COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
MITIGATED NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *Slope Repair at 105 San Lucas Avenue, Moss Beach, CA*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN 2016-00327

OWNER/ APPLICANT: Anish Khimani

ASSESSOR'S PARCEL NO.: 037-258-240

LOCATION: 105 San Lucas Avenue, Moss Beach, CA

PROJECT DESCRIPTION

'After-the-Fact' Coastal Development Permit (CDP) and Grading Permit to legalize the February 2017 installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation, of an existing residential property to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April 2016. The 2016 and 2017 work was performed without a Coastal Development Permit, Grading Permit or a building permit and is the subject of this permit application. The 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 will not adversely affect water or air quality or increase noise levels substantially.

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

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

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

5. In addition, the project 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.

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:

Mitigation Measure 1: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

a. All graded surfaces and material, whether filled, excavated, transported, or stockpiled, shall be wetted, protected, or contained in such a manner as to prevent any significant nuisance from dust, or spillage, upon adjoining water bodies, properties, or streets. Equipment and materials on the site shall be used in such a manner as to avoid excessive dust. A dust control plan may be required at any time during the course of the project.

b. A dust palliative shall be applied to the site when required by the County. The type and rate of application shall be recommended by the soils engineer and approved by the Department of Public Works, the Planning and Building Department's Geotechnical Section, and any appropriate State agency.

c. Bay Area Air Quality Management's District (BAAQMD) Basic Construction Mitigation Measures:

    1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

    2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

    3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

    4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

    5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

    6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.

8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 2: Per LCP Policy 7.5, prior to Planning approval of the building permit to legalize the grading work, the applicant shall submit a Monitoring Program for regular inspection, monitoring, and evaluating the effectiveness of the restoration work, which includes monitoring and recommendations made by a professional biologist, and subject to the review of the Community Development Director. The Monitoring Program should make recommendations for protection during pre-construction, construction (if applicable), and post-construction stages, addressing the following:

a. The presence of and project impacts to the San Francisco owl's-clover.

b. The presence of and project impacts to any other protected plant or wildlife species.

c. The presence of and project impacts to any established native resident migratory wildlife corridors or native wildlife nursery sites.

d. The removal of pampas grass, French, Scotch and other invasive brooms, as well as blue gum seedlings to prevent their spread.

e. The property owner shall implement identified maintenance measures as needed in the pre-construction, construction, and post-construction stages throughout the term of the monitoring period.

Mitigation Measure 3: Prior to Planning approval of the building permit, the applicant shall submit a maintenance surety deposit of $5,000 to be held to the end of the monitoring period as established by the approved Monitoring Program. The purpose of the surety is to ensure the implementation of necessary corrections to work and plantings or other measures to comply with the Monitoring Program. Such surety shall only be released at the end of the monitoring period upon written confirmation by a professional biologist of the completion of the Monitoring Program and approval by Community Development Director.

Mitigation Measure 4: Prior to any excavation of native soils, the applicant shall submit to the County Planning and Building Department a report from a qualified archaeologist describing the results of archival and field study for the entire project area to identify cultural resources.

Mitigation Measure 5: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of

discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

Mitigation Measure 6: The applicants 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 7: No grading activities shall commence until the property owner has been issued a grading permit (issued as the "hard card" with all necessary information filled out and signatures obtained) by the Current Planning Section.

Mitigation Measure 8: For the final approval of the grading permit, the property owner shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project site:

a. The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Engineer.

b. The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and Current Planning Section.

Mitigation Measure 9: The applicant shall include an erosion and sediment control plan meeting County 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.

Mitigation Measure 10: Once approved, erosion and sediment control measures of the erosion control plan shall be installed prior to beginning any site work and maintained throughout the term of the grading permit and building permit as confirmed by the County through a pre-site inspection if project initiation occurs immediately prior to or during the wet season. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 11: The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

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

c. Performing clearing and earth-moving activities only during dry weather.

d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.

e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

f. Control and prevention of 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.

g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

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

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

j. Limiting construction access routes and stabilization of designated access points.

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

l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 12: Prior to issuance of the grading permit "hard card," the property owner shall submit a schedule of all grading operations to the Current Planning Section, subject to review and approval by the Current Planning Section. The submitted schedule shall include a schedule for winterizing the site. If the schedule of grading operations calls for the grading to be completed in one grading season, then the winterizing plan shall be considered a contingent plan to be implemented if work falls behind schedule. All submitted schedules shall represent the work in detail and shall project the grading operations through to completion.

Mitigation Measure 13: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities,

especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

Mitigation Measure 14: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

Mitigation Measure 15: In the event that tribal cultural resources are inadvertently discovered during project implementation, all work shall stop until a qualified professional can evaluate the find and recommend appropriate measures to avoid and preserve the resource in place, or minimize adverse impacts to the resource, and those measures shall be subject to the review and approval of the Current Planning Section prior to implementation and continuing any work associated with the project.

Mitigation Measure 16: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

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: August 29, 2018 to September 19, 2018

All comments regarding the correctness, completeness, or adequacy of this Mitigated 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., September 19, 2018**.

CONTACT PERSON

Camille Leung, Senior Planner
650/363-1826
cleung@smcgov.org

Camille Leung, Project Planner

CML:aow – CMLCC0412_WAH.DOCX

County of San Mateo
Planning and Building Department

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

1. **Project Title:** Slope Repair at 105 San Lucas Avenue, Moss Beach, CA

2. **County File Number:** PLN 2016-00327

3. **Lead Agency Name and Address:** County of San Mateo, Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Camille Leung, Senior Planner, 650/363-1826

5. **Project Location:** 105 San Lucas Avenue, Moss Beach, CA

6. **Assessor's Parcel Number and Size of Parcel:** APN 037-258-240; 6,900 sq. ft.

7. **Project Sponsor's Name and Address:** Anish Khimani, 525 Crespi Drive, Pacifica, CA 94044

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

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

10. **Description of the Project:** 'After-the-Fact' Coastal Development Permit (CDP) and Grading Permit to legalize the February 2017 installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation, of an existing residential property to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April 2016. The 2016 and 2017 work was performed without a Coastal Development Permit, Grading Permit or a building permit and is the subject of this permit application. The CDP is appealable to the California Coastal Commission.

11. **Surrounding Land Uses and Setting:** The subject site is a developed residential property located at the top of the coastal bluff above the Pacific Ocean and west of the Half Moon Bay Airport. The property abuts Ocean Boulevard to the west, a County public right-of-way that was closed due to damage from active landslides.

12. **Other Required Public Agency Approvals:** None.

13. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?:** Planning staff has consulted with the following tribes, as identified by the Native American Heritage Commission (NAHC): Coastanoan Rumsen Carmel Tribe, Amah Mutsun - San Juan Bautista, Muwekma Ohlone Indian Tribe, The Ohlone Indian Tribe, and Indian Canyon Mutsun Band of Costamoan. On July 3, 2018, a letter was sent to each of the contact persons provided by the NAHC regarding

the subject project requesting comment by August 20, 2018. No comments were received to date.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below 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.

