, pursuant to the California Environmental Quality Act (CEQA), to allow the construction of a new 2,200 sq. ft. single-family residence on an unimproved 6,350 sq. ft. parcel located on San Carlos Avenue in the unincorporated El Granada area of San Mateo County. No significant trees are proposed to be removed and only minor grading is necessary. This CDP is appealable to the California Coastal Commission.

To provide feedback, please visit the Department's Customer Survey at the following link: http://planning.smcgov.org/survey.

Sincerely,

Dennis Aguirre
Design Hearing Officer

DPA:KDS:jlh – KDSAA0275_WJN.DOCX

cc: Dianne Whitaker, Member Architect
Stuart Grunow, Member Architect
Ronald Madson, El Granada Community Representative
Christopher Johnson, El Granada Community Representative (alternate)

Study Area looking east towards San Carlos Ave

Study Area looking west towards non-riparian red willow woodland.

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **E**

File Numbers: **PLN2016-00011**

San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **E**

File Numbers: **PLN2016-00011**

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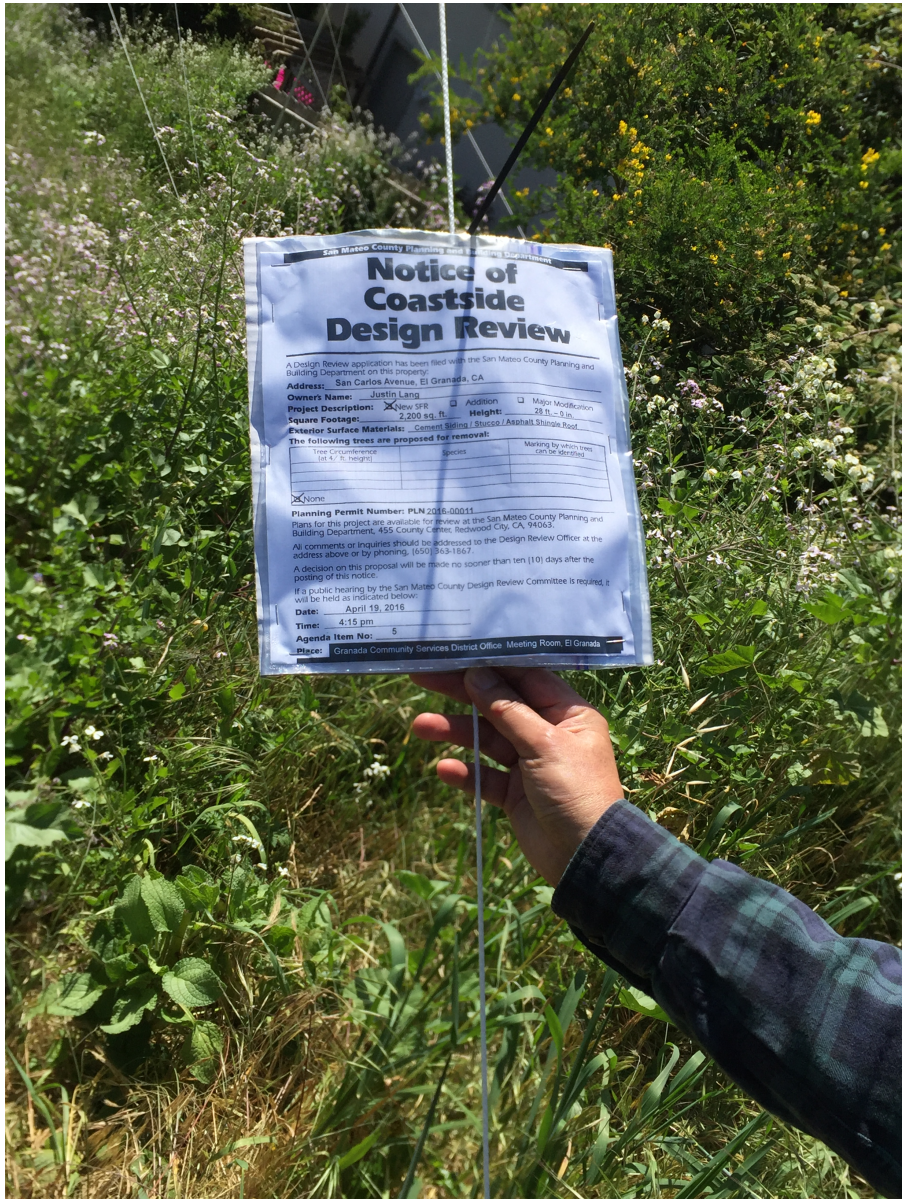


San Mateo County Planning Commission Meeting

Owner/Applicant: **Justin Lang** Attachment: **E**

File Numbers: **PLN2016-00011**

PLAT OF SUBDIVISION NO.5 OF GRANADA

SAN MATEO COUNTY CALIFORNIA

SCALE 1 INCH = 100 FT.

TABLE OF LENGTHS OF STREETS

STREET	SIDE	FROM	TO	LENGTH
SAN CARLOS	CENTER LINE S'LY	℄ VALLEJO ST. M'LY SIDE VALLEJO	℄ MONTECITO AVE E'LY SIDE MONTECITO	1554.90 1496.75
BALBOA	N'ELY S'LY	W'LY SIDE VALLEJO M'LY " "	E'LY SIDE MONTECITO E'LY " "	1181.21 1129.78
VALENCIA	N'ELY S'LY	SUBDIVISION BOUNDARY M'LY SIDE COLUMBUS	E'LY " PALOMA E'LY " "	769.09 860.00
SONORA	N'ELY S'LY	SUBDIVISION # 4 " " "	W'LY " SUBDIVISION M'LY " CARMEL	942.50 842.50
ALHAMBRA	N'ELY	W'LY SIDE FRANCISCO	SUBDIVISION BOUNDARY	897.15
FRANCISCO	S'ELY N'WLY	N LY SIDE ALHAMBRA	S'WLY SIDE SONORA	51.39
COLUMBUS	S'ELY N'WLY	N'LY " " N'LY " "	SUBDIVISION # 4 S'WLY SIDE VALENCIA	706.09 847.45
VALLEJO	S'ELY N'WLY	N'LY " " N'LY " "	SUBDIVISION # 4 S'WLY SAN CARLOS	1649.71 2010.22
CARMEL	S'ELY N'WLY	S'LY SUBDIVISION BOUN. SLY " "	S'W'LY " " S'W'LY " "	1630.00 1630.00
PALOMA	N'ELY S'W'LY	S'LY " " E'LY SIDE MONTECITO	S'W'LY " " S'W'LY " "	990.09 787.37
MONTECITO	N'ELY	S'WLY - PALOMA	S'WLY " "	839.50

KNOW ALL MEN BY THESE PRESENTS:

INE INVESTMENT COMPANY a corporation under the alifornia, the owner of the real property set forth in the hich this certificate is endorsed, said real property ounty of San Mateo, State of California, hereby consents plat or map in the manner and form set forth there- hat the land embraced within the boundaries of said ibed therein, shall be hereafter referred to and hat all of said real property embraced within, and shown map or plat as streets, avenues, alleys, and highways, to the public for public use. Said SHORE LINE INVEST- ther certifies that it is the owner of the fee simple rty; that the same is unencumbered, saving and excepting 1908, not yet due or payable.

OF: the SHORE LINE INVESTMENT COMPANY has e to be made, for and on its behalf by its President, ecretary, and the seal of the said corporation affixed, mber A.D. 1908.

SHORE LINE INVESTMENT COMPANY.
by J. Downey Harvey President

retary.

ereby consent to the platting of those certain lands f San Mateo, State of California, being the lands embraced wn upon the map or plat thereof to which this assent join in and consent to the dedication of the respect- narked and delineated upon said plat and set aside for blic places, as shown upon said map or plat, to and for

and seal this 28 th day of November, 1908.

A. Boitano.

7
TEO } s.s.

November, in the year A.D. 1908, before me, for the said State and County, personally appeared e to be the person whose name is subscribed to the d acknowledged that he executed the same. d and official seal, the day and year in this certificate

Jno Pitcher.
Notary Public in and for the County of San Mateo, State of California.

STATE OF CALIFORNIA
COUNTY OF SAN MATEO } s.s.

I, W.H. Underhill County Auditor in and for the County of San Mateo, State of California, do hereby certify that there are no liens for unpaid state, County, municipal or other taxes, excepting taxes for the year 1908 second installment, not yet payable, against the real property, said tract or parcel of land, or any part thereof, embraced within or shown and described upon the plat or map, to which this certificate is attached.

WITNESS, my hand and official seal, this 7 day of Dec, A.D., 1908.

(SEAL) W.H. Underhill.
County Auditor, in and for the County of San Mateo, State of California.

Filed at request of SHORE LINE INVESTMENT CO. Dec. 7th A.D. 1908 at 45 min. past 4 o'clock. P.M. San Mateo County Records.

J.F. Johnston - County Recorder.
by Pauline E. Hanson - Deputy Recorder.

STATE OF CALIFORNIA
COUNTY OF SAN MATEO } s.s.

The County of San Mateo acting through its Board of Supervisors, duly assembled, has accepted, and does hereby accept, for and on behalf of the said County of San Mateo and the public, all the highways, streets, avenues, alleys and public places set forth, shown and described within and upon the map or plat to which this certificate is attached, the same being known as "GRANADA" and that from and after the recording of this plat, in the manner required by law, all of said highways, streets, avenues, alleys and public places shall be, and thereupon become, dedicated to the public use.

IN WITNESS WHEREOF: the said Board of Supervisors, pursuant to a resolution duly passed on the 7 day of Dec., A.D., 1908, has caused this certificate to be duly affixed and attached hereto, and signed by the Clerk of said Board of Supervisors, this day of A.D., 1908.

(SEAL) Jos. H. Nash.
Clerk of the Board of Supervisors San Mateo County, State of California.

STATE OF CALIFORNIA
CITY and COUNTY of SAN FRANCISCO } s.s.

On this 3rd day of December, A.D. 1908, before me, Mathew Brady a Notary Public in and for the said City and County, personally appeared J. Downey Harvey, known to me to be the President of the SHORE LINE INVESTMENT COMPANY, the corporation that executed the within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF: I have hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Mathew Brady.
Notary Public in and for the City and County of San Francisco, State of California.
(SEAL)

NOTE:

Official Block numbers are indicated by large figures, approximately in center of blocks.

Official Lot or subdivision numbers are indicated by smaller figures approximately in center of lots.

All dimensions or measurements shown on plat are in feet and decimals thereof.

All angles shown between curves and straight lines are measured between the straight line and the tangent to the curve at point of intersection.

All angles measured in degrees, minutes and decimals of minutes.

All curves laid out with 100 foot chords.

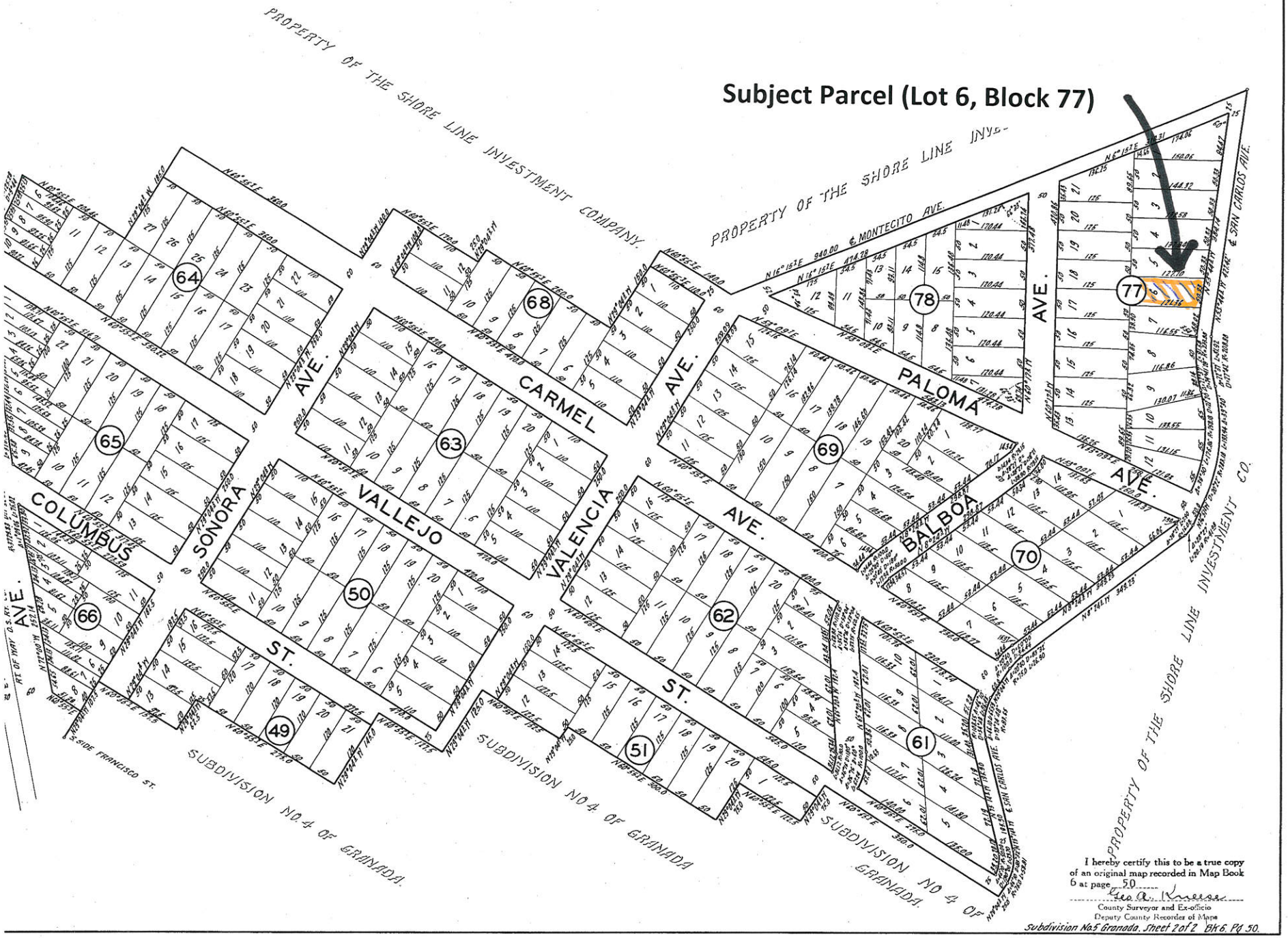
All bearings shown on this map are computed from bearing of Ocean Shore Railway tangent and to reduce to true bearings as determined from Polaris they should be turned 0°05' to right.

I hereby certify this to be a true copy of an original map recorded in Map Book 6 at page 50
Geo. A. Kneese
County Surveyor and Ex-officio Deputy County Recorder of Maps

Subdivision No 5 "GRANADA" Sheet 1 of 2. Bk 6 Pg 50.

FOR ABANDONMENT AFFECTING THIS MAP, SEE MINUTES OF BOARD OF SUPERVISORS, Vol. 16 P. 245, Vol. 17 P. 162 & Vol. 24 P. 9 (IN CLERK'S OFFICE) · · · ROAD ACCOUNT No 254

ATTACHMENT F



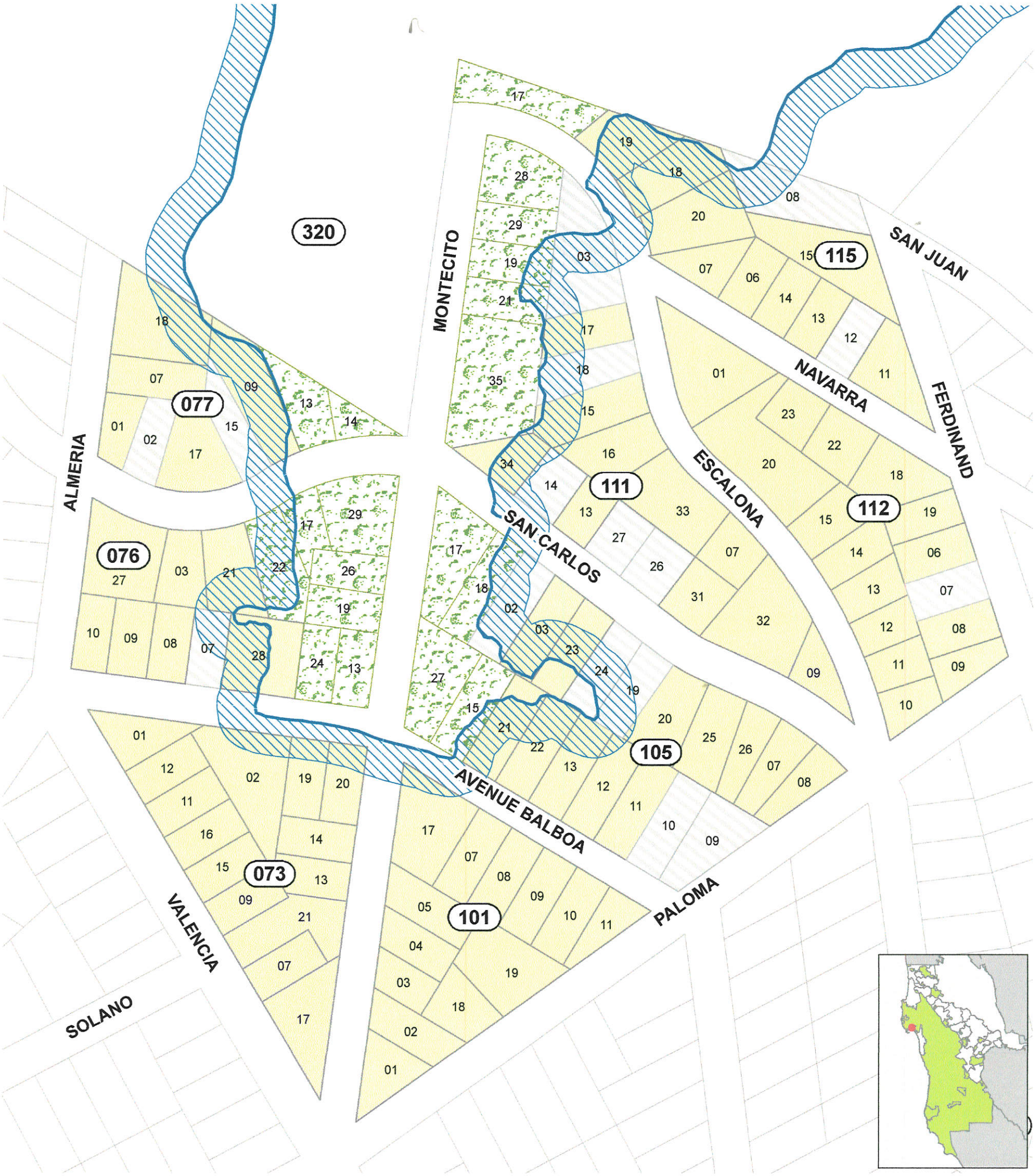
FOR ABANDONMENT AFFECTING THIS MAP, SEE MINUTES OF BOARD OF SUPERVISORS, [illegible] Page 243, Vol. 17 Page 161 & Vol. 24 Page 9 (in Clerk's office) · · · ROAD ACCOUNT No. 254.

ATTACHMENT F

COUNTY OF SAN MATEO | PLANNING AND BUILDING DEPARTMENT

MONTECITO RIPARIAN CORRIDOR

EL GRANADA AREA (APN PREFIX: 047)



Montecito Riparian Corridor Boundary

Montecito Riparian Corridor

Perennial Riparian Buffer (50 FT)

Vacant Parcel

Developed Parcel

County Parcels

Note: This map illustrates the approximate boundary of the Montecito Riparian Corridor based on aerial photographs taken in 2006. The County of San Mateo Local Coastal Program categorizes riparian corridors as environmentally sensitive habitat areas, and strictly regulates development within and adjacent to such areas. Site specific boundary surveys, riparian buffer delineations and bilogical studies, as well as other infomration will be required to determine what if any development may be permissible on parcels wihtin these areas.

ATTACHMENT G

L:_PlanningLayer\GIS\Montecito Riparian Corridor.mxd 1/28/2014 ba

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
MITIGATED NEGATIVE DECLARATION

POSTING ONLY

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *New Lang Single-Family Residence*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN 2016-00011

SHEILA ARKONCEL

OWNER and APPLICANT: Justin Lang

JUN 30 2016

ASSESSOR'S PARCEL NOS.: 047-105-240

LOCATION: San Carlos Avenue, El Granada

PROJECT DESCRIPTION: The applicant requests approval of a Coastal Development Permit and Design Review, pursuant to Sections 6328.4 and 6565.3 of the County Zoning Regulations respectively; a Certificate of Compliance (Type B), pursuant to Section 7134 of the Subdivision Regulations, to legalize the parcel; and certification of a Mitigated Negative Declaration, pursuant to the California Environmental Quality Act (CEQA); to allow the construction of a new 2,200 sq. ft. single-family residence on an unimproved 6,350 sq. ft. parcel located on San Carlos Avenue in the unincorporated El Granada area of San Mateo County. No significant trees are proposed to be removed and only minor grading is necessary. This CDP is appealable to the California Coastal Commission.

FINDINGS AND BASIS FOR A MITIGATED NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project, as proposed, will not adversely affect water or air quality or increase noise levels substantially.

2. The project, as proposed, will not have adverse impacts on the flora or fauna of the area.

3. The project, as proposed, will not degrade the aesthetic quality of the area.

4. The project, as proposed, will not have adverse impacts on traffic or land use.

5. In addition, the project, as proposed, will not:

    a. Create impacts which have the potential to degrade the quality of the environment.

    b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

ATTACHMENT H

c. Create impacts for a project which are individually limited, but cumulatively considerable.

d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is less than significant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Any proposed trimming or removal of trees shall occur only during non-nesting bird season (September 1 - February 14), to the extent feasible.

In the event of any removal of vegetation and/or project, grading and construction related activities occurring during the nesting season (February 15 - August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

Mitigation Measure 2: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species observed, project grading and construction activities occurring and nest locations, to include 25- to 75-foot buffers for passerine birds and up to 250-foot buffers for raptors.

Mitigation Measure 3: The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Mitigation Measure 4: If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

Mitigation Measure 5: A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Mitigation Measure 6: Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015.

RESPONSIBLE AGENCY CONSULTATION: None.

INITIAL STUDY: The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are less than significant. A copy of the initial study is attached.

REVIEW PERIOD: July 1, 2016 to July 20, 2016

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., July 20, 2016.**

CONTACT PERSON

Kimberly Smith
Project Planner, 650/363-4582
kdsmith@smcgov.org

Kimberly Smith, Project Planner

KS:pac - KDSAA0302_WPN.DOCX

County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** New Justin Lang Single-Family Residence

2. **County File Number:** PLN 2016-00011

3. **Lead Agency Name and Address:** County of San Mateo Planning and Building Department, 455 County Center, Second Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Kimberly Smith, Project Planner, 650/363-4582

5. **Project Location:** San Carlos Avenue, unincorporated El Granada area of San Mateo County

6. **Assessor's Parcel Number and Size of Parcel:** 047-105-240; 6,209 sq. ft.

7. **Project Sponsor's Name and Address:** Justin Lang, 3189 Berryessa Street, #2, Palo Alto, CA 94303

8. **General Plan Designation:** Medium Density Residential

9. **Zoning:** R-1/S-17/DR/CD (Single-Family Residential District/S-17 Combining District with 5,000 sq. ft. minimum parcel size/Design Review/Coastal Development)

10. **Description of the Project:** The applicant requests a Coastal Development Permit, Design Review Permit and a Certificate of Compliance (Type B), for the construction of a new 2,200 sq. ft. single-family residence on an unimproved 6,350 sq. ft. parcel. No significant trees are proposed to be removed and only minor grading is necessary. The parcel is located within the mapped 50-foot riparian buffer zone of the Montecito Riparian Corridor. The Coastal Development Permit is appealable to the California Coastal Commission.

11. **Surrounding Land Uses and Setting:** The undeveloped parcel is located within an existing urban, residential neighborhood and is bordered to the north and east by single-family residential development and undeveloped lots. The land uses to the south and east are single-family residences. The site has a slope of approximately 25% with a relatively flat area adjacent to the road. An unnamed intermittent drainage channel flows generally southbound, west of the project site. A portion of the Montecito Riparian Corridor, a riparian corridor associated with the drainage, as mapped by the County, located on a southern portion of the site.

12. **Other Public Agencies Whose Approval is Required:** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

There are environmental factors that would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Significant Unless Mitigated", as indicated by the checklist on the following pages.

X	Aesthetics		Climate Change		Population/Housing
	Agricultural and Forest Resources		Hazards and Hazardous Materials		Public Services
	Air Quality	X	Hydrology/Water Quality		Recreation
X	Biological Resources		Land Use/Planning		Transportation/Traffic
X	Cultural Resources		Mineral Resources		Utilities/Service Systems
X	Geology/Soils		Noise		Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. AESTHETICS. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
1.a.	Have a significant adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?			X	

Discussion: The proposed project site is not located within any designated State or County Scenic Corridor. The project site is located within the Design Review (DR) Zoning District. The proposed residence would result in the development of an undeveloped parcel in a residential area that is already developed. Specifically, the proposed 28-foot high residence may obstruct views from residential areas upslope, or north of the property. In particular, views of the ocean from residences 131 Escalona Avenue and 730 San Carlos Avenue would be significantly obstructed.

It should be noted that, while views add value and enjoyment to a property, private views are not protected by County regulations. Instead, the County's Standards for the design of One-Family and Two-Family Residential Development in the Mid-Coast encourages the minimization of effect on views from the neighboring homes in the design of a new home or addition (Site Planning and Structure Placement, Section 2.b).

On April 19, 2016, the Coastside Design Review Committee (CDRC) found the project, as proposed and conditioned, to be in compliance with the design review standards and recommended approval to the Planning Commission, with conditions requiring that (a) the rear plate height be lowered to 8 feet 6 inches with the slope of the roof to remain at the same angle; (b) a stone partial wall is added at the north side of the lower bedroom to extend up 6 feet above the upper deck floor for privacy; and that (c) a lower level rear deck is added whose configuration transitions from the master bedroom to the rear yard and integrates with the existing side stairs.

Source: Project Plans, Field Observation and County GIS Resource Maps.

1.b.	Significantly damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
Discussion: No significant trees and only minor grading is proposed. No rock outcroppings or historic buildings are located on the property. Also, reference response to Section 1.a., above. **Source:** Project Plans, Field Observation and County GIS Resource Maps.					
1.c.	Significantly degrade the existing visual character or quality of the site and its surroundings, including significant change in topography or ground surface relief features, and/or development on a ridgeline?			X	
Discussion: The project involves only minor grading, (40 c.y.) and would not significantly change the existing site topography. The project site is not located on a ridgeline. The project is consistent with the existing residential character of the neighborhood, as supported by the recommendation of approval from the Coastside Design Review Committee. **Source:** Project Plans, and Field Observation.					
1.d.	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?			X	
Discussion: As the project involves the installation of exterior lighting fixtures that are downward directed, as required by the Design Review standards, no significant source of light and glare will be created that would affect the views in the area. **Source:** Project Plans and San Mateo County Zoning Regulations.					
1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?			X	
Discussion: Reference response to Section 1.a., above. **Source:** Project Plans and Field Observation.					
1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?			X	
Discussion: The project is subject to the approval of a Coastal Development Permit and Design Review Permit, pursuant to Sections 6328.4, and 6565.3 of the San Mateo County Zoning Regulations. The project, as proposed, is generally consistent with these regulations. The proposed development conforms to the R-1 (One-Family Residential) and S-17 (Midcoast-Combining) Zoning District Regulations and would be required to comply building code regulations at the time of building permit application. **Source:** Project Plans and San Mateo County Zoning Regulations.					

1.g.	Visually intrude into an area having natural scenic qualities?			X	

Discussion: Reference response to Section 1.a., above.

Source: Project Plans and Field Observation.

2. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
2.a.	For lands outside the Coastal Zone, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X

Discussion: N/A. The project site does not contain farmland and is not located in an agricultural zoning district. No green space easements exist on-site and the property is not subject to a Williamson Act Contract.

Source: Project Plans and Field Observation.

2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X

Discussion: Reference response to Section 2.a., above.

Source: Project Plans and Field Observation.

2.c.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X

Discussion: Reference response to Section 2.a., above. **Source:** Project Plans and Field Observation.					
2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X
Discussion: Reference response to Section 2.a., above. **Source:** Project Plans and Field Observation.					
2.e.	Result in damage to soil capability or loss of agricultural land?				X
Discussion: Reference response to Section 2.a., above. **Source:** Project Plans and Field Observation.					
2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*			X	
Discussion: N/A. The project site is not located in an area containing forestland/timberland. **Source:** Project Plans and Field Observation.					

3.	**AIR QUALITY**. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	***Potentially Significant Impacts***	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
Discussion: The construction of the new residence may result in temporary generation of pollutants related to construction and minor earthwork (40 cubic yards). However, the project would not result in the generation of a significant level of pollutants. Section 2-1-113 (*Exemption, Sources and Operations*) of the General Requirements of the Bay Area Air Quality Management					

District exempts sources of air pollution associated with construction of a single-family dwelling used solely for residential purposes, as well as road construction. No mitigation measures are necessary. **Source:** Bay Area Air Quality Management District (BAAQMD) Regulation 2, Rule 1: General Requirements.				
3.b. Violate any air quality standard or contribute significantly to an existing or projected air quality violation?			X	
Discussion: Reference response to Section 3.a., above. **Source:** BAAQMD Regulation 2, Rule 1: General Requirements.				
3.c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
Discussion: Reference response to Section 3.a., above. **Source:** BAAQMD Regulation 2, Rule 1: General Requirements.				
3.d. Expose sensitive receptors to significant pollutant concentrations, as defined by BAAQMD?				X
Discussion: Reference response to Section 3.a., above. **Source:** BAAQMD Regulation 2, Rule 1: General Requirements.				
3.e. Create objectionable odors affecting a significant number of people?				X
Discussion: While project construction for the new residence may create temporary construction-related odors, the project would not result in any permanent odors, nor would temporary odors affect a significant number of people, as the project is located on private property within a single-family residential neighborhood. **Source:** Project Application/Plans.				
3.f. Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?			X	
Discussion: Reference response to Section 3.a., above. **Source:** BAAQMD Regulation 2, Rule 1: General Requirements.				

4.	**BIOLOGICAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
4.a.	Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		

Discussion: An unnamed intermittent drainage channel flows generally southbound, west of the project site. A portion of the Montecito Riparian Corridor, a riparian corridor associated with the drainage, as mapped by the County, is located on a southern portion of the site.

A biological assessment report dated August 14, 2015 was prepared by WRA Environmental Consultants (Biological Report), included as Attachment B, determined that the project has the potential to impact two special-status bird species in the site and study area. According to the biological report most native bird nest are protected under the Migratory Bird Treaty Act. All other sensitive biological communities including riparian and wetland habitats are beyond recommended setbacks. No rare, endangered, or unique species are anticipated to be impacted by the proposed Project.

The Biological Report also indicates that one special-status and several non-special-status bird species have potential to nest within this area. As part of the Biological Report, the following mitigation measures have been recommended to ensure that potential impacts are mitigated to a less than significant level:

Mitigation Measure 1: Any proposed trimming or removal of trees shall occur only during non-nesting bird season (September 1 - February 14), to the extent feasible.

In the event of any removal of vegetation and/or project, grading and construction related activities occurring during the nesting season (February 15 - August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

Mitigation Measure 2: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species observed, project grading and construction activities occurring and nest locations, to include 25- to 75-foot buffers for passerine birds and up to 250-foot buffers for raptors.

Source: San Mateo County General Plan Sensitive Habitats and GIS Resource Maps, Biological Report.

4.b.	Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		

Discussion: According to findings of the Biological Resource Assessment report, no sensitive habitats are present within the Study Area. No wetlands or waters are present within the subject project site and Study Area, the proposed Project is outside riparian setbacks, and the tree species within the Study Area do not qualify as riparian habitat as defined in the Local Coastal Program (LCP) Policies. Furthermore, avoidance of the bird nesting season or pre-construction surveys for nesting birds are required by Mitigation Measure 1 for tree or shrub removal and initiation of Project activities. No special-status plant species have potential to be present. No further measures are recommended. Also, reference response to Section 4.a., above.

Source: San Mateo County General Plan Sensitive Habitats and GIS Resource Maps, Evaluation and Biotic Survey Reports, San Mateo County Local Coastal Program Policies.

4.c.	Have a significant adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

Discussion: The project site does not contain any areas of federally protected wetland.

Source: San Mateo County General Plan Sensitive Habitats and GIS Resource Maps, Evaluation and Biotic Survey Reports.

4.d.	Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	

Discussion: Reference response to Section 4.a. and c., above.

Source: San Mateo County General Plan Sensitive Habitats and GIS Resource Maps, Evaluation and Biotic Survey Reports.

4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X

Discussion: No trees are proposed for removal.

Source: Project Plans, Field Observation.					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?				X
Discussion: The site is not located within an area protected by an adopted Habitat Conservation Plan or Natural Conservation Community Plan. Reference response to Section 4.b., above. **Source:** San Mateo County General Plan Sensitive Habitats and GIS Resource Maps.					
4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X
Discussion: N/A. The site is not located inside or within 200 feet of a marine or wildlife reserve. **Source:** San Mateo County General Plan Sensitive Habitats and GIS Resource Maps.					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: Reference response to Section 4.e., above. **Source:** San Mateo County General Plan Sensitive Habitats and GIS Resource Maps.					

5.	**CULTURAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
5.a.	Cause a significant adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?		X		
Discussion: The following mitigation measure has been recommended to ensure that potential impacts are mitigated to a less than significant level for historical resources: **Mitigation Measure 3:** The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains. **Source:** Project Application/Plans, San Mateo County General Plan and California Historical Resources File System Results.				

5.b.	Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?		X		

Discussion: The following mitigation measure has been recommended to ensure that potential impacts are mitigated to a less than significant level in the event that archaeological and/or cultural resources are encountered:

Mitigation Measure 4: If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

Source: Project Application/Plans, San Mateo County General Plan.

5.c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Discussion: The following mitigation measure has been recommended to ensure that potential impacts are mitigated to a less than significant level in the event paleontological specimen are discovered:

Mitigation Measure 5: A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Source: Project Application/Plans and San Mateo County General Plan.

5.d.	Disturb any human remains, including those interred outside of formal cemeteries?		X		

Discussion: Reference response to Section 5.a., above.

Source: Project Application/Plans and San Mateo County General Plan.

6. GEOLOGY AND SOILS. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
6.a. Expose people or structures to potential significant adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other significant evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*			X	

Discussion: A Geotechnical Study (Report) prepared by Sigma Prime Geosciences, Inc., (Geotechnical Report), dated December 29, 2015, submitted for the project, states the following:

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

Mitigation Measure 6: Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015.

Source: San Mateo County Geotechnical Hazards Synthesis Map, California Geological Survey - Alquist-Priolo Earthquake Fault Zones, Project Plans, Field Observation, County GIS Resource Maps, and Geotechnical Report.

ii. Strong seismic ground shaking?		X		

Discussion: The following discussion is based on the Report cited above:

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

Source: San Mateo County Geotechnical Hazards Synthesis Map, California Geological Survey - Alquist-Priolo Earthquake Fault Zones, Project Plans, Field Observation, County GIS Resource Maps, and the Report.

iii. Seismic-related ground failure, including liquefaction and differential settling?			X	

Discussion: The following discussion is based on the Report cited above:

"Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the very dense nature of the underlying rock, the likelihood of significant damage to the structure from differential compaction is nil."

"Liquefaction – Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose sands were not found at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at this site is nil."

Source: San Mateo County Geotechnical Hazards Synthesis Map, California Geological Survey - Alquist-Priolo Earthquake Fault Zones, Project Plans, Field Observation, County GIS Resource Maps, and the Report.

iv. Landslides?			X	

Discussion: According to the results of the Geotechnical Study, "there were no indications that landslide activity will adversely impact the subject site during the design lifetime. The property slope is moderately steep, at about 25 percent, however the soils are stiff and stable. Therefore, the likelihood of a landslide impacting the site is low."

Source: Geotechnical Study, State of California Seismic Hazard Zone Map/San Mateo County Landslide Susceptibility Map.

v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X

Discussion: N/A. The site is not located on a cliff or bluff.

Source: Project Plans/County GIS Resource Map.

6.b. Result in significant soil erosion or the loss of topsoil?			X	

Discussion: The project involves 40 cubic yards of grading. The project plans include an erosion and sediment control plan that, upon project implementation, would minimize the potential for significant soil erosion to a less than significant level.

Source: Project Application/Plans.