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

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 project site is visible from nearby residential areas, from San Lucas Avenue and public lands along Ocean Boulevard (a closed public right-of-way). The site is not visible from the beach or the Pacific Ocean. During the unpermitted grading operation associated with the construction of a retaining wall in April 2016, the property owner performed vegetation removal and land disturbance at the subject site and adjoining properties, with an area of land disturbance of approximately 4,000 sq. ft. Disturbed lands include private properties and public property within the Ocean Boulevard public right-of-way. This resulted in a significant adverse aesthetic impact to views from nearby residential areas and along public lands along Ocean Boulevard. On April 27, 2016, the disturbed site was covered in erosion blankets and fiber rolls until February 2017, when the site was re-graded to install a sub-grade Geogrid system and smooth excavated areas and restore natural grade contours. At completion of grading, the site was seeded using a native seeding mix (Attachment B). As of the date of this report, the seeding mix has

sprouted and the site is well vegetated. The Geogrid system is sub-grade and is not visible. Additionally, re-grading of the site, which involved 100 c.y. of imported fill, involved blending the contours of the restored area with topographic contours on adjoining land, restoring the natural look of the land and drainage patterns of the area. Therefore, as proposed and implemented, the project has not resulted in significant adverse aesthetic impact to views from nearby residential areas and along public lands along Ocean Boulevard.

Source: Project Plans submitted on May 12, 2017, 2016 and 2017 Site photos, 2016 and 2017 Site Visits.

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: As discussed in Section 1.a, the project site is visible from nearby residential areas, from San Lucas Avenue and along public lands along Ocean Boulevard (a closed public right-of-way). The site is not visible from the beach, the Pacific Ocean, or Highway 1. There are no rock outcroppings or historic buildings in the immediate project area. No trees were damaged during the grading operation. Work performed in April 2016, involving vegetation removal and land disturbance over an area of approximately 4,000 sq. ft. resulted in significant adverse aesthetic impact to views from nearby residential areas and along public lands along Ocean Boulevard. As proposed and implemented, the repair work performed in February 2017 has largely repaired the scenic resources of the area.

Source: 2016 and 2017 Site photos, 2016 and 2017 Site Visits.

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: As discussed in Section 1.a, work performed in April 2016, involving vegetation removal and land disturbance over an area of approximately 4,000 sq. ft. resulted in significant adverse aesthetic impact to views from nearby residential areas and along public lands along Ocean Boulevard. As proposed and implemented, the work performed in February 2017 has largely repaired the scenic resources of the area.

Source: Project Plans submitted on May 12, 2017; 2016 and 2017 Site photos, 2016 and 2017 Site Visits.

1.d.	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?			X	

Discussion: The grading work done in April 2016 and in February 2017 may have involved temporary lighting of the area during grading and restoration activities. With the work completed, no additional temporary or permanent lighting is proposed or anticipated. The project has not been issued a building permit. Upon building permit application, the project may utilize temporary lighting, but would not result in any new permanent light source.

Source: Project Plans submitted on May 12, 2017; 2016 and 2017 Site photos, 2016 and 2017 Site

Visits.					
1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				X
Discussion: The site is located approximately 1,200 feet from Highway 1 and is not located in a State or County scenic corridor. **Source:** Count GIS Map.					
1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?			X	
Discussion: The site is located in a Design Review Zoning District. Design review standards applicable to grading require development to minimize filing or placement of earth materials, minimize the heights of retaining walls, and limit grading to the footprint of the structure and its immediate vicinity unless otherwise required for technical or engineering reasons by a registered civil engineer, licensed architect or geotechnical consultant. Initially, the project involved the unpermitted construction of a retaining wall outside of the footprint of the existing house. Later, in a report dated July 15, 2016, the Project Geotechnical Consultant (Peters & Ross) stated that "the bluff on which the wall is to be constructed, is unstable and will not support the proposed masonry wall". Instead, the Project Geotechnical Consultant recommended that the cut for the wall should be restored using either a Geogrid reinforced soil slope or a Geogrid reinforced segmental wall. A Geogrid reinforced soil slope was installed and grades were restored to blend with surrounding grades, involving approximately 100 c.y. of imported fill. As proposed and implemented, the work performed in February 2017 is consistent with the applicable standards of the Design Review District. The project has not been issued a building permit. Upon building permit application, the County would not require a wall design based on geotechnical recommendations. If any land disturbance is required, and the County would require grades to blend with adjoining contours as well as revegetation after grading work is complete. **Source:** County's Zoning Regulations; Project Plans submitted on May 12, 2017, 2016 and 2017 Site photos, 2016 and 2017 Site Visits.					
1.g.	Visually intrude into an area having natural scenic qualities?			X	
Discussion: See discussion in Section 1.a. As proposed and implemented, the work performed in February 2017 has largely repaired the scenic resources of the area. **Source:** 2016 and 2017 Site photos, 2016 and 2017 Site Visits.					

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: The project involves an urban, residential property located within a Single Family Residential Zoning District in the Coastal Zone, which does not contain agricultural lands and is not farmed. There is no project impact to farmland, forestland or timberland. **Source:** County GIS, County's Zoning Regulations.					
2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X
Discussion: See discussion under Section 2.a. **Source:** County GIS, County's Zoning Regulations.					
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: See discussion under Section 2.a. **Source:** County GIS, County's Zoning Regulations.					

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: See discussion under Section 2.a. **Source:** County GIS, County's Zoning Regulations.					
2.e.	Result in damage to soil capability or loss of agricultural land?				X
Discussion: See discussion under Section 2.a. **Source:** County GIS, County's Zoning Regulations.					
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: See discussion under Section 2.a. **Source:** County GIS, County's Zoning Regulations.					

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 project involves grading associated with slope stabilization for the protection of residential property from geologic hazards. During grading activities conducted in April 2016 and in February 2017, the project likely resulted in temporary air quality impacts to sensitive receptors on surrounding residential properties associated with dust from earthmoving activities. The Bay Area Air Quality Management District (BAAQMD) exempts construction and operation of residential uses from permit requirements (Regulation 2-1-113). Grading activities are now complete and the site has been

restored and re-vegetated.

The project has not been issued a building permit. Upon building permit application, should additional land disturbance be required, the property owner shall implement the following mitigation measure:

Mitigation Measure 1: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

a. All graded surfaces and material, whether filled, excavated, transported, or stockpiled, shall be wetted, protected, or contained in such a manner as to prevent any significant nuisance from dust, or spillage, upon adjoining water bodies, properties, or streets. Equipment and materials on the site shall be used in such a manner as to avoid excessive dust. A dust control plan may be required at any time during the course of the project.

b. A dust palliative shall be applied to the site when required by the County. The type and rate of application shall be recommended by the soils engineer and approved by the Department of Public Works, the Planning and Building Department's Geotechnical Section, and any appropriate State agency.

c. Bay Area Air Quality Management's District (BAAQMD) Basic Construction Mitigation Measures:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Source: Project Plans submitted on May 12, 2017; Bay Area Air Quality Management District.

3.b.	Violate any air quality standard or contribute significantly to an existing or projected air quality violation?			X	

Discussion: See discussion in Section 3.a.

Source: Project Plans submitted on May 12, 2017, Bay Area Air Quality Management District.					
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: See discussion in Section 3.a. **Source:** Project Plans submitted on May 12, 2017, Bay Area Air Quality Management District.					
3.d.	Expose sensitive receptors to significant pollutant concentrations, as defined by BAAQMD?		X		
Discussion: See discussion in Section 3.a. **Source:** Project Plans submitted on May 12, 2017, Bay Area Air Quality Management District.					
3.e.	Create objectionable odors affecting a significant number of people?			X	
Discussion: The project involved earth movement which likely resulted in the generation of dust. While earthwork likely had associated temporary odors, it is unlikely that odors were significantly objectionable or affected significant numbers of people. Also, see discussion in Section 3.a. **Source:** Project Plans submitted on May 12, 2017.					
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: See discussion in Section 3.a. **Source:** Project Plans submitted on May 12, 2017.					

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		X		

	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?				

Discussion: According to the California Natural Diversity Database maps, the property is located within a large area that potentially contain San Francisco owl's-clover (Triphysaria floribunda), a flowering plant that is native to California with a "not listed" listing status according to the U.S. Fish and Wildlife Service's ECOS Environmental Conservation Online System. The property is located in a developed residential area. The project site includes the back and side yards of the existing residence and immediately surrounding areas (total area is estimated at 1,600 sq. ft.), an area also bordered by Ocean Boulevard (a closed, paved public-right-of-way), and is largely disturbed. Ocean Boulevard separates the area from the Fitzgerald Marine Reserve, a State-designated Area of Special Biological Significance (ASBS), to the west. The site is located within the watershed of the ASBS. While the applicant did not apply erosion control measures during the initial grading operation which is estimated to have begun on approximately April 25, 2016, fiber rolls and jute netting were required by the County and applied on April 27, 2016, which minimized sedimentation to the ASBS. Erosion control remained in place until February 2017, when the site was regraded to restore natural contours and the area was revegetated with a local seed mix (Attachment B). The County performed weekly erosion control inspections from March 14, 2017 until May 3, 2017, when vegetation was established at the site, to confirm that the erosion controls measures were adequate to minimize sedimentation to the ASBS.

The project has not been issued a building permit. Upon building permit application, the Mitigation Measure 2 of Section 4.e requires a Monitoring Program has been added, which requires pre-construction, construction and post-construction monitoring for the presence of and impacts to the San Francisco owl's-clover and other protected plant or wildlife species.

Based on the foregoing, the project is not anticipated to have impacted 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.

Source: U.S. Fish and Wildlife Service's ECOS Environmental Conservation Online System, California Natural Diversity Database maps, County GIS; State Ocean Plan

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: See discussion in Section 4.a.

Source: U.S. Fish and Wildlife Service's ECOS Environmental Conservation Online System, California Natural Diversity Database maps.

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,				X

	hydrological interruption, or other means?				
Discussion: The site, which is located on a hillside of a coastal bluff within a developed residential area, does not contain any wetlands. **Source:** County GIS map, Project Plans submitted on May 12, 2017.					
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: The area of work, which is located on a hillside of a coastal bluff within a developed residential area, does not contain any waterbodies. Portions of the site may be used as a wildlife corridor as it is adjacent to the closed Ocean Boulevard public right-of-way and approximately 60 feet from the Fitzgerald Marine Reserve. To the extent the area is used as a wildlife corridor, movement by wildlife may have been impeded by grading activities of April 2016 and February 2017, but the site has since been restored and revegetated with a native seed mix (Attachment B) and would allow wildlife passage. Mitigation Measure 2 of Section 4.e requires a Monitoring Program, which includes monitoring for the presence of and project impacts to any established native resident migratory wildlife corridors or native wildlife nursery sites. **Source:** County GIS map; Project Plans submitted on May 12, 2017.					
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: The property is located approximately 60 feet from the Fitzgerald Marine Reserve. The project requires a Coastal Development Permit (CDP) and is required to comply with applicable Local Coastal Program (LCP) policies. The following is a discussion of project conformance with applicable policies: LCP Policy 9.8.d prohibits land divisions or new structures that would require the need for bluff protection work. The project would not result in any new structures or the expansion of existing structures, only the slope stabilization. LCP Policy 7.5 requires the applicant to demonstrate that there will be no significant impact on sensitive habitats. When it is determined that significant impacts may occur, the policy requires the applicant to provide a report prepared by a qualified professional which provides: (1) mitigation measures which protect resources and comply with the policies of the Shoreline Access, Recreation/Visitor-Serving Facilities and Sensitive Habitats Components, and (2) a program for monitoring and evaluating the effectiveness of mitigation measures. Develop an appropriate program to inspect the adequacy of the applicant's mitigation measures. When applicable, require as a condition of permit approval the restoration of damaged habitat(s) when in the judgment of the Community Development Director restoration is partially or wholly feasible. The project was undertaken without permits, including grading, Geogrid installation, and restoration. Mitigation					

measures would not apply to past grading, but to future grading associated with necessary correction measures as determined during the building permit process. This requirement has been added as Mitigation Measure 2.

LCP Policy 7.51 encourages the voluntary cooperation of private landowners to remove from their lands the undesirable pampas grass, French, Scotch and other invasive brooms. Similarly, the policy encourages landowners to remove blue gum seedlings to prevent their spread.

Mitigation Measures 2 and 3 have been added to ensure further compliance with applicable LCP policies:

Mitigation Measure 2: Per LCP Policy 7.5, prior to Planning approval of the building permit to legalize the grading work, the applicant shall submit a Monitoring Program for regular inspection, monitoring, and evaluating the effectiveness of the restoration work, which includes monitoring and recommendations made by a professional biologist, and subject to the review of the Community Development Director. The Monitoring Program should make recommendations for protection during pre-construction, construction (if applicable), and post-construction stages, addressing the following:

a. The presence of and project impacts to the San Francisco owl's-clover.

b. The presence of and project impacts to any other protected plant or wildlife species.

c. The presence of and project impacts to any established native resident migratory wildlife corridors or native wildlife nursery sites.

d. The removal of pampas grass, French, Scotch and other invasive brooms, as well as blue gum seedlings to prevent their spread.

e. The property owner shall implement identified maintenance measures as needed in the pre-construction, construction, and post-construction stages throughout the term of the monitoring period.

Mitigation Measure 3: Prior to Planning approval of the building permit, the applicant shall submit a maintenance surety deposit of $5,000 to be held to the end of the monitoring period as established by the approved Monitoring Program. The purpose of the surety is to ensure the implementation of necessary corrections to work and plantings or other measures to comply with the Monitoring Program. Such surety shall only be released at the end of the monitoring period upon written confirmation by a professional biologist of the completion of the Monitoring Program and approval by Community Development Director.

Source: County GIS map, County LCP; Project Plans submitted on May 12, 2017.

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 in an area with an adopted Habitat Conservation Plan or Natural Conservation Community Plan, other approved regional or State habitat conservation plan. The property is located approximately 60 feet from the Fitzgerald Marine Reserve. The project requires a Coastal Development Permit (CDP) and is required to comply with applicable Local Coastal Program (LCP) policies. See preceding discussion in this Section.

Source: County GIS map, Project Plans submitted on May 12, 2017.

4.g.	Be located inside or within 200 feet of			X	

	a marine or wildlife reserve?				
Discussion: See discussion in Section 4.d. **Source:** County GIS map, Project Plans submitted on May 12, 2017.					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: There are no oak woodlands or other non-timber woodlands at the project site. **Source:** County GIS map.					

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 property was created as a part of a residential subdivision recorded in 1908 and is not a historic site or area. The existing residence was built in 1970 and is not a historic structure. Project does not alter the residence or any nearby structures. **Source:** Recorded Subdivision Map; County Assessor's Records.					
5.b.	Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?		X		

Discussion: The project was referred to the California Historical Resources Information System (CHRIS). In a letter dated March 27, 2018, Bryan Much, Coordinator, stated that records at the CHRIS office were reviewed to determine if this project could adversely affect cultural resources. Mr. Much cited Study #3082 (Jackson and Dietz 1970), which included approximately 100% of the project site, which identified no cultural resources. Mr. Much states that, due to the passage of time since the previous survey (Jackson and Dietz 1970) and the changes in archeological theory and method since that time, CHRIS recommends a qualified archaeologist conduct further archival and field study for the entire project area to identify cultural resources.