6.c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, severe erosion, liquefaction or collapse?			X	
Discussion: The site has not been identified to be located on soil that will become unstable as a result of the project. Reference response to Section 6.a.i. through 6.a.iv., above. **Source:** San Mateo County Geotechnical Hazards Synthesis Map, California Geological Survey - Alquist-Priolo Earthquake Fault Zones, Project Plans, Field Observation and County GIS Resource Maps.					
6.d.	Be located on expansive soil, as noted in the 2010 California Building Code, creating significant risks to life or property?				X
Discussion: The site has not been identified to be made up of expansive soil. Reference response to Section 6.a.i. through 6.a.iv., above. **Source:** San Mateo County Geotechnical Hazards Synthesis Map, California Geological Survey - Alquist-Priolo Earthquake Fault Zones, Project Plans, Field Observation and County GIS Resource Maps.					
6.e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
Discussion: The project does not involve a septic system for wastewater disposal as the Granada Community Services District (GCSD) has confirmed that it can provide sewer service to the project. **Source:** Project Application/Plans and San Mateo County GIS Resource Maps.					

7.	**CLIMATE CHANGE**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	
Discussion: To ensure that new development projects are compliant with the County's Energy Efficiency Climate Action Plan (EECAP), the County provides the EECAP Development Checklist. Planning staff has reviewed the proposal with the criteria of the checklist and found that there are no					

criteria that are applicable for the project. No mitigation measures required. Also, reference response to Section 3.a., above. **Source:** San Mateo County Energy Efficiency Climate Action Plan (EECAP) and BAAQMD Regulation 2, Rule 1: General Requirements.				
7.b. Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
Discussion: Reference response to Section 7.a., above. **Source:** BAAQMD Regulation 2, Rule 1: General Requirements.				
7.c. Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X
Discussion: The project does not involve loss or conversion of forestland, as the project site does not contain forestland. The project does not involve tree removal. **Source:** Project Application/Plans.				
7.d. Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X
Discussion: The project site is not located on a cliff or bluff. **Source:** San Mateo County GIS Resource Maps.				
7.e. Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: The projected site is not located along a shoreline area. **Source:** Project Application/Plans.				
7.f. Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X	
Discussion: The project site is located in Flood Zone X designated as an area of minimal flood hazard, usually depicted on FIRMS as above the 500-year flood level. **Source:** FEMA Flood Insurance Rate Map, Community Panel # 06081C0138E, effective date October 16, 2012.				

7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?			X	
Discussion: Reference response to Section 7.f., above. **Source:** FEMA Flood Insurance Rate Map.					

8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
8.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?				X
Discussion: N/A. The project involves the construction of a single-family residence and does not involve the routine transport, use or disposal of hazardous materials. **Source:** Project Application/Plans.					
8.b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
Discussion: The project involves the construction of a single-family residence and does not involve the release of hazardous materials into the environment. **Source:** Project Application/Plans.					
8.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
Discussion: The project involves the construction of a single-family residence and does not involve emissions or handling hazardous materials into the environment. **Source:** Project Application/Plans.					

8.d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
Discussion: The project parcel has not been identified as a hazardous material site, according to the latest Hazardous Waste and Substances Site List posted by the California Department of Toxic Substances Control (mandated by Government Code Section 65962.5). **Source:** California Department of Toxic Substances Control, Hazardous Waste and Substances Site List.					
8.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?			X	
Discussion: Based on the Half Moon Bay Airport Land Use Compatibility Plan, as adopted on October 9, 2014, the project site is located inside Zone 7 - Airport Influence Area (AIA). Aircraft accident level is considered to be low at the site. **Source:** Project Application/Plans, San Mateo County GIS Resource Maps and Half Moon Bay ALUCP.					
8.f.	For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project is not located within the vicinity of a private airstrip. **Source:** Project Application/Plans and San Mateo County GIS Resource Maps.					
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
Discussion: The project will not physically interfere with an adopted emergency plan. The project site is located in a developed residential area and is served by emergency response agencies such as the Coastside Fire Protection District and the San Mateo County Sheriff's Department. **Source:** Project Application/Plans and San Mateo County GIS Resource Maps.					

8.h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
Discussion: The project site is not located within a wildland area or State or Local Responsibility area Fire Severity Zone. **Source:** Project Application/Plans and San Mateo County GIS Resource Maps.					
8.i.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X	
Discussion: Reference response to Section 7.f., above. **Source:** FEMA Flood Insurance Rate Map.					
8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?			X	
Discussion: Reference response to Section 7.f., above. **Source:** FEMA Flood Insurance Rate Map.					
8.k.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
Discussion: See Geotechnical Report. **Source:** FEMA Flood Insurance Rate Map.					
8.l.	Inundation by seiche, tsunami, or mudflow?			X	
Discussion: See Geotechnical Report **Source:** Project Application/Plans.					

9.	**HYDROLOGY AND WATER QUALITY.** Would the project:	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
9.a.	Violate any water quality standards or waste discharge requirements (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?			X	
Discussion: The project, as proposed, would result in less than significant impacts in this area upon implementation of the proposed Erosion Control Plan and Best Management Practices (BMPs). **Source:** Project Application/Plans.					
9.b.	Significantly deplete groundwater supplies or interfere significantly with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
Discussion: The project will not involve direct use of groundwater as a domestic water source as the project site is located in a developed residential zone already serviced by Coastside County Water District (CCWD). **Source:** Project Application/Plans.					
9.c.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in significant erosion or siltation on- or off-site?			X	
Discussion: Although the proposed development may cause changes to the existing drainage patterns that could potentially lead to soil erosion and sedimentation issues, a drainage plan has been submitted with the application package and provides measures to address changes to the on- and-off site drainage patterns caused by the increase in impervious surface associated with the new residence. The subject project's drainage plan has been reviewed and approved by the Department of Public Works pursuant to the San Mateo County drainage policy.					

Source: Project Application/Plans and San Mateo County Drainage Policy				
9.d. Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X	
Discussion: Reference response to Section 9.c., above. The project would not involve the alteration of the course of a stream, rivers, or the nearby unnamed drainage. **Source:** Project Application/Plans.				
9.e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?			X	
Discussion: Reference response to Section 9.c., above. **Source:** Project Application/Plans and San Mateo County Drainage Policy.				
9.f. Significantly degrade surface or ground-water water quality?			X	
Discussion: Reference response to Section 9.c., above. **Source:** Project Application/Plans.				
9.g. Result in increased impervious surfaces and associated increased runoff?			X	
Discussion: Reference response to Sections 9.b. and 9.c., above. **Source:** Project Application/Plans.				

10. LAND USE AND PLANNING. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
10.a. Physically divide an established community?				X
Discussion: N/A. The project involves the infilling of an existing developed residential neighborhood that will not divide the established community. **Source:** Project Application/Plans.				

10.b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
Discussion: Reference response to Section 1.f., above. **Source:** Project Plans, San Mateo County General Plan and San Mateo Zoning Regulations.				
10.c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
Discussion: N/A. The project site is not located within a designated habitat/conservation area. Reference response to Section 4.a., above. **Source:** California Department of Fish and Wildlife, Habitat Conservation Planning.				
10.d. Result in the congregating of more than 50 people on a regular basis?				X
Discussion: The project does not involve the congregation of more than 50 people as the project is for a new single-family residence. **Source:** Project Application/Plans.				
10.e. Result in the introduction of activities not currently found within the community?				X
Discussion: The proposed project would not result in the introduction of new activities in the area. Single-family residential uses are established within the subject community. **Source:** Project Application/Plans.				
10.f. Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?			X	
Discussion: The addition of a new residence on a vacant parcel designated for residential use will not significantly encourage off-site development. The project involves the development of a parcel within the mapped area of the Montecito Riparian Corridor. Development of such parcels require a biological assessment of the project impact to the riparian corridor. As summarized is Section 4.a., the project as proposed and mitigated, would not have a significant impact to biological resources. However, the development of the subject site may impact future development of the adjoining undeveloped parcel to the southeast. While implementation of the proposed project would result in				

a new residential dwelling unit in the area, the location of the property in a residentially zoned district allows for such an increase. The project would be served by water and sewer services already provided in the area. **Source:** Project Plans and San Mateo County GIS Resource Maps.				
10.g. Create a significant new demand for housing?				X
Discussion: N/A. The project does not create any permanent jobs in the area and therefore would not create a significant new demand for housing. Also, reference response to Section 10.f., above. **Source:** Project Plans and San Mateo County GIS Resource Maps.				

11. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: The project site is not located in an area known for mineral resources nor does the project involve mineral extraction. **Source:** Project Plans and San Mateo County GIS Resource Maps.				
11.b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
Discussion: The site is not designated as a locally important mineral resource recovering site. **Source:** Project Plans and San Mateo County GIS Resource Maps.				

12. NOISE. Would the project result in:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
12.a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
Discussion: While this project would not generate noise levels in excess of residential levels once implemented, during construction activities, increased noise levels may occur. However, noise sources associated with demolition, construction or grading of any real property are exempt from the County Noise Ordinance provided these activities occur during designated timeframes. **Source:** Project Application/Plans and San Mateo County Noise Ordinance.				
12.b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?			X	
Discussion: Reference response to Section 12.a., above. **Source:** Project Application/Plans and San Mateo County Noise Ordinance.				
12.c. A significant permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
Discussion: Reference response to Section 12.a., above. **Source:** Project Application/Plans and San Mateo County Noise Ordinance.				
12.d. A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: Reference response to Section 12.a., above. **Source:** Project Application/Plans and San Mateo County Noise Ordinance.				
12.e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?			X	

Discussion: N/A. The project site is located outside the Community Noise Equivalent Level (CNEL) airport noise exposure contours identified in the Half Moon Bay Airport Land Use Plan and is therefore not exposed to significant levels of aircraft noise. **Source:** Project Application/Plans, San Mateo County Noise Ordinance and Airport Land Use Compatibility Plan (ALUCP).				
12.f. For a project within the vicinity of a private airstrip, exposure to people residing or working in the project area to excessive noise levels?			X	
Discussion: Reference response to Section 8.f., above. **Source:** Project Application/Plans, San Mateo County Noise Ordinance and Airport Land Use Compatibility Plan (ALUCP).				

13. POPULATION AND HOUSING. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
13.a. Induce significant population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
Discussion: While the project involves the construction of one single-family residence, it would not induce significant population growth. Reference response to Sections 10.f. and 10.g. above. **Source:** Project Application/Plans.				
13.b. Displace existing housing **(including low- or moderate-income housing)**, in an area that is substantially deficient in housing, necessitating the construction of replacement housing elsewhere?				X
Discussion: The project does not displace housing but contributes to the infilling of an existing single-family residential area. **Source:** Project Application/Plans.				

14.	**PUBLIC SERVICES**. Would the project result in significant adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
14.a.	Fire protection?				X
14.b.	Police protection?				X
14.c.	Schools?				X
14.d.	Parks?				X
14.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X
Discussion: The level of public services will not be significantly affected by the new single-family residence in the established neighborhood. **Source:** Project Application/Plans.					

15.	**RECREATION**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a.	Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?				X
Discussion: While the project involves the addition of a new residence in the area, the project would not generate an increase in the use of existing recreational facilities beyond the service levels anticipated for the area. **Source:** Project Application/Plans.					
15.b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: New or expanded recreational facilities would not be required by this project. See Section 15.a.

Source: Project Application/Plans.

16. TRANSPORTATION/TRAFFIC. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
16.a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
Discussion: The project involves the construction of a single-family residence within an area designed for residential land uses. The proposed single-family residence would not significantly increase the vehicular or pedestrian traffic nor change their patterns in the area. **Source:** Project Plans and Field Observation.				
16.b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?			X	
Discussion: Reference response to Section 16.a., above. **Source:** Project Plans and Field Observation.				
16.c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in significant safety risks?				X
Discussion: N/A. The project will not result in a change in air traffic patterns. **Source:** Project Application/Plans and San Mateo County GIS Resource Maps.				

16.d. Significantly increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
Discussion: The project includes a driveway accessed directly from San Carlos Avenue, which has been reviewed by the Department of Public Works and preliminarily approved. **Source:** Project Plans and Field Observation.				
16.e. Result in inadequate emergency access?			X	
Discussion: The project will not impact emergency access to the site. Reference response to Section 8.g., above. **Source:** Project Plans and Field Observation.				
16.f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	
Discussion: The project involves the development of residential uses on a residentially zoned parcel and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. **Source:** Project Plans and Field Observation.				
16.g. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?			X	
Discussion: The project would result in the infill development of a parcel within an established residential area. See Section 16.a. above. **Source:** Project Plans and Field Observation.				
16.h. Result in inadequate parking capacity?				X
Discussion: The project complies with the County's Parking Regulations, as it includes two on-site covered parking spaces. **Source:** Project Plans and Field Observation.				

17. UTILITIES AND SERVICE SYSTEMS. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
17.a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
Discussion: The project site would be serviced by the Granada Community Sanitary District. Although, any increase in use of this utility would be minimal associated with a standard single-family dwelling and associated residents, according to the Granada Community Services District (District) Letter, dated June 15, 2016, the District currently has sufficient sewer capacity to serve conforming parcels within the Local Coastal Program (LCP) buildout limits; however, if the project is proposed on a non-conforming or antiquated parcel, or includes a non-buildout dwelling such as (but not limited to) a caretaker's unit, the applicant must first obtain a Sewer Permit Variance. All projects requiring the preparation of a negative declaration or environmental impact report pursuant to the California Environmental Quality Act, must be considered by the District Board of Directors for approval before a sewer permit may be obtained. **Source:** Project Application/Plans, Granada Community Services District Letter, dated June 15, 2016.				
17.b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: The Granada Community Sanitary District and Coastside County Water District have confirmed their ability to serve the project. No new or expanded facilities would be necessary. **Source:** Project Application/Plans, Granada Community Services District Letter, dated June 15, 2016.				
17.c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: New on-site drainage facilities would minimize the impacts of runoff to off-site areas. Reference response to Section 9.c. **Source:** Project Application/Plans.				
17.d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
Discussion: Reference response to Section 17.b., above.				

Source: Project Application/Plans and Coastside County Water District Letter, dated March 9, 2016, and Granada Community Services District Letter, dated June 15, 2016.				
17.e. Result in a determination by the waste-water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
Discussion: Reference response to Section 17.a., above. **Source:** Project Application/Plans.				
17.f. Be served by a landfill with insufficient permitted capacity to accommodate the project's needs?				X
Discussion: The project site is located in a developed residential area already adequately serviced by Granada Community Services District. **Source:** Project Application/Plans.				
17.g. Comply with Federal, State, and local statutes and regulations related to solid waste?				X
Discussion: Reference response to Section 17.f., above. **Source:** Project Application/Plans.				
17.h. Be sited, oriented, and/or designed to minimize energy consumption, including transportation energy; incorporate water conservation and solid waste reduction measures; and incorporate solar or other alternative energy sources?			X	
Discussion: Reference response to Section 7.a., above. **Source:** Project Application/Plans.				
17.i. Generate any demands that will cause a public facility or utility to reach or exceed its capacity?			X	
Discussion: Reference response to Sections 17.a. and 17.b. above. **Source:** Project Application/Plans and Coastside County Water District Letter, dated March 9, 2016 and Granada Community Services District letter dated June 15, 2016.				

18. MANDATORY FINDINGS OF SIGNIFICANCE.				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
18.a. Does the project have the potential to degrade the quality of the environment, significantly reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
Discussion: Reference response to Section 4.a., above. **Source:** San Mateo County General Plan Sensitive Habitats Map.				
18.b. 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	
Discussion: Reference response to Sections 10.f and 16.f., above. No cumulative effects have been identified for this project. **Source:** Project Application/Plans.				
18.c. Does the project have environmental effects which will cause significant adverse effects on human beings, either directly or indirectly?		X		
Discussion: As discussed in this document, environmental effects from the project, as proposed and mitigated will not either directly or indirectly cause significant adverse effects on human beings. **Source:** Project Application/Plans.				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
State Water Resources Control Board		X	
Regional Water Quality Control Board		X	
State Department of Public Health		X	
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service		X	
Coastal Commission		X	
City		X	
Sewer/Water District: Granada Community Services District/Water District Coastside County		X	

MITIGATION MEASURES		
	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed.		X

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Any proposed trimming or removal of trees shall occur only during non-nesting bird season (September 1 - February 14), to the extent feasible.

In the event of any removal of vegetation and/or project, grading and construction related activities occurring during the nesting season (February 15 - August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

Mitigation Measure 2: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species

observed, project grading and construction activities occurring and nest locations, to include 25- to 75-foot buffers for passerine birds and up to 250-foot buffers for raptors.

Mitigation Measure 3: The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Mitigation Measure 4: If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

Mitigation Measure 5: A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Mitigation Measure 6: Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015.

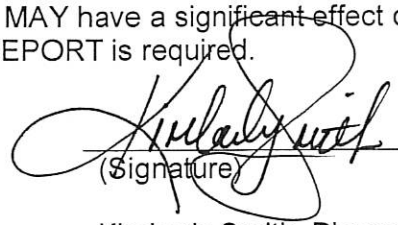
DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.

__X__ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion that have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.



(Signature)

June 29, 2016
Date

Kimberly Smith, Planner II
Name, Title

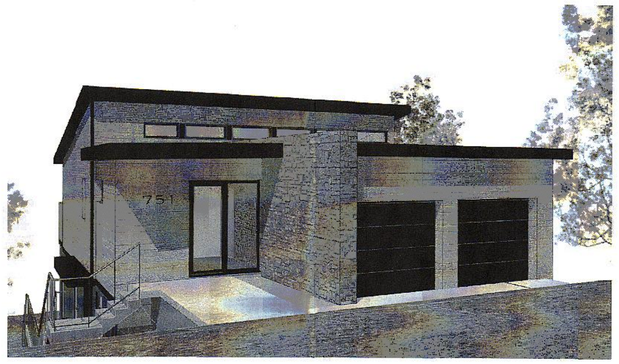
ATTACHMENTS:

A. Project Plans
B. Biological Constraints and Environmentally Sensitive Habitat Areas Assessment Report, dated August 14, 2015, prepared by WRA Environmental Consultants.
C. Geotechnical Study, dated December 29, 2015, prepared by Sigma Prime Geosciences, Inc.
D. County of San Mateo, Planning and Building Department, Montecito Riparian Corridor, El Granada Area Map
E. Coastside County Water District Letter, dated March 9, 2016.
F. California Historical Resources Information System Report, dated June 2, 2016, identified as File No.: 15-1767.
G. Granada Community Services District Letter, dated June 15, 2016.
H. Project Location Map

KS:pac - KDSAA0301_WPH.DOCX

15-646 LANG RESIDENCE

DESIGN REVIEW APPLICATION



PLN2016-00011

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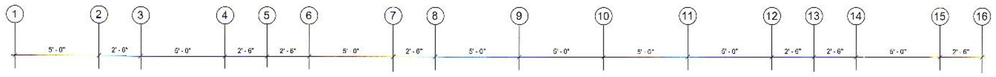
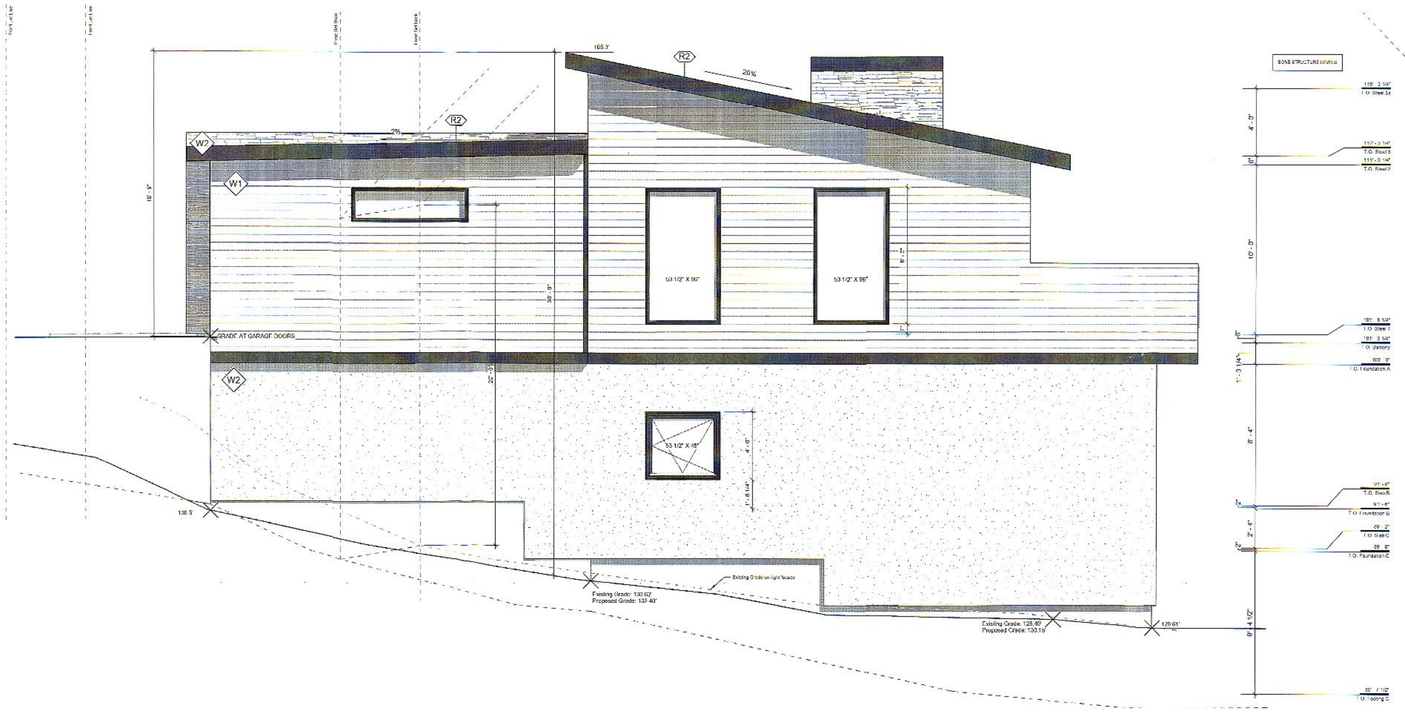
DATE : 2016/02/08

W1 HARDIE BOARD SIDING

W2 GREY STUCCO





1 Elevation - Northwest
1/4" = 1'-0"

ROOF	DOUBLE LAYER ELASTOMERIC MEMBRANE - CHARCOAL, DARK GREY
FASCIA	METAL CLAD, FLAT LOCK SEAM COLOR CHARCOAL, DARK GREY
SOFFIT	CHARCOAL, DARK GREY
SOFFIT (ENTRANCE)	WOOD - CEDAR
WINDOWS	ALUMINUM FRAME, COLOR: BLACK

Simple Concept

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DATE	REVISION	BY	NO.
2016/02/04	DESIGN REVIEW APPLICATION	FM	2
2016/01/22	DESIGN REVIEW APPLICATION	JZ	1

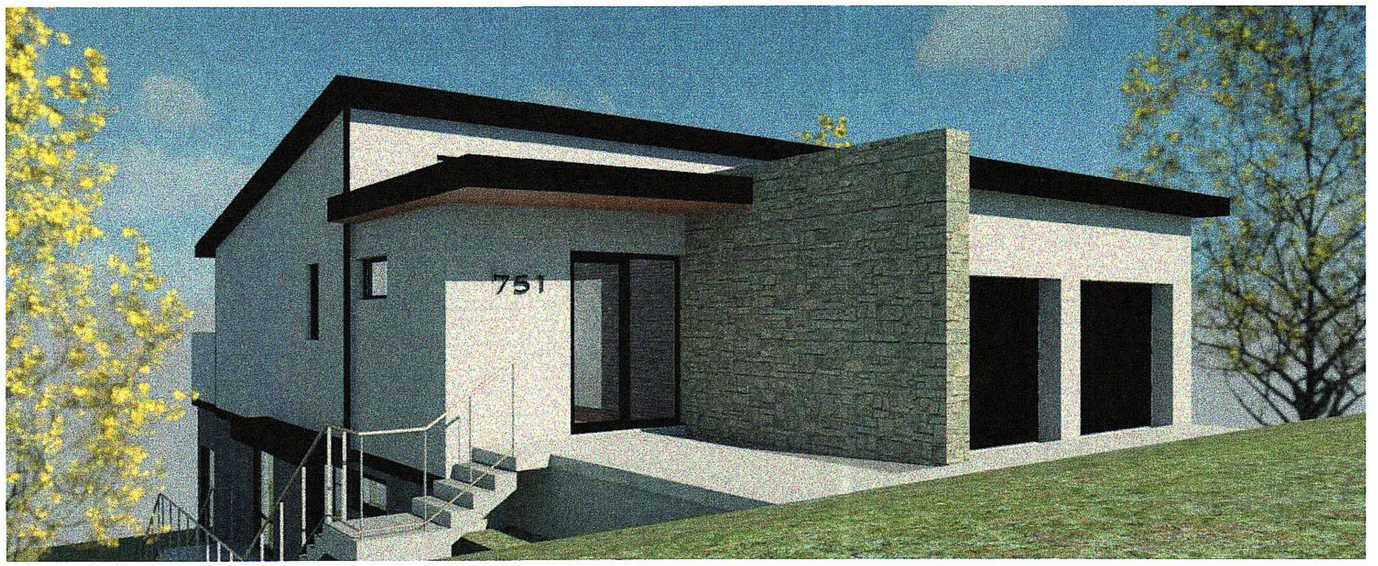
PROJECT

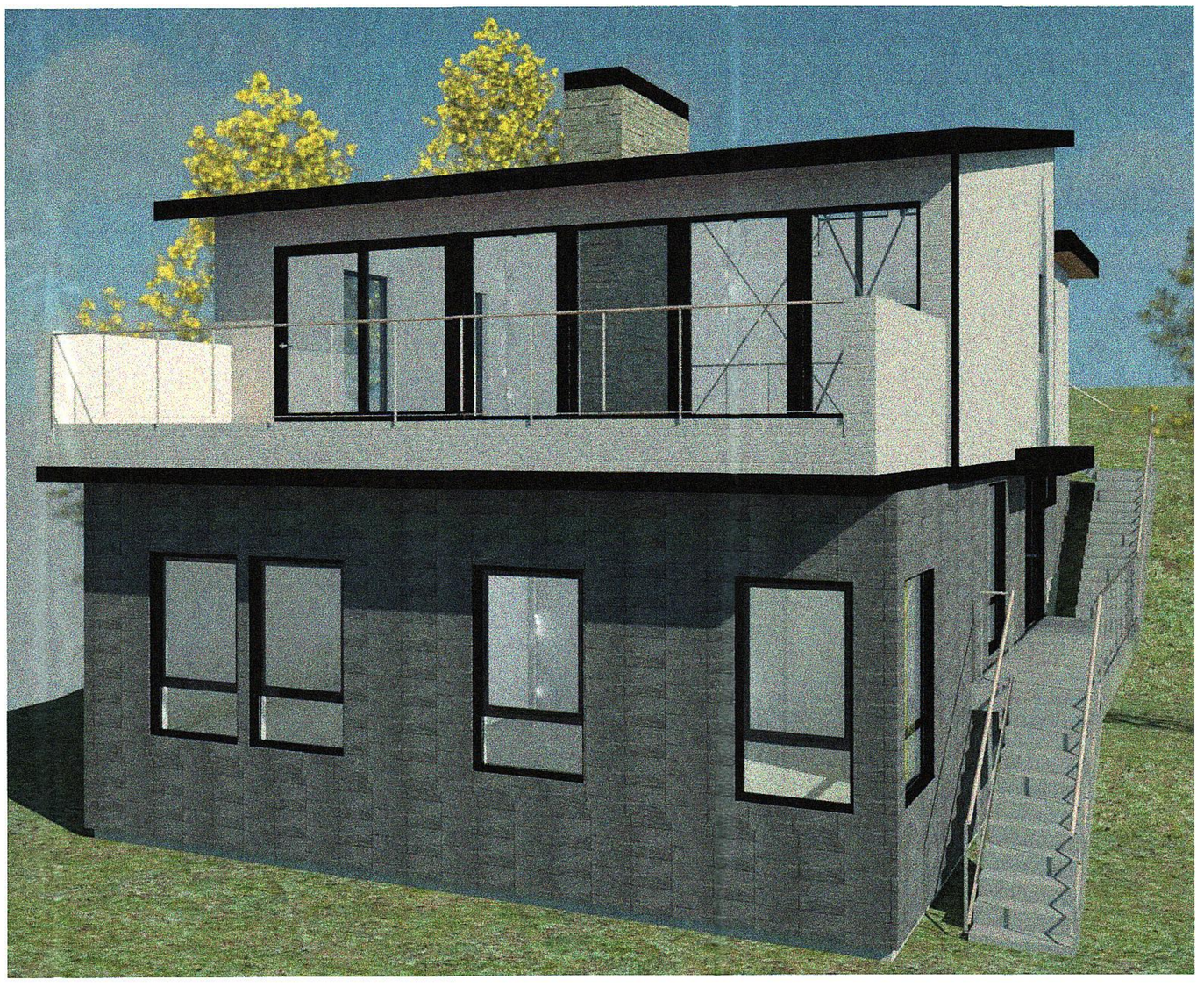
LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Northwest elevation	DRAWN BY: JZ
SCEAU	CHECK BY: BONE Structure
	DATE: 2016/02/08
	SCALE: As indicated
	REVISION: 2
	PAGE: A.201





F1 **FOUNDATION WALL (8")**

- Bituminous membrane
- 8" Poured concrete
- **ANCHOR INSTALLED WHEN CASTING**
- 2" Rigid insulation (4'-0" below the ground)

F2 **FOUNDATION WALL (10") (R20)**

- Drainage membrane
- Bituminous membrane
- 10" Poured concrete
- **ANCHOR INSTALLED WHEN CASTING**
- 2 1/2" Sprayed urethane-based foam
- Metal stud
- 1/2" Gypsum

W1 **HARDIE BOARD SIDING (R29)**

- Hardie Board Siding (Horizontal)
- 1 3/4" Air space
- 3/4" wood furring @ 16" c/c (Vertical)
- **3 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **3" RIGID INSULATION PANEL, EXPANDED POLYSTYRENE**
- **1" STEEL SUPPORT WITH THERMAL BREAK**
- **4"x 4" GALVANIZED STEEL COLUMN @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING @ 16" c/c HORIZONTALLY**
- 1/2" Gypsum

W2 **GREY STUCCO (R29)**

- Grey stucco on 1/2" cement panel
- 1 3/4" Air space
- 3/4" wood furring @ 16" c/c (Vertical)
- **3 3/8" "Z" BARS @ 18" c/c HORIZONTALLY**
- 2 1/2" Sprayed urethane-based foam
- **3" RIGID INSULATION PANEL, EXP. POLYSTYRENE**
- **1" STEEL SUPPORT WITH THERMAL BREAK**
- **4"x4" GALVANIZED STEEL COLUMN @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING @ 16" c/c HORIZONTALLY**
- 1/2" Gypsum

P1 **TYPICAL FLOOR**

- Floor finish
- **3/4" PLYWOOD**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 1'-8" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

P2 **SLAB ON GRADE (R10)**

- 4" concrete slab (Polished)
- Vapour barrier
- 2" rigid insulation panel
- According to conditions

P3 **GARAGE SLAB**

- 3 1/2" min. concrete slab
- **1 1/2" steel deck.**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 1'-8" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

R1 **TYPICAL ROOF (2% SLOPE) (R50)**

- Double layer elastomeric membrane, mechanically fastened base sheet (Soprafix Base 630) and Heat-Welded cap sheet (Soprafix Traffic Cap 660), recommended
- **16 1/4" INSULATED PANEL**
- 2" Sprayed urethane-based foam
- **"Z" BARS WITH INTEGRATED SLOPE**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

R2 **TYPICAL SLOPED ROOF (R50)**

- Roof finish
- Solt adhesive membrane
- **10 1/4" INSULATED PANEL**
- 2" Sprayed urethane-based foam
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

R3 **TERRACE ROOF (R50)**

- Terrace finish
- Wood structure with inverse integrated slope
- 1/2" rubber pad
- Double layer elastomeric membrane, mechanically fastened base sheet (Soprafix Base 630) and Heat-Welded cap sheet (Soprafix Traffic Cap 660), recommended
- **4 1/2" INSULATED PANEL**
- 6" Sprayed urethane-based foam
- **"Z" BARS WITH INTEGRATED SLOPE**
- **17" GALVANIZED STEEL JOIST**
- **"C" BARS @ 5'-0" c/c**
- **1/4" FURRING ANCHOR**
- **7/8" METALLIC FURRING**
- 1/2" Gypsum

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DATE	REVISION	BY	NO.
2016/02/04	DESIGN REVIEW APPLICATION	PM	2
2015/10/27	DESIGN REVIEW APPLICATION	JZ	1

PROJECT

LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Compositions	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: 1 1/2" = 1'-0"
	REVISION: N/A
	PAGE: A.004

Zoning and Site Restrictions Notes

Municipality and Project Information	
• Project type and description	New single Family Dwelling
• Municipality	El Granada
• Zoning designation	APN: 047-105-240 Zoning: R-1/S-17/DR/CD

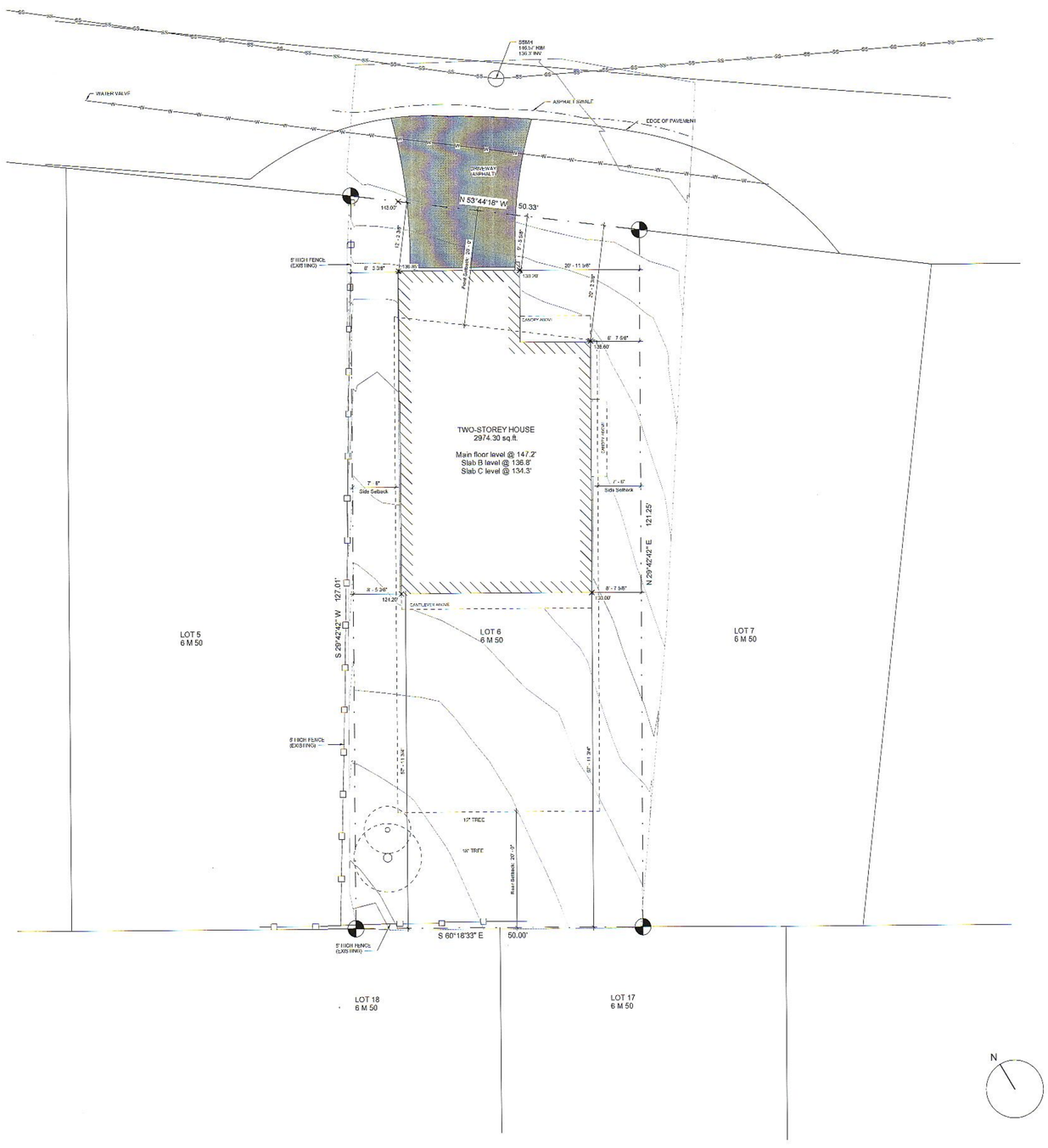
Lot area	
• Total lot area	6200.02sq.ft

	Permitted (ft)	Proposed (ft)
• Lot coverage	(35%) 2173.00sq.ft	(30.49%) 1892.44sq.ft

Setbacks		
• Front yard setback (Garage)	20'-0"	9' 5 5/8"
• Front yard setback (House)	20'-0"	20'-2 3/8"
• Side yard setback	7'-6"	6' 8 3/4"
• Side yard setback	7'-6"	6' 7 5/8"
• Rear yard setback	20'-0"	57' 11 3/4"

• Building depth	NA	60'-2 3/4"
• Building height	36'-0" *	34' 10 1/8"
• Floor space index	0.53	0.48
• Floor area	3200 /Req.ft	2974.30sq.ft

* NOTE: 36' ALLOWANCE DUE TO SEWER CONNECTION REQUIRE FILL FROM BUILDING LOCATION TO STREET GRADE.
(Site: ZONING REGULATION FOR DISTRICT S17 CHAPTER 22 PAGE 20.6.)