Planning staff has consulted with the following tribes, as identified by the Native American Heritage Commission (NAHC): Coastanoan Rumsen Carmel Tribe, Amah Mutsun - San Juan Bautista, Muwekma Ohlone Indian Tribe, The Ohlone Indian Tribe, and Indian Canyon Mutsun Band of Costamoan. On July 3, 2018, a letter was sent to each of the contact persons provided by the NAHC regarding the subject project requesting comment by August 20, 2018. No comments were received to date. The February 2017 installation of a Geogrid system did not involve excavation or removal of materials but only placement of 100 c.y. of fill over the area disturbed during wall excavation activities. The project has not been issued a building permit. Upon building permit application, the property

owner shall implement the following mitigation measure:

Mitigation Measure 4: Prior to any excavation of native soils, the applicant shall submit to the County Planning and Building Department a report from a qualified archaeologist describing the results of archival and field study for the entire project area to identify cultural resources.

Source: Letter from Bryan Much, Coordinator, California Historical Resources Information System **(**CHRIS), dated March 27, 2018.

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

Discussion: The project is intended to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April 2016. The February 2017 installation of a Geogrid system did not involve excavation or removal of materials but only placement of 100 c.y. of fill over the area disturbed during wall excavation activities.

The project has not been issued a building permit. During any grading activities, the property owner shall implement the following mitigation measure:

Mitigation Measure 5: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

Source: Project Plans.

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

Discussion: The project has not been issued a building permit. Upon building permit application, the property owner shall implement the following mitigation measure:

Mitigation Measure 6: The applicants 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: Site photos and Inspections, April 2016.

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: The site is located within the Geological Hazard (GH) Zoning District. Based on a Geotechnical Investigation (Report) by Peters and Ross (Attachment C), dated July 2016 and revised in October 2016, the site is within the seismically active San Francisco Bay Area. Several active faults capable of generating strong earthquake groundshaking at the site are located nearby. The closest of these are the Seal Cove trace of the San Gregorio Fault which is about 400 feet northeast of the site and the San Andreas Fault which is about 11 kilometers northeast. The site is located within the Active Fault Near-Source Zone which means that the project will be subject to a large magnitude earthquake that will cause strong groundshaking.

The project is intended to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April of 2016. In the Report, Peters and Ross recommend that the cut for the wall should be restored using either a Geogrid reinforced soil slope or a Geogrid reinforced segmental wall.

The site contains a residence that was built in 1970; the project does not involve the construction of additional structures at the property. The project has not been issued a building permit. Upon building permit application, the Project Geologist would be required to address the County's comments and oversee and certify the work. In addition, the following Mitigation Measures have been added:

Mitigation Measure 7: No grading activities shall commence until the property owner has been issued a grading permit (issued as the "hard card" with all necessary information filled out and signatures obtained) by the Current Planning Section.

Mitigation Measure 8: For the final approval of the grading permit, the property owner shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project site:

a. The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Engineer.

b. The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and Current Planning Section. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.				
ii. Strong seismic ground shaking?		X		
Discussion: See discussion in Section 6.a.i. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.				
iii. Seismic-related ground failure, including liquefaction and differential settling?			X	
Discussion: The Report does not identify the site as having potential for seismic-related ground failure, including liquefaction and differential settling. See discussion in Section 6.a. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.				
iv. Landslides?		X		
Discussion: The Report states that landslide mapping of the area by Pampeyan (1994) shows a large landslide just west of the site. William Cotton and Associates developed a geologic hazard map for the County of San Mateo in 1980. They mapped the subject site as being within Zone 1 which includes all properties that are affected by active landslide processes. William Cotton and Associates (1980) stated that the feasibility of stabilizing the bluff is extremely low. In 2005, the County geologist increased the boundary of the active slide to include the subject property as shown in Figure 4 of the Report. The project is intended to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April 2016. In the Report, Peters and Ross recommend that the cut for the wall should be restored using either a Geogrid reinforced soil slope or a Geogrid reinforced segmental wall. See further discussion and mitigation measures in Section 6.a.i. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.				
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: The Report states that the property is located at the top of the coastal bluff above the Pacific Ocean. Geologic mapping by Pampeyan (1994) indicates that the site is underlain by upper Pleistocene age marine terrace deposits (Qmt). The marine terrace deposits generally consist of poorly to moderately consolidated marine, eolian, and alluvial sand, silt, gravel, and clay deposits. The marine terrace deposits are underlain by Pliocene age Purisima Formation (Tp). The Purisima Formation consists of interbedded mudstone, siltstone, and sandstone. The project is intended to stabilize the subject site and correct unauthorized retaining wall work and vegetation removal performed in April 2016. In the Report, Peters and Ross recommend that the cut for the wall should be restored using either a geogrid reinforced soil slope or a geogrid reinforced				

segmental wall. See further discussion and mitigation measures in Section 6.a.i.

Source: Geotechnical Investigation by Peters and Ross, dated July 2016.

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

Discussion: A Winterization Plan was prepared by a licensed civil engineer, reviewed by the Project Geotechnical Consultant, and implemented during the course of grading and Geogrid installation activities to minimize soil erosion. The project has not been issued a building permit. Upon building permit application, the property owner shall implement the following mitigation measures:

Mitigation Measure 9: The applicant shall include an erosion and sediment control plan meeting County 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.

Mitigation Measure 10: Once approved, erosion and sediment control measures of the erosion control plan shall be installed prior to beginning any site work and maintained throughout the term of the grading permit and building permit as confirmed by the County through a pre-site inspection if project initiation occurs immediately prior to or during the wet season. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 11: The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

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

c. Performing clearing and earth-moving activities only during dry weather.

d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.

e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

f. Control and prevention of 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.

g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

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

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

j. Limiting construction access routes and stabilization of designated access points.

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

dry sweeping methods.

l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 12: Prior to issuance of the grading permit "hard card," the property owner shall submit a schedule of all grading operations to the Current Planning Section, subject to review and approval by the Current Planning Section. The submitted schedule shall include a schedule for winterizing the site. If the schedule of grading operations calls for the grading to be completed in one grading season, then the winterizing plan shall be considered a contingent plan to be implemented if work falls behind schedule. All submitted schedules shall represent the work in detail and shall project the grading operations through to completion.

Mitigation Measure 13: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

Source: County's standard erosion control measures.

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: Regarding landslide potential, see discussion in Section 6.iv. Regarding liquefaction potential see discussion in Section 6.iii. Regarding erosion, see discussion in Section 6.b. The Report does not identify the site as having potential for lateral spreading, subsidence, or collapse.

Source: Geotechnical Investigation by Peters and Ross, dated July 2016.

6.d.	Be located on expansive soil, as noted in the 2010 California Building Code, creating significant risks to life or property?			X	

Discussion: As discussed in the Report, the results of boring results indicate that the clayey sand materials have a low expansion potential (expansive soils shrink and swell in response to changes in moisture).

Source: Geotechnical Investigation by Peters and Ross, dated July 2016.

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 is connected to the Montara Water and Sanitary District. The project does not involve a change in project sewage treatment.

Source: Project Plans, County GIS.

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: Grading involves GHG emissions mainly from exhaust from vehicle trips (e.g., construction vehicles and personal cars of construction workers, and operation of grading equipment). Due to the site's coastal location and assuming construction vehicles and workers are based largely in city or larger urban areas, potential project GHG emission levels from construction would be increased from general levels. In February 2017, the project involved installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation. Fill was imported to site using approximately 10 truckloads, resulting in 20 truck trips. The project also involved construction worker vehicle traffic during this time. The project is completed, but the project has not been issued a building permit. Upon building permit application, construction vehicle traffic is anticipated to be light, with significant fill materials already located on-site.

Source: Project Grading Plans.

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: The project involves land stabilization of a property previously developed with a single-family residence. The Bay Area Air Quality Management District (BAAQMD) exempts construction and operation of residential uses from permit requirements (Regulation 2-1-113). See Mitigation Measure 1 which requires dust control.

Source: Bay Area Air Quality Management District (BAAQMD) Regulation 2-1-113.

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 site does not contain forestland; therefore there will be no impact on forestland. **Source:** County GIS, Project 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 involves land stabilization of a property located near the coastal cliff/bluff which has been previously developed with a single-family residence. The project does not involve expansion of the residential use or infrastructure that would be exposed to accelerated coastal cliff/bluff erosion due to rising sea levels. **Source:** County GIS, Project Plans.					
7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: See discussion in Section 7.d. **Source:** County GIS; Project 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 does not involve expansion of the residential use or infrastructure. The project site is located in Zone X (Areas of minimal flooding), Community Panel No. 06081C0119F, effective August 2, 2017. **Source:** County GIS, Project Plans.					
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See discussion in Section 7.f. **Source:** County GIS, Project Plans.					

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: The project involves land stabilization of a property located near the coastal cliff/bluff which has been previously developed with a single-family residence. Grading work, which was temporary and is largely complete, did not involve the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material), nor would the established residential use. **Source:** Project 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 site is not a listed hazardous materials site. Also, the project geotechnical report did not reveal any hazardous materials in the soil. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016, County Health Department list of contaminated sites.					
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 land stabilization of a property located near the coastal cliff/bluff which has been previously developed with a single-family residence. Grading work, which was temporary and is largely complete, did not involve hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste. The site is not located within one-quarter mile of an existing or proposed school. **Source:** Project 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 site is not a listed hazardous materials site. The project involves land stabilization of a property located near the coastal cliff/bluff which has been previously developed with a single-family residence. **Source:** County GIS.					
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: The project site is located within close proximity to the Half Moon Bay Airport. The site is not located near any private airstrips. The project did not itself create or construct any temporary or permanent safety hazard for people residing or working in the project area. **Source:** County GIS; Project Plans.					
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: See discussion in Section 8.e. **Source:** County GIS.					
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
Discussion: In February 2017, the project involved installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation. Fill was imported to site using approximately 10 truckloads, resulting in 20 truck trips. The low level of project-related traffic related to past or future grading (if needed for correction measures) is unlikely to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **Source:** Project Grading Plans.					
8.h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to				X

	urbanized areas or where residences are intermixed with wildlands?				
Discussion: The project site is not located within a State or Local Fire Severity Zone. The project involved installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation, and did not involve the construction of any structures. **Source:** County GIS; Project Plans.					
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: See discussion in Section 7.f. The project does not involve construction of any structures. **Source:** County GIS; Project Plans.					
8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See discussion in Section 7.f. The project does not involve construction of any structures. **Source:** County GIS; Project Plans.					
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 discussion in Section 7.f. **Source:** County GIS.					
8.l.	Inundation by seiche, tsunami, or mudflow?				X
Discussion: According to the Tsunami Inundation Map for Emergency Planning, the site is located near the tsunami inundation area but is located outside of the tsunami inundation line. The project would not result in additional density or structures at the property. **Source:** Tsunami Inundation Map for Emergency Planning, Montara Mountain Quadrangle, State of California - County of San Mateo, June 15, 2009					

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: See discussion and mitigation measures in Section 6.b. **Source:** County standard erosion control measures.					
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: Grading should have minimal impact on groundwater. As discussed in the project geotechnical report, the borehole was 25 feet in depth and no groundwater was encountered. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.					
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: The applicant has submitted a grading and drainage plan which has been reviewed and approved by the Department of Public Works (DPW). DPW staff required project drainage (run-off from on-site impervious surfaces, such as the roof) to be directed to the east of the project site (east side of San Lucas Avenue) away from the landslide area, through re-grading and re-paving a portion of the right-of-way in front of the parcel and constructing a new stabilized asphalt-concrete swale with a 1.5 minimum flowline, as shown in Attachment E1. The new swale will connect to the existing swale system within the existing roads (San Lucas Avenue and Del Mar Avenue), which directs stormwater to					

the east. The drainage improvements are complete and will improve existing drainage patterns in the area, minimizing the potential for erosion and landslide hazard related to project stormwater infiltration to landslide areas. **Source:** Project Plans, County GIS.					
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: See discussion in Section 9.c. The project site is not located near any stream or river, nor would the project significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. **Source:** Project Plans, County GIS.					
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: See discussion in Section 9.c. Regarding grading-related erosion, sedimentation or stormwater pollution, see discussion in Section 6.b. **Source:** Project Plans, County GIS.					
9.f.	Significantly degrade surface or groundwater water quality?		X		
Discussion: Regarding grading-related erosion, sedimentation or stormwater pollution, see discussion in Section 6.b. Regarding groundwater, see discussion in Section 9.b. **Source:** Project Plans, County GIS.					
9.g.	Result in increased impervious surfaces and associated increased runoff?				X
Discussion: The project involves the installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation, of an existing residential property. The project does not result in the construction of additional areas of impervious surface. **Source:** Project 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: The project site contains an existing single-family residence within an existing single-family residential neighborhood. The project does not involve the construction of any structures, but the installation of subgrade systems for land stabilization. **Source:** Project Plans, County GIS.					
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: The project was undertaken without the required Coastal Development Permit and Grading Permit. The applicant has applied for these permits, after-the-fact, and the County has reviewed the project and found it to comply with applicable policies of the Local Coastal Program and Grading Regulations. **Source:** County Local Coastal Program, Grading Regulations.					
10.c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		
Discussion: The property is located in a developed residential area. The project site includes the back and side yards of the existing residence and immediately surrounding areas, an area also bordered by Ocean Boulevard (a closed, paved public-right-of-way), and is largely disturbed. As discussed in Section 4.a. of this report, Ocean Boulevard separates the area from the Fitzgerald Marine Reserve, a State-designated Area of Special Biological Significance (ASBS), to the west. The site is located within the watershed of the ASBS. While the applicant did not apply erosion control measures during the initial grading operation which is estimated to have begun on approximately April 25, 2016, fiber rolls and jute netting were required by the County and applied on April 27, 2016, which minimized sedimentation to the ASBS. Mitigation Measures 9 through 11 would require the applicant to implement erosion control measures to minimize sedimentation, including to the ASBS. **Source:** County GIS, State Ocean Plan					
10.d.	Result in the congregating of more than 50 people on a regular basis?				X

Discussion: The property is located in a developed single-family residential area. The grading and stabilization project nor the permanent residential use result in the congregation of more than 50 people on a regular basis. **Source:** County GIS.					
10.e.	Result in the introduction of activities not currently found within the community?				X
Discussion: Grading projects associated with residential construction and land stabilization are not uncommon in this area of Moss Beach, which is located within the Geological Hazard "GH" Zoning District. **Source:** County GIS.					
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 project involves land stabilization activities that serve to stabilize the subject site and potentially those surrounding the project site in the short-term. Future development of vacant parcels adjoining the subject site would require a site-specific soils report and potentially separate, site-specific land stabilization measures at the time of development. Therefore, the project would not have a significant effect in serving to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.					
10.g.	Create a significant new demand for housing?				X
Discussion: The property contains a single-family residence in a developed residential area. The site-specific land stabilization project does not create a significant new demand for housing. **Source:** Google aerial 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 property contains a single-family residence in a developed residential area. The site-specific land stabilization project, which involved the import of fill, does not 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. **Source:** Project plans.				
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 property contains a single-family residence in a developed residential area. The site-specific land stabilization project does not impact any locally important mineral resource recovery site. **Source:** Project plans.				

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: During the regrading project of February 2017, the project involved temporary noise impacts related to grading activities, such as the importation of approximately 10 truckloads of fill, resulting in 20 truck trips, compaction of earth, and fine grading of the site. The project did not result in any new permanent noise-generating land use, as the site maintains a single-family residential use. **Source:** Project Plans.				