1 Site plan
1" = 10'-0"

1.11 - DESIGN

- CODES USED FOR THE DESIGN ARE:
- CONCRETE CODE: CAN/CSA A23.3-M04
- STEEL CODE: CAN/CSA S16-09
- COLD FORMED STEEL CODE: CAN-CSA S136-12
- 2013 CALIFORNIA BUILDING CODE
- 2013 CALIFORNIA RESIDENTIAL CODE
- 2013 CALIFORNIA GREEN BUILDING STANDARD CODE
- 2013 CALIFORNIA ENERGY EFFICIENCY STANDARDS CODE

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T.:450.978.0602 FAX.:450.978.4917

DATE	REVISION	BY	NO
2016/02/04	DESIGN REVIEW APPLICATION	PM	2
2016/01/22	DESIGN REVIEW APPLICATION	JZ	1

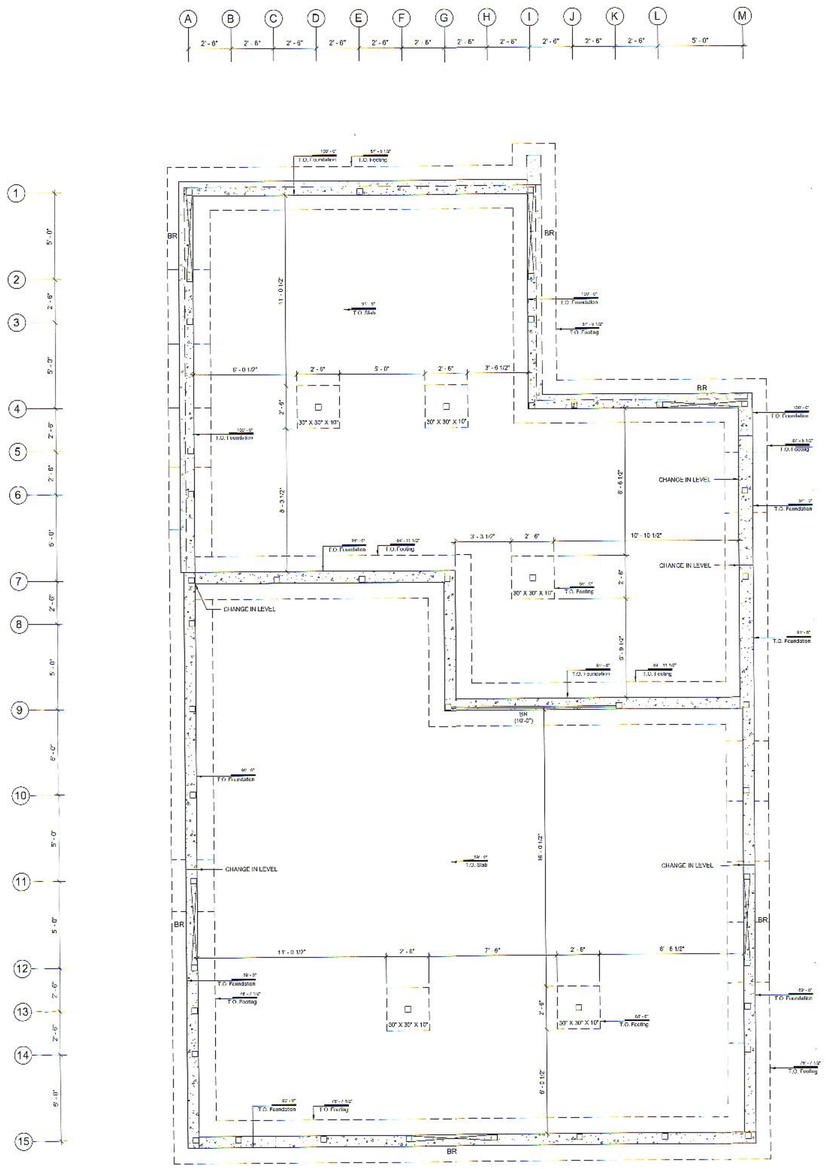
PROJECT

LANG RESIDENCE

15-646

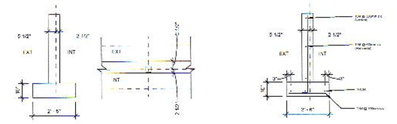
APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Site plan	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: As indicated
	REVISION: 2
	PAGE: A.100

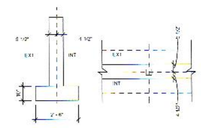


1 Anchor point plan
1/4" = 1'-0"

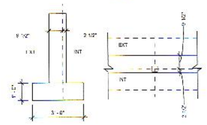
6" FOUNDATION WALL



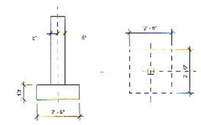
10" FOUNDATION WALL



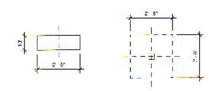
12" FOUNDATION WALL



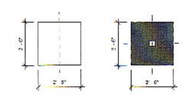
EXTERIOR PILE 10" X 10"

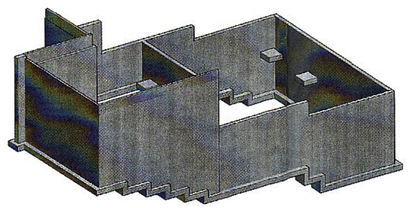


INTERIOR FOOTING



INTERIOR BRACING FOOTING





Refer to engineered foundation plans for:
- Validation of dimensions and levels of the walls, footings and slabs
- Placement and dimensioning of rebar
- Concrete specifications

Compressive strength of unreinforced concrete after 28 days shall be not less than:
- 32 MPa for garage floors, carport floors and all exterior flat work
- 20 MPa for interior floors other than those for garages
- 15 MPa for all other applications

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DATE	REVISION	BY	NO.
2016/02/04	DESIGN REVIEW APPLICATION	JAM	2
2016/01/22	DESIGN REVIEW APPLICATION	JZ	1

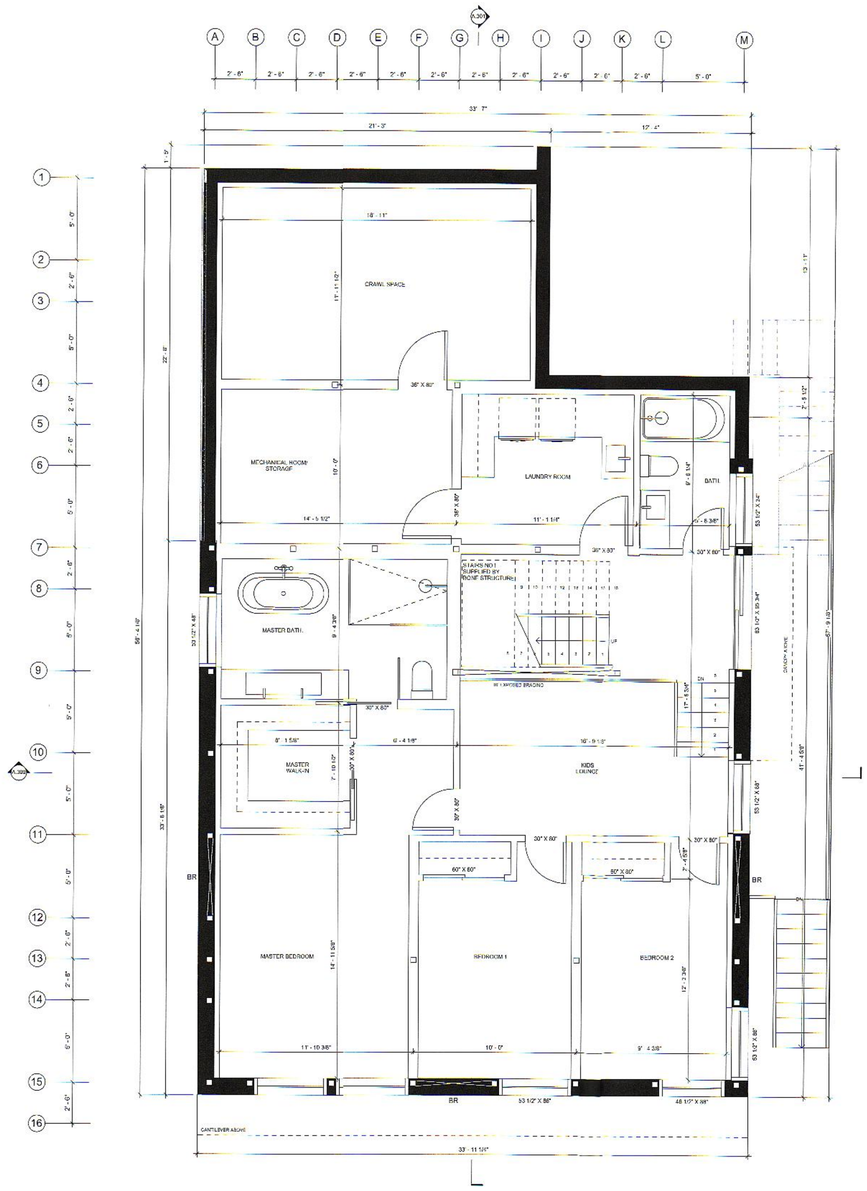
PROJECT

LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Anchor point plan	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: 1/4" = 1'-0"
	REVISION: 2
	PAGE: A.101



1 Basement plan 1477.20 sq.ft.
1/4" = 1'-0"

N

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DATE	REVISION	BY	NO
2016/02/04	DESIGN REVIEW APPLICATION	BM	2
2015/01/05	DESIGN REVIEW APPLICATION	JZ	1

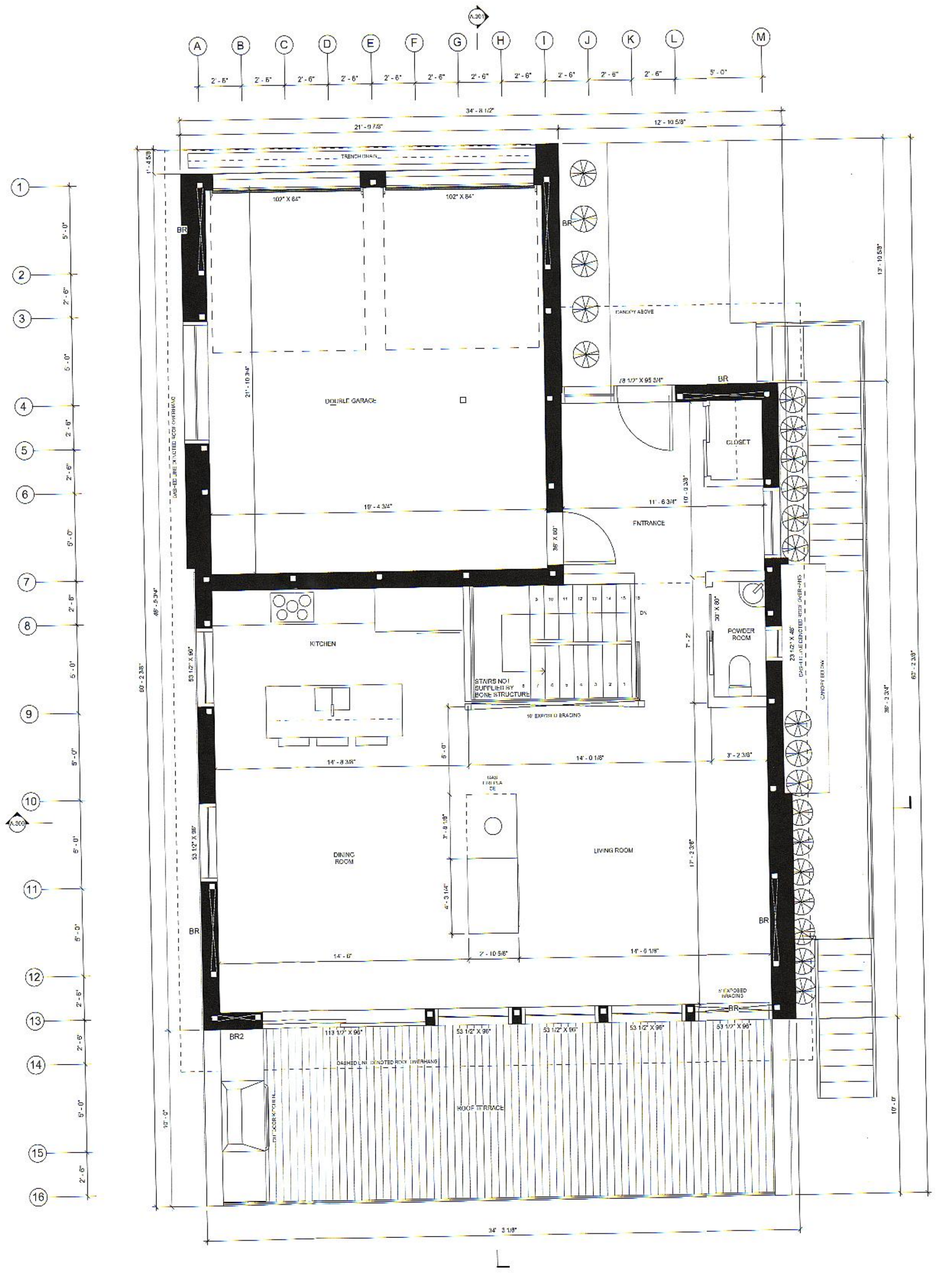
PROJECT

LANG RESIDENCE

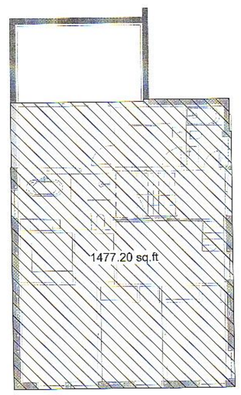
15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

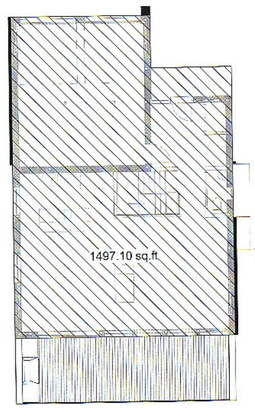
DRAWING TITLE: Basement plan	DRAWN BY: JZ
SCEAU	CHECK BY: BONE Structure
	DATE: 2016/02/08
	SCALE: 1/4" = 1'-0"
	REVISION: 2
	PAGE: A.102



1 First floor plan 1497.10 sq.ft.
1/4" = 1'-0"



2 Basement floor area
3/32" = 1'-0"



3 Main floor area
3/32" = 1'-0"

TOTAL FLOOR AREA: 2974.30 sq.ft

N

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DATE	REVISION	BY	NO
2015/03/04	DESIGN REVIEW APPLICATION	PM	2
2015/07/22	DESIGN REVIEW APPLICATION	JZ	1

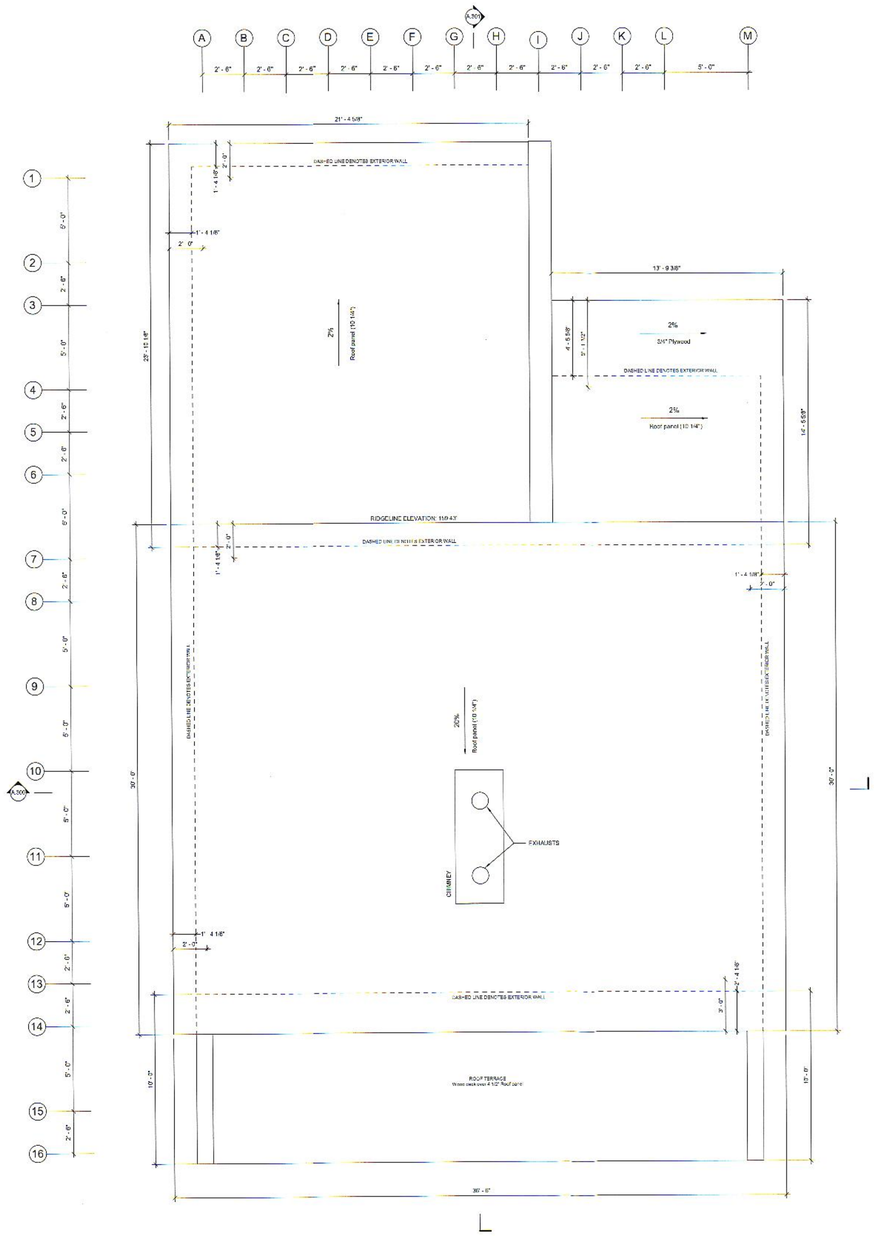
PROJECT

LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Main floor plan	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: As indicated
	REVISION: 2
	PAGE: A.103



N

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DATE	REVISION	BY	NO.
2016/02/04	03-SION REVIEW APPLICATION	PM	2
2016/01/22	02-SKRITE/VDV APPLICATION	JZ	1

PROJECT

LANG RESIDENCE

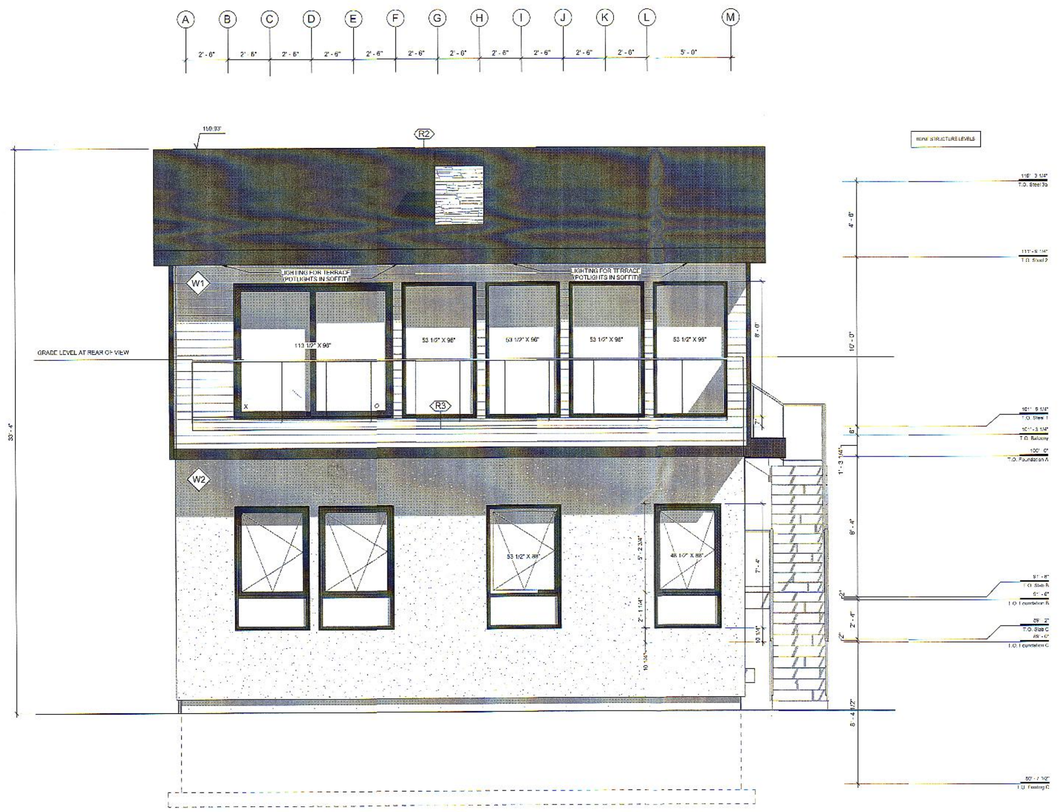
15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Roof plan	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: 1/4" = 1'-0"
	REVISION: 2
	PAGE: A.104

W1 HARDIE BOARD SIDING

W2 GREY STUCCO



1 Elevation - Southwest
1/4" = 1'-0"

ROOF	DOUBLE LAYER ELASTOMERIC MEMBRANE - CHARCOAL, DARK GREY
FASCIA	METAL CLAD. FLAT LOCK SEAM COLOR CHARCOAL, DARK GREY
SOFFIT	CHARCOAL, DARK GREY
SOFFIT (ENTRANCE)	WOOD - CEDAR
WINDOWS	ALUMINUM FRAME, COLOR: BLACK

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DATE	REVISION	BY	NO.
2016/02/04	2ND SIGN REVIEW APPLICATION	PM	2
2016/01/07	1ST SIGN REVIEW APPLICATION	JZ	1

PROJECT

LANG RESIDENCE

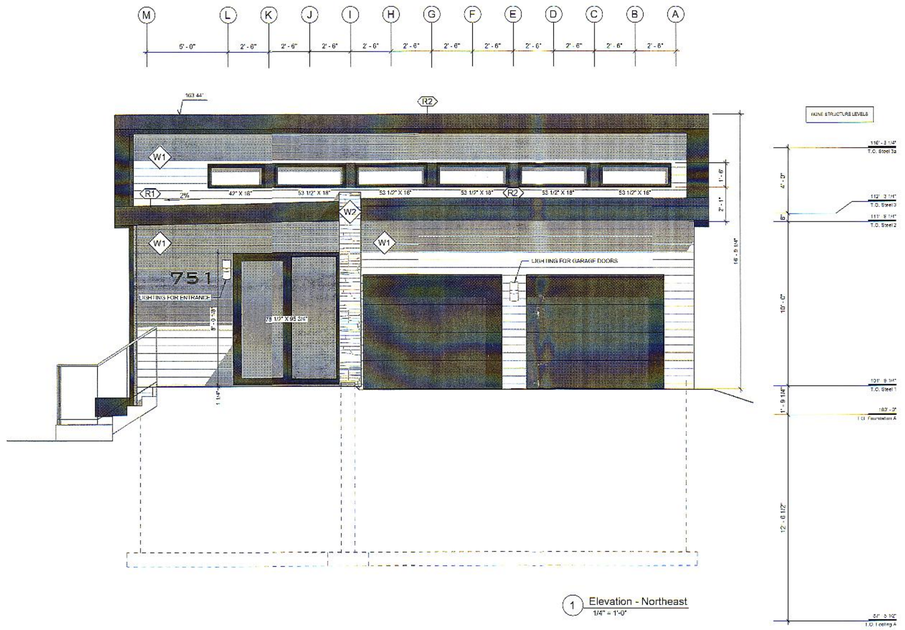
15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Southwest elevation	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: As indicated
	REVISION: 2
	PAGE: A.200

W1 HARDIE BOARD SIDING

W2 GREY STUCCO



1 Elevation - Northeast
1/4" = 1'-0"

ROOF	DOUBLE LAYER ELASTOMERIC MEMBRANE - CHARCOAL, DARK GREY
FASCIA	METAL CLAD. FLAT LOCK SEAM COLOR CHARCOAL, DARK GREY
SOFFIT	CHARCOAL, DARK GREY
SOFFIT (ENTRANCE)	WOOD - CEDAR
WINDOWS	ALUMINUM FRAME, COLOR: BLACK

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T.:450.978.0602 FAX.:450.978.4917

DATE	REVISION	BY	NO.
2016/02/04	DESIGN REVIEW APPLICATION	PM	2
2016/01/27	DESIGN REVIEW APPLICATION	M.	1

PROJECT

LANG RESIDENCE

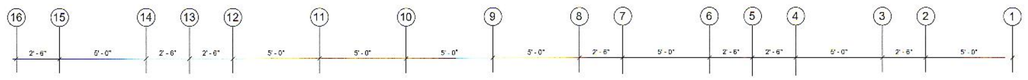
15-646

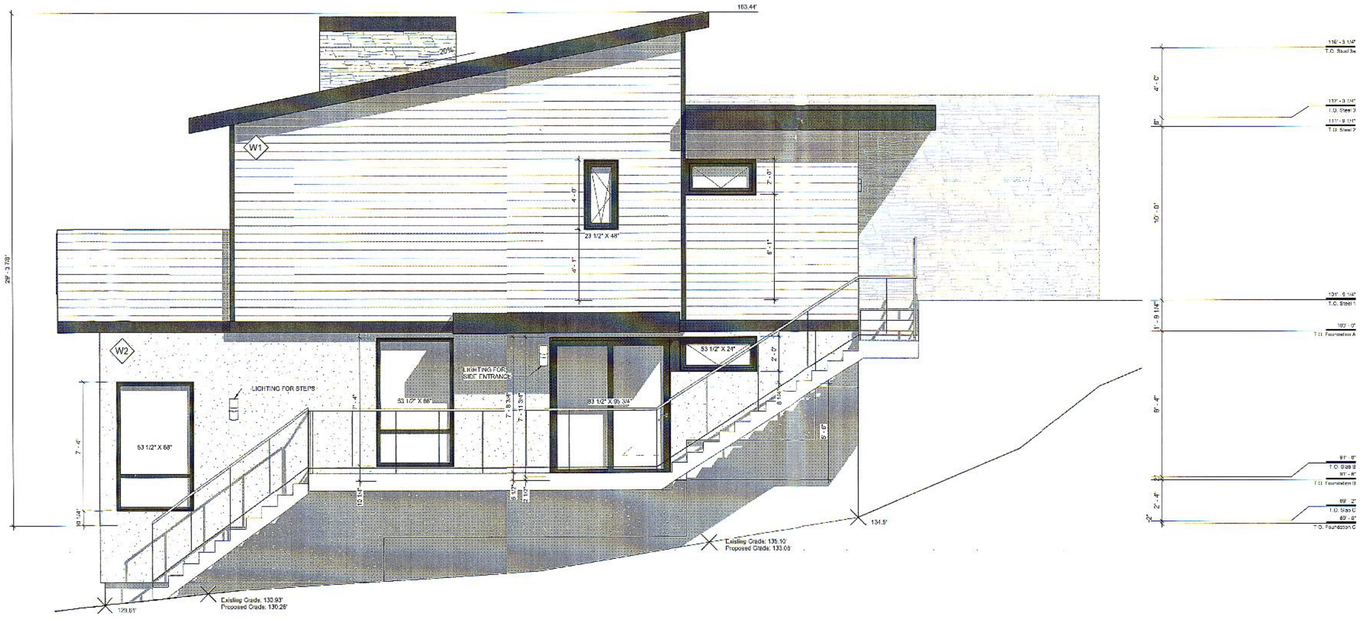
APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Northeast elevation	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: As indicated
	REVISION: 2
	PAGE: A.202

W1 HARDIE BOARD SIDING

W2 GREY STUCCO





1 Elevation - Southeast
1/4" = 1'-0"

ROOF	DOUBLE LAYER ELASTOMERIC MEMBRANE - CHARCOAL, DARK GR
FASCIA	METAL CLAD, FLAT LOCK SEAM COLOR CHARCOAL, DARK GREY
SOFFIT	CHARCOAL, DARK GREY
SOFFIT (ENTRANCE)	WOOD - CEDAR
WINDOWS	ALUMINUM FRAME, COLOR: BLACK

Simple Concept

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T.:450.978.0602 FAX.:450.978.4917

DATE	REVISION	BY	NO.
2016/02/01	DESIGN REVIEW APPLICATION	PM	2
2016/01/22	DESIGN REVIEW APPLICATION	ZF	1

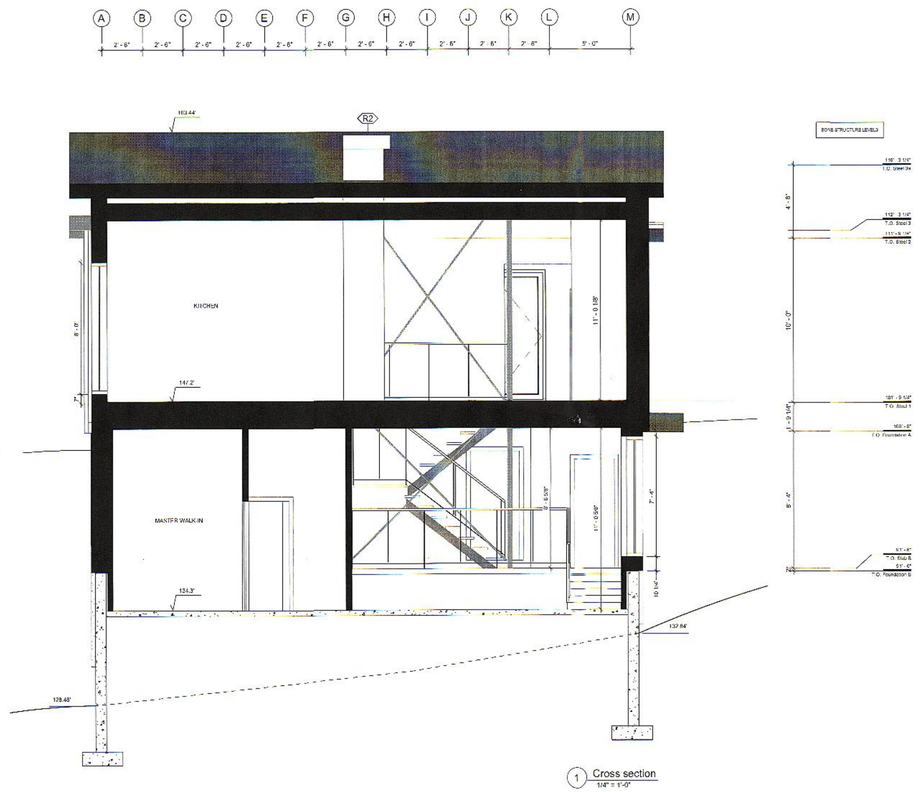
PROJECT

LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Southeast elevation	DRAWN BY
	CHECK BY: BONE Struc
SCEAU	DATE: 2016/0
	SCALE: As indic
	REVISION
	PAGE: A.203



1 Cross section
1/4" = 1'-0"

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DATE	REVISION	BY	NO.
2015/03/01	DESIGN REVIEW APPLICATION	PM	2
2015/03/09	DESIGN REVIEW APPLICATION	JZ	1

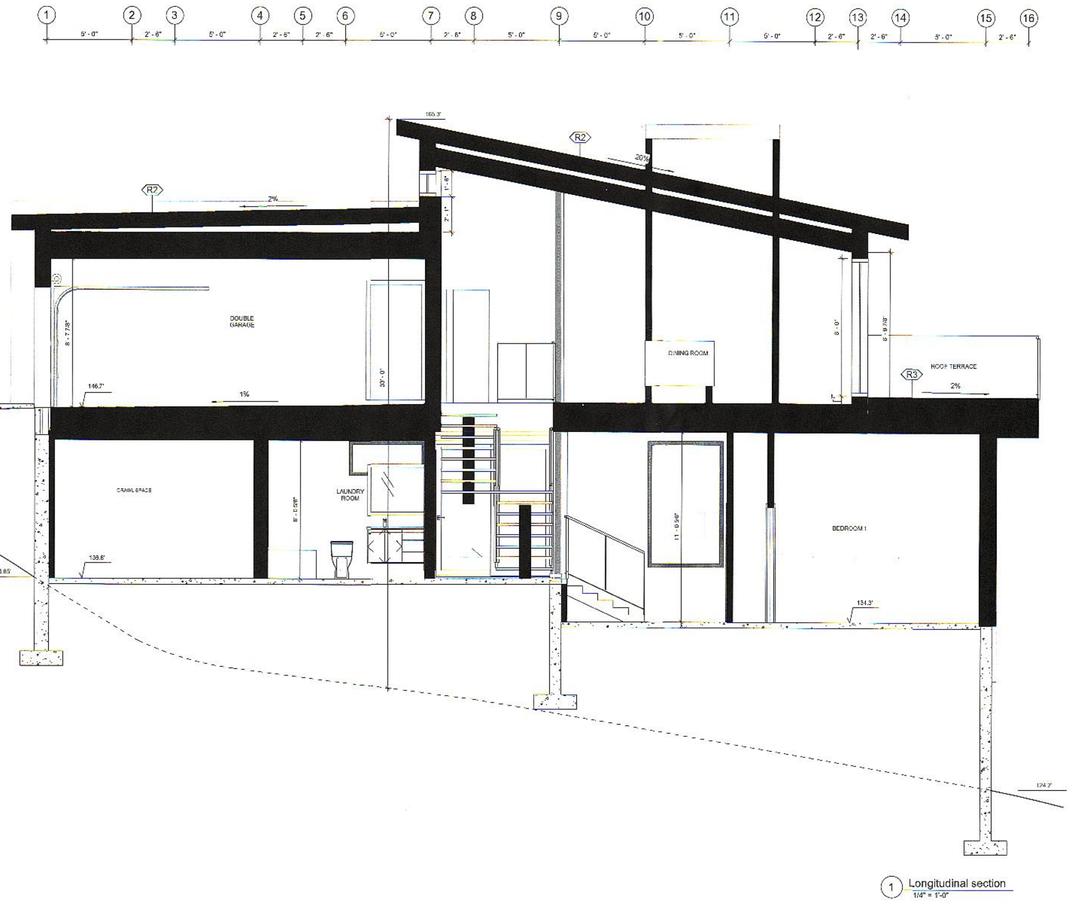
PROJECT

LANG RESIDENCE

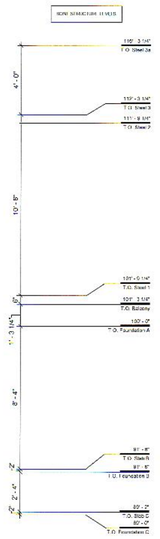
15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE: Cross section	DRAWN BY: JZ
	CHECK BY: BONE Structure
SCEAU	DATE: 2016/02/08
	SCALE: 1/4" = 1'-0"
	REVISION: 2
	PAGE: A.300



1 Longitudinal section
1/4" = 1'-0"



BONE structure

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DATE	REVISION	BY	NO
2016/02/04	DRAWN REVIEW APPLICATION	FM	2
2016/01/22	DESIGN REVIEW APPLICATION	MZ	1

PROJECT

LANG RESIDENCE

15-646

APN: 047-105-240, San Carlos Ave., El Granada, CA, 94019

DRAWING TITLE
Longitudinal section

SCEAU

DRAWN BY
JZ

CHECK BY
BONE Structure

DATE
2016/02/08

SCALE
1/4" = 1'-0"

REVISION
2

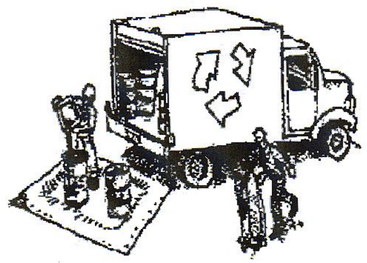
PAGE
A.301

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

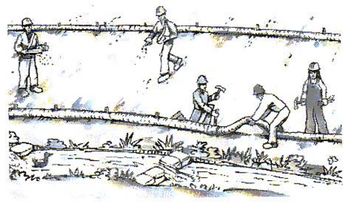
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

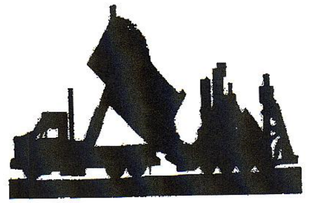


- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work



- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

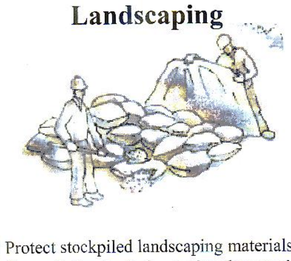
Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar Application

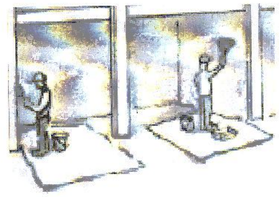
- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping



- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

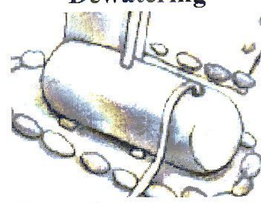
Painting & Paint Remov



Painting Cleanup and Removal

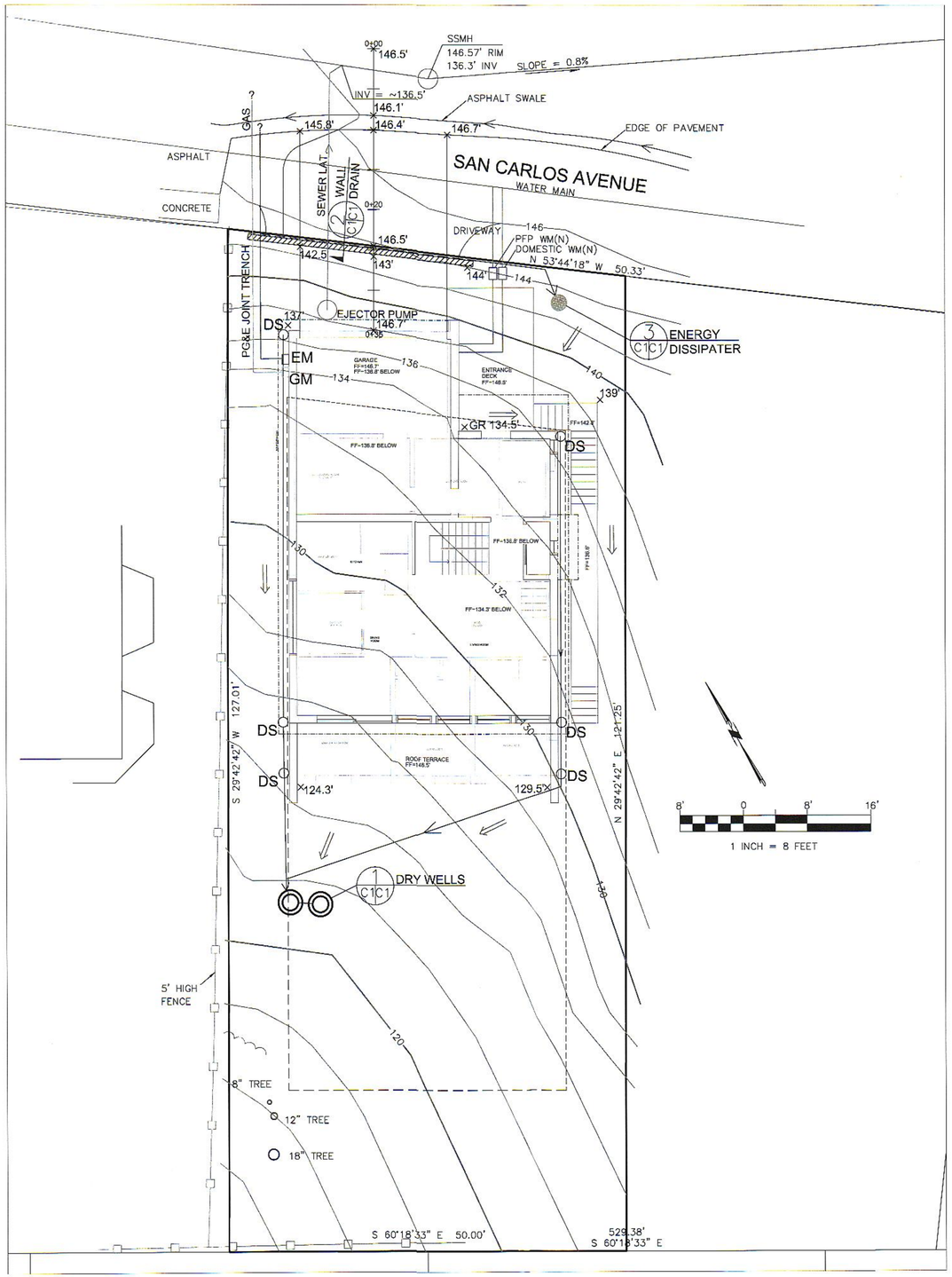
- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brus to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushe the extent possible and clean with thi or solvent in a proper container. Filte reuse thinners and solvents. Dispose excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazard dry stripping and sand blasting may b swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and and dust from marine paints or paints containing lead, mercury, or tributylt must be disposed of as hazardous wa Lead based paint removal requires a certified contractor.

Dewatering



- ❑ Discharges of groundwater or captur runoff from dewatering operations m be properly managed and disposed. possible send dewatering discharge t landscaped area or sanitary sewer. If discharging to the sanitary sewer cal local wastewater treatment plant.
- ❑ Divert run-on water from offsite awa from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street or storm drain. Filtration or diversio through a basin, tank, or sediment tr may be required.
- ❑ In areas of known or suspected contamination, call your local agenc determine whether the ground wate be tested. Pumped groundwater may to be collected and hauled off-site f treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- 175.2 PROPOSED SPOT ELEVATION
- DS DOWNSPOUT
- DIRECTION OF SURFACE DRAINAGE FLOW
- 3" SOLID PLASTIC DRAIN PIPE, SDR 35 @ 1% MINIMUM SLOPE.
- 3" PERFORATED PLASTIC DRAIN PIPE, SDR 35 @ 1% MINIMUM SLOPE.
- PROPOSED RETAINING WALL
- FF FINISHED PLANS
- GM GAS METER
- EM ELECTRIC METER

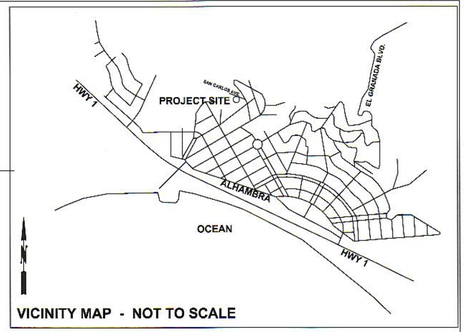
GENERAL NOTES

1. PLANS PREPARED AT THE REQUEST OF: JUSTIN LANG, OWNER
2. SURVEY AND TOPOGRAPHY BY SAVIOR MICALLEF, LS. SURVEYED IN AUGUST, 2015.
3. ELEVATION DATUM ASSUMED.
4. THIS IS NOT A BOUNDARY SURVEY.

GRADING NOTES

CUT VOLUME : 20 CY
FILL VOLUME: 20 CY
TOTAL: 40 CY CUT/FILL

1. ABOVE VOLUMES ARE APPROXIMATE.
2. MAXIMUM GRADIENT OF ANY MODIFIED SLOPES SHALL BE 2:1 (H:V).
3. ALL GRADING SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
4. ALL TRENCHES IN PROPOSED LANDSCAPE AREAS SHALL BE BACKFILLED WITH COMPACTED APPROVED GRANULAR MATERIAL TO WITHIN ONE FOOT OF FINISHED GRADE, AND THEN FILLED WITH HAND TAMPED SOILS.



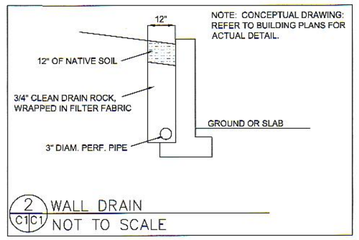
VICINITY MAP - NOT TO SCALE

DRAINAGE NOTES

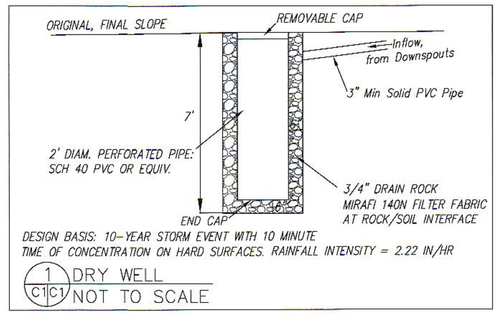
1. DRAINAGE INTENT: IT IS THE INTENT OF THE DRAINAGE SYSTEM TO CONVEY ROOF AND DRIVEWAY RUNOFF TO A SAFE LOCATION, AND TO MINIMIZE EXCESSIVE MOISTURE AROUND FOUNDATIONS.
2. ALL ROOF DRAIN LINES SHALL LEAD TO DRY WELLS SHOWN.
3. ALL DRAINAGE PIPES SHALL BE 3" MIN. DIAMETER SOLID PIPE, SLOPED AT 1% MINIMUM.
4. IT IS THE PROPERTY OWNER'S RESPONSIBILITY TO CHECK ON ALL STORMWATER FACILITIES SUCH AS ROOF GUTTERS, DOWNSPOUT LINES, AND THE DRY WELLS TO BE SURE THAT THEY ARE CLEAR OF EXCESSIVE DEBRIS AND OPERATING EFFICIENTLY. THE FACILITIES SHALL BE CHECKED EVERY FALL AND PERIODICALLY DURING THE RAINY SEASON.

TRAFFIC CONTROL NOTES

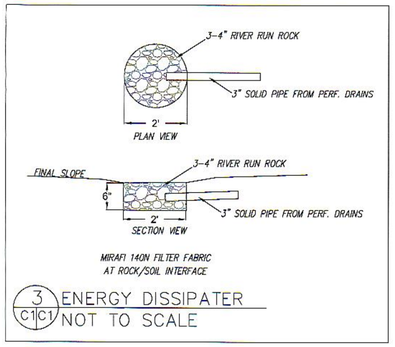
1. CONTRACTOR AND WORKERS SHALL PARK ALONG SAN CARLOS AVENUE.
2. WHEN TRUCKS PARK IN STREET FOR DELIVERY OF SUPPLIES AND CONCRETE, EVERY EFFORT SHALL BE MADE TO PROVIDE ROOM FOR VEHICLES TO PASS. WORKERS SHALL PROVIDE TRAFFIC CONTROL AT ALL TIMES WHEN ROAD IS PARTIALLY BLOCKED.
3. IF ROAD IS BLOCKED, WORKERS SHALL PROVIDE WRITTEN DIRECTIONS FOR A DETOUR, IF REQUESTED BY A MOTORIST.



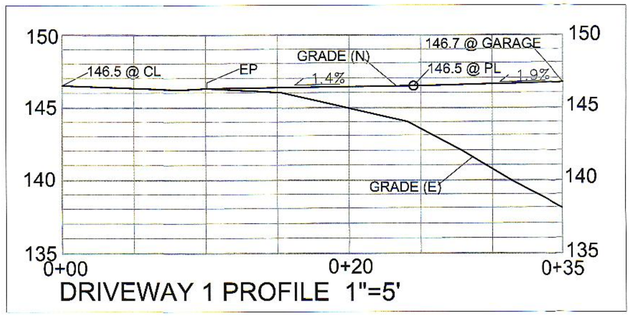
2 C1C1 WALL DRAIN
NOT TO SCALE



1 C1C1 DRY WELL
NOT TO SCALE



3 C1C1 ENERGY DISSIPATER
NOT TO SCALE



DRIVEWAY 1 PROFILE 1"=5'

SECTION AND DETAIL CONVENTION

SECTION OR DETAIL IDENTIFICATION — 1 C1C1 — REFERENCE SHEET No. FROM WHICH SECTION OR DETAIL IS TAKEN — REFERENCE SHEET No. ON WHICH SECTION OR DETAIL IS SHOWN

REGISTERED PROFESSIONAL ENGINEER CHARLES M. KISSOCK No. 62264 9-30-17 EXPIRES CIVIL STATE OF CALIFORNIA

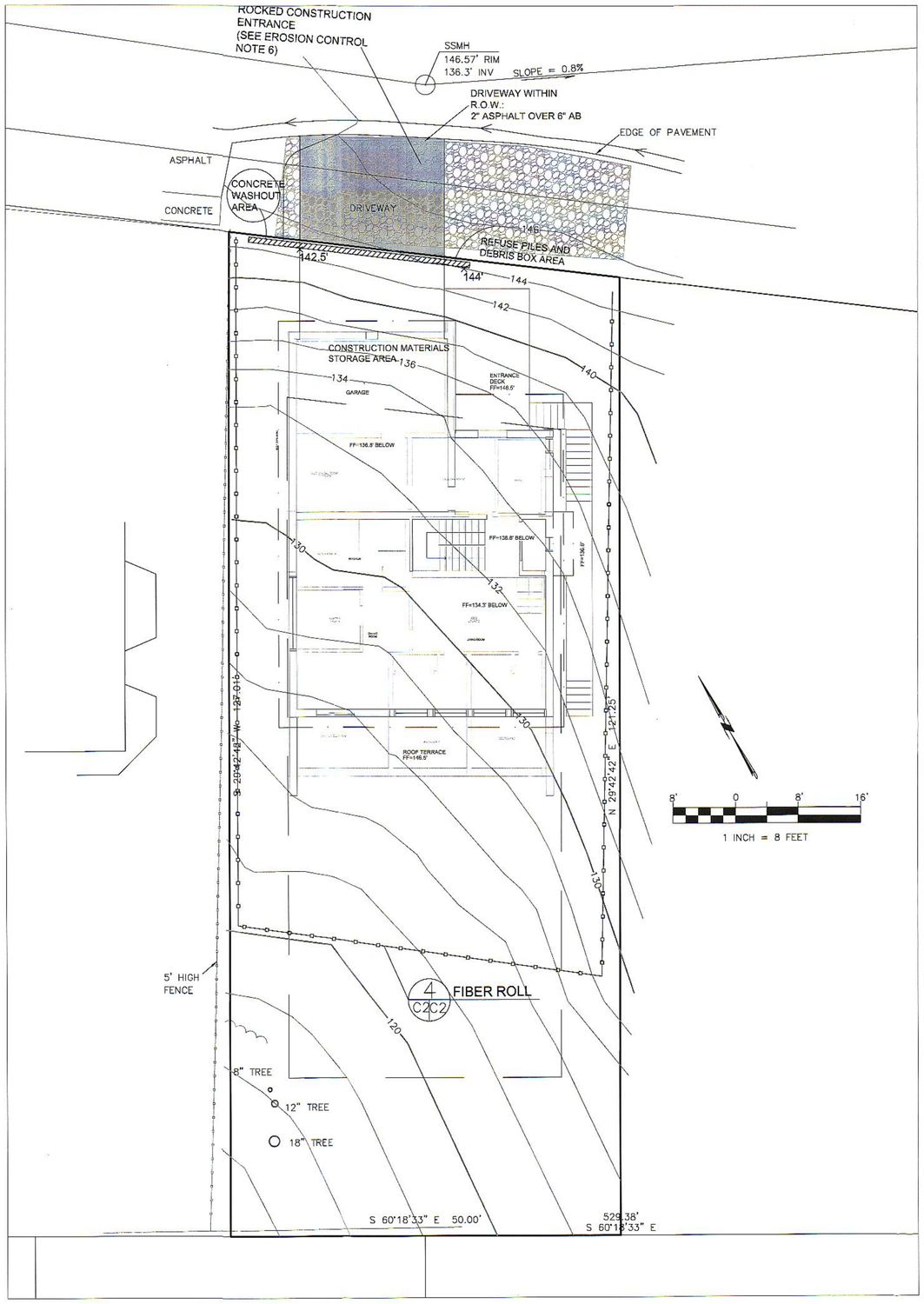
Sigma Prime Geosciences, Inc.
SIGMA PRIME GEOSCIENCES, INC.
332 PRINCETON AVENUE
HALF MOON BAY, CA 94019
(650) 728-3590
FAX 728-3593

DATE: 2-7-16
DRAWN BY: CMK
CHECKED BY: AZG
REV. DATE:
REV. DATE:
REV. DATE:

GRADING AND DRAINAGE PLAN

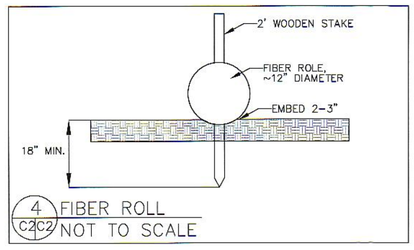
LANG PROPERTY
SAN CARLOS AVENUE
EL GRANADA, CALIFORNIA
APN: 047-105-240

SHEET
C-1



GENERAL EROSION AND SEDIMENT CONTROL NOTES

- There will be no stockpiling of soil. All excavated soil will be hauled off-site as it is excavated.
- Perform clearing and earth-moving activities only during dry weather. Measures to ensure adequate erosion and sediment control shall be installed prior to earth-moving activities and construction.
- Measures to ensure adequate erosion and sediment control are required year-round. Stabilize all denuded areas and maintain erosion control measures continuously between October 1 and April 30.
- Store, handle, and dispose of construction materials and wastes properly, so as to prevent their contact with stormwater.
- Control and prevent the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.
- Use sediment controls or filtration to remove sediment when dewatering site and obtain Regional Water Quality Control Board (RWQCB) permit(s) as necessary.
- Avoid cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
- Limit and time applications of pesticides and fertilizers to prevent polluted runoff.
- Limit construction access routes to stabilized, designated access points
- Avoid tracking dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
- Train and provide instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.
- Placement of erosion materials is required on weekends and during rain events.
- The areas delineated onh the plans for parking, grubbing, storage etc., shall not be enlarged or "run over."
- Dust control is required year-round.
- Erosion control materials shall be stored on-site
- Use of plastic sheeting between October 1st and April 30th is not acceptable, unless for use on stockpiles where the stockpile is also protected with fiber rolls containing the base of the stockpile.
- The tree protection shall be in place before any grading, excavating or grubbing is started.



EROSION CONTROL NOTES

FIBER ROLL
INSTALL AT LOCATIONS SHOWN.
AFIX AS SHOWN IN DETAIL 4.

1. GRADING MAY TAKE PLACE DURING WET WEATHER AFTER OCTOBER 1 PROVIDED THE FOLLOWING PROVISIONS ARE FOLLOWED.
2. NO GRADING SHALL TAKE PLACE DURING RAINY WEATHER OR FOR A PERIOD OF AT LEAST 24 HOURS FOLLOWING RAIN.
3. ALL EXPOSED SOIL SHALL BE TEMPORARILY PROTECTED FROM EROSION WITH JUTE NETTING.
4. ALL STOCKPILED SOIL SHALL BE COVERED AT ALL TIMES AND REMOVED FROM SITE AS SOON AS POSSIBLE, IF SCHEDULED FOR OFF-HAUL.
5. ALL EXPOSED SURFACES SHALL BE PERMANENTLY PROTECTED FROM EROSION WITH MULCH AND/OR LANDSCAPING.
6. ROCKED CONSTRUCTION ENTRANCE SHALL BE 50 FEET LONG (MIN) BY 15 FEET WIDE AND CONFORM TO THE FOLLOWING:
   A. THE MATERIAL FOR THE PAD SHALL BE 3 TO 6 INCH STONE OVER GEO-TEXTILE FABRIC.
   B. PAD SHALL BE NOT LESS THAN 12" THICK.
   C. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.

EROSION CONTROL POINT OF CONTACT

THIS PERSON WILL BE RESPONSIBLE FOR EROSION CONTROL AT THE SITE AND WILL BE THE COUNTY'S MAIN POINT OF CONTACT IF CORRECTIONS ARE REQUIRED.

NAME: JUSTIN LANG

TITLE/QUALIFICATION: OWNER

PHONE: 650-849-3192

PHONE:

E-MAIL: JLANG@WSGR.COM

- USE OF PLASTIC SHEETING BETWEEN OCTOBER 1st AND APRIL 30th IS NOT ACCEPTABLE, UNLESS FOR USE ON STOCKPILES WHERE THE STOCKPILE IS ALSO PROTECTED WITH FIBER ROLLS CONTAINING THE BASE OF THE STOCKPILE.

REGISTERED PROFESSIONAL ENGINEER CHARLES M. KISSICK No. 62264 9-30-17 EXPIRES CIVIL STATE OF CALIFORNIA

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EROSION AND SEDIMENT CONTROL PLAN

LANG PROPERTY
SAN CARLOS AVENUE
EL GRANADA, CALIFORNIA
APN: 047-105-240

SHEET
C-2

LANDSCAPE DESIGN PACKAGE

SHEET	TITLE
N-00	INDEX PLAN
N-01	NOTES
N-02	NOTES
N-03	NOTES
L-01	LANDSCAPE PLAN
P-01	PLANTING PLAN

NOTE: REFER TO **15-646 LANG RESIDENCE DESIGN REVIEW APPLICATION SET** BY BONE STRUCTURE FOR RESIDENCE PLANS

APN: 047-105-240, SAN CARLOS AVE., EL GRANADA, CA 94019
ZONING R-1/S-17/DR/CD
LOT COVERAGE: 1,893.44 SQ.FT. (30.49 %) PERMITED: 35%

RECEIVED
FEB 11 2016
San Mateo County
Planning Division

PLN 2016-00011

GREENWOOD DESIGN ASSOCIATES LLC

Contact information:
KELLY GREENWOOD
10165 Pescadero Road
La Honda, CA 94020
p. 650.996.4612
www.gda-llc.com

REVISIONS

INDEX SHEET

xxx SAN CARLOS AVE. EL GRANADA, CA 94019

DATE	02/09/2016
SCALE	AS SHOWN
DRAWN BY	CH
DESIGNED BY	KG
CHECKED	KG
PROJECT NO.	
CADD FILE	

SHEET NO. N-00

LANDSCAPE INSTALLATION GUIDELINES

GREENWOOD DESIGN ASSOCIATES, LLC (GDA) RECOMMENDS USING BAY-FRIENDLY LANDSCAPE INSTALLATION AND MAINTENANCE PRACTICES TO MINIMIZE WASTE, PROTECT AIR AND WATER QUALITY, CONSERVE ENERGY AND WATER, AND PROTECT NATURAL ECOSYSTEMS (WWW.BAYFRIENDLY.ORG). TO THE EXTENT PRACTICAL, THE DESIGN EMPHASIZES LOCAL MATERIALS, LOCAL NATIVE PLANTS, AND LOCAL SUPPLIERS.
THE RECOMMENDED INSTALLATION PRACTICES AND MAINTENANCE GUIDELINES PROVIDED BELOW ARE INTENDED TO FACILITATE A CONVERSATION BETWEEN YOU AND YOUR CONTRACTOR ABOUT THE LEVEL OF QUALITY YOU EXPECT AND ANTICIPATE BEFORE THE PROJECT BEGINS. GDA RECOMMENDS THAT CLIENTS REQUEST 6-12 MONTHS OF PROFESSIONAL MAINTENANCE BY THE SAME CONTRACTOR INSTALLING THE GARDEN. THEREFORE, THE GUIDELINES BELOW INCLUDE A MINIMUM LEVEL OF RECOMMENDED MAINTENANCE PRACTICES TO PRESERVE YOUR LANDSCAPE INVESTMENT.

PLEASE CONTACT GREENWOOD DESIGN ASSOCIATES, LLC FOR APPROVAL OF ANY SUBSTITUTIONS, OR FOR ANY QUESTIONS ABOUT THE GUIDELINES AND RECOMMENDED BEST PRACTICES BELOW AT 1-888-862-5230

THE SEVEN BAY- FRIENDLY PRINCIPLES

LOCAL. THE PROJECT LANDSCAPE IS PART OF A LARGER NATURAL ECOSYSTEM OF THE SAN FRANCISCO BAY AREA. THE MATERIALS AND METHODS USED TO MAINTAIN THE PROJECT CAN SUPPORT THE HEALTH, DIVERSITY AND SUSTAINABILITY OF THE BAY.
LESS LANDFILL. REDUCING WASTE STARTS WITH NOT GENERATING PLANT DEBRIS IN THE FIRST PLACE BY FERTILIZING, IRRIGATING AND PRUNING JUDICIOUSLY, GRASSCYCLING, MULCHING AND COMPOSTING PLANT *DEBRIS*. USING RECYCLED CONTENT, SALVAGED, DURABLE OR LOCAL MATERIALS CONSERVES RESOURCES AND REDUCES THE AMOUNT OF ENERGY CONSUMED BY THE LANDSCAPE.
NURTURE SOIL. CREATE A HEALTHY SOIL THAT SUPPORTS A HEALTHY LANDSCAPE BY PROTECTING THE SOIL FROM COMPACTION AND EROSION, REPLENISHING ORGANIC MATTER AND MULCHING, USING SLOW-RELEASE AND ORGANIC FERTILIZERS AND MINIMIZING USE OF CHEMICALS THAT HARM BENEFICIAL SOIL ORGANISMS.
CONSERVE WATER. USE CALIFORNIA'S WATER SUPPLY EFFICIENTLY BY REDUCING IRRIGATION REQUIREMENTS, IRRIGATING ACCORDING TO PLANT NEED, MAXIMIZING IRRIGATION SYSTEM PERFORMANCE, INCREASING THE WATER HOLDING CAPACITY OF THE SOIL AND USING RECYCLED WATER.
CONSERVE ENERGY. CONVENTIONAL LANDSCAPES ARE FOSSIL FUEL CONSUMPTIVE. NATIONALLY IT IS ESTIMATED THAT LAWN MOWERS CONSUME 400 MILLION GALLONS OF GAS. LOOK FOR OPPORTUNITIES TO CONSERVE FUEL AND ENERGY BY CHOOSING AND MAINTAINING MATERIALS AND EQUIPMENT FOR FUEL CONSERVATION.
PROTECT WATER AND AIR QUALITY. REDUCE RUNOFF, REDUCE CONTAMINANTS IN RUNOFF THROUGH AN INTEGRATED PEST MANAGEMENT (IPM) PROGRAM, AND INCREASE THE SOIL'S ABILITY TO REMOVE POLLUTANTS FROM RUNOFF THROUGH STEPS SUCH AS MULCHING BARE SOIL. REDUCE AIR POLLUTION BY REDUCING FOSSIL FUEL CONSUMPTION, COMPOSTING PLANT DEBRIS AND PLANTING TREES.
PROVIDE WILDLIFE HABITAT. THE PROJECT MAY PROVIDE FOOD, WATER, SHELTER AND NESTING SITES FOR BIRDS, BUTTERFLIES, BENEFICIAL INSECTS AND ANIMALS THAT CONTRIBUTE TO THE ECOLOGICAL DIVERSITY OF THE BAY. METHODS TO PROTECT THEM INCLUDE MINIMIZING APPLICATION OF CHEMICALS BY IMPLEMENTING AN INTEGRATED PEST MANAGEMENT (IPM) PROGRAM, AND CONSERVING FLOWERS, BERRIES, FRUITS, SEED HEADS, LOW BRANCH COVER, AND NATURAL VEGETATION IN OPEN SPACE AREAS.

SCOPE OF WORK

THIS WORK SHALL INCLUDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, TOOLS, SUPPLIES AND SERVICES TO INSTALL AND/OR MAINTAIN IN A SUPERIOR CONDITION ALL LANDSCAPE AREAS, IRRIGATION AND DRAINAGE SYSTEMS AND OTHER RELATED WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, USING QUALITY EQUIPMENT, BAY-FRIENDLY METHODS AND MATERIALS.

- CONTRACTOR IS RESPONSIBLE FOR (A) HAVING THOROUGHLY INVESTIGATED AND CONSIDERED THE SCOPE OF SERVICES TO BE PERFORMED, (B) CAREFULLY CONSIDERING HOW THE SERVICES SHOULD BE PERFORMED, AND (C) FULLY UNDERSTANDING THE FACILITIES, DIFFICULTIES, AND RESTRICTIONS ATTENDING TO THE PERFORMANCE OF THE SERVICES REQUIRED. CONTRACTOR IS RESPONSIBLE TO INVESTIGATE THE AREA AND BE FULLY ACQUAINTED WITH THE CONDITIONS.
- SHOULD THE CONTRACTOR DISCOVER ANY LATENT OR UNFORESEEABLE CONDITIONS, WHICH WILL MATERIALLY AFFECT THE PERFORMANCE OF SERVICES, CONTRACTOR SHALL IMMEDIATELY INFORM THE CLIENT OF SUCH FACT AND SHALL NOT PROCEED EXCEPT AT CONTRACTOR'S RISK UNTIL WRITTEN INSTRUCTIONS ARE RECEIVED FROM THE CLIENT.
- INSTALLATION CONTRACTOR SHOULD GUARANTEE ALL PLANTS FOR A MINIMUM OF 30 DAYS FROM INSTALLATION. MAINTENANCE CONTRACTORS SHOULD GUARANTEE ALL NEW PLANTS UNDER THEIR CARE FOR THE FIRST YEAR FROM INSTALLATION.

SCOPE OF WORK DOES NOT INCLUDE:

- INSTALLATION OR REPLACEMENT OF PLANTS, EXCEPT FOR THOSE DAMAGED OR ALLOWED TO DECLINE OR DIE BY THE CONTRACTOR, OR WITHIN A GUARANTEE PERIOD SPECIFIED BY THE CONTRACTOR;
- REPAIR AND/OR MODIFICATION OF THE IRRIGATION SYSTEM, EXCEPT AS EXTRA WORK UNDER MAINTENANCE CONTRACT;
- FURNISHINGS OR FIXTURES (RETAIL OR TO THE TRADE) AS MAY BE SPECIFIED BY THE DESIGNER..

CONTRACTOR REQUIREMENTS

- CONTRACTOR MUST HAVE A VALID CALIFORNIA C-27 CONTRACTOR'S LICENSE AUTHORIZED BY THE STATE OF CALIFORNIA.
- CONTRACTOR SHALL MAINTAIN INSURANCE REQUIRED IN THE BID DOCUMENTS THROUGHOUT THE CONTRACT PERIOD.
- IF PROVIDING MAINTENANCE, CONTRACTOR MUST HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE POSSESSING A CALIFORNIA STATE CHEMICAL APPLICATOR'S LICENSE FOR THE CONTROL OF WEEDS, PLANT DISEASES AND OTHER PESTS.
- IF PROVIDING MAINTENANCE, CONTRACTOR MUST HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE WHO HAS SUCCESSFULLY COMPLETED THE POLLUTION PREVENTION TRAINING & CERTIFICATION PROGRAM FOR SURFACE CLEANERS ISSUED BY THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA).
- IT IS PREFERRED THAT THE CONTRACTOR HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE WHO IS A CERTIFIED IRRIGATION CONTRACTOR (IRRIGATION ASSOCIATION).
- IF PROVIDING TREE CARE, IT IS PREFERRED THAT THE CONTRACTOR HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE WHO IS A CERTIFIED ARBORIST OR CERTIFIED TREE WORKER (INTERNATIONAL SOCIETY OF ARBORICULTURE).
- IF PROVIDING MAINTENANCE, IS PREFERRED THAT THE CONTRACTOR HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE WHO HAS EXPERIENCE OR TRAINING IN INTEGRATED PEST MANAGEMENT (IPM) TECHNIQUES.
- IT IS PREFERRED THAT THE CONTRACTOR HAVE ASSIGNED TO THE PROJECT AT LEAST ONE EMPLOYEE WHO HAS EXPERIENCE OR TRAINING IN BAY-FRIENDLY LANDSCAPING PRACTICES.
- ALL LANDSCAPE-RELATED SUBCONTRACTORS ASSIGNED TO THE PROJECT SHOULD HAVE TRAINING IN BAY-FRIENDLY LANDSCAPING OR OTHER EXPERIENCE IN SUSTAINABLE LANDSCAPE PRACTICES.

ALL SERVICES RENDERED SHALL BE PROVIDED IN ACCORDANCE WITH ALL ORDINANCES, RESOLUTIONS, STATUTES, RULES, LAWS AND REGULATIONS OF THE CLIENT, AND ANY FEDERAL, STATE, OR LOCAL GOVERNMENTAL AGENCY HAVING JURISDICTION IN EFFECT AT THE TIME SERVICE IS PROVIDED.

CONTRACTOR MUST ADHERE TO THE LOCAL CITY OR WATER AGENCY'S LANDSCAPE WATER CONSERVATION ORDINANCES, INTEGRATED PEST MANAGEMENT AND PESTICIDE USE POLICIES, TREE PRESERVATION AND PROTECTION ORDINANCES, STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE SITE AND ANY STORMWATER MANAGEMENT AND EROSION CONTROL POLICIES AS THEY MAY BE IN EFFECT AT THE TIME OF THE CONTRACT.

PROJECT REQUIREMENTS

- CONTRACTOR IS TO PROVIDE CLIENT WITH A BRIEF WEEKLY WORK SCHEDULE DESCRIBING THE WORK TO BE PERFORMED IN THE PROJECT AREA VIA EMAIL.
- THE CONTRACTOR SHALL ASSIGN A QUALIFIED TRAINED SUPERVISOR TO OVERSEE WORK PERFORMED AT THE WORK SITE AND TO ACT AS THE CONTRACTOR'S LIAISON WITH THE CLIENT REPRESENTATIVE. THIS SUPERVISOR MUST INSPECT THE PROJECT DAILY (MONDAY THROUGH FRIDAY) EXCEPT HOLIDAYS AND PROVIDE DIRECTION TO THE CONTRACTOR'S WORKERS AND/OR SUBCONTRACTORS. THIS SUPERVISOR SHALL SPEAK, WRITE, READ AND UNDERSTAND ENGLISH AND BE CAPABLE OF WRITING SCHEDULES, MONTHLY REPORTS NOTING ANY DEFICIENCY THAT NEEDS CORRECTING AND MAJOR PROJECTS FOR THE COMING MONTH. THIS SUPERVISOR SHALL HAVE AT LEAST THREE (3) YEARS OF LANDSCAPE MAINTENANCE SUPERVISION EXPERIENCE.
- THE CONTRACTOR SHALL CONDUCT ALL OPERATIONS DURING THE HOURS OF 7:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY, UNLESS OTHERWISE APPROVED BY THE CLIENT. CONTRACTOR MAY NOT WORK ON ANY FEDERAL, STATE, OR LOCAL HOLIDAYS.
- ANY NON-EMERGENCY WORK THAT MAY BE DEEMED HAZARDOUS OR DISRUPTIVE (I.E., CHEMICAL SPRAYING, TREE PRUNING, ETC.,) SHALL BE SCHEDULED AT LEAST TWO (2) WEEKS IN ADVANCE WITH THE CLIENT'S REPRESENTATIVE. FOR EMERGENCY WORK, CONTRACTOR MUST OBTAIN WRITTEN APPROVAL FROM CLIENT'S REPRESENTATIVE PRIOR TO COMMENCING WORK.
- CLIENT RESERVES THE RIGHT TO CHANGE SCHEDULES FOR SPECIAL EVENTS, CONFLICTS WITH ADJACENT PROPERTY OWNERS/TENANTS WITHIN FIVE (5) WORKING DAYS ADVANCE NOTICE.
- CONTRACTOR MUST PROTECT ALL EXISTING PLANT MATERIALS, SITE IMPROVEMENTS, STRUCTURES, FACILITIES, UTILITIES, AND NATURAL AREAS FROM DAMAGE, BOTH ABOVE AND BELOW GROUND. ANY DAMAGES SHALL BE REPORTED IMMEDIATELY TO THE CLIENT'S REPRESENTATIVE. ANY DAMAGES CAUSED BY CONTRACTOR SHALL BE CORRECTED AND/OR PAID FOR BY THE CONTRACTOR AT NO COST TO THE CLIENT.
- CONTRACTOR SHALL PROTECT PROPERTY FROM ACCIDENTAL CHEMICAL, FUEL, OIL OR OTHER CONTAMINANT SPILLS.
- CONTRACTOR SHALL NOT WASH OR BLOW SOIL, CHEMICALS, LITTER, MULCH, SOIL AMENDMENTS OR OTHER MATERIALS INTO STORM DRAINS.
- ALL CONTRACTOR VEHICLES ARE TO HAVE A READABLE SIGN WITH CONTRACTOR'S NAME OR LOGO AND TELEPHONE NUMBER.
- CONTRACTOR MUST AT ALL TIMES EXERCISE NECESSARY PRECAUTIONS TO PROVIDE FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES.