12.b.	Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?			X	
Discussion: Please see discussion in Section 12.a, above. **Source:** Project Plans.					
12.c.	A significant permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
Discussion: Please see discussion in Section 12.a, above. **Source:** Project Plans.					
12.d.	A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: Please see discussion in Section 12.a, above. **Source:** Project Plans.					
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: The project is located within the planning area of the Half Moon Bay Airport Land Use Plan and is located within approximately 0.25-miles west of the public airport. Please see discussion in Section 12.a, above. **Source:** Project Plans.					
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: The project is not located within the vicinity of a private airstrip. Please see discussion in Section 12.a, above. **Source:** Google aerial map.					

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: The project involves land stabilization activities that serve to stabilize the subject site and potentially those surrounding the project site in the short-term. Future development of vacant parcels adjoining the subject site would require a site-specific soils report and potentially separate, site-specific land stabilization measures at the time of development. Therefore, the project would not have a significant effect in inducing significant population growth in an area, either directly or indirectly. **Source:** Geotechnical Investigation by Peters and Ross, dated July 2016.					
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 site maintains a single-family residential use. **Source:** Project 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 site maintains a single-family residential use. The project did not result in any change to the service levels of these public services.

Source: Project 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: The site maintains a single-family residential use. The project did not result in any increase in the use of existing neighborhood or regional parks or other recreational facilities.

Source: Project 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: The site maintains a single-family residential use. The project did not include recreational facilities or require the construction or expansion of recreational facilities.

Source: Project 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				X

	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?				
Discussion: In February 2017, the project involved installation of a Geogrid system, including associated re-grading (100 c.y. of fill) and revegetation, at the subject site. Fill was imported to site using approximately 10 truckloads, resulting in 20 truck trips. The project also involved construction worker vehicle traffic during this time. The low level of project-related traffic did not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. The project is completed, but the project has not been issued a building permit. Upon building permit application, construction vehicle traffic is anticipated to be light, with significant fill materials already located on-site. Any corrective work involving construction vehicle traffic will be subject to the County's standard construction vehicle management requirements, avoiding any potentially significant impacts. **Source:** Project Grading Plans.					
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: Please see discussion in Section 16.a. **Source:** Project Grading Plans.					
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: Please see discussion in Section 16.a. **Source:** Project Grading Plans.					
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 itself did not result in any change to the public road right-of-ways. In a related project (DPW 2017-01408), in January 2018, the drainage patterns of San Lucas Avenue in the immediate project vicinity were altered to direct project drainage to the east side of San Lucas					

Avenue to prevent further drainage into the landslide to the west of the property. A Coastal Permit Exemption (PLN 2017-00472) was issued for the project and the project was exempt from the California Environmental Quality Act. The project involved the excavation of a trench in front of the property and across the street to connect to an existing drainage facility for underground water discharging per plans by the Department of Public Works. The construction of a drainage trench in San Lucas Avenue has not resulted in a vehicle hazard and there was no change in pedestrian or parking access. The project does not result in an incompatible use as the single-family residential use has been maintained. **Source:** Project Plans for DPW 2017-01408.				
16.e. Result in inadequate emergency access?				X
Discussion: Please see discussion in Sections 16.a and 16.d, above. **Source:** Project Grading Plans, Project Plans for DPW 2017-01408.				
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: Please see discussion in Sections 16.a and 16.d, above. **Source:** Project Grading Plans; Project Plans for DPW 2017-01408.				
16.g. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?				X
Discussion: There was no change in pedestrian access. Please see discussion in Section 16.d, above. **Source:** Project Plans for DPW 2017-01408.				
16.h. Result in inadequate parking capacity?				X
Discussion: There was no change in street parking access. Please see discussion in Section 16.d, above. **Source:** Project Plans for DPW 2017-01408.				

17. TRIBAL CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				X
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)				X
Discussion: The project site is not listed or eligible for listing in the California Register of Historical Resources. Furthermore, the project is not listed in a local register of historical resources, pursuant to any local ordinance or resolution as defined in Public Resources Code Section 5020.1(k). **Source:** Project Location, State Parks, Office of Historic Preservation, Listed California Historical Resources, County General Plan, Background, Historical and Archaeological Resources Appendices.				
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1. (In applying the criteria set forth in Subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.)		X		
Discussion: Staff requested a Sacred Lands file search of the project vicinity, which was conducted by the Native American Heritage Council (NAHC), and resulted in no found records (Attachment D2). Planning staff has consulted with the following tribes, as identified by the NAHC: Coastanoan Rumsen Carmel Tribe, Amah Mutsun - San Juan Bautista, Muwekma Ohlone Indian Tribe, The Ohlone Indian Tribe, and Indian Canyon Mutsun Band of Costamoan. On July 3, 2018, a letter was sent to each of the contact persons provided by the NAHC regarding the subject project requesting comment by August 20, 2018. No comments were received to date. The February 2017				

installation of a Geogrid system did not involve excavation or removal of materials but only placement of 100 c.y. of fill over the area disturbed during wall excavation activities. The project has not been issued a building permit. Upon building permit application, the property owner shall implement Mitigation Measure 4 of Section 5.b which requires the applicant to submit to the County Planning and Building Department a report from a qualified archaeologist describing the results of archival and field study for the entire project area to identify cultural resources.

The project is not subject to Assembly Bill 52 for California Native American tribal consultation requirements, as no traditionally or culturally affiliated tribe has requested, in writing to the County to be informed of proposed projects in the geographic project area. However, based on the NAHC's recommended best practices, the following mitigation measures are recommended to minimize any potential significant impacts to unknown tribal cultural resources.

Mitigation Measure 14: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

Mitigation Measure 15: In the event that tribal cultural resources are inadvertently discovered during project implementation, all work shall stop until a qualified professional can evaluate the find and recommend appropriate measures to avoid and preserve the resource in place, or minimize adverse impacts to the resource, and those measures shall be subject to the review and approval of the Current Planning Section prior to implementation and continuing any work associated with the project.

Mitigation Measure 16: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

Source: Project Plans, Project Location, Native American Heritage Council, California Assembly Bill 52.

18. UTILITIES AND SERVICE SYSTEMS. Would the project:

		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
18.a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
Discussion: The site maintains a single-family residential use. The site is connected to the Montara Water and Sanitary District for sewer and water services. The project did not result in any change to water, sewer, solid waste, or energy demand or service levels. **Source:** County GIS; Project Plans.					
18.b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could				X

	cause significant environmental effects?				
Discussion: Please see discussion in Section 18.a. **Source:** County GIS, Project Plans.					
18.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: As discussed in Section 16.d, in a related project, a new trench was excavated in the San Lucas Avenue right-of-way to direct project drainage to existing drainage facilities on the east side of San Lucas Avenue. No storm drains are located in this area. The construction of the trench improved drainage patterns at the subject site, which were previously directed to a landslide area to the west of the project site. The trench work did not result in the removal of vegetation and only minor grading, as work took place within existing paved areas of the San Lucas road right-of-way. **Source:** Project Plans for DPW 2017-01408.					
18.d.	Have sufficient water supplies available to serve the project from existing entitle-ments and resources, or are new or expanded entitlements needed?				X
Discussion: Please see discussion in Section 18.a. **Source:** County GIS; Project Plans.					
18.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: Please see discussion in Section 18.a. **Source:** County GIS; Project Plans.					
18.f.	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
Discussion: Please see discussion in Section 18.a. **Source:** County GIS, Project Plans.					
18.g.	Comply with Federal, State, and local statutes and regulations related to solid waste?				X

Discussion: Please see discussion in Section 18.a. **Source:** County GIS; Project Plans.				
18.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: Please see discussion in Section 18.a. **Source:** County GIS, Project Plans.				
18.i. Generate any demands that will cause a public facility or utility to reach or exceed its capacity?				X
Discussion: Please see discussion in Section 18.a. **Source:** County GIS, Project Plans.				