EXTRA WORK

- NEW AND UNFORESEEN WORK WILL BE CLASSED AS EXTRA WORK WHEN DETERMINED BY THE CLIENT THAT SUCH WORK IS NOT COVERED BY THESE SPECIFICATIONS. UPON NOTIFICATION THAT EXTRA WORK WILL BE REQUIRED, THE CONTRACTOR SHALL SUBMIT AN ITEMIZED, WRITTEN CHANGE ORDER FOR SUCH WORK TO THE CLIENT. SHOULD THE PROPOSAL BE ACCEPTABLE TO THE CLIENT, THE CONTRACTOR SHALL BE ADVISED IN WRITING, AND UPON RECEIPT OF SUCH WRITTEN NOTIFICATION, SHALL BEGIN THE WORK WITHIN FIVE (5) WORKING DAYS OR AS AGREED TO BETWEEN THE CONTRACTOR AND THE CLIENT.
- THE CONTRACTOR SHALL DO SUCH EXTRA WORK IN ACCORDANCE WITH THE AGREEMENT FOR EXTRA WORK AND WITH THE PROVISIONS OF THESE SPECIFICATIONS AND SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT. PAYMENT FOR EXTRA WORK PERFORMED SHALL BE AS AGREED TO BY THE CONTRACTOR AND THE CLIENT IN ADVANCE. COMPENSATION FOR MATERIAL BILLED UNDER A TIME & MATERIALS AGREEMENT WILL NOT EXCEED CONTRACTOR COST PLUS 15%. CONTRACTOR MUST PROVIDE INVOICE COPIES TO BE COMPENSATED FOR MATERIAL.

EMERGENCY WORK

- CONTRACTOR SHALL SUPPLY OFFICE, PAGER AND HOME PHONE NUMBERS OF EMPLOYEE RESPONSIBLE FOR EMERGENCIES. SAID EMPLOYEE SHALL BE FLUENT IN ENGLISH.
- CLIENT WILL PROVIDE CONTRACTOR WITH EMERGENCY NUMBERS AND/OR CONTACT INFORMATION IF THE CLIENT WILL NOT BE AT HOME FOR ANY PORTION OF THE WORK.

LANDSCAPE MAINTENANCE STANDARDS AND REQUIREMENTS

THE INSTALLATION CONTRACTOR SHALL REVIEW AND ADHERE TO THESE GUIDELINES AS THEY APPLY TO INSTALLATION AND CONSTRUCTION (SEE ESPECIALLY "SOIL MANAGEMENT" FOR SOIL COMPACTION AND EROSION CONTROL DURING CONSTRUCTION.) THE MAINTENANCE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT EACH MONTH STATING ALL CONTRACT WORK COMPLETED. THE REPORT SHALL SHOW THE WORK COMPLETED DURING EACH WEEK CONTRACT WORK WAS ACCOMPLISHED, AND SHALL BE SUBMITTED WITH AND COVER THE SAME WORK AS THE CONTRACTOR'S BILLING STATEMENT FOR THE PREVIOUS MONTH'S WORK.

- THE REPORT SHALL INCLUDE DOCUMENTATION OF STORMWATER AND IRRIGATION INSPECTIONS, IPM MONITORING, SOIL AND PEST MANAGEMENT TREATMENTS AND OTHER CHEMICAL APPLICATIONS. CONTRACTOR SHALL MAINTAIN AND SUBMIT MONTHLY DOCUMENTATION OF IRRIGATION CHECKS AND AS-BUILT PLANS OF ANY CHANGES OR ADJUSTMENTS TO THE SYSTEM.
- UNUSUAL HORTICULTURAL PROBLEMS SUCH AS PESTS, DISEASE AND DAMAGES THAT ARE BEYOND THE SCOPE OF THE CONTRACTOR'S RESPONSIBILITY SHALL BE BROUGHT TO THE ATTENTION OF THE CLIENT IMMEDIATELY. LIKEWISE PLANTS, IRRIGATION SYSTEMS, ETC., DAMAGED BY TRAFFIC ACCIDENTS OR VANDALISM, SHALL BE REPORTED IMMEDIATELY TO THE CLIENT.

THE CLIENT, OR DESIGNATED REPRESENTATIVE, SHALL MAKE PERIODIC INSPECTIONS TO INSURE THAT COMPLETE AND CONTINUOUS MAINTENANCE IS FULFILLED. IN ADDITION, THE CLIENT MAY CONSULT WITH GDA OR OTHER HORTICULTURAL SPECIALIST TO INSPECT PLANTINGS AND MAKE RECOMMENDATIONS FOR IMPROVEMENTS IN THE MAINTENANCE PROGRAM.
CONTRACTOR SHALL ADHERE TO APPLICABLE PROFESSIONAL STANDARDS AS DEFINED BY A PROFESSIONAL ORGANIZATION INCLUDING:

- AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - ANSI A300, PARTS 1 AND 2
- INTERNATIONAL SOCIETY OF ARBORICULTURE BMP FOR TREE AND SHRUB FERTILIZATION, AND BMP FOR TREE PRUNING.
- IRRIGATION ASSOCIATION BMPS
- BAY-FRIENDLY LANDSCAPE GUIDELINES

THE CONTRACTOR WILL IMPLEMENT STRATEGIES IN WORK OPERATIONS TO REDUCE FOSSIL FUEL CONSUMPTION AND EMISSIONS, SUCH AS:

- USE HAND-POWERED EQUIPMENT WHEN POSSIBLE.
- MINIMIZE USE OF GAS-POWERED BLOWERS, ESPECIALLY ON PLANTING BEDS.
- SELECT SMALLEST, MOST FUEL EFFICIENT EQUIPMENT TO ACCOMPLISH TASK.
- CONSIDER VEHICLES THAT OPERATE ON NATURAL GAS OR BIODIESEL.
- MAINTAIN EQUIPMENT PROPERLY AND KEEP IT WELL TUNED.
- EMPHASIZE EMPLOYEE CARPOOLING TO PROJECT.

NOTE: BAY-FRIENDLY LANDSCAPING EMPHASIZES INTEGRATED PEST MANAGEMENT (IPM) PRACTICES TO CONTROL PESTS AND DISEASES IN THE LANDSCAPE. IPM USES CULTURAL, MECHANICAL, PHYSICAL, AND BIOLOGICAL CONTROL METHODS BEFORE USING PESTICIDES. CHEMICAL CONTROLS ARE APPLIED ONLY WHEN MONITORING INDICATES THAT PREVENTATIVE AND NON-CHEMICAL METHODS ARE NOT KEEPING PESTS BELOW ACCEPTABLE LEVELS. WHEN PESTICIDES ARE REQUIRED, THE LEAST TOXIC AND THE LEAST PERSISTENT PESTICIDE THAT WILL PROVIDE ADEQUATE PEST CONTROL IS APPLIED.

TIDINESS

- MAINTENANCE CONTRACTOR SHALL KEEP ALL LANDSCAPED AREAS, WALKWAYS, BUILDING ENTRIES AND EXITS FREE FROM TRASH AND DEBRIS. LANDSCAPED AREAS SHOULD ALWAYS BE CLEANED WITH RAKES OR BROOMS, NOT BLOWERS, WHICH WILL ERODE TOPSOIL.
- MAINTENANCE CONTRACTOR SHALL KEEP ALL HARDSCAPE AREAS, WALKWAYS, BUILDING ENTRIES AND EXITS FREE FROM TRASH AND DEBRIS.

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WATER MANAGEMENT

- LANDSCAPES SHALL BE IRRIGATED TO MAINTAIN PLANT APPEARANCE AND HEALTH, AND MANAGED TO CONSERVE WATER AND AVOID OVERSPRAY AND WATER DAMAGE TO CLIENT'S HARDSCAPE AND PROPERTY. WHENEVER POSSIBLE, LANDSCAPE IRRIGATION SHALL BE SCHEDULED BETWEEN 2:00 A.M. AND 10:00 A.M. TO AVOID IRRIGATING DURING TIMES OF HIGH WIND OR HIGH TEMPERATURE.
- CONTRACTOR SHALL CHARACTERIZE THE PROJECT'S MICROCLIMATE(S) AND RANGE IN EXPOSURES AS A PRECURSOR FOR DEVELOPING THE WATER MANAGEMENT PROGRAM. CONTRACTOR SHALL IDENTIFY ANY EXISTING PLANT SPECIES PRESENT IN THE PROJECT LANDSCAPE IN ADDITION TO THOSE LISTED IN THE PLANT SCHEDULE.
- CONTRACTOR WILL DETERMINE PLANT WATER USE CLASSIFICATION FOR EACH PLANT SPECIES PRESENT, IF NOT LISTED, AS A PRECURSOR FOR DEVELOPING THE WATER MANAGEMENT PROGRAM. PLANT WATER USE CLASSIFICATIONS MAY BE FOUND IN "A GUIDE TO ESTIMATING IRRIGATION WATER NEEDS OF LANDSCAPE PLANTINGS IN CALIFORNIA" (UNIV. OF CALIF. COOPERATIVE EXTENSION, 2000).
- CONTRACTOR SHALL ASSESS TOPOGRAPHY WITHIN THE PROJECT AND EVALUATE POTENTIAL FOR RUNOFF. THIS INFORMATION SHALL BE CONSIDERED WHEN SCHEDULING IRRIGATION AND DETERMINING NEED FOR EROSION CONTROL MEASURES.
- IRRIGATION APPLICATION RATES AND DISTRIBUTION UNIFORMITY ARE BEST ASSESSED THROUGH AN IRRIGATION AUDIT. CONTRACTOR IS ENCOURAGED TO PERFORM AN IRRIGATION AUDIT BI-ANNUALLY (REFER TO WWW.ITRC.ORG) OR CLIENTS MAINTAINING FOR THEMSELVES MAY SCHEDULE AN AUDIT WITH THE WATER DISTRICT THAT IS THE SERVICE PROVIDER TO THE PROPERTY.
- IRRIGATION INTERVALS AND FREQUENCY SHALL BE SUITABLE FOR WEATHER CONDITIONS, SOIL INFILTRATION RATES, AND PLANT SPECIES' ROOTING DEPTH AND WATER REQUIREMENTS WITHIN EACH HYDROZONE. CALCULATION METHODS ARE DESCRIBED IN *A GUIDE TO ESTIMATING IRRIGATION WATER NEEDS OF LANDSCAPE PLANTINGS IN CALIFORNIA*, AVAILABLE FROM THE DEPT. OF WATER RESOURCES, SACRAMENTO, CA.
- IRRIGATION FREQUENCY SHALL BE BASED ON ET (EVAPOTRANSPIRATION) DATA (AVAILABLE THROUGH CIMIS). IRRIGATION SHALL BE APPLIED AT APPROXIMATELY 60% ALLOWABLE DEPLETION (AD) FOR TURF AND ANNUALS, 70% FOR NON-DROUGHT TOLERANT AND 90% FOR DROUGHT TOLERANT PLANTINGS.
- IRRIGATION DURATION WITHIN EACH HYDROZONE SHALL BE BASED ON THE SOIL INFILTRATION RATE, SPECIES WATER REQUIREMENT AND ROOTING DEPTH WITHIN THE HYDROZONE, AND THE APPLICATION RATE AND DISTRIBUTION UNIFORMITY OF THE IRRIGATION SYSTEM WITHIN THAT ZONE. ENOUGH WATER SHALL BE APPLIED AT EACH IRRIGATION CYCLE TO WET THROUGH THE DEPTH OF ROOT ZONE. WHERE RUNOFF OCCURS, THE APPLICATION TIME SHALL BE DIVIDED INTO SHORTER TIME INTERVALS AND REPEATED AS NEEDED.
- IRRIGATION FREQUENCY FOR EACH HYDROZONE SHALL BE ADJUSTED A MINIMUM OF EVERY FOUR WEEKS TO REFLECT ET EXPECTED IN THE NEXT MONTH.
- FOR SITES WITH CONTROLLERS THAT MONITOR ET AND ADJUST SCHEDULES AUTOMATICALLY, THE CONTRACTOR SHALL PROGRAM THE CONTROLLER ACCORDING TO MANUFACTURER SPECIFICATIONS, AND MONITOR TO ENSURE THAT FREQUENCY IS APPROPRIATE.
- CONTRACTOR AND/OR CLIENT SHALL MONITOR AND EVALUATE SOIL MOISTURE WITHIN PLANT ROOT ZONES USING A SOIL PROBE OR SHOVEL AND ADJUST IRRIGATION SCHEDULES ACCORDINGLY.
- CONTRACTOR SHALL ROUTINELY CHECK TO MAKE SURE PLANTS HAVE ADEQUATE NUMBERS OF DRIP EMITTERS FOR THEIR SIZE.
- CONTRACTOR SHALL DETERMINE IRRIGATION RUN TIME DEMAND MONTHLY BY RECORDING WATER METER READING BEFORE AND AFTER IRRIGATION (IF SITE HAS A SEPARATE IRRIGATION METER). THIS DATA SHOULD BE RECONCILED WITH RUN TIMES AND FLOW RATES TO DETERMINE IF THERE IS UNUSUAL CONSUMPTION WHICH MAY INDICATE STUCK VALVES OR LEAKS. OR, THE CONTRACTOR MAY INSTALL FLOW MONITORS TO ALERT MAINTENANCE CREWS OF LEAKS.
- CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM FOR OPTIMUM PERFORMANCE, AS PER MANUFACTURER'S SPECIFICATIONS, BY INSPECTING THE ENTIRE SYSTEM ON AN ONGOING BASIS. THIS INCLUDES CLEANING AND ADJUSTING ALL SPRINKLER AND BUBBLER HEADS, DRIP EMITTERS AND VALVES FOR PROPER COVERAGE.
- ALL MALFUNCTIONING EQUIPMENT SHALL BE REPAIRED PRIOR TO THE NEXT SCHEDULED IRRIGATION.
- ALL IRRIGATION REPLACEMENT PARTS SHALL BE OF THE SAME MANUFACTURER, TYPE, AND APPLICATION RATES AS EXISTING, OR APPROVED EQUALS OR UPGRADES.
- IRRIGATION SYSTEM PRESSURE SHALL BE CHECKED AND ADJUSTED AT LEAST MONTHLY DURING SEASON OF OPERATION, AND SPRINKLER HEADS MODIFIED TO AVOID OVERSPRAY.
- TWICE A YEAR, AT A MINIMUM, THE CONTRACTOR SHALL ENSURE ALL FLUSH VALVE/CAP LOCATIONS ARE VISIBLE, ENSURE VALVE BOXES ARE VISIBLE AND CAN BE OPENED, TEST BACKFLOW PREVENTERS, FLUSH LATERALS, INSPECT VALVES, FILTERS, AND PRESSURE REGULATORS FOR DAMAGE OR LEAKS, CHECK WIRE SPLICES, CLEAN VALVE BOXES OF DIRT AND DEBRIS, AND FLUSH FILTERS.

SOIL MANAGEMENT

- A HEALTHY, BIOLOGICALLY DIVERSE SOIL IS REQUIRED TO SUSTAIN A HEALTHY LANDSCAPE. A BASIC CONCEPT OF BAY- FRIENDLY LANDSCAPING IS TO CULTIVATE A FUNCTIONAL, LIVING SOIL FOODWEB WHICH SHALL THEN PROVIDE NUTRIENT ELEMENTS AS NEEDED TO SUSTAIN HEALTHY AND ATTRACTIVE PLANTS WHILE AVOIDING EXCESSIVE GROWTH THAT MIGHT ATTRACT PESTS AND/ OR NEED TO BE REMOVED THROUGH PRUNING, EDGING OR MOWING. LANDSCAPE MAINTENANCE ACTIVITIES SHALL BE IMPLEMENTED TO NURTURE BIOLOGICAL ACTIVITY, PROVIDE ORGANIC MATERIAL, AND PROTECT SOIL FROM DAMAGE. BAY AND RIPARIAN WATER QUALITY AND SOIL AND AQUATIC HABITAT SHALL BE PROTECTED BY CONTROLLING SOIL EROSION.

CONTRACTOR SHALL PRESERVE AND PROTECT CLIENT'S SOIL FROM COMPACTION BY:

- CULTIVATING SOIL WHEN IT IS MODERATELY MOIST; VERY WET AND VERY DRY SOILS SHALL NOT BE CULTIVATED.
- SCHEDULING OPERATIONS THAT REQUIRE DRIVING EQUIPMENT OVER THE SOIL (E.G. MOWING TURF) WHEN THE SOIL IS DRY.
- CONFINING TRAFFIC TO PAVED AREAS. WHEN TEMPORARY ACCESS IS NEEDED OVER NON-PAVED AREAS, DISTRIBUTE THE LOAD OVER THE SOIL WITH 6" THICK COARSE ORGANIC MULCH OR REUSABLE PLANKS.

CONTRACTOR SHALL PROTECT CLIENT'S SOIL FROM EROSION BY:

- MAINTAINING VEGETATIVE COVER OVER THE SOIL TO THE EXTENT POSSIBLE.
- PLACING COMPOST BERMS, BLANKET, SOCKS OR TUBES ALONG SLOPES TO SLOW WATER.
- MAINTAINING A MINIMUM OF 3" MULCH COVER OVER BARE SOIL.
- NEVER USE BLOWERS IN PLANTING BEDS OR ON TURF.
- USING COARSE MULCH ON SLOPES TO AVOID WASHING OF MULCH INTO STORMS DRAINS.

CREATE LEAF REPOSITORIES IN PLANTING BEDS AS APPROPRIATE.

SOIL AND PLANT TISSUE ANALYSIS

- WHERE PLANT MICRONUTRIENT DEFICIENCIES ARE SUSPECTED, PLANT TISSUE ANALYSES ARE RECOMMENDED TO DETERMINE NEED FOR FERTILIZER APPLICATION.
- BEFORE APPLYING ANY AMENDMENTS OTHER THAN COMPOST, CONTRACTOR SHALL SUBMIT SOIL SAMPLES FOR TESTING TO AN ACCREDITED LAB FOR ANALYSIS, SUCH AS SOIL AND PLANT LABORATORY (WWW.SOILANDPLANTLABORATORY.COM). THE TYPES AND QUANTITIES OF FERTILIZER AND/OR SOIL AMENDMENTS TO BE APPLIED SHALL BE DETERMINED FROM THE RESULTS OF THE SOIL ANALYSIS AND SHALL BE BASED ON AN 'ORGANIC' APPROACH TO SOIL MANAGEMENT.

SOIL AMENDMENTS

GDA DOES NOT RECOMMEND THE USE OF ADDITIONAL FERTILIZERS WITH MOST OF OUR DESIGNS. WE RECOMMEND THE PERIODIC APPLICATION OF HIGH-QUALITY ORGANIC COMPOST AND FREQUENT, HEAVY MULCHING. 3-4" MINIMUM DEPTH OF MULCH IN EVERY GARDEN. OUR HEAVY CLAY SOILS ARE GENERALLY VERY HIGH IN NUTRIENTS, BUT VERY LOW IN OXYGEN. REGULAR APPLICATIONS OF ORGANIC MATERIAL THAT WILL BREAK DOWN RAPIDLY WILL ALLOW YOUR PLANTS TO ACCESS THE NUTRIENTS THAT ARE ALREADY THERE.

- FERTILIZERS OF ANY KIND CAN SHORTEN THE LIFESPAN OF MANY DROUGHT-TOLERANT AND NATIVE CALIFORNIA PLANTS, AND SHOULD BE APPLIED ON A PRESCRIPTION BASIS ONLY. APPLICATION FREQUENCY SHALL BE DETERMINED BY PLANT NEED AND ASSESSED THROUGH SOIL AND/OR TISSUE ANALYSES.
- GDA RECOMMENDS DIESTEL COMPOST, AVAILABLE FROM LYNGSO IN REDWOOD CITY. DIESTEL COMPOST IS ESPECIALLY HIGH-QUALITY COMPOST, AND ONLY A "SHOVELFUL PER HOLE" IS REQUIRED TO STIMULATE BEAUTIFUL SOIL MICROORGANISMS. IT DOES NOT NEED TO BE APPLIED ACROSS THE ENTIRE PLANTING AREA AND TILLED IN, IT SHOULD BE MIXED DIRECTLY WITH THE BACKFILL SOIL FOR EACH HOLE, LEAVING THE EXISTING SOIL AROUND IT UNDISTURBED (NOT TILLING THE SOIL ALSO KEEPS WEEDS DOWN.)
- IF USING STANDARD MUNICIPAL COMPOST, INCORPORATE 2-4" OF COMPOST INTO THE TOP 6-12" OF SOIL IN ALL PLANTING AREAS.
- INCORPORATE 1-2" (3 1/3 - 6 2/3 CUBIC YARDS) COMPOST INTO THE TOP 5-7" OF SOIL IN ALL SOD AREAS.
- COMPOST SHALL BE A WELL DECOMPOSED, STABLE, WEED FREE ORGANIC MATTER SOURCE. THE PRODUCT SHALL BE CERTIFIED THROUGH THE US COMPOSTING COUNCIL'S (USCC) SEAL OF TESTING ASSURANCE PROGRAM (STA) PROGRAM (A COMPOST TESTING AND INFORMATION DISCLOSURE PROGRAM). IT SHALL BE DERIVED FROM AGRICULTURAL AND/OR FOOD WASTE AND/OR YARD TRIMMINGS. THE PRODUCT SHALL CONTAIN NO SUBSTANCES TOXIC TO PLANTS, WILL POSSESS NO OBJECTIONABLE ODORS AND SHALL NOT RESEMBLE THE FEEDSTOCK (THE ORIGINAL MATERIALS FROM WHICH IT WAS DERIVED.

HOW DO I KNOW IF THE COMPOST IS GOOD?

i. COMPOST EXHIBITING A SOUR OR PUTRID SMELL, CONTAINING RECOGNIZABLE GRASS OR LEAVES, OR HEAT (120F) UPON DELIVERY OR REWETTING SHALL NOT BE ACCEPTED.
ii. BEFORE DELIVERY OF THE COMPOST, THE SUPPLIER WILL SUBMIT PROOF OF STA CERTIFICATION AND A COPY OF LAB ANALYSIS PERFORMED BY A LABORATORY THAT IS ENROLLED IN THE US COMPOSTING COUNCIL'S CAP AND USING THE APPROVED TEST METHODS FOR THE EVALUATION OF COMPOSTING AND COMPOST (TMECC).

- PARTICLE SIZE: 95% PASSING A 1/2" SCREEN.
- BULK DENSITY: SHALL BE BETWEEN 500 AND 1100 DRY LBS/CUBIC YARD
- MOISTURE CONTENT SHALL BE BETWEEN 35% - 55% OF DRY SOLIDS.
- INERTS: COMPOST SHALL BE RELATIVELY FREE OF INERT INGREDIENTS, INCLUDING GLASS, PLASTIC AND PAPER,
- < 0.1 % BY WEIGHT OR VOLUME.
- WEED SEED/PATHOGEN DESTRUCTION: PROVIDE PROOF OF PROCESS TO FURTHER REDUCE PATHOGENS (PFRP). FOR EXAMPLE, TURNED WINDROWS MUST REACH MIN. 55C FOR 15 DAYS WITH AT LEAST 5 TURNINGS DURING THAT PERIOD. SELECT PATHOGENS: SALMONELLA <3 MPN/4GRAMS OF TS, OR COLIFORM BACTERIA <10000 MPN/GRAM.
- TRACE CONTAMINANTS METALS (LEAD, MERCURY, ETC.) PRODUCT MUST MEET US EPA, 40 CFR

MULCH, MULCH, MULCH!

- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3" OF COARSE ORGANIC MULCH AT ALL TIMES OVER SOIL SURFACE THAT IS NOT COVERED BY VEGETATION. MULCH SHALL BE APPLIED SO THAT IT IS BELOW GRADE (CURB, EDGING, ETC.) BY HALF AN INCH. SOME ADDITIONAL GRADING PREPARATION AND GRADING OF AREAS ADJACENT TO SIDEWALKS OR EDGING, ETC. MAY BE REQUIRED TO KEEP THE FINISH GRADE OF THE MULCH AT AN APPROPRIATE LEVEL. MULCH MATERIALS SHALL BE CHIPPED OR SHREDDED GREEN WASTE, WOOD CHIPS FROM PRUNING OPERATIONS, OR CHIPPED LANDSCAPE PRUNINGS. WHEN AVAILABLE, USE MATERIALS GENERATED ON-SITE.
- USE THE MULCH SPECIFIED IN THE MATERIALS SCHEDULE, OR CONTACT GDA FOR APPROVAL OF A SUBSTITUTION. SOME CALIFORNIA NATIVES ARE QUITE PICKY ABOUT THE TYPE OF MULCH THEY LIKE.

- TO CONSERVE NUTRIENTS ON-SITE AND PROTECT THE SOIL SURFACE, CONTRACTOR SHALL RETAIN NATURAL LEAF DROP UNDER TREES OR IN SHRUB BEDS. SELECT ONLY TREE AND SHRUB BEDS THAT WILL NOT ALLOW LEAF LITTER OR MULCH TO WASH OUT INTO STORM DRAINS. WHERE LEAF LITTER DETRACTS FROM LANDSCAPE APPEARANCE DUE TO LARGE LEAF SIZE, IT IS PREFERABLE THAT LEAVES BE CHOPPED AND RETURNED TO LANDSCAPE BEDS. REMOVE DISEASED LEAVES THAT WOULD PROVIDE INOCULUMS FOR PLANT INFECTION.
- IN PARTICULAR, CONTRACTOR SHALL TAKE CARE TO MAINTAIN NATURAL LEAF DROP UNDER NATIVE OAKS.
- CONTRACTOR IS ENCOURAGED TO CHIP ALL VEGETATIVE MATERIALS AND WOOD AND USE ON SITE AS MULCH.
- CONTRACTOR SHALL PRACTICE GRASSCYCLING (DISCUSSED FURTHER IN SOD CARE)

WHERE APPROPRIATE SPACE IS AVAILABLE, CLIENT IS ENCOURAGED TO COMPOST SITE-GENERATED GREEN WASTE AND REUSE ON SITE

WEED MANAGEMENT

CONTRACTOR WILL IDENTIFY KEY WEEDS PRESENT AND DESIGN WEED MANAGE PROGRAM TO TARGET THOSE SPECIES.

- CULTURAL/MECHANICAL/PHYSICAL METHODS WILL BE USED AS THE FIRST CHOICE IN WEED MANAGEMENT.
- MONITOR PLANTING AREAS FREQUENTLY TO IDENTIFY AND ERADICATE WEEDS EARLY IN THE GROWTH STAGE PRIOR TO THEIR SETTING SEED.
- CUT OR PULL WEEDS USING HAND OPERATED EQUIPMENT WHERE POSSIBLE.
- MULCHES SHALL BE MAINTAINED AT ALL TIMES OVER SOIL SURFACE THAT IS NOT COVERED BY VEGETATION. SHEET MULCHING, A LAYERED SYSTEM OF NON-PLASTIC WEED BARRIER OVERLAIN BY MULCH, SHALL BE EMPLOYED WHERE POSSIBLE.
- PROPANE-FUELED FLAMERS MAY BE USED IN WINTER AND SPRING WITH REQUIRED PERMITS AND APPROVAL BY THE FIRE MARSHALL TO KILL EARLY-SEASON, NON-GRASS WEEDS BY HEATING THE CELLS UNTIL THEY BURST. THE WEED QUICKLY WILTS AND DIES.

LEAST TOXIC HERBICIDES MAY BE EMPLOYED BY CONTRACTOR AS A LAST RESORT. EXAMPLES ARE:

- FATTY ACID POTASSIUM SALTS (HERBICIDAL SOAPS E.G. SAFER'S SUPERFAST WEED AND GRASS KILLER® DR. BRONNER'S PEPPERMINT ANTI-BACTERIAL SOAP)!
- ACETIC AND CITRIC ACIDS (E.G. NATURE'S GLORY WEED AND GRASS KILLER RTU®)
- CLOVE, CITRUS, MINT AND THYME OIL (E.G. MATRAN II®, XPRESS®)
- CORN GLUTEN

DO NOT USE THE FOLLOWING GROUNDWATER CONTAMINANTS (TRADE NAMES IN PARENTHESES): ATRAZINE (AATREX), SIMAZINE (PRINCEP), BROMACIL (HYVAR, KROVAR), PROMETON (PRAMITOL), BENTAZON (BASAGRAN), NORFLURAZON (SOLICAM, PREDICT, ZORIAL.) DO NOT USE THE FOLLOWING COMPOST CONTAMINANTS: PICLORAM, CLOPYRALID.

RODENTS, GOPHERS AND DEER

- MECHANICAL/PHYSICAL/CULTURAL METHODS SHALL BE IMPLEMENTED AS A FIRST COURSE OF ACTION. PREFERRED TREATMENTS INCLUDE:
- EXCLUSION - PROTECT PLANTS FROM DAMAGE BY GRAZING ANIMALS WITH FENCES OR CAGES.
- HABITAT MODIFICATION - REDUCE COVER AT THE PERIPHERY OF THE PROJECT AS NEEDED TO SOLVE PROBLEM.
- APPLICATION OF REPELLENTS THAT ARE SUITABLE FOR USE IN PUBLIC AREAS.
- TRAPS MAY BE USED WHERE MECHANICAL/PHYSICAL/CULTURAL METHODS HAVE BEEN INSUFFICIENT TO CONTROL MOLES, VOLES, GOPHERS, RATS AND MICE.
- OWL BOXES

INTEGRATED PEST MANAGEMENT (IPM)

CONTRACTOR SHALL ASSUME PESTICIDES ARE POTENTIALLY HAZARDOUS TO HUMAN AND ENVIRONMENTAL HEALTH. PREFERENCE SHALL BE GIVEN TO REASONABLY AVAILABLE NON-PESTICIDE ALTERNATIVES WHEN CONSIDERING THE USE OF PESTICIDES ON CLIENT PROPERTY. BIOLOGICAL CONTROLS ARE PESTICIDES OF NATURAL ORIGIN THAT HAVE LIMITED OR NO ADVERSE EFFECTS ON THE ENVIRONMENT OR BENEFICIAL ORGANISMS. DETERMINING THE EFFECTIVE BIOLOGICAL CONTROL AND PROPER TIMING OF APPLICATION ARE CRITICAL TO SUCCESS IN PEST CONTROL.

- THE CONTRACTOR SHALL CONSIDER THE FOLLOWING BIOLOGICAL CONTROL METHODS WHEN CULTURAL/MECHANICAL/PHYSICAL METHODS ARE NOT ADEQUATE TO LOWER PEST POPULATIONS TO THE TARGET LEVEL.
- 1) *BACILLUS THURINGIENSIS* (BT)
  2) PARASITIC NEMATODES
  3) PHEROMONE TRAPS
  4) BENEFICIAL INSECT RELEASE AND CONSERVATION
- THE TERM PESTICIDE APPLIES TO INSECTICIDES, FUNGICIDES AND OTHER SUBSTANCES USED TO CONTROL PESTS. ANTIMICROBIAL AGENTS ARE NOT INCLUDED IN THIS DEFINITION OF PESTICIDES.
- LEAST TOXIC PESTICIDES: WHEN CULTURAL, MECHANICAL, PHYSICAL AND BIOLOGICAL CONTROLS HAVE PROVIDED INADEQUATE PEST CONTROL, THE CONTRACTOR MAY SELECT AND APPLY AN APPROPRIATE LEAST-TOXIC PESTICIDE AS A LAST RESORT. LEAST-TOXIC PESTICIDES HAVE A HIGH LD-50, LOW RESIDUAL, AND NARROW RANGE OF TOXICITY. APPLICATION MUST BE TIMED TO THE APPROPRIATE LIFE STAGE OF THE PEST. EXAMPLES INCLUDE INSECTICIDAL SOAPS, HORTICULTURAL OILS, HERBICIDAL SOAPS, NEEM, PYRIPROXYFEN INSECT GROWTH REGULATOR (E.G. DISTANCE IGR) DO NOT USE ORGANOPHOSPHATE-CONTAINING PESTICIDES, WHICH HAVE BEEN FOUND TO PERSIST IN THE ENVIRONMENT AND CAUSE WATER QUALITY IMPAIRMENT. EXAMPLES INCLUDE DIAZINON, TRADE NAMES SPECTRACIDE®, KNOX-OUT® AND CHLORPYRIFOS, TRADE NAMES DURSBAN®, PAGEANT®) MALATHION AND CARBARYL (TRADE NAME SEVIN®) WATER QUALITY AGENCIES RECOMMEND AGAINST USING PYRETHROIDS AND PYRETHRINS CONTAINING PIPERONYL BUTOXIDE (PBO). PYRETHRINS ARE TOXIC TO BIRDS, FISH, AND BENEFICIAL INSECTS. IF YOU EXPERIENCE A PEST PROBLEM THAT DOESN'T RESPOND TO BIOLOGICAL CONTROL METHODS, CONTACT GDA FOR RECOMMENDATIONS FOR REPLACING THE PLANT!

TREE PROTECTION

IN ADDITION TO ANY TREE-PROTECTION REQUIREMENTS DICTATED BY PERMIT AUTHORITIES, THE INSTALLATION CONTRACTOR SHALL TAKE CARE NOT TO REMOVE DUFF OR ALTER THE GRADE OF EXISTING SOIL UNDER ANY TREE UNLESS SPECIFICALLY INSTRUCTED IN THE PLAN. CONSTRUCTION MATERIALS AND TOOLS SHOULD NOT BE STORED AT THE BASE OF THE TRUNK. NO MATERIALS SHOULD BE POURED OR DUMPED UNDER THE DRIPLINE OF AN EXISTING TREE. ALL NURSERY STAKES SHOULD BE REMOVED AND TREES SHOULD BE RE-STAKED AS NOTED IN THE PLAN DETAILS BEFORE THE PROJECT IS CONSIDERED COMPLETE.

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CARE OF TREES

GDA RECOMMENDS THAT CLIENTS HAVE ALL MATURE TREES ON THEIR PROPERTY PRUNED EVERY 5 YEARS. NATIVE OAKS SHOULD BE LIGHTLY PRUNED EVERY 2-3 YEARS, OTHER SPECIMEN TREES (SUCH AS JAPANESE MAPLES) EVERY YEAR TO TWO YEARS, AND FRUIT TREES EVERY YEAR. TREE PRUNING SHALL BE PERFORMED ONLY BY TRAINED, EXPERIENCED PERSONNEL. YOUNG TREES SHALL RECEIVE ANNUAL PRUNING FOR UP TO FIVE YEARS AFTER PLANTING BY PERSONNEL TRAINED IN PRUNING TO DEVELOP TREE STRUCTURE. THE PURPOSE OF THE PRUNING IS TO DIRECT THE TREE INTO THE APPROPRIATE FORM FOR THE SPECIES AND THE SITE AND TO DEVELOP A STRONG BRANCH STRUCTURE. TREES WITH CODOMINANT TRUNKS AND MULTIPLE BRANCH ATTACHMENTS SHALL BE PRUNED TO CORRECT THOSE DEFECTS OVER A PERIOD OF SEVERAL YEARS.

- VERIFY BEFORE WORK BEGINS THAT AN I.S.A. CERTIFIED ARBORIST IS TO BE PRESENT AT ALL TIMES DURING PRUNING ON CLIENT'S PROPERTY. ARBORIST MUST HAVE A STATE OF CALIF. CONTRACTORS LICENSE FOR TREE SERVICE (C61-D49).
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  - CLEAR THE CROWN OF DISEASED, CROSSING, WEAK AND DEAD BRANCHES. TREES SHALL NOT BE ROUTINELY THINNED.
  - PROVIDE 14' VERTICAL CLEARANCE OVER ROADS, 8' OVER WALKWAYS;
  - REDUCE END WEIGHT ON HEAVY, HORIZONTAL BRANCHES
  - CREATE A STRONG CENTRAL TRUNK WITH LATERAL BRANCHES SPACED VERTICALLY AND HORIZONTALLY.
  - INTERIOR BRANCHES SHALL NOT BE STRIPPED OUT.
  - NO MORE THAN 20% OF LIVE FOLIAGE SHALL BE REMOVED WITHIN THE TREES.
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  - BRANCH REMOVAL OR REDUCTION CUTS (THINNING CUTS) ARE TO BE EMPLOYED RATHER THAN HEADING CUTS. TREES SHALL NOT BE TOPPED OR HEADED BACK.
  - NO GREEN PALM FRONDS SHALL BE REMOVED ABOVE A HORIZONTAL LINE DRAWN ACROSS THE BASE OF THE CROWN.
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- IRRIGATION AND FERTILIZATION PROGRAMS SHALL BE DESIGNED TO AVOID EXCESSIVE PLANT GROWTH THAT WOULD REQUIRE ADDITIONAL PRUNING OR MOWING TO MANAGE.
- TYPICALLY, GDA RECOMMENDS PUTTING LANDSCAPE TREES ON A SEPARATE VALVE WITH BUBBLERS, SO THAT THE TREES CAN RECEIVE ADDITIONAL DEEP WATER IN SUMMER, TO HELP THEM SURVIVE MORE SEVERE DROUGHT CONDITIONS.
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  - IF NEW TIES ARE NEEDED TO SECURE TREE TO STAKE, USE TIES COMPOSED OF RECYCLED MATERIALS. THE TIE MUST BE BROAD, HAVE A SMOOTH SURFACE WHERE IT CONTACTS THE TRUNK, AND PROVIDE SOME ELASTICITY. WIRE COVERED WITH HOSE, TUBING OR OTHER MATERIALS, AND COVERED ELECTRICAL WIRE ARE NOT ACCEPTABLE MATERIALS.

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- WOODY GROUNDCOVERS SHALL BE SELECTIVELY PRUNED TO CONTROL GROWTH TOWARDS PAVEMENTS RATHER THAN EDGED.
- EXISTING HEDGES THAT HAVE BEEN MAINTAINED BY SHEARING IN THE PAST AND THAT DO NOT HAVE ADEQUATE SPACE TO GROW TO MATURE PLANT SIZE CAN CONTINUE TO BE MAINTAINED BY SHEARING.
- FOR HEDGES THAT HAVE NOT YET BEEN MAINTAINED BY SHEARING: SHEARING OF PLANTS INTO FORMAL SHAPES SHALL BE AVOIDED AS THIS DESTROYS THE NATURAL FORM OF THE PLANT AND GENERATES EXCESSIVE WASTE.
- WHERE PLANT SIZE MUST BE CONTROLLED BECAUSE OF INADEQUATE SPACE FOR THE PLANT, PRUNE TO REDUCE SIZE BY CUTTING INDIVIDUAL BRANCHES OR STEMS TO INTERIOR LATERAL BRANCHES AT APPROPRIATE LOCATIONS.

ANNUAL LAWN AND NATIVE MEADOW SOD CARE

- NATIVE MEADOW SOD MAY BE MOWED 2 TO 3 TIMES A SEASON, BUT IN ANY EVENT SHOULD NEVER BE MOWED SHORTER THAN 4". TYPICALLY IT IS "MOWED" WITH A STRING TRIMMER.
- ANNUAL TURF WILL BE MOWED AT A HEIGHT APPROPRIATE FOR THE SPECIES OF TURF:
- TALL FESCUE 2-3"
- BLUEGRASS, RYEGRASS, RED FESCUE 1.5-2.5"
- DICHONDRA, BERMUDAGRASS 0.5-1.0"
- GRASSCYCLING SHALL BE EMPLOYED FOR ALL ANNUAL LAWN AREAS (SEE A BAY-FRIENDLY LANDSCAPING GUIDE TO GRASSCYCLING, AVAILABLE AT WWW.BAYFRIENDLY.ORG.) GRASSCYCLING REQUIRES AN INTEGRATED MANAGEMENT SYSTEM OF IRRIGATION, MOWING HEIGHT, AND MOWING FREQUENCY.
- KEY COMPONENTS ARE:
  A. MOW OFTEN, AT LEAST ONCE A WEEK DURING THE GROWING SEASON.
  B. MOW WHEN THE TURF IS DRY; AT LEAST ON THE DAY FOLLOWING IRRIGATION.
  C. MAINTAIN EQUIPMENT TO KEEP BLADES SHARP AND BALANCED; USUALLY SHARPEN ONCE A WEEK. KEEP AREA UNDER THE MOWER DECK CLEAN. MULCHING MOWERS ARE MORE EFFECTIVE, BUT NOT REQUIRED FOR GRASSCYCLING.
  D. LEAVE CLIPPINGS ON THE TURF. A SECOND PASS OVER CLUMPS OR WINDROWS MAY BE NECESSARY IF CLIPPINGS ARE LONG. CLIPPING MAY NOT BE LEFT ON TURF IN CLUMPS OR WINDROWS.
  E. SEASONAL RAINS MAY REQUIRE TEMPORARILY HALTING OF GRASSCYCLING BECAUSE OF EXCESSIVE MOISTURE. THE CLIPPINGS MUST BE PICKED UP AND USED AS A MULCH OR TRANSPORTED TO A PLANT DEBRIS RECYCLING FACILITY. DO NOT USE GRASS CLIPPINGS AS A MULCH IF AN HERBICIDE HAS BEEN APPLIED TO THE TURF.
- CONTRACTOR WILL LEAVE GRASS CLIPPINGS ON LAWNS AFTER MOWING, FROM AT LEAST APRIL THROUGH OCTOBER. SPORTS TURF MAY BE EXCLUDED 'IN SEASON' WHEN CLIPPINGS WILL INTERFERE WITH PLAY.

a. MOWING PATTERNS WILL BE CHANGED WEEKLY OR HOWEVER OFTEN NECESSARY TO AVOID RUTTING.
ii. TURF AREAS ADJACENT TO PAVEMENTS SHALL BE EDGED ON A VERTICAL PLANE EVERY OTHER MOWING.
iii. A STRING TRIMMER OR SHEARS SHALL BE USED TO TRIM AROUND VALVE BOXES, HEADERBOARDS, ETC. IN THE TURF, ON A REGULAR BASIS TO MAINTAIN A NEAT APPEARANCE.
iv. TURF SHALL BE MAINTAINED 24" AWAY FROM THE BASE OF ANY TREE, AND 4" MINIMUM FROM ANY SIGN, BUILDING, OR STRUCTURE.
v. CLIPPINGS WILL BE REMOVED FROM PAVED SURFACES THE DAY OF THE MOWING AND EDGING.
vi. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGING PLANTS, EQUIPMENT, SIGNS, BUILDINGS, VEHICLES, ETC. DURING TURF MAINTENANCE OPERATIONS. ANY TREES WHICH HAVE MORE THAN 50% OF THE CIRCUMFERENCE OF THE TRUNK TISSUE REMOVED OR DAMAGED BY STRING TRIMMERS OR MOWERS SHALL BE CONSIDERED DESTROYED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH LIKE SPECIES AND SIZE.
vii. MULCH LEAF LITTER WITH MOWERS AS NEEDED THROUGHOUT THE FALL AND WINTER MONTHS. LARGE CONCENTRATIONS OF LEAVES MAY REQUIRE PICKUP. RAKES ARE PREFERRED FOR LEAF LITTER REMOVAL OVER BLOWERS. LEAF LITTER WILL NOT BE ALLOWED TO ACCUMULATE TO THE POINT THAT IT WILL DAMAGE OR KILL TURF. LEAF LITTER THAT IS REMOVED FROM TURF WILL BE EITHER CHOPPED AND USED ON-SITE, OR TRANSPORTED TO A PLANT DEBRIS RECYCLING FACILITY.
i. AERATE TURF IN TRAFFIC AREAS ONCE A YEAR. AERATE TURF IN LOW USE AREAS EVERY TWO YEARS. USE EQUIPMENT WITH HOLLOW TINES THAT REMOVES A SOIL CORE. TOPDRESS WITH 1/4 INCH FINE COMPOST. OVERSEED TO FILL IN THIN SPOTS AND TO CROWD OUT WEEDS.

ii. DETHATCH TURF WHEN THATCH ACCUMULATES TO A ONE-HALF INCH THICKNESS BY CUTTING WITH A VERTICAL MOWER. THATCH SHALL BE RAKED AND EITHER COMPOSTED FOR USE ELSEWHERE, OR TRANSPORTED TO A GREENWASTE RECYCLING FACILITY.
iii. AERATION AND DETHATCHING ACTIVITIES SHOULD BE SCHEDULED TO COINCIDE WITH ACTIVE GROWTH PERIOD OF THE TURF SPECIES, AVOID HOT WEATHER CONDITIONS, AND AVOID PEAK TIME OF CRABGRASS AND OTHER WEED SEED GERMINATION.
iv. IRRIGATION FREQUENCY UNDER NORMAL CONDITIONS SHOULD NOT EXCEED THREE TIMES PER WEEK FOR ANNUAL GRASSES, TWICE A WEEK FOR NATIVE SOD BLENDS.
v. CONTRACTOR IS RESPONSIBLE FOR MONITORING TURF TO IDENTIFY AND ASSESS PEST PROBLEMS, AND FOR TAKING ACTION TO CONTROL PESTS THAT AFFECT TURF HEALTH AND APPEARANCE WHEN PEST POPULATIONS OR DAMAGE EXCEED ESTABLISHED THRESHOLDS.

GROUNDCOVERS

- GROUND COVERS SHALL BE TRIMMED ON A REGULAR BASIS TO MAINTAIN PAVEMENTS AND OTHER FEATURES CLEAR OF VEGETATION.
- THE EDGE OF WOODY GROUND COVERS (E.G. ROSEMARY, COTONEASTER) SHALL BE MAINTAINED BY PRUNING INDIVIDUAL BRANCHES OR STEMS TO INTERIOR LATERAL BRANCHES A MINIMUM OF 6" AND MAXIMUM OF 12" FROM THE EDGE OF PAVEMENT.
- THE EDGE OF HERBACEOUS GROUND COVERS (E.G. HYPERICUM) MAY BE MAINTAINED USING TURF EDGING EQUIPMENT.

a. WHEN GROUND COVERS BECOME EXCESSIVELY WOODY OR DEVELOP THATCH IN EXCESS OF 4", THE CONTRACTOR SHALL PRUNE THE PLANTING SEVERELY TO REJUVENATE IT. FOR MOST WOODY GROUND COVERS, PRUNE TO APPROXIMATELY 6-8" HEIGHT. HERBACEOUS GROUND COVERS MAY BE MOWED AT AN APPROPRIATE HEIGHT, GENERALLY 4-6". THIS TREATMENT SHALL ONLY BE APPLIED IN THE LATE WINTER/EARLY SPRING WHEN ET IS LOW AND REGROWTH WILL OCCUR QUICKLY.

BIOSWALES AND BIO-RETENTION AREAS

- BIOSWALES AND BIO-RETENTION AREAS REMOVE POLLUTANTS FROM THE STORMWATER BY FILTERING RUNOFF SLOWLY THROUGH AN ACTIVE LAYER OF SOIL. THEY SHALL BE MAINTAINED TO ENSURE THAT FLOW IS NOT OBSTRUCTED, EROSION IS PREVENTED AND THEY CONTINUE TO BE EFFECTIVE WITHOUT CAUSING FLOODING OR HARBORING VECTORS AND IN ACCORDANCE WITH THE SITE'S STORMWATER CONTROL PLAN'S OPERATION AND MAINTENANCE PLAN, IF AVAILABLE.
- BIOSWALES DEPEND ON SOILS THAT ARE BIOLOGICALLY ACTIVE AND HELD TOGETHER BY PLANT ROOTS. THEY SHALL BE MAINTAINED USING MATERIALS AND METHODS THAT SUPPORT THIS BIOLOGICAL ACTIVITY, PROTECT ENVIRONMENTAL QUALITY AND HUMAN HEALTH, CONSERVE WATER AND ENERGY, MINIMIZE WASTE, AND REUSE AND RECYCLE MATERIALS TO THE EXTENT POSSIBLE.
- INSPECT INLETS FOR CHANNELS AND EXPOSURE OF SOILS AND REPORT TO THE CLIENT IF EVIDENCE OF EROSION IS FOUND. EXAMINE ROCK OR OTHER MATERIAL AND REPORT TO THE CLIENT IF IT REQUIRES REPLACEMENT.
- INSPECT INLETS AND SLOPES FOR INSTABILITY, EROSION OR OBSTRUCTIONS. REPORT INDICATIONS OF PROBLEMS TO CLIENT.
- OBSERVE SOIL AT THE BOTTOM OF THE SWALE FOR UNIFORM INFILTRATION. CONFIRM THAT IRRIGATION IS ADEQUATE BUT NOT EXCESSIVE. REPORT WATER THAT DOES NOT DRAIN WITHIN 48 HOURS OF A STORM.
- CONFIRM THAT CHECK DAMS AND FLOW SPREADERS ARE IN PLACE AND LEVEL. REPORT PROBLEMS TO CLIENT.
- CLEAR MINOR OBSTRUCTIONS AND INSPECT FOR ACCUMULATION OF SEDIMENT. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT IN BIOSWALES BY HAND AND AROUND CATCH BASINS AND CULVERTS AS NECESSARY TO MAINTAIN ADEQUATE FLOW.
- EXAMINE VEGETATION TO ENSURE THAT IT IS HEALTHY, ADEQUATELY BUT NOT OVERWATERED, AND DENSE ENOUGH TO PROVIDE FILTERING. REMOVE DEBRIS.
- GRASSY SWALES SHALL BE MOWED AS NEEDED TO MAINTAIN ADEQUATE WATER FLOW. FOR BIDDING PURPOSES ASSUME 4 MOWINGS PER YEAR. REMOVE NO MORE THAN 1/3 OF THE LENGTH OF THE LEAF BLADE. CLIPPINGS SHOULD BE COLLECTED AND EITHER USED ELSEWHERE ON-SITE OR TRANSPORTED TO A PLANT DEBRIS RECYCLING FACILITY.

HARDSCAPE

- CONTRACTOR WILL CLEAN HARD SURFACES AS NEEDED TO REMOVE ACCUMULATION OF SEDIMENT, DIRT, OR OTHER MATERIALS THAT DISTRACTS FROM THE VISUAL IMPACT OF THE AREA OR CREATES A SAFETY HAZARD. CLEANING METHODS MUST BE CONSISTENT WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION. (BASMAA) CRITERIA.
- POTENTIAL ROOT DAMAGE TO HARDSCAPES SHALL BE REPORTED TO CLIENT. CORRECTIVE ACTION WILL BE DETERMINED AND DIRECTED AS AN EXTRA SERVICE.
- CONTRACTOR SHALL CLEAN THE SURFACE OF PERVIOUS PAVING TO REMOVE FINE DEBRIS AND DIRT AS NEEDED TO MAINTAIN PERMEABILITY (APPROXIMATELY FOUR TIMES PER YEAR). PAVEMENT MAY BE CLEANED WITH STREET SWEEPERS EQUIPPED WITH VACUUMS, WATER, AND BRUSHES, FOLLOWED BY HIGH-PRESSURE HOSING OF SURFACE. IF NECESSARY, REPLACE DISPLACED AGGREGATE FILL WITH CLEAN GRAVEL. CLEANING METHODS MUST BE CONSISTENT WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION. (BASMAA) CRITERIA (LISTED BELOW IN SECTION 4.9.E., *BASMAA CERTIFICATION*).
- POLLUTION PREVENTION TRAINING & CERTIFICATION PROGRAM FOR SURFACE CLEANERS ISSUED BY THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA) IS REQUIRED TO PERFORM SURFACE CLEANING WORK. ALL WORK SHOULD CONFORM TO BASMAA STANDARDS. BASMAA STANDARDS ENCOURAGE THE USE OF DRY CLEANING METHODS OVER WET SUCH AS THE USE OF ABSORBING MATERIALS FOR OILS AND SWEEPING. IT DISCOURAGES THE USE OF ANY SOAPS OR SOLVENTS. IT ENCOURAGES DIRECTING WASH WATER INTO THE LANDSCAPE OR COLLECTION OF WASTE WATER FOR DISPOSAL INTO A SANITARY SEWER INSTEAD OF A STORM DRAIN. SEE THEIR WEBSITE FOR A THOROUGH LIST OF CRITERIA.

SUPPLEMENTAL RESOURCES FOR CONTRACTORS AND HOMEOWNERS

STOPWASTE.ORG
WWW.BAYFRIENDLY.ORG
1. BAY-FRIENDLY LANDSCAPE GUIDELINES
2. A LANDSCAPER'S GUIDE TO GRASSCYCLING
3. A LANDSCAPER'S GUIDE TO MULCH

A GUIDE TO ESTIMATING IRRIGATION OF WATER NEEDS OF LANDSCAPE PLANTINGS, CALIFORNIA DEPT OF WATER RESOURCES, HTTP://CDEC.WATER.CA.GOV

IRRIGATION WATER AUDITS, IRRIGATION ASSOCIATION, WWW.IRRIGATION.ORG, AND THE IRRIGATION TECHNOLOGY RESEARCH CENTER, WWW.ITRC.ORG.

CALIFORNIA IRRIGATION MANAGEMENT INFORMATION SYSTEM, WWW.CIMIS.WATER.CA.GOV, WASTE MANAGEMENT AND RECYCLING, WWW.CIWMB.CA.GOV.

THE WEED WORKER'S HANDBOOK, A GUIDE TO TECHNIQUES FOR REMOVING BAY AREA INVASIVE PLANTS, THE WATERSHED COUNCIL (510) 231-5655 AND THE CALIFORNIA , INVASIVE PLANT COUNCIL (510) 843-3902

PESTS OF LANDSCAPE TREES AND SHRUBS: AN INTEGRATED PEST MANAGEMENT GUIDE, 2ND ED., UC PUBLICATION 3359, HTTP://WWW.IPM.UCDAVIS.EDU

G. *A FIELD GUIDE TO COMPOST USE*, THE COMPOSTING COUNCIL, 114 SOUTH PITT STREET, ALEXANDRIA, VIRGINIA 22314, (703) 739-2401, HTTP://WWW.COMPOSTINGCOUNCIL.ORG/INDEX.CFM

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REVISIONS

LANDSCAPE GENERAL NOTES

xxx SAN CARLOS AVE. EL GRANADA, CA 94019

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vi. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGING PLANTS, EQUIPMENT, SIGNS, BUILDINGS, VEHICLES, ETC. DURING TURF MAINTENANCE OPERATIONS. ANY TREES WHICH HAVE MORE THAN 50% OF THE CIRCUMFERENCE OF THE TRUNK TISSUE REMOVED OR DAMAGED BY STRING TRIMMERS OR MOWERS SHALL BE CONSIDERED DESTROYED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH LIKE SPECIES AND SIZE.
vii. MULCH LEAF LITTER WITH MOWERS AS NEEDED THROUGHOUT THE FALL AND WINTER MONTHS. LARGE CONCENTRATIONS OF LEAVES MAY REQUIRE PICKUP. RAKES ARE PREFERRED FOR LEAF LITTER REMOVAL OVER BLOWERS. LEAF LITTER WILL NOT BE ALLOWED TO ACCUMULATE TO THE POINT THAT IT WILL DAMAGE OR KILL TURF. LEAF LITTER THAT IS REMOVED FROM TURF WILL BE EITHER CHOPPED AND USED ON-SITE, OR TRANSPORTED TO A PLANT DEBRIS RECYCLING FACILITY.
i. AERATE TURF IN TRAFFIC AREAS ONCE A YEAR. AERATE TURF IN LOW USE AREAS EVERY TWO YEARS. USE EQUIPMENT WITH HOLLOW TINES THAT REMOVES A SOIL CORE. TOPDRESS WITH 1/4 INCH FINE COMPOST. OVERSEED TO FILL IN THIN SPOTS AND TO CROWD OUT WEEDS.

ii. DETHATCH TURF WHEN THATCH ACCUMULATES TO A ONE-HALF INCH THICKNESS BY CUTTING WITH A VERTICAL MOWER. THATCH SHALL BE RAKED AND EITHER COMPOSTED FOR USE ELSEWHERE, OR TRANSPORTED TO A GREENWASTE RECYCLING FACILITY.
iii. AERATION AND DETHATCHING ACTIVITIES SHOULD BE SCHEDULED TO COINCIDE WITH ACTIVE GROWTH PERIOD OF THE TURF SPECIES, AVOID HOT WEATHER CONDITIONS, AND AVOID PEAK TIME OF CRABGRASS AND OTHER WEED SEED GERMINATION.
iv. IRRIGATION FREQUENCY UNDER NORMAL CONDITIONS SHOULD NOT EXCEED THREE TIMES PER WEEK FOR ANNUAL GRASSES, TWICE A WEEK FOR NATIVE SOD BLENDS.
v. CONTRACTOR IS RESPONSIBLE FOR MONITORING TURF TO IDENTIFY AND ASSESS PEST PROBLEMS, AND FOR TAKING ACTION TO CONTROL PESTS THAT AFFECT TURF HEALTH AND APPEARANCE WHEN PEST POPULATIONS OR DAMAGE EXCEED ESTABLISHED THRESHOLDS.

GROUNDCOVERS

- GROUND COVERS SHALL BE TRIMMED ON A REGULAR BASIS TO MAINTAIN PAVEMENTS AND OTHER FEATURES CLEAR OF VEGETATION.
- THE EDGE OF WOODY GROUND COVERS (E.G. ROSEMARY, COTONEASTER) SHALL BE MAINTAINED BY PRUNING INDIVIDUAL BRANCHES OR STEMS TO INTERIOR LATERAL BRANCHES A MINIMUM OF 6" AND MAXIMUM OF 12" FROM THE EDGE OF PAVEMENT.
- THE EDGE OF HERBACEOUS GROUND COVERS (E.G. HYPERICUM) MAY BE MAINTAINED USING TURF EDGING EQUIPMENT.

a. WHEN GROUND COVERS BECOME EXCESSIVELY WOODY OR DEVELOP THATCH IN EXCESS OF 4", THE CONTRACTOR SHALL PRUNE THE PLANTING SEVERELY TO REJUVENATE IT. FOR MOST WOODY GROUND COVERS, PRUNE TO APPROXIMATELY 6-8" HEIGHT. HERBACEOUS GROUND COVERS MAY BE MOWED AT AN APPROPRIATE HEIGHT, GENERALLY 4-6". THIS TREATMENT SHALL ONLY BE APPLIED IN THE LATE WINTER/EARLY SPRING WHEN ET IS LOW AND REGROWTH WILL OCCUR QUICKLY.

BIOSWALES AND BIO-RETENTION AREAS

- BIOSWALES AND BIO-RETENTION AREAS REMOVE POLLUTANTS FROM THE STORMWATER BY FILTERING RUNOFF SLOWLY THROUGH AN ACTIVE LAYER OF SOIL. THEY SHALL BE MAINTAINED TO ENSURE THAT FLOW IS NOT OBSTRUCTED, EROSION IS PREVENTED AND THEY CONTINUE TO BE EFFECTIVE WITHOUT CAUSING FLOODING OR HARBORING VECTORS AND IN ACCORDANCE WITH THE SITE'S STORMWATER CONTROL PLAN'S OPERATION AND MAINTENANCE PLAN, IF AVAILABLE.
- BIOSWALES DEPEND ON SOILS THAT ARE BIOLOGICALLY ACTIVE AND HELD TOGETHER BY PLANT ROOTS. THEY SHALL BE MAINTAINED USING MATERIALS AND METHODS THAT SUPPORT THIS BIOLOGICAL ACTIVITY, PROTECT ENVIRONMENTAL QUALITY AND HUMAN HEALTH, CONSERVE WATER AND ENERGY, MINIMIZE WASTE, AND REUSE AND RECYCLE MATERIALS TO THE EXTENT POSSIBLE.
- INSPECT INLETS FOR CHANNELS AND EXPOSURE OF SOILS AND REPORT TO THE CLIENT IF EVIDENCE OF EROSION IS FOUND. EXAMINE ROCK OR OTHER MATERIAL AND REPORT TO THE CLIENT IF IT REQUIRES REPLACEMENT.
- INSPECT INLETS AND SLOPES FOR INSTABILITY, EROSION OR OBSTRUCTIONS. REPORT INDICATIONS OF PROBLEMS TO CLIENT.
- OBSERVE SOIL AT THE BOTTOM OF THE SWALE FOR UNIFORM INFILTRATION. CONFIRM THAT IRRIGATION IS ADEQUATE BUT NOT EXCESSIVE. REPORT WATER THAT DOES NOT DRAIN WITHIN 48 HOURS OF A STORM.
- CONFIRM THAT CHECK DAMS AND FLOW SPREADERS ARE IN PLACE AND LEVEL. REPORT PROBLEMS TO CLIENT.
- CLEAR MINOR OBSTRUCTIONS AND INSPECT FOR ACCUMULATION OF SEDIMENT. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT IN BIOSWALES BY HAND AND AROUND CATCH BASINS AND CULVERTS AS NECESSARY TO MAINTAIN ADEQUATE FLOW.
- EXAMINE VEGETATION TO ENSURE THAT IT IS HEALTHY, ADEQUATELY BUT NOT OVERWATERED, AND DENSE ENOUGH TO PROVIDE FILTERING. REMOVE DEBRIS.
- GRASSY SWALES SHALL BE MOWED AS NEEDED TO MAINTAIN ADEQUATE WATER FLOW. FOR BIDDING PURPOSES ASSUME 4 MOWINGS PER YEAR. REMOVE NO MORE THAN 1/3 OF THE LENGTH OF THE LEAF BLADE. CLIPPINGS SHOULD BE COLLECTED AND EITHER USED ELSEWHERE ON-SITE OR TRANSPORTED TO A PLANT DEBRIS RECYCLING FACILITY.

HARDSCAPE

- CONTRACTOR WILL CLEAN HARD SURFACES AS NEEDED TO REMOVE ACCUMULATION OF SEDIMENT, DIRT, OR OTHER MATERIALS THAT DISTRACTS FROM THE VISUAL IMPACT OF THE AREA OR CREATES A SAFETY HAZARD. CLEANING METHODS MUST BE CONSISTENT WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION. (BASMAA) CRITERIA.
- POTENTIAL ROOT DAMAGE TO HARDSCAPES SHALL BE REPORTED TO CLIENT. CORRECTIVE ACTION WILL BE DETERMINED AND DIRECTED AS AN EXTRA SERVICE.
- CONTRACTOR SHALL CLEAN THE SURFACE OF PERVIOUS PAVING TO REMOVE FINE DEBRIS AND DIRT AS NEEDED TO MAINTAIN PERMEABILITY (APPROXIMATELY FOUR TIMES PER YEAR). PAVEMENT MAY BE CLEANED WITH STREET SWEEPERS EQUIPPED WITH VACUUMS, WATER, AND BRUSHES, FOLLOWED BY HIGH-PRESSURE HOSING OF SURFACE. IF NECESSARY, REPLACE DISPLACED AGGREGATE FILL WITH CLEAN GRAVEL. CLEANING METHODS MUST BE CONSISTENT WITH THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION. (BASMAA) CRITERIA (LISTED BELOW IN SECTION 4.9.E., *BASMAA CERTIFICATION*).
- POLLUTION PREVENTION TRAINING & CERTIFICATION PROGRAM FOR SURFACE CLEANERS ISSUED BY THE BAY AREA STORMWATER MANAGEMENT AGENCIES ASSOCIATION (BASMAA) IS REQUIRED TO PERFORM SURFACE CLEANING WORK. ALL WORK SHOULD CONFORM TO BASMAA STANDARDS. BASMAA STANDARDS ENCOURAGE THE USE OF DRY CLEANING METHODS OVER WET SUCH AS THE USE OF ABSORBING MATERIALS FOR OILS AND SWEEPING. IT DISCOURAGES THE USE OF ANY SOAPS OR SOLVENTS. IT ENCOURAGES DIRECTING WASH WATER INTO THE LANDSCAPE OR COLLECTION OF WASTE WATER FOR DISPOSAL INTO A SANITARY SEWER INSTEAD OF A STORM DRAIN. SEE THEIR WEBSITE FOR A THOROUGH LIST OF CRITERIA.

SUPPLEMENTAL RESOURCES FOR CONTRACTORS AND HOMEOWNERS

STOPWASTE.ORG
WWW.BAYFRIENDLY.ORG
1. BAY-FRIENDLY LANDSCAPE GUIDELINES
2. A LANDSCAPER'S GUIDE TO GRASSCYCLING
3. A LANDSCAPER'S GUIDE TO MULCH

A GUIDE TO ESTIMATING IRRIGATION OF WATER NEEDS OF LANDSCAPE PLANTINGS, CALIFORNIA DEPT OF WATER RESOURCES, HTTP://CDEC.WATER.CA.GOV

IRRIGATION WATER AUDITS, IRRIGATION ASSOCIATION, WWW.IRRIGATION.ORG, AND THE IRRIGATION TECHNOLOGY RESEARCH CENTER, WWW.ITRC.ORG.

CALIFORNIA IRRIGATION MANAGEMENT INFORMATION SYSTEM, WWW.CIMIS.WATER.CA.GOV, WASTE MANAGEMENT AND RECYCLING, WWW.CIWMB.CA.GOV.

THE WEED WORKER'S HANDBOOK, A GUIDE TO TECHNIQUES FOR REMOVING BAY AREA INVASIVE PLANTS, THE WATERSHED COUNCIL (510) 231-5655 AND THE CALIFORNIA , INVASIVE PLANT COUNCIL (510) 843-3902

PESTS OF LANDSCAPE TREES AND SHRUBS: AN INTEGRATED PEST MANAGEMENT GUIDE, 2ND ED., UC PUBLICATION 3359, HTTP://WWW.IPM.UCDAVIS.EDU

G. *A FIELD GUIDE TO COMPOST USE*, THE COMPOSTING COUNCIL, 114 SOUTH PITT STREET, ALEXANDRIA, VIRGINIA 22314, (703) 739-2401, HTTP://WWW.COMPOSTINGCOUNCIL.ORG/INDEX.CFM

GREENWOOD DESIGN ASSOCIATES LLC

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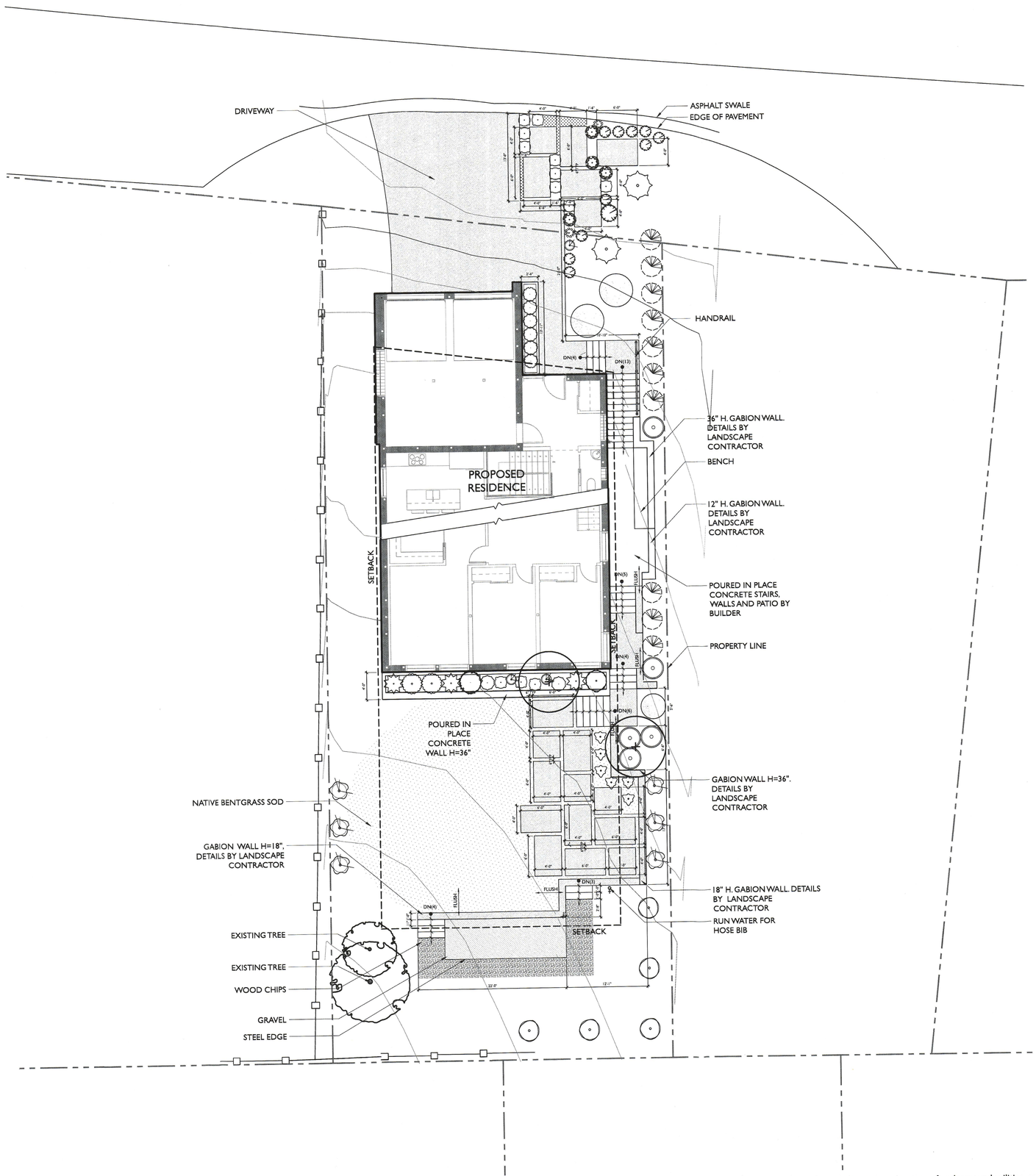
REVISIONS

LANDSCAPE GENERAL NOTES

xxx SAN CARLOS AVE. EL GRANADA, CA 94019

DATE	02/09/2016
SCALE	AS SHOWN
DRAWN BY	CH
DESIGNED BY	KG
CHECKED	KG
PROJECT NO.	
CADD FILE	

SHEET NO.
N-03



NORTH

SCALE: 1/8"=1'-0" (1:96)

0 4' 8' 16'

This is a conceptual guideline and planting plan only, not intended to be complete for construction. This rendering is based on a site plan provided by the architect. Owner/Contractor is responsible for verifying measurements, easements, property boundaries, and the location of underground utilities, as well as obtaining permits if required, before construction. Owner is responsible for compliance with all easements, setbacks, and permit inspection requirements. Greenwood Design Associates' total aggregate liability to you or any third party for any act or omission, including breach of contract or negligence not amounting to a willful or intentional wrong, is limited to the amount of compensation to be paid pursuant to this project. This amount shall include all liability for attorney's fees and expenses. No warranty or guarantee is expressed or implied that the design will be free of errors, including but not limited to non-toxicity, suitability for a particular purpose, health of plants, or the ultimate ability to construct the design.

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REVISIONS

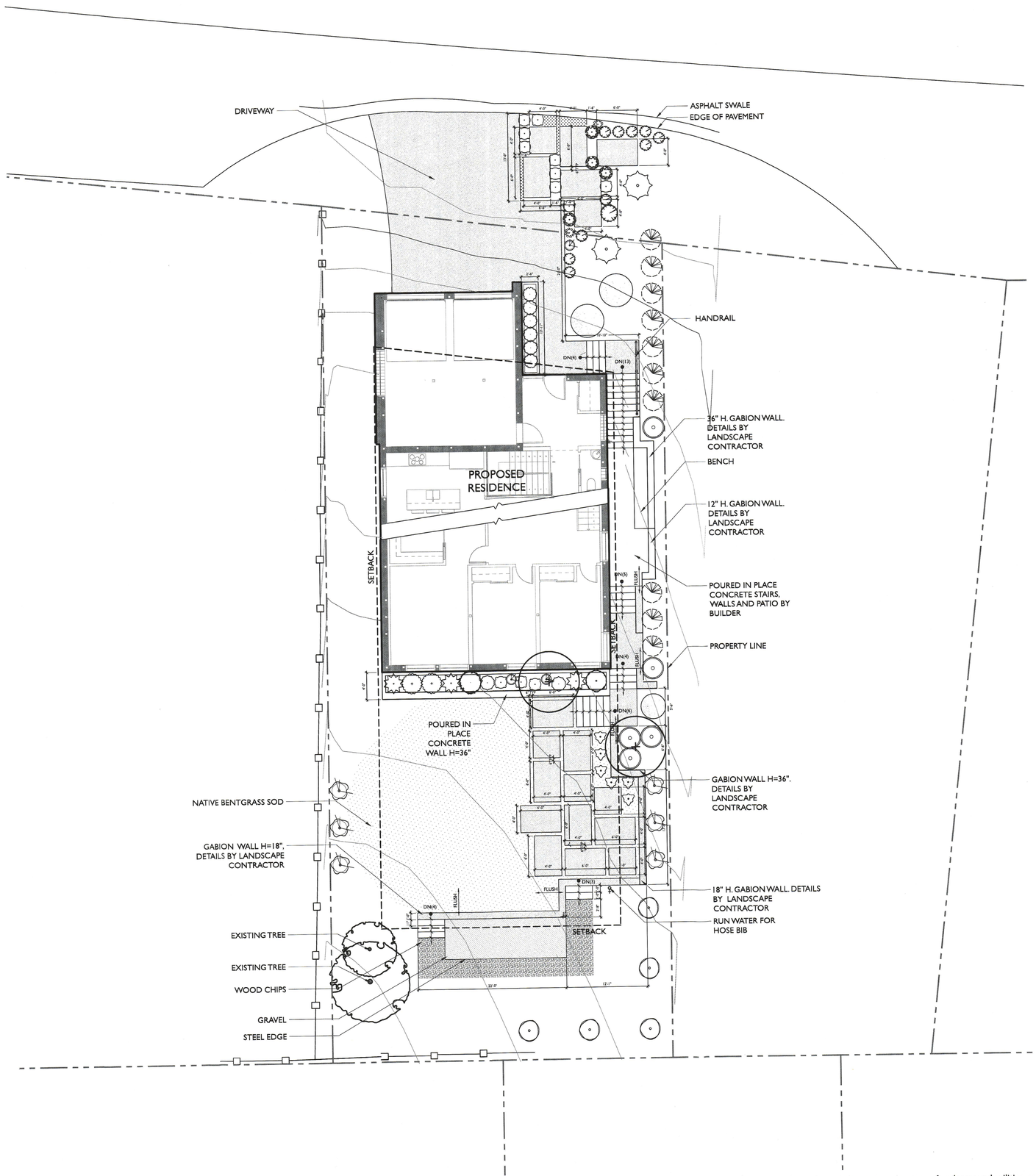
LANDSCAPE PLAN

xxx SAN CARLOS AVE, EL GRANADA, CA 94019

DATE	02/09/2016
SCALE	AS SHOWN
DRAWN BY	CH
DESIGNED BY	KG
CHECKED	KG
PROJECT NO.	
CADD FILE	

SHEET NO.