19. MANDATORY FINDINGS OF SIGNIFICANCE.				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
19.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: Yes, as discussed in this document, the project has the potential to impact biological resources, geology/soils, and hydrology/water quality in the area. Implementation of mitigation measures included in this document would adequately reduce project impacts to a less than significant level. **Source:** Subject document.				

19.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: The project is generally completed. Re-grading and re-paving work within the San Lucas Avenue public right-of-way, which resulted in a permanent beneficial impact to drainage in the area is also complete. Additional earthwork, likely minor, may be required by the County Building Inspection Section. Due to the minor nature of any additional earthwork and the beneficial nature of the drainage work in the right-of-way, the impact of any future work is not likely to result in a cumulatively considerable impact when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. **Source:** Subject document.					
19.c.	Does the project have environmental effects which will cause significant adverse effects on human beings, either directly or indirectly?		X		
Discussion: As previously discussed, the project could result in environmental impacts that could both directly and indirectly cause impacts on human beings. However, implementation of mitigation measures included in this document would adequately reduce project impacts to a less than significant level. **Source:** Subject document.					

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	

AGENCY	YES	NO	TYPE OF APPROVAL
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:		X	
Other: N/A			

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.		
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: Upon the start of excavation activities and through to the completion of the project, the applicant shall be responsible for ensuring that the following dust control guidelines are implemented:

a. All graded surfaces and material, whether filled, excavated, transported, or stockpiled, shall be wetted, protected, or contained in such a manner as to prevent any significant nuisance from dust, or spillage, upon adjoining water bodies, properties, or streets. Equipment and materials on the site shall be used in such a manner as to avoid excessive dust. A dust control plan may be required at any time during the course of the project.

b. A dust palliative shall be applied to the site when required by the County. The type and rate of application shall be recommended by the soils engineer and approved by the Department of Public Works, the Planning and Building Department's Geotechnical Section, and any appropriate State agency.

c. Bay Area Air Quality Management's District (BAAQMD) Basic Construction Mitigation Measures:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure 2: Per LCP Policy 7.5, prior to Planning approval of the building permit to legalize the grading work, the applicant shall submit a Monitoring Program for regular inspection, monitoring, and evaluating the effectiveness of the restoration work, which includes monitoring and recommendations made by a professional biologist, and subject to the review of the Community Development Director. The Monitoring Program should make recommendations for protection during pre-construction, construction (if applicable), and post-construction stages, addressing the following:

a. The presence of and project impacts to the San Francisco owl's-clover.
b. The presence of and project impacts to any other protected plant or wildlife species.
c. The presence of and project impacts to any established native resident migratory wildlife corridors or native wildlife nursery sites.
d. The removal of pampas grass, French, Scotch and other invasive brooms, as well as blue gum seedlings to prevent their spread.
e. The property owner shall implement identified maintenance measures as needed in the pre-construction, construction, and post-construction stages throughout the term of the monitoring period.

Mitigation Measure 3: Prior to Planning approval of the building permit, the applicant shall submit a maintenance surety deposit of $5,000 to be held to the end of the monitoring period as established by the approved Monitoring Program. The purpose of the surety is to ensure the implementation of necessary corrections to work and plantings or other measures to comply with the Monitoring Program. Such surety shall only be released at the end of the monitoring period upon written confirmation by a professional biologist of the completion of the Monitoring Program and approval by Community Development Director.

Mitigation Measure 4: Prior to any excavation of native soils, the applicant shall submit to the

County Planning and Building Department a report from a qualified archaeologist describing the results of archival and field study for the entire project area to identify cultural resources.

Mitigation Measure 5: In the event that cultural, paleontological, or archeological resources are encountered during site grading or other site work, such work shall immediately be halted in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The applicant shall be required to retain the services of a qualified archeologist for the purpose of recording, protecting, or curating the discovery as appropriate. The cost of the qualified archeologist and any recording, protecting, or curating shall be borne solely by the project sponsor. The archeologist shall be required to submit to the Community Development Director for review and approval a report of the findings and methods of curation or protection of the resources. No further grading or site work within the area of discovery shall be allowed until the preceding has occurred. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

Mitigation Measure 6: The applicants 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 7: No grading activities shall commence until the property owner has been issued a grading permit (issued as the "hard card" with all necessary information filled out and signatures obtained) by the Current Planning Section.

Mitigation Measure 8: For the final approval of the grading permit, the property owner shall ensure the performance of the following activities within thirty (30) days of the completion of grading at the project site:

a. The engineer shall submit written certification that all grading has been completed in conformance with the approved plans, conditions of approval/mitigation measures, and the Grading Regulations, to the Department of Public Works and the Planning and Building Department's Geotechnical Engineer.

b. The geotechnical consultant shall observe and approve all applicable work during construction and sign Section II of the Geotechnical Consultant Approval form, for submittal to the Planning and Building Department's Geotechnical Engineer and Current Planning Section.

Mitigation Measure 9: The applicant shall include an erosion and sediment control plan meeting County 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.

Mitigation Measure 10: Once approved, erosion and sediment control measures of the erosion control plan shall be installed prior to beginning any site work and maintained throughout the term of the grading permit and building permit as confirmed by the County through a pre-site inspection if project initiation occurs immediately prior to or during the wet season. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 11: The property owner shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including, but not limited to, the following:

a. Delineation with field markers of clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses within the vicinity of areas to be disturbed by construction and/or grading.

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

c. Performing clearing and earth-moving activities only during dry weather.

d. Stabilization of all denuded areas and maintenance of erosion control measures continuously between October 1 and April 30.

e. Storage, handling, and disposal of construction materials and wastes properly, so as to prevent their contact with stormwater.

f. Control and prevention of 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.

g. Use of sediment controls or filtration to remove sediment when dewatering site and obtain all necessary permits.

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

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

j. Limiting construction access routes and stabilization of designated access points.

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

l. Training and providing instruction to all employees and subcontractors regarding the Watershed Protection Maintenance Standards and construction Best Management Practices.

m. Additional Best Management Practices in addition to those shown on the plans may be required by the Building Inspector to maintain effective stormwater management during construction activities. Any water leaving the site shall be clear and running slowly at all times.

n. Failure to install or maintain these measures will result in stoppage of construction until the corrections have been made and fees paid for staff enforcement time.

Mitigation Measure 12: Prior to issuance of the grading permit "hard card," the property owner shall submit a schedule of all grading operations to the Current Planning Section, subject to review and approval by the Current Planning Section. The submitted schedule shall include a schedule for winterizing the site. If the schedule of grading operations calls for the grading to be completed in one grading season, then the winterizing plan shall be considered a contingent plan to be implemented if work falls behind schedule. All submitted schedules shall represent the work in detail and shall project the grading operations through to completion.

Mitigation Measure 13: It shall be the responsibility of the engineer of record to regularly inspect the erosion control measures for the duration of all grading remediation activities, especially after major storm events, and determine that they are functioning as designed and that proper maintenance is being performed. Deficiencies shall be immediately corrected, as determined by and implemented under the observation of the engineer of record.

Mitigation Measure 14: Should any traditionally or culturally affiliated Native American tribe respond to the County's issued notification for consultation, such process shall be completed and

any resulting agreed upon measures for avoidance and preservation of identified resources be taken prior to implementation of the project.