L-01



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REVISIONS

LANDSCAPE PLAN

xxx SAN CARLOS AVE, EL GRANADA, CA 94019

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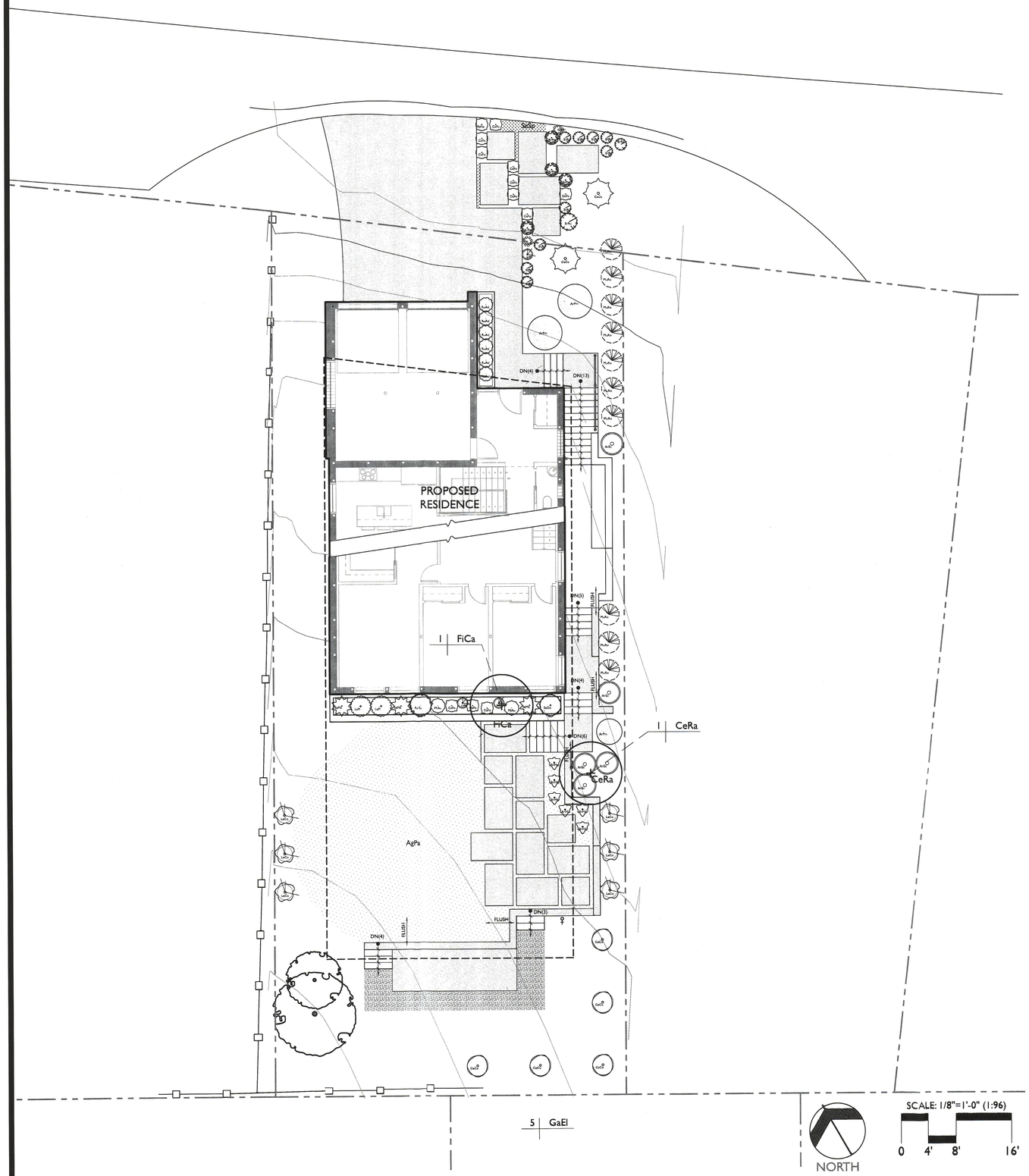
L-01



PLANT LIST

QUANT	CODE	COMMON NAME BOTANICAL NAME	SIZE MIN.	HEIGHT MIN.	SPREAD	DROUGHT TOLERANT	COMMENTS
		TREES					
01	CeRa	RAY HARTMAN CALIFORNIA LILAC Ceanothus 'Ray Hartman' (Standard)	15 GAL	12-15'	8'	YES	CALIFORNIA NATIVE
01	FiCa	BLACK MISSION FIG Ficus carica 'Black Mission'	15 GAL	12-15'	8'	YES	-

PLANT LIST

QUANT	CODE	COMMON NAME BOTANICAL NAME	SIZE MIN.	HEIGHT MIN.	SPREAD	DROUGHT TOLERANT	COMMENTS
		SHRUBS, GROUNDCOVERS & PERENNIALS					
06	AnHa	HARMONY KANGOROO PAW Anigozanthos 'Harmony'	1 GAL	30"	-	NO	-
05	ArEc	CARPET MANZANITA Arcostaphylos 'Emerald Carpet'	5 GAL	30"	-	YES	DROUGHT TOLERANT, FAST GROWTH RATE.
03	ArPm	MANZANITA Arcostaphylos 'Pacific Mist'	5 GAL	30"	6"	YES	DROUGHT TOLERANT, FAST GROWTH RATE.
04	ArPy	BEACH WORMWOOD Artemisia pycnocephala	1 GAL	12-18"	18-36"	YES	
11	CaFo	CAPE MENDOCINO REED GRASS Calamagrostis foliosa	1 GAL	12-18"	18-36"	YES	
02	CeCa	CARMEL CREEPER Ceanothus griseus horizontalis 'California Lilac'	5 GAL	4'	5-6'	YES	CALIFORNIA NATIVE, 5-6' DIAM
05	CeCo	CONCHA CEANOTHUS Ceanothus 'Concha'	5 GAL	4'	5-6'	YES	CALIFORNIA NATIVE, 5-6' DIAM
01	DuBr	DUDLEYA Dudleya brittonii	1 GAL	12-18"	18-36"	YES	
10	ErRu	RED-FLOWERED BUCKWHEAT Eriogonum grande var. rubescens	1 GAL	12-18"	18-36"	YES	
1	ErRu	RED-FLOWERED BUCKWHEAT Eriogonum grande var. rubescens	5 GAL	30"	36-42"	YES	
03	IrPa	IRIS PACIFICA Iris pacifica hybrids	1 GAL	12"	12"	YES	CALIFORNIA NATIVE, COLONY FORMING OVER TIME
02	LaPi	LAVANDA Lavendula pinnata	1 GAL	6"	-	NO	-
06	LeCo	CALIFORNIA PRINCE RYE Leymus condensatus 'Canyon Prince'	5 GAL	36"	36"	YES	
02	MiAu	STICKY MONKEYFLOWER Mimulus aurantiacus	1 GAL	24"	24-30"	YES	
10	MuRo	DEER GRASS Muhlembergia rigens	5 GAL	5'	3'	NO	-
01	PeHe	PENSTEMON MARGARITA BOP Penstemon heterophyllus 'Margarita Bop'	1 GAL	12-18"	18-36"	YES	
06	RuAd	RUMOHRA Rumohra Adiantiformis	1 GAL	12"	-	NO	
01	RoTu	TUSCAN BLUE ROSEMARY Rosmarinus officinalis 'Tuscan Blue'	5 GAL	30"	30"	YES	
15 sq ft	SeSp	STONECROP 'CAPE BLANCO' Sedum spathulifolium 'Cape Blanco'	1 FLAT	4"	12"	YES	DROUGHT TOLERANT, FAST GROWTH RATE.
03	SeMa	KLEINIA Senecio mandraliscae	1 GAL	12""	12"	YES	
01	SaDo	YERBA BUENA Satureja douglasii	5 GAL	30"	30"	YES	
880 sq ft	AgPa	NATIVE BENTGRASS SOD Agrostis pallens - Native Mow Free™ Delta Blue Grass Mix	1 FLAT	4"	12"	YES	DROUGHT TOLERANT, FAST GROWTH RATE, CALIFORNIA NATIVE

ALL PLANTING AREAS TO USE NETAFIM SUB-SURFACE DRIP IRRIGATION

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REVISIONS

PLANTING PLAN

xxx SAN CARLOS AVE. EL GRANADA, CA 94019

DATE	02/09/2016
SCALE	AS SHOWN
DRAWN BY	CH
DESIGNED BY	KG
CHECKED	KG
PROJECT NO.	
CADD FILE	

SHEET NO.

P-01

August 14, 2015

Justin Lang
3189 Berryessa Street, Apt 2
Palo Alto, CA 94303

RE: Biological Constraints and ESHA Assessment for APN 047-105-240, Half Moon Bay, California

Dear Mr. Lang,

The purpose of this letter is to inform you of the results of the biological constraints and Environmentally Sensitive Habitat Area (ESHA) assessments at an undeveloped parcel (APN 047-105-240; Study Area) located along San Carlos Avenue, Half Moon Bay, San Mateo County, California (Figure 1). The purpose of these assessments is to comply with the San Mateo County Midcoast Local Coastal Program (LCP).

Figures are provided in Attachment 1, the list of observed species from the 2015 site assessment are provided in Attachment B, and photographs depicting the current Study Area conditions are provided in Attachment C.

Survey Methods

A site visit to the Study Area was made on July 24, 2015 by WRA biologists Lauren Kerr (wetland and plant ecologist) and Patricia Valcarcel (wildlife biologist). Prior to the site visit, a review was conducted of background information including:

- San Mateo County Midcoast Local Coastal Program (LCP) biological resources policies
- San Mateo County Heritage Tree Ordinance
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB; CDFW 2015)
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2015)
- U.S. Fish and Wildlife Service (USFWS) 7.5' Quadrangle Species Lists for the Montara Mountain quadrangle (USFWS 2015)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication "California Bird Species of Special Concern" (Shuford and Gardali 2008)
- CDFG publication "Amphibians and Reptile Species of Special Concern in California" (Jennings 1994)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)

The Study Area was traversed on foot by WRA biologists and examined for: (a) sensitive natural communities as defined by the CDFW and LCP and, (b) for the presence, and potential to support, special-status plant and wildlife species. Vegetation within the Study Area and vicinity was also evaluated for riparian habitat criteria and/or unvegetated streams as defined by the LCP. If a special-status species was observed during the site visit, its presence is recorded and discussed further below. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described further below.

Survey Results

Study Area Description

The Study Area is located in an existing residential neighborhood of El Granada, a division of Half Moon Bay, California. Although the Study Area is within Half Moon Bay, the Half Moon Bay Local Coastal Program does not include this portion of the city. The Study Area is instead included in the San Mateo County LCP. The Study Area is landlocked by parcels that contain individual family residences. Access is proposed off of San Carlos Ave. The study area is moderately sloped (~25%) with a relatively flat area adjacent to the roadside. There are signs of disturbance in the Study Area including evidence of fill placement from adjacent developments, evidence of grading, and recent maintenance of shrubs and trees. The Study Area is dominated by poison oak (*Toxicodendron diversilobum*) and Himalayan blackberry (*Rubus armeniacus*), which was recently maintained. These species are still emerging as the dominant species through the layer of wood chips and fallen branches from recent maintenance. Other non-native shrub species included French broom (*Genista monspessulana*) and cotoneaster (*Cotoneaster sp.*). Other species include non-native grasses and forbs such as sea fig (*Carpobrotus chilensis*), slender wild oats (*Avena barbata*), and fennel (*Foeniculum vulgare)*. The Study Area provides low habitat quality and is dominated by ruderal, non-native and ornamental species. A small stand of red willow (*Salix lasiandra var. lasiandra*) trees were located along the southern edge of the property along a fenceline. This stand contained approximately three trees and comprised 40% cover. The area beneath the trees did not contain any indicators of flow such as sediment sorting, culverts, or water marks.

Vegetation Communities

Two vegetation communities may be affected by the proposed Project: non-riparian red willow woodland and ruderal/disturbed habitat. Ruderal/disturbed habitat will be permanently and temporarily disturbed by the construction of a residence. Current plans indicate no removal of the willow trees that occur in the Study Area; however, non-riparian red willow woodland may be impacted by tree trimming and limb removal activities. The communities within the Study Area are shown in Figure 2.

Non-Sensitive Vegetation Communities

Ruderal/disturbed habitat is undescribed in the literature. In the Study Area ruderal/disturbed habitat contained a combination of shrubs and forbs, as well as evidence of recent and historic disturbance. The shrub layer was dominated by poison oak and Himalayan blackberry. Other shrub species observed in the ruderal/disturbed areas included French broom, cotoneaster, and star jasmine (*Jasmimum multiflorum*). Forbs and grasses were predominantly non-native.

Although forbs and grasses were less common due to the wood chips, fallen branch, and poison oak or blackberry brambles, where they occurred, they were dominated by slender wild oats and Bermuda grass (*Cynodon dactylon*) with trace amounts of bristly ox-tongue (*Helminthotheca echioides*).

Non-riparian red willow woodland is comprised of red willow (40% cover) with an understory of thimbleberry (*Rubus parviflora*), Himalayan blackberry, and poison oak. The area beneath the trees did not contain any indicators of flow such as sediment sorting, culverts, or water marks. The red willow woodland was determined not to be riparian in nature because of its separation from the riparian corridor by houses and other structures; the low percent cover of willow does not meet the LCP requirements; and the lack of soil or hydrology indicators relating the willows to any waters or water features. Therefore, non-riparian red willow woodland within the Study Area is not considered to be a sensitive community, although tree and limb removal during development may require permits with the county. Please see the section below for more information on the definition of a riparian corridor under the San Mateo County LCP.

Sensitive Vegetation Communities and Wetland and Waters Features

No sensitive vegetation communities and no wetlands or waters features were observed within the Study Area.

Riparian Corridor

Riparian Corridor and Buffer Zones Defined in the San Mateo County Local Coastal Program

Pursuant to the San Mateo County Local Coastal Program (LCP; County of San Mateo 2013), riparian corridors are defined as an association of plant and animal species containing at least 50 percent cover of the following species: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder. For perennial streams, the LCP requires a buffer 50 feet outward from the limit of riparian vegetation. For intermittent streams, the LCP requires a buffer 30 feet outward from the limit of riparian vegetation. Where no riparian vegetation exists, buffer zones along intermittent streams extend 30 feet from the stream midpoint as shown in the attached figure.

Within riparian corridors, the following uses are permitted: 1) education and research; 2) consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code, 3) fish and wildlife management activities, 4) trails and scenic overlooks on public lands, and 5) necessary water supply projects. Relevant permitted uses in buffer zones include 1) uses permitted in riparian corridors, 2) residential uses on existing legal building sites, set back 20 feet from the limit of riparian vegetation only if no feasible alternative exists and if no other building site on the parcel exists, 3) on parcels designated as Agriculture, Open Space, or Timber Production on the LCP Land Use Plan Map, residential structures or impervious surfaces only if no feasible alternative exists.

Riparian Corridor and Buffer Zones Applicable to the Study Area

According to LCP ESHA maps (County of San Mateo 2013) and the most recent U.S. Geological Survey (USGS) 7.5 minute quadrangle topographic map (USGS 2015), an unnamed perennial blue-line stream is located west of the Study Area. However, this stream is located approximately 300 feet from the Study Area. This habitat is located outside of the Study Area and willows within the Study Area are separated from this riparian buffer by adjacent residential

developments. Additionally, the red willows within the Study Area comprise only 40% cover and do not meet the 50% cover requirement to be considered riparian per the LCP. Therefore, the red willow trees located within the Study Area are not covered under the LCP and do not require a buffer. Tree removal is not currently anticipated as part of the residential development; however, if tree removal is incorporated into the proposed Project prior to review by the County, separate permits for tree removal would not be required (San Mateo County Ordinance Code, Part 3, Division 8, Section 12,020.1).

Special-Status Species

Special-Status Plants

Based upon a review of the resources and databases discussed previously, all special-status plant species documented in the vicinity of the Study Area were assessed. Figure 3 shows occurrences documented within 2 miles of the Study Area in the CNDDB (CDFW 2015). No special-status plant species were observed in the Study Area. Many species requiring certain habitat types not present in the Study Area, such as serpentine endemics and plants requiring coastal bluff or scrub habitats, were determined to have no potential to occur. Of the 27 special-status plant species evaluated, all were determined to have no potential or a low potential to occur based on the high disturbance levels in and around the Study Area and/or a lack of suitable habitat components in the Study Area. While the site visit did not constitute a protocol-level rare plant survey, during the 2015 site visit, no special-status plants were observed.

San Mateo County Heritage Tree and Significant Tree Ordinances

Pursuant to the County of San Mateo Heritage Tree Ordinance (Ordinance No. 427), madrone, coast live oak, and California bay laurel trees may be subject to regulation under the tree ordinance pursuant to the ordinance. Permits may be required by the County for the trimming or removal of trees which qualify for heritage status under the Ordinance. The trees currently within the Study Area are red willow, English walnut (*Juglans regia*), and lollypop tree (*Myoporum laetum*), all of which are not covered under the San Mateo County Heritage Tree Ordinance. All trees within the Study Area had circumferences less than 38 inches at 4.5 feet above the ground; therefore, no significant trees are present within the Study Area.

Special-Status Wildlife Species

Based upon a review of the databases and literature, 39 special-status wildlife species have been documented to occur in the vicinity of the Study Area. Figure 3 shows occurrences documented within 2 miles of the Study Area in the CNDDB (CDFW 2015). Of the 39 special-status wildlife species documented to occur in the vicinity, only one species has a moderate potential to occur within the Study Area and is discussed further below. Most species do not have potential to occur because a lack of suitable habitat including no aquatic features, no riparian habitat, no dense understory vegetation, and no large trees. Trees within the Study Area are also unlikely to be used by raptors for nesting because of their low stature.

Allen's hummingbird (*Selasphorus sasin*), USFWS Bird of Conservation Concern. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders. The willows and

shrubs in the Study Area provide suitable nesting habitat and Allen's hummingbird is known to nest in suburban habitats in the vicinity. Allen's hummingbird has a high potential to nest within the non-riparian red willow woodland in the Study Area.

Impacts and Recommendations

The Study Area has potential to impact two special-status bird species. In addition, most native bird nests are protected under the Migratory Bird Treaty Act. All other sensitive biological communities including riparian and wetland habitats are beyond recommended setbacks. No rare, endangered, or unique species are anticipated to be impacted by the proposed Project. Recommendations to protect special-status and non-special-status nesting birds are described below.

Special-Status and Non-Special-Status Nesting Birds

One special-status and several non-special-status bird species have potential to nest within the Study Area. Therefore, the following measures are recommended to avoid impacts to active nests of both special-status and non-special-status bird species:

- Trees or shrubs proposed for removal or trimming should be removed or trimmed during the bird non-nesting season (September 1 – February 14).
- If tree or shrub removal or Project activities are initiated during the nesting season (February 15 – August 31), a pre-construction nesting bird survey is recommended to avoid impacts to both special-status and non-special-status bird species.
    - If active nests are observed, a qualified biologist will determine suitable buffers based upon nest location and bird species. Buffers will be dependent upon species, nest location and project activities, but may range between 25-75 feet for passerine birds and up to 250 feet for raptors.

Summary

Based upon a review of databases and a site visit to the Study Area on July 24, 2015, no sensitive habitats are present within the Study Area. No wetlands or waters are present within the Study Area, the proposed Project is outside riparian setbacks, and the tree species within the Study Area do not qualify as riparian habitat as defined in the LCP. Avoidance of the bird nesting season or pre-construction surveys for nesting birds are recommended for tree or shrub removal and initiation of Project activities. No special-status plant species have potential to be present. No further measures are recommended.

Please feel free to contact me with any questions you may have.

Sincerely,

Patricia Valcarcel
Wildlife Biologist

Enclosures: Attachment A - Figures
Attachment B - List of Observed Species
Attachment C - Study Area Photographs

References

California Department of Fish and Wildlife (CDFW). 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September.

California Department of Fish and Wildlife (CDFW). 2015. Natural Diversity Database, Wildlife and Habitat Data Analysis Branch. Sacramento.

County of San Mateo. 2013. Local Coastal Program. https://planning.smcgov.org/documents/local-coastal-program-lcp. Accessed July 2015.

Holland, RF. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Prepared for the California Department of Fish and Game, Sacramento, CA.

Mitchell, D.E. 2000. Allen's Hummingbird (*Selasphorus sasin*), The Birds of North America Online (A Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/501

U.S. Geological Survey (USGS). 2015. Montara Mountain. 7.5 minute topographic map. Available at: http://www.usgsquads.com/index.php. Accessed March 2015.

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Attachment A

Figures

Figure 1. Study Area Location Map

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ENVIRONMENTAL CONSULTANTS

Lang Property ESHA Assessment
Half Moon Bay, San Mateo County, California

0 0.5 1 Miles

Map Prepared Date: 7/30/2015
Map Prepared By: MRochelle
Base Source: Esri, National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\25000\25223\GIS\ArcMap\Location.mxd

Figure 2. Biological Communities Map

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ENVIRONMENTAL CONSULTANTS

Lang Property ESHA Assessment
Half Moon Bay, San Mateo County, California

0 10 20 40
Feet

Map Prepared Date: 7/30/2015
Map Prepared By: MRochelle
Base Source: Esri, NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\25000\25223\GIS\ArcMap\Habitat.mxd

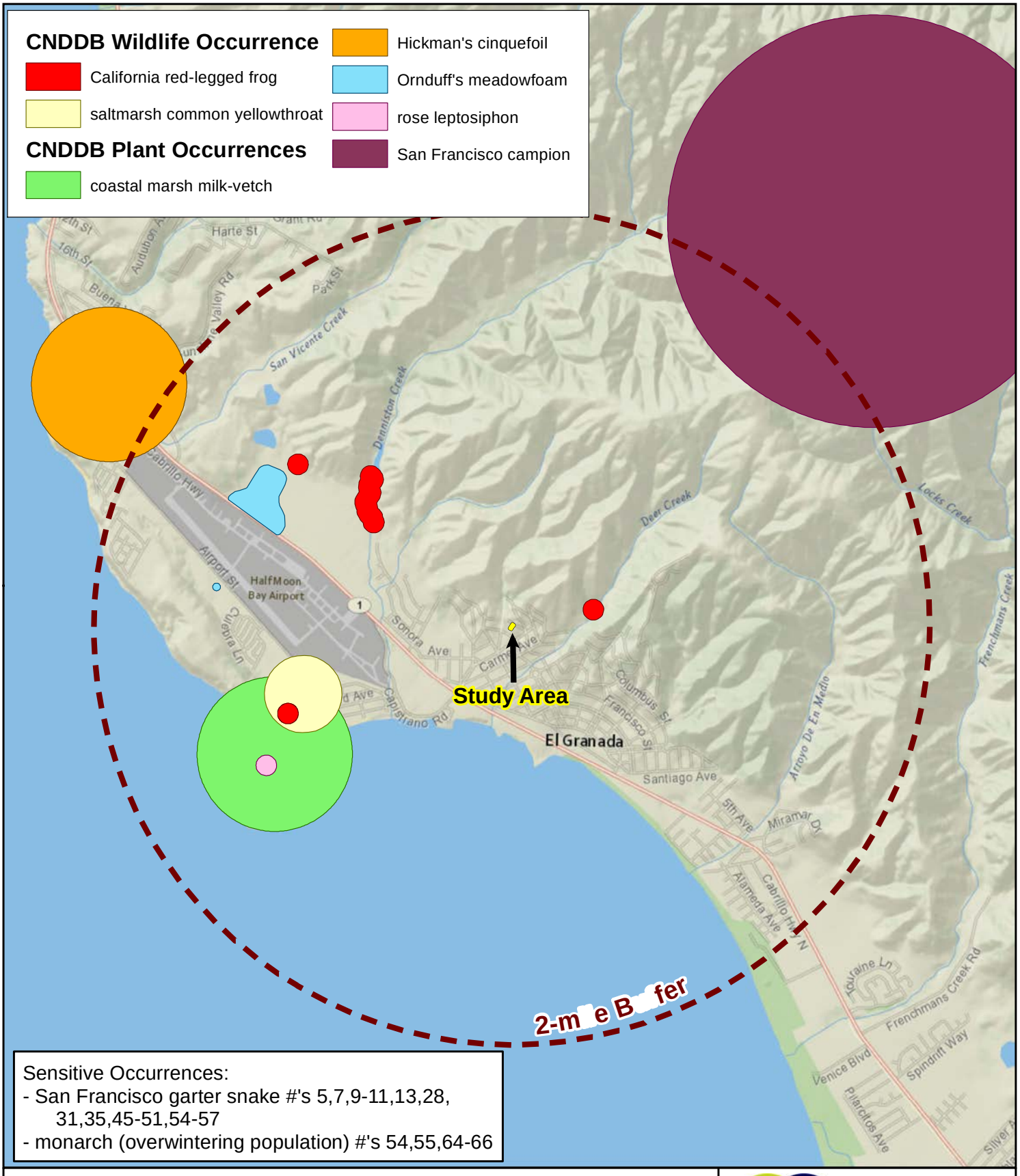

Figure 3. CNDDB Plant and Wildlife Occurrences within 2 miles of Study Area

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0 0.25 0.5 Miles

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ENVIRONMENTAL CONSULTANTS

Lang Property ESHA Assessment
Half Moon Bay, San Mateo County, California

Map Prepared Date: 7/31/2015
Map Prepared By: MRochelle
Base Source: National Geographic
Data Source(s): DFW CNDDB July 2015

Path: L:\Acad 2000 Files\25000\25223\GIS\ArcMap\CNDDB.mxd

Attachment B

List of Observed Species

Attachment B. Plant species observed in the Study Area, July 24, 2015

Family	*Scientific name*	Common name	Life form	Origin	Invasive Status[1]	Rare Status[2]	Wetland indicator[3]
Aizoaceae	*Carpobrotus chilensis*	sea fig	perennial	forb	non-native	--	moderate
Anacardiaceae	*Toxicodendron diversilobum*	poison oak	deciduous	shrub	native	--	--
Apiaceae	*Foeniculum vulgare*	fennel	perennial	forb	non-native	--	high
Asteraceae	*Delairea odorata [Senecio mikanioides]*	Cape ivy	perennial	forb	non-native	--	high
Asteraceae	*Helminthotheca echioides*	bristly ox-tongue	perennial	forb	non-native	--	limited
Boraginaceae	*Amsinckia intermedia*	common fiddleneck	annual	forb	native	--	--
Brassicaceae	*Raphanus sativus*	wild radish	perennial	forb	non-native	--	limited
Convolvulaceae	*Convolvulus arvensis*	field bindweed	perennial	forb	non-native	--	assessed
Fabaceae	*Genista monspessulana*	French broom	evergreen	shrub	non-native	--	high
Juglandaceae	*Juglans regia*	English walnut	deciduous	tree	non-native	--	--
Lamiaceae	*Salvia officinalis*	kitchen sage	perennial	forb	non-native	--	--
Lamiaceae	*Trichostema lanceolatum*	vinegarweed	annual	forb	native	--	--
Malvaceae	*Malva parviflora*	cheeseweed mallow	annual	forb	non-native	--	--
Oleaceae	*Jasminum multiflorum*	star jasmine	vine	forb	non-native	--	--
Papaveraceae	*Eschscholzia californica*	California poppy	perennial	forb	native	--	--
Poaceae	*Avena barbata*	slender oat	annual	graminoid	non-native	--	moderate
Poaceae	*Cortaderia jubata*	Pampas grass	perennial	graminoid	non-native	--	high
Poaceae	*Cynodon dactylon*	Bermuda grass	perennial	graminoid	non-native	--	moderate
Rosaceae	*Cotoneaster sp.*	orange cotoneaster	evergreen	shrub	non-native	--	moderate
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	evergreen	shrub	non-native	--	high
Rosaceae	*Rubus parviflorus*	western thimbleberry	evergreen	shrub	native	--	--
Salicaceae	*Salix lasiandra var. lasiandra*	Pacific willow	deciduous	tree	native	--	--
Scrophulariaceae [Myoporaceae]	*Myoporum laetum*	lollypop tree	evergreen	shrub	non-native	--	moderate
Tropaeolaceae	*Tropaeolum majus*	nasturtium	annual	vine	non-native	--	assessed

All species identified using the *Jepson Manual, 2nd Edition* (Baldwin et al. 2012) and *A Flora of Sonoma County* (Best et al. 1996); nomenclature follows Baldwin et al. 2012
[1]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2006)
[2]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2015)
[3]Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West (Lichvar 2012)

Attachment B2. Wildlife species observed by WRA biologists during the July 24, 2015 site visit at the Study Area

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SCIENTIFIC NAME	COMMON NAME
Birds	
Haemorhous mexicanus	house finch
Buteo lineatus	red-shoulder hawk (fly over)
Calypte anna	Anna's hummingbird
Junco hyemalis	dark-eyed junco
Zenaida macroura	mourning dove
Mammals	
Thomomys bottae	Botta's pocket gopher (mounds)

Attachment C

Representative Photographs

Above: Study Area looking west towards non-riparian red willow woodland.

Below: Study Area looking east towards San Carlos Ave.

Photographs taken July 24, 2015

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Sigma Prime Geosciences, Inc.
Effective Solutions

GEOTECHNICAL STUDY

LANG PROPERTY
SAN CARLOS AVENUE
EL GRANADA, CALIFORNIA
APN 047-105-240

PREPARED FOR:
JUSTIN LANG
3189 BERRYESSA STREET, #2
PALO ALTO, CA 94303

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

DECEMBER 2015

Sigma Prime Geosciences, Inc.
Effective Solutions

December 29, 2015

Justin Lang
3189 Berryessa Street, #2
Palo Alto, CA 94303

Re: Geotechnical Report for Proposed Single Family Dwelling located on San Carlos Street, El Granada. APN 047-105-240
Sigma Prime Job No. 15-180

Dear Mr. Lang:

As per your request, we have performed a geotechnical study for the proposed construction of a single family dwelling located on San Carlos Street in El Granada, California. The accompanying report summarizes the results of our field study and engineering analyses, and presents geotechnical recommendations for the planned structure.

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

Yours,

Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.

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

GEOTECHNICAL STUDY
SAN CARLOS STREET
EL GRANADA, CALIFORNIA
APN 047-105-240

PREPARED FOR:
JUSTIN LANG
3189 BERRYESSA STREET, #2
PALO ALTO, CA 94303

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

DECEMBER 29, 2015

TABLE OF CONTENTS

1. INTRODUCTION

We are pleased to present this geotechnical study report for the proposed residence located on San Carlos Street in El Granada, California at the location shown in Figure 1. The purpose of this investigation was to evaluate the subsurface conditions at the site, and to provide geotechnical design recommendations for the proposed construction.

1.1 PROJECT DESCRIPTION

We understand that you plan to construct a home on the property. The structure is expected to be of wood frame construction and have wooden floors constructed over a crawl space. Structural loads are expected to be relatively light as is typical for this type of construction.

1.2 SCOPE OF WORK

The scope of work for this study was presented in our proposal dated August 21, 2015. In order to complete this project we have performed the following tasks:

- Reviewed published information on the geologic and seismic conditions in the site vicinity;
- Geologic site reconnaissance;
- Subsurface study, including 3 soil borings at the site;
- Laboratory testing;
- Engineering analysis and evaluation of the subsurface data to develop geotechnical design criteria; and
- Preparation of this report presenting our recommendations for the proposed structure.

2. FINDINGS

2.1 GENERAL

The site reconnaissance and subsurface study were performed on October 7, 2015. The subsurface study consisted of drilling 3 soil borings with continuous sampling. The soil borings were advanced to depths ranging from 6 to 9.5 feet. The approximate locations of the borings, numbered B-1 through B-3, are shown on Figure 2, Site Plan. The boring logs are attached in Appendix A.

2.2 SITE CONDITIONS

At the time of our study, the site was an undeveloped in-fill lot with homes on adjacent lots. The property slopes moderately to the southwest, at a gradient of about 25 percent. Vegetation on the subject property consists of shrubs and grass.

2.3 REGIONAL AND LOCAL GEOLOGY

Based on Pampeyan (1994), the site vicinity is underlain by the Pleistocene age marine terrace deposits. This formation is described as poorly consolidated sand and gravel.

2.4 SITE SUBSURFACE CONDITIONS

Based on the three soil borings, the subsurface conditions at the site consist of mostly very stiff sandy clay. The lot next door to the south has been raised with fill material, but only a thin wedge of fill has encroached on the subject property. There is a thicker fill wedge along the street frontage, created when they built San Carlos Street. Based on Boring B-3, there is up to 8 feet of poorly compacted clayey sand fill. The bulk of the fill wedge will be in the driveway area. The native clays have low to moderate plasticity.

2.5 GROUNDWATER

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

2.6 FAULTS AND SEISMICITY

The site is in an area of high seismicity, with active faults associated with the San Andreas fault system. The closest active fault to the site is the San Gregorio fault, located about 2 km to the west. Other faults most likely to produce

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

TABLE 1
HISTORICAL EARTHQUAKES

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

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

2.7 2013 CBC EARTHQUAKE DESIGN PARAMETERS

Based on the 2013 California Building Code (CBC) and our site evaluation, we recommend using Site Class Definition D (stiff soil) for the site. The other pertinent CBC seismic parameters are given in Table 2 below.

Table 2
CBC SEISMIC DESIGN PARAMETERS

S_S	S_1	S_{MS}	S_{M1}	S_{DS}	S_{D1}
2.348	1.000	2.348	1.500	1.565	1.000

Because the S_1 value is greater than 0.75, Seismic Design Category E is recommended, per CBC Section 1613.5.6. The values in the table above were obtained from a USGS software program which provides the values based on the latitude and longitude of the site, and the Site Class Definition. The latitude and longitude were 37.5100 and –122.4765, respectively, and were accurately obtained from Google Earth™. These same values can be obtained directly from maps in the CBC, however the scale of the map makes it impractical to achieve satisfactory accuracy. The map in the CBC was derived from the same work that led to the USGS software. The remaining parameters were also obtained by the same USGS program.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 GENERAL

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

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

3.2 GEOLOGIC HAZARDS

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

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

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

- Differential Compaction - Differential compaction occurs during moderate and large earthquakes when soft or loose, natural or fill soils are densified and settle, often unevenly across a site. In our opinion, due to the very dense nature of the underlying rock, the likelihood of significant damage to the structure from differential compaction is nil.

- Liquefaction - Liquefaction occurs when loose, saturated sandy soils lose strength and flow like a liquid during earthquake shaking. Ground

settlement often accompanies liquefaction. Soils most susceptible to liquefaction are saturated, loose, silty sands, and uniformly graded sands. Loose silty sands were not encountered at the site. Therefore, in our opinion, the likelihood of liquefaction occurring at the site is nil.

- Slope Stability – Based on the geologic map and our site reconnaissance, there are no indications that landslide activity will adversely impact the subject site during the design lifetime. The slope is moderately steep, at about 25 percent, however the soils are stiff and stable. Therefore, the likelihood of a landslide impacting the site is low.

3.3 EARTHWORK

3.3.1 Clearing & Subgrade Preparation

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

3.3.2 Fills

Fills are not recommended beneath the base of foundations. In landscaping areas, any fills greater than 3 feet in depth should be placed in loose lifts not exceeding 12 inches in height, and compacted to at least 90% of the maximum dry density, as determined by ASTM D1157-78.

3.3.3 Compaction

Scarified surface soils should be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1157-78. All trench backfill should also be moisture conditioned to 3-5 percent above the optimum moisture content and compacted to at least 95 percent of the maximum dry density.

3.3.4 Surface Drainage

The finish grades should be designed to drain surface water away from foundations, retaining walls, and slab areas to suitable discharge points. Slopes of at least 5 percent within 10 feet of the structures are recommended, where possible. Ponding of water should not be allowed adjacent to the structure.

3.4 FOUNDATIONS

A pier-and-grade-beam type of foundation is feasible for the proposed construction. Piers should be drilled and cast-in-place, and be a minimum of 16 inches in diameter. The piers should be a minimum of 10 deep, as measured from the bottom of the adjacent grade beam. The actual pier depths should be determined by the structural engineer, based on the criteria given below. The grade beams should extend at least 8 inches below the crawl space grade.

The piers may gain support in skin friction acting along the sides of the piers within the weathered rock. A skin friction of 500 psf between the piers and the soil should be used in design. The uplift capacity of the piers may be based on a skin friction value of 350 pounds per square foot acting below a depth of 2 feet. The skin friction value may be increased by 1/3 for seismic loads and wind loads. Because of the difficulty in cleaning the bottoms of the pier holes, end bearing should be neglected, however the pier holes should be kept as clean as possible.

Drilled piers should have a center-to-center spacing of not less than three pier diameters. The concrete should not be allowed to free-fall more than 5 feet. If groundwater fills the pier holes to more than 2 feet deep, the concrete should be tremied into the holes.

3.4.1 Lateral Loads

Resistance to lateral loads may be provided by passive pressure acting against the piers, neglecting the upper 2 feet of the pier, and acting across 1.5 pier diameters. We recommend that an equivalent fluid pressure of 300 pcf be used in design.

3.4.2 Slabs-on-Grade

We recommend that slabs-on-grade be underlain by at least 6-inches of non-expansive granular fill. Where floor wetness would be detrimental, a vapor barrier, such as Stego wrap or equivalent may be used.

3.5 RETAINING WALLS

Retaining walls should be designed to resist lateral earth pressure from the adjoining natural soils and/or backfill. The walls should be founded on drilled piers with the same requirements as those discussed above. We recommend that walls that are restrained from lateral movement be designed to resist an at-rest equivalent fluid pressure of 60 pounds per cubic foot (pcf). Retaining walls that are not restrained from lateral movement should be designed to resist an active equivalent fluid pressure of 45 pcf.

To account for seismic loads, we recommend adding a dynamic pressure increment of 17H, where H is the height of the wall. The dynamic load is a rectangular distribution acting halfway up the wall. This value is obtained using a modified Mononobe-Okabe procedure, by first estimating the peak ground acceleration at the site, based on the average of four published attenuation relationships. The peak ground acceleration at the project site is estimated to be 0.66g. This peak value is reduced by 0.65 (denoted as k_h) because peak accelerations are too short in duration to have an impact. Therefore, k_h = 0.429g. The static coefficient of lateral earth pressure, K_A, equal to 0.172 in this case, is applied. A relationship between k_h and K_A is used to obtain the total lateral earth pressure coefficient, $K_{AE\text{-}TOT}$, due to both the dynamic and the static increments. The static increment is then subtracted to obtain the dynamic increment, $K_{AE\text{-}DYN}$. The dynamic increment, $K_{AE\text{-}DYN}$, is then applied to obtain the dynamic pressure, $P_{AE\text{-}DYN}$, using the equation,

$$P_{AE\text{-}DYN}=0.5(\text{gamma})(K_{AE\text{-}DYN})(H^2),$$

where gamma is the unit weight of soil.

Retaining walls should include a subsurface drainage system behind the walls to prevent any buildup of water pressure from surface water infiltration. The drainage system should consist of a 4-inch (Schedule 40 PVC) perforated pipe (perforations placed down) located below the adjacent slab elevation. The pipe should be embedded in a 12-inch width of 1/2-inch crushed rock. The remaining backfill may consist of 1/2-inch crushed rock, extending to within 2 feet of the level of the outside finish grade. A filter fabric should be wrapped around the crushed rock to protect it from infiltration of native soil. The upper 2 feet of backfill should consist of native soil. The subdrain should slope to a free draining outlet. Cleanouts should be provided. Damp proofing of walls should be included in areas where wall moisture would be undesirable. Miridrain, Enkadrain or other drainage fabrics approved by our office may be used for wall drainage as an alternative. If used, the drainage fabric should extend from a depth of 2 feet to the drain pipe at the base of the wall. The 12-inch width of 1/2-inch crushed rock and filter fabric should be placed around the drainpipe, as discussed in the earlier section.

3.6 CONSTRUCTION OBSERVATION AND TESTING

The earthwork and foundation phases of construction should be observed and tested by us to 1) Establish that subsurface conditions are compatible with those used in the analysis and design; 2) Observe compliance with the design concepts, specifications and recommendations; and 3) Allow design changes in the event that subsurface conditions differ from those anticipated. The recommendations in this report are based on a limited number of borings. The

nature and extent of variation across the site may not become evident until construction. If variations are then exposed, it will be necessary to reevaluate our recommendations.

4. LIMITATIONS

This report has been prepared for the exclusive use of the property owner for specific application in developing geotechnical design criteria, for the currently planned residence at San Carlos Street in El Granada, California (APN 047-105-240). We make no warranty, expressed or implied, except that our services were performed in accordance with geotechnical engineering principles generally accepted at this time and location. The report was prepared to provide engineering opinions and recommendations only. In the event that there are any changes in the nature, design or location of the project, or if any future improvements are planned, the conclusions and recommendations contained in this report should not be considered valid unless 1) The project changes are reviewed by us, and 2) The conclusions and recommendations presented in this report are modified or verified in writing.

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

5. REFERENCES

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

California Building Code, 20113. California Code of Regulations. Title 24, Part 2 Volume 2, Effective January 1, 2014.

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

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

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

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

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

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

United States Geologic Survey, 11/20/2007, Earthquake Ground Motion Parameters, Version 5.0.8.

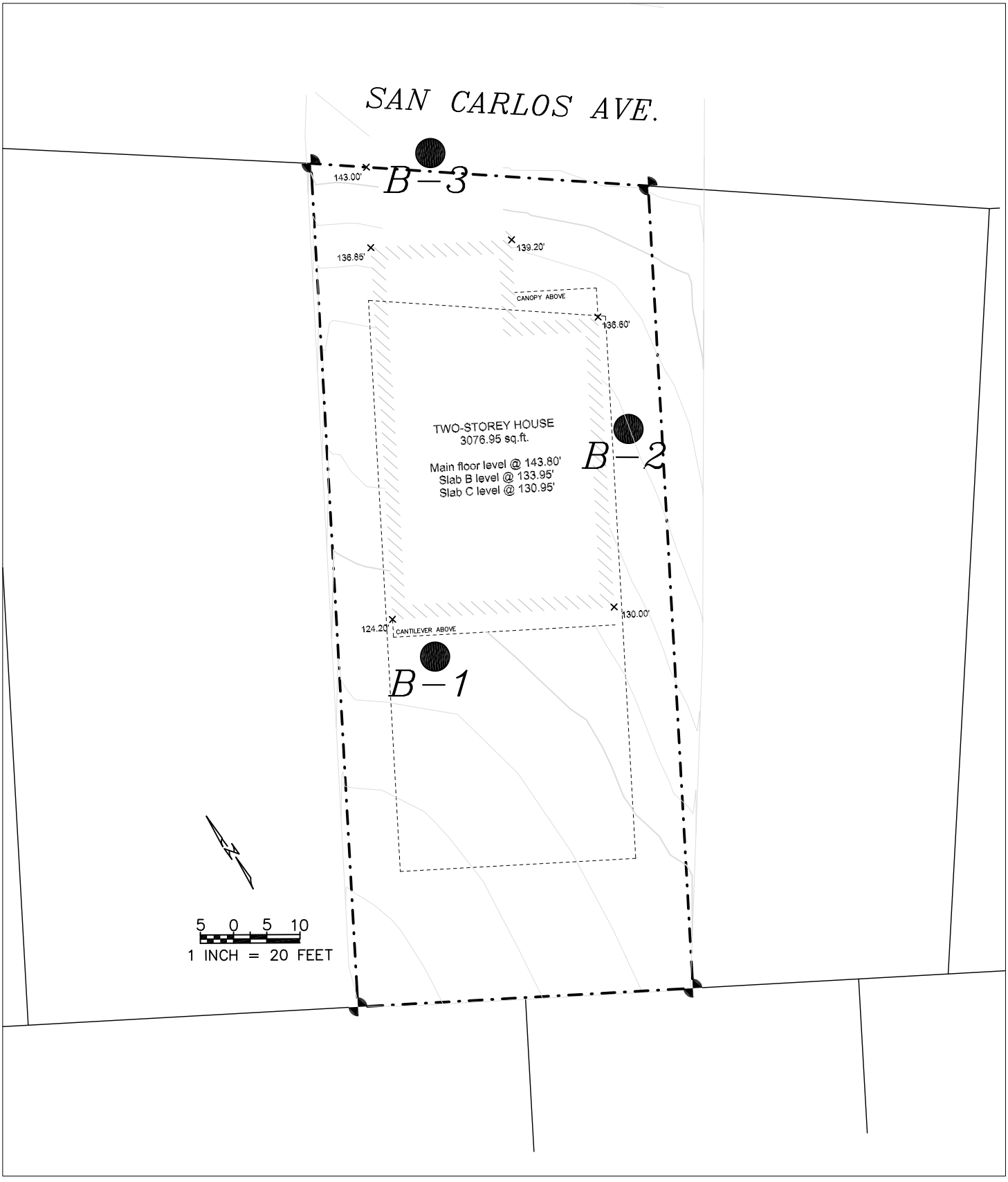
Working Group on California Earthquake Probabilities, 1999, Earthquake Probabilities in the San Francisco Bay Region: 2000 to 2030 – A Summary of Findings, U.S. Geological Survey Open File Report 99-517, version 1.

Figure	1
Date:	12/29/15
Job No.:	15-180

Sigma Prime Geosciences, Inc.

Location Map

Lang, San Carlos Avenue, El Granada



Explanation

B–1 SOIL BORING, DRILLED 10-7-15

Sigma Prime Geosciences, Inc.

Figure	2
Date:	12/29/15
Job No.:	15-180

Location Map
Lang Property, San Carlos Ave., El Granada

APPENDIX A

FIELD INVESTIGATION

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

Several tests were performed in the field during drilling. The standard penetration resistance was determined by dropping a 140-pound hammer through a 30-inch free fall, and recording the blows required to drive the 2-inch (outside diameter) sampler 24 inches. The standard penetration resistance is the number of blows required to drive a standard split spoon sampler the last 12 inches of an 18-inch sample and is recorded on the boring logs at the appropriate depth. Use of the standard split spoon sampler defines a Standard Penetration Test (SPT), and yields an SPT-equivalent blow count. (Where we drove the sampler 24 inches in some cases, this is a modified SPT test.) A modified California (Mod-Cal) sampler was also used, which results in blow counts that are higher than an SPT-equivalent blow count, due to the Mod-Cal sampler's larger diameter. For analyses, it is normal practice to reduce the Mod-Cal blow counts to correspond to an SPT-equivalent blow count. The blow counts from the Mod-Cal sampler are uncorrected on the logs. The results of these field tests are presented on the boring logs.

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

Project Name	Project Number
Lang	15-180

Location: Back of Lot

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continous sampling	4“	9.5’	9.5’	0’	--	--

Boring No.	B-1
Page	1 of 1
Date(s)	10/7/15

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

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
	0’ - 4’: Sandy Clay: dark brown; very stiff; slightly moist.		CL	7 15 18 13		MC	
					1		Lab, Sample #1: Moisture%= 10.3% Dry Density= 90.7 pcf LL= 42, PL=23, PI= 19
				7 8 12 15	2	2.5“	
	4’ - 7’: Sandy Clay: moderate brown; very stiff; moist.		CL	15 16 18 20	3	2.5“	
5				8 12 15 21	4	SPT	
	7’ - 9.5’: Sandy Clay: yellowish brown; very stiff; moist.		CL	27 32 32	5	SPT	
10	Bottom of Hole @ 9.5’ No groundwater encountered.						
15							
20							

Project Name	Project Number
Lang	15-180

Location: Middle of Lot near South Property Line

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continous sampling	4“	6’	6’	0’	--	--

Boring No. B-2

Drilling Company: Access Soil Drilling, Inc. | Logged By: CMK | **Page** 1 of 1

Type of Drill Rig: N/a | Type of Sampler(s): Mod Cal, 2½“ | Hammer Weight and Fall: 140 lb, 30“ | **Date(s)** 10/7/15

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
	0’ - 1’: Sandy Clay (FILL): mod. Brown; very stiff; slightly moist.		CL	8 9		MC	2’ of wood chips were removed before drilling.
	1’ - 2’: Sandy Clay: dark brown; very stiff; slightly moist.		CL	14 19	1		
	2’ - 6’: Sandy Clay: moderate brown; very stiff; moist.		CL	12 14 13 18	2	2.5“	
5				14 18 21 33	3	2.5“	
	Bottom of Hole @ 6’ No groundwater encountered.						
10							
15							
20							

Project Name	Project Number
Lang	15-180

Location: Top of fill slope

Sigma Prime Geosciences, Inc.

Drilling Method	Hole Size	Total Depth	Soil Footage	Rock Footage	Elevation	Datum
Continous sampling	4“	9.5’	9.5’	0’	--	--

Boring No.	B-3
Page	1 of 1
Date(s)	10/7/15

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

Depth (feet)	Description	Graphic Log	Class	Blow Count	Sample No.	Sample Type	Comments
	0’ - 7.8’: Clayey Sand (FILL): alternating dark brown / yellowish brown; medium dense; moist.		SC	4 8 12 15		MC	
					1		
				10 7 10 12	2	2.5“	
5				11 11 14 14	3	2.5“	
				9 7 7 7	4	SPT	
	7.8’ - 9.5’: Sandy Clay (NATIVE): dark brown; stiff; moist.		CL	7 5 6	5	SPT	
10	Bottom of Hole @ 9.5’ No groundwater encountered.						
15							
20							

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-85)

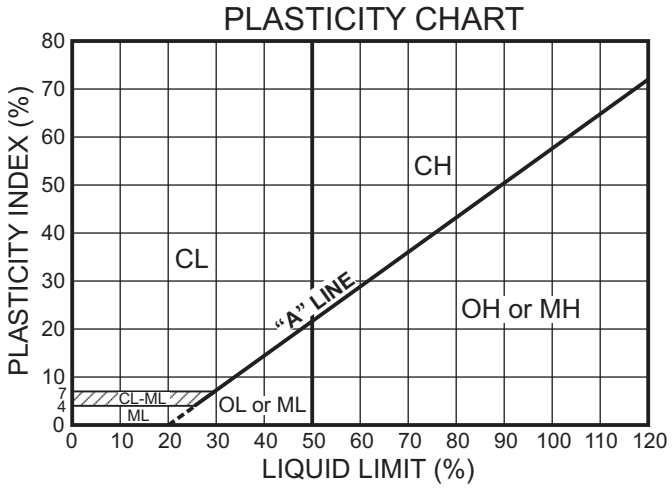
MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS > 50% RETAINED ON NO. 4 SIEVE	GRAVELS > 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	Cu > 4 AND 1 < Cc < 3	GW	WELL-GRADED GRAVEL
			Cu < 4 AND/OR 1 > Cc > 3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

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

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

BLOW COUNT

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



SAMPLE TYPES

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

ADDITIONAL TESTS

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

LEGEND TO SOIL DESCRIPTIONS

Sigma Prime Geosciences, Inc.

FIGURE A-1

APPENDIX B

LABORATORY TESTS

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

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

One sample of clayey soil was tested for its expansive potential, using an Atterberg Limit test, as per ASTM D-4318. The results of the test are presented in the boring log.

Sigma Prime Geosciences, Inc.

February 8, 2016

Justin Lang

Subject: Drainage Analysis for Proposed Development: San Carlos Avenue, El Granada, California.

Dear Mr. Lang:

We have performed a drainage analysis for the above-referenced property, using the San Mateo County Guidelines for Drainage Review as a guideline. Because San Mateo County does not have recommended procedures for all aspects of this type of analysis, Santa Cruz County's Design Criteria for single-family home detention systems was consulted. The only drainage issue that applies to this site is a detention system to maintain runoff at or below pre-construction levels.

The site is in a moderately sloping area with no drainage channels. Any runoff that currently flows across the site occurs as dispersed sheet flow. The site is vegetated with grasses and pine trees. The gradient of the property is about 25% to the southwest. There are no springs or shallow groundwater on the site. The moderate slope is very stable.

For our analyses, we used the Rational Method for both pre-construction and post-construction conditions, and for only the area that will be covered with impervious surfaces. The procedures are outlined in detail in the attached calculations. The equation for the Rational Method is:

$$Q=CIA$$

where:
Q=Quantity of Runoff (cubic feet per second)
C= Runoff Coefficient (unitless)
I= Rainfall Intensity for a 10-year storm (in/hour)
A= Area of land modified by construction (acres)

C and I are the only variables that change in this analysis. A pre-construction runoff coefficient, C, of 0.3 was used. For post-construction, C was increased to 0.9. For rainfall intensity, a 10-year event was used in the design of the detention system, as per the San Mateo County guidelines. (A 10-year storm is also recommended by Santa Cruz County.) Rainfall intensity is dependant on the time-of-concentration. As Santa Cruz County recommends, we used a pre-construction time-of-concentration of 15 minutes, and a post-construction time-of-

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

concentration of 10 minutes. Using NOAA's Atlas 14 dataset, rainfall intensities of 1.79 in/hr and 2.22 in/hr were used for pre-construction and post-construction, respectively. For area, the design drawings were used to determine that a total of 1970 square feet of land will be covered with impervious surfaces that can drain to dry wells. Our analyses were made for two dry wells for the roof. The recommended drainage system is shown on Sheet C-1.

With the proposed detention system, the post-development runoff will be less than the pre-development runoff. No runoff is diverted from one drainage area to another. There will be no appreciable downstream impacts. Current drainage patterns indicate minimal runoff from adjacent impervious surfaces onto the subject property.

If there are any questions regarding the contents of this letter, please do not hesitate to call me at (650) 728-3590.

Yours,
Sigma Prime Geosciences, Inc.

Charles M. Kissick, P.E.

Sigma Prime Geosciences, Inc.

Rational Method / Culvert Sizing

Job: Lang
No.: 15-180
Date 2/7/2016
by: CMK

Rational Method to Estimate Storm Runoff

$Q_p=CIA_d$

Area, A_d (sf):	1970	(Roof)		
Area, A_d (acres):	0.04522			
C_{10}:	0.3	pre-project	0.95	post-project

Time of Concentration, t_c:

Pre-Development:	15	min
Post-Development:	10	min

I (rainfall intensity): from NOAA Atlas-14 Dataset

I_{10}=	2.22	in/hr	(Post-Development)
I_{15}=	1.79	in/hr	(Pre-Development)

Pre-Project:

Q=CIA: 0.024 CFS

Post-Project:

Q=CIA: 0.095 CFS

ΔQ= **0.0711** CFS

Detention Size (for 15-min duration):

10-yr Storm: **63.98** CF

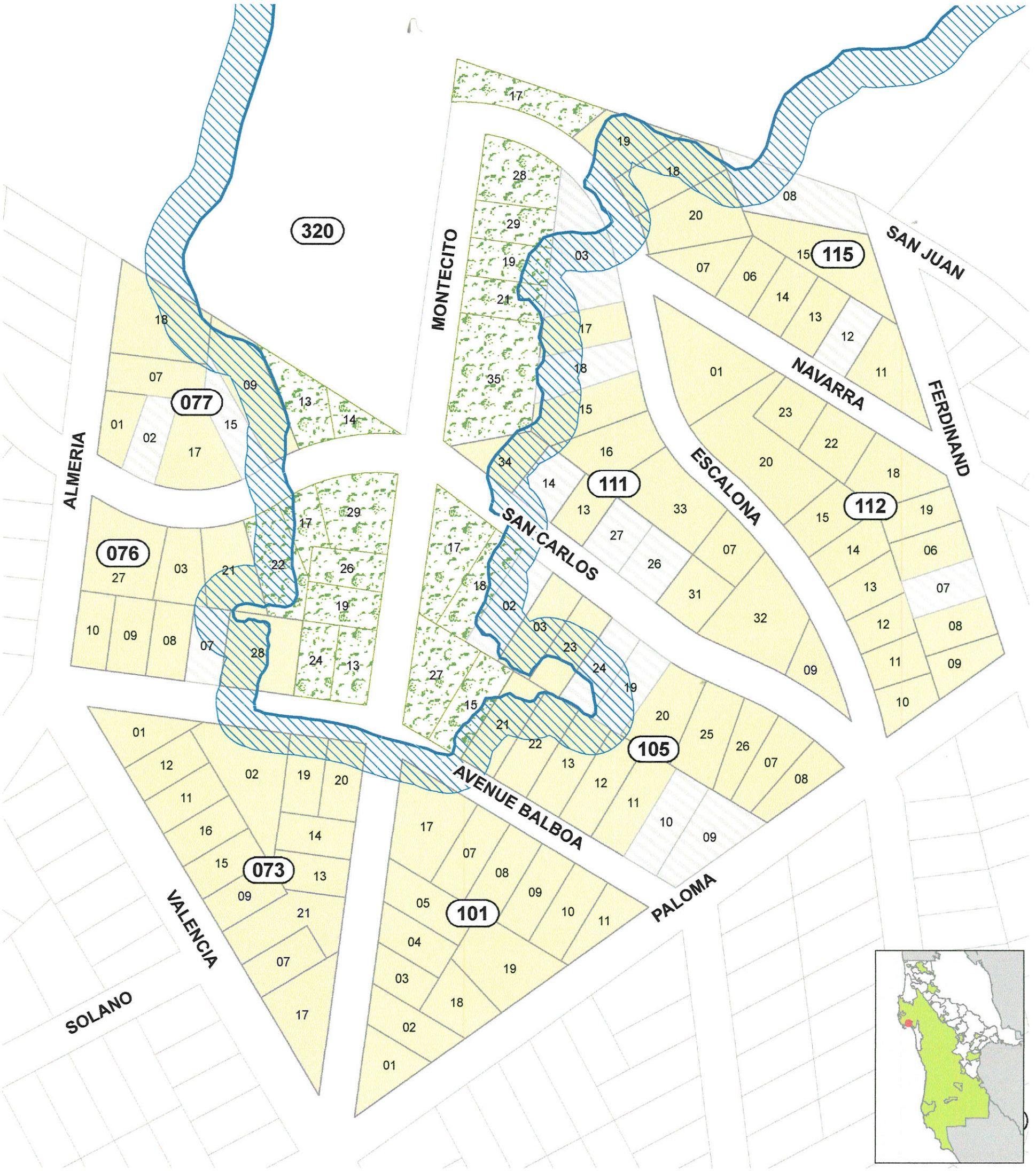
Size Pipes for 10-year event:

2' Pipe + Gravel: **13.6** LF Required

COUNTY OF SAN MATEO | PLANNING AND BUILDING DEPARTMENT

MONTECITO RIPARIAN CORRIDOR

EL GRANADA AREA (APN PREFIX: 047)



Montecito Riparian Corridor Boundary

Montecito Riparian Corridor

Perennial Riparian Buffer (50 FT)

Vacant Parcel

Developed Parcel

County Parcels

Note: This map illustrates the approximate boundary of the Montecito Riparian Corridor based on aerial photographs taken in 2006. The County of San Mateo Local Coastal Program categorizes riparian corridors as environmentally sensitive habitat areas, and strictly regulates development within and adjacent to such areas. Site specific boundary surveys, riparian buffer delineations and bilogical studies, as well as other infomration will be required to determine what if any development may be permissible on parcels wihtin these areas.

L:_PlanningLayer\GIS\Montecito Riparian Corridor.mxd 1/28/2014 ba

March 9, 2016

Kimberly Smith
Project Planner
County of San Mateo
Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Comments for PLN2016-00011| 047-105-240| San Carlos Ave

Dear Ms. Smith:

The project will be required to comply with Coastside County Water District's Indoor Water Use Efficiency Ordinance which includes regulations on water metering and water use efficiency specifications for plumbing fixtures and appliances. District staff performs inspections to verify compliance with all district regulations during and after construction.

The severity of the multi-year drought continues to have an impact on water supply conditions. Mandatory water use restrictions and prohibitions are in place and have been extended through October 2016. Any mandatory water use standards, restrictions and prohibitions will be enforced as they are adopted.

Please note that Coastside County Water District does not allow passive purge systems to be installed on fire protection services. Fire protection services are authorized for the sole purpose of fire protection. There shall be no cross connections and approved backflow protection is required.

This letter provides comments only and does not constitute an approval for this proposed development by Coastside County Water District.

Regards,

Cathleen Brennan
Water Resources Analyst
(650) 276-0861 | cbrennan@coastsidewater.org

Encl: Fact Sheet Construction Plan Review and Water Service

March 7, 2016

RE: Request for Review of Planning Permit Application (PLN2016-00011)
Notification of Uninstalled Water Service Connection
Assessor Parcel Number (APN) 047-105-240 / San Carlos Avenue, El Granada

To whom it may concern:

The Coastside County Water District records confirm that there is one – 5/8" (20 gpm) uninstalled Non-Priority water service connection assigned to APN 047-105-240. The current owner of said water service connection(s) on record with the District is: May & Frank Fong.

This letter does not represent an approval for any proposed development or project by Coastside County Water District (District).

Before issuance of a building permit, the District will need to evaluate a complete set of building plans to determine if the water service capacity available is adequate for this development and complies will all District regulations.

Sincerely,

Gina Brazil
Office Manager

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

June 2, 2016 File No.: 15-1767

Kimberly Smith, Project Planner
San Mateo County Planning and Building Division
455 County Center
Redwood City, CA 94063

re: PLN2016-00011 / APN: 047105240, San Carlos Ave.

Dear Ms. Smith:

Records at this office were reviewed to determine if this project could adversely affect cultural resources. **Please note that use of the term cultural resources includes both archaeological sites and historical buildings and/or structures. The review for possible historic-era building/structures, however, was limited to references currently in our office and should not be considered comprehensive.**

Previous Studies:
XX This office has no record of any previous cultural resource studies for the proposed project area *(see recommendation below)*.

Archaeological and Native American Resources Recommendations:
____ The proposed project area has the possibility of containing unrecorded archaeological site(s). A study is recommended prior to commencement of project activities.

XX We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

XX While the general region surrounding the proposed project site has a high level of sensitivity for archaeological resources, the project parcel itself is located on a steep slope and has a low possibility of containing unrecorded archaeological site(s). Therefore, no further study for archaeological resources is recommended.

Built Environment Recommendations:
XX Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if the project area contains such properties, it is recommended that prior to commencement of project activities, a qualified professional familiar with the architecture and history of San Mateo County conduct a formal CEQA evaluation.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional

information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Bryan Much
Coordinator

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 Fax

June 6, 2016

Kimberley Smith
San Mateo County Government

Sent via e-mail: kdsmith@smcgov.org
Number of pages: 2

RE: Lang Single Family Residence Construction, San Mateo County

Dear Ms. Smith:

Attached is a list of tribes that have cultural and traditional affiliation to the area of potential project effect (APE) referenced above. I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult, as may be required under particular state statutes. If a response has not been received within two weeks of notification, the Native American Heritage Commission (NAHC) requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions, please contact me at my email address: sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst

GRANADA COMMUNITY SERVICES DISTRICT

June 15, 2016

Kimberly Smith
San Mateo County Planning & Building Dept.
455 County Center, 2nd Floor
Mail Drop PLN 122
Redwood City, CA 94063

Re: PLANNING PERMIT APPLICATION REFERRAL
Planning Case Number: PLN2016-00011
APN: 047-105-240
Project Location: San Carlos Ave., El Granada
Property Owner: Justin Lang

Dear Ms. Smith:

This letter is to advise you that the applicant must obtain a sewer connection permit to connect the project to the District's wastewater facilities. The proposed dwelling may connect to the public sewer in San Carlos Street (a pump may be required), or the applicant may apply for a Class 3 Mainline Extension Permit to extend the sewer main within an easement behind the dwelling. To assist the applicant with the sewer permit process, general information and an Application Form are provided with this letter.

The District currently has sufficient sewer capacity to serve conforming parcels within the LCP buildout limits, *however*, if the project is proposed on a nonconforming or antiquated parcel, or includes a non-buildout dwelling such as (but not limited to) a caretaker's unit, the applicant must first obtain a Sewer Permit Variance.

All projects requiring a Variance, and also projects which require two or more ERU's of sewer capacity, or the preparation of a negative declaration or environmental impact report pursuant to the California Environmental Quality Act, must be considered by the District Board of Directors for approval before a sewer permit may be obtained.

If you need additional information or have further questions regarding the District's ability to provide sewer service to the referenced project, please feel free to contact me at (650) 726-7093.

Sincerely,

DELIA COMITO
Assistant General Manager

Enclosures
cc: Board of Directors

504 Avenue Alhambra, 3rd Floor ~ P. O. Box 335 ~ El Granada, California 94018
Telephone: (650) 726-7093 ~ Facsimile: (650) 726-7099 ~ E-mail: gsd@granada.ca.gov

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
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CONTRA COSTA
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HUMBOLDT
LAKE
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MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

June 2, 2016 File No.: 15-1767

Kimberly Smith, Project Planner
San Mateo County Planning and Building Division
455 County Center
Redwood City, CA 94063

re: PLN2016-00011 / APN: 047105240, San Carlos Ave.

Dear Ms. Smith:

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For your reference, a list of qualified professionals in California that meet the Secretary of the Interior's Standards can be found at http://www.chrisinfo.org. If archaeological resources are encountered during the project, work in the immediate vicinity of the finds should be halted until a qualified archaeologist has evaluated the situation. If you have any questions please give us a call (707) 588-8455.

Sincerely,

Bryan Much
Coordinator

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 Fax

June 6, 2016

Kimberley Smith
San Mateo County Government

Sent via e-mail: kdsmith@smcgov.org
Number of pages: 2

RE: Lang Single Family Residence Construction, San Mateo County

Dear Ms. Smith:

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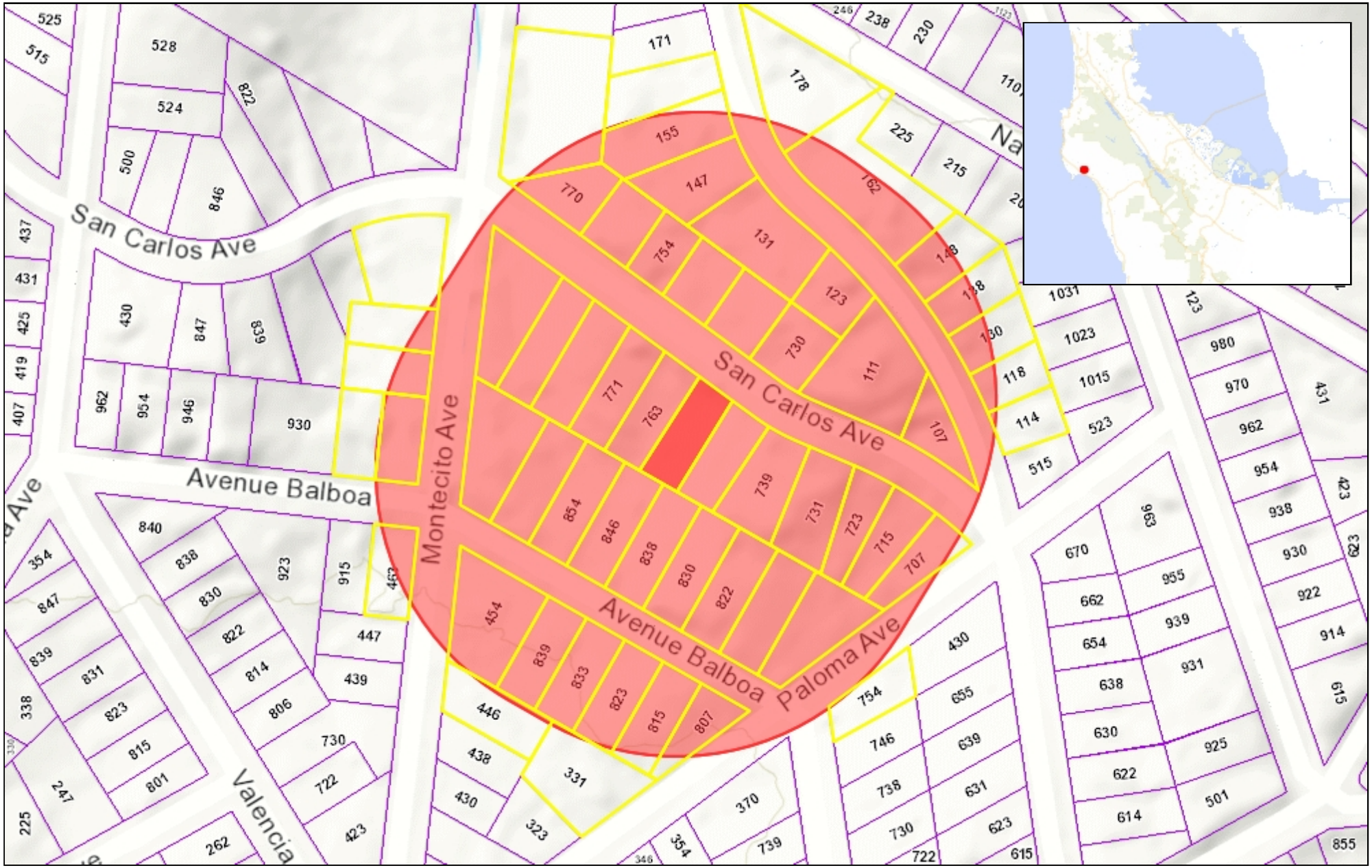
Sincerely,

Sharaya Souza
Staff Services Analyst

San Mateo County

San Carlos Avenue - PLN2016-00011 LANG MAP



0.07 0 0.04 0.07 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

1: 2,256

Date: June 2, 2016

To: County of San Mateo
Planning and Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063

Project Planners: Kimberly Smith

Re: Mitigation Concurrence Letter for Initial Study/ Mitigated Negative Declaration for PLN 2016-00011

Project Description: The applicant requests a Coastal Development Permit, Design Review Permit and a Certificate of Compliance (Type B), for the construction of a new 2,200 sq. ft. single-family residence on an unimproved 6,350 sq. ft. parcel. No significant trees are proposed to be removed and only minor grading is necessary. The parcel is located within the mapped 50-foot riparian buffer zone of the Montecito Riparian Corridor. The Coastal Development Permit is appealable to the California Coastal Commission.

MITIGATION MEASURES: The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Any proposed trimming or removal of trees shall occur only during bird non-nesting season (September 1 - February 14), to the extent feasible. In the event of any removal of vegetation and/or project, grading and construction related activities occurring during the nesting season (February 15 – August 31), the applicant shall conduct a pre-construction nesting bird survey in order to document and establish population size and protection measures, respectively.

Mitigation Measure 2: In the event that nests are observed within the project site, buffers shall be established as determined by a qualified biologist, depending on the types of species observed, project grading and construction activities occurring and nest locations, to include 25- to 75-foot buffers for passerine birds and up to 250-foot buffers for raptors.

Mitigation Measure 3: The property owner, applicant, and contractors must be prepared to carry out the requirements of California State law with regard to the discovery of human remains during construction, whether historic or prehistoric. In the event that any human remains are encountered during site disturbance, all ground-disturbing work shall cease immediately and the County coroner shall be notified immediately. If the

ATTACHMENT I

coroner determines the remains to be Native American, the Native American Heritage Commission shall be contacted within 24 hours. A qualified archaeologist, in consultation with the Native American Heritage Commission, shall recommend subsequent measures for disposition of the remains.

Mitigation Measure 4: If archaeological and/or cultural resources are encountered during grading or construction activities, work shall be temporarily halted in the vicinity within 30 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. The project applicant or archaeologist shall immediately notify the Current Planning Section of any discoveries made and shall provide the Current Planning Section with a copy of the archaeologist's report and recommendations prior to any further grading or construction activity in the vicinity.

Mitigation Measure 5: A discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

Mitigation Measure 6: Prior to the issuance of a building permit for this project, the building permit application and plans shall demonstrate compliance with the recommendations of the Geotechnical Study prepared by Sigma Prime Geosciences, Inc., dated December 29, 2015.

I have read and accepted the mitigation measures suggested as necessary to avoid or mitigate effects to a point where no significant effects would occur, as listed below. I agree to carry out this project in accordance with the suggested mitigation measures in the "Notice of Intent to Adopt Mitigated Negative Declaration", dated June 3, 2016.

Applicant

June 3/2016
Date

Attachment 1: "Notice of Intent to Adopt Mitigated Negative Declaration", dated June 3, 2016.