Mitigation Measure 15: In the event that tribal cultural resources are inadvertently discovered during project implementation, all work shall stop until a qualified professional can evaluate the find and recommend appropriate measures to avoid and preserve the resource in place, or minimize adverse impacts to the resource, and those measures shall be subject to the review and approval of the Current Planning Section prior to implementation and continuing any work associated with the project.

Mitigation Measure 16: Any inadvertently discovered tribal cultural resources shall be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

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 have been included as part of the proposed project. A MITIGATED 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)

Camille Leung, Senior Planner

(Name, Title)

8/29/18

Date

ATTACHMENTS:

A. Project Plans, received on May 12, 2017

B. Pacific Coast Seed: Regreen

C. Geotechnical Investigation by Peters and Ross, dated July 2016 (Revised October 2016)

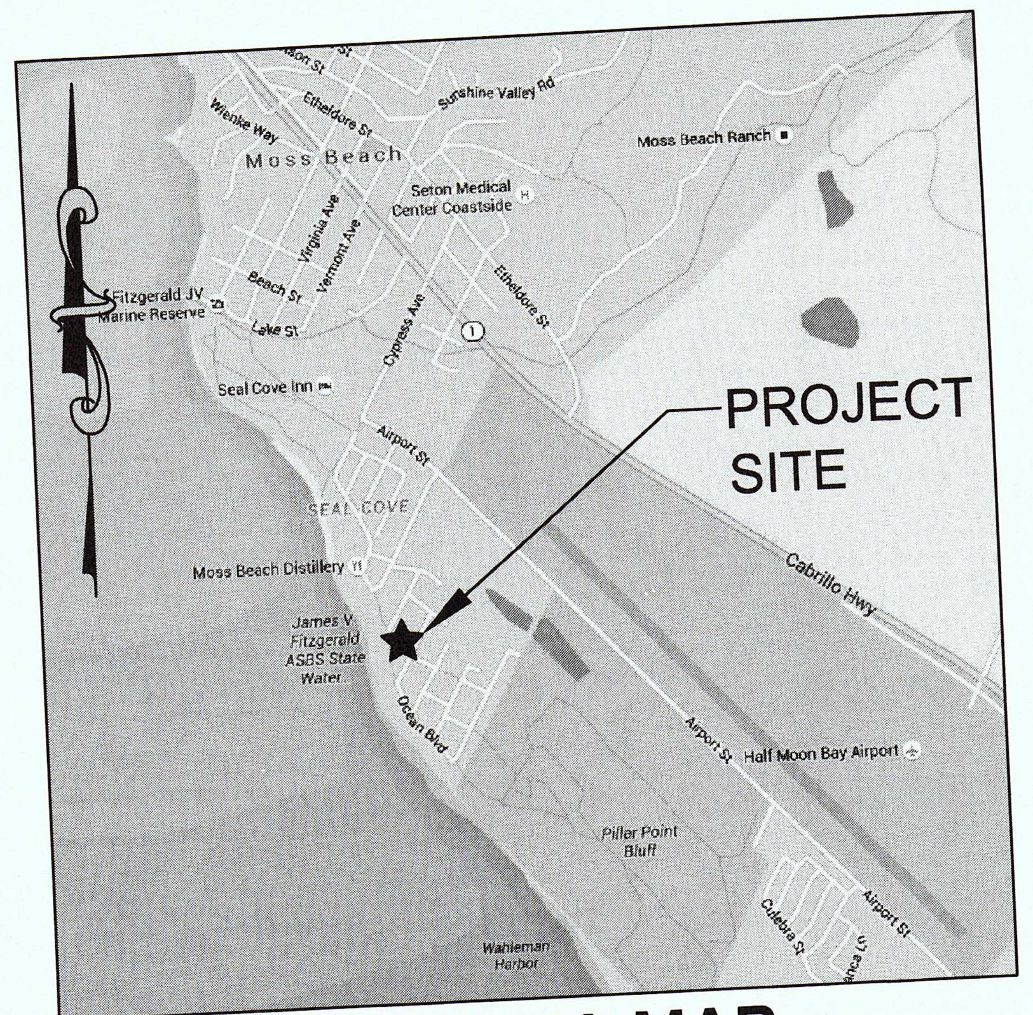
D. Cultural Resource Documents:
   1. Letter from Bryan Much, Coordinator, California Historical Resources Information System (CHRIS), dated March 27, 2018
   2. Letter from the Native American Heritage Council (NAHC), dated July 3, 2018

E. Submitted Documents for DPW 2017-01408:
   1. Project Plans
   2. Letter from Project Geotechnical Engineer, dated June 12, 2017

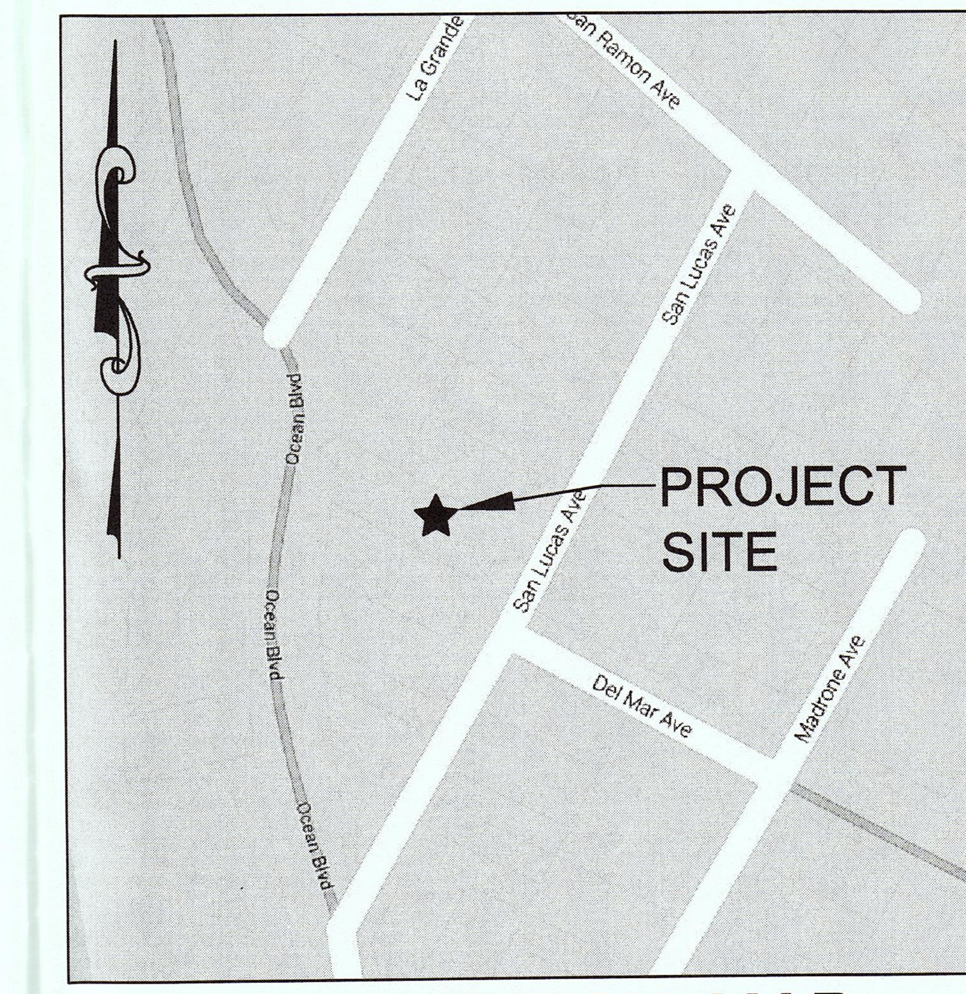
F. Site Photos, received June 19, 2017

CML:aow – CMLCC0411_WAH.DOCX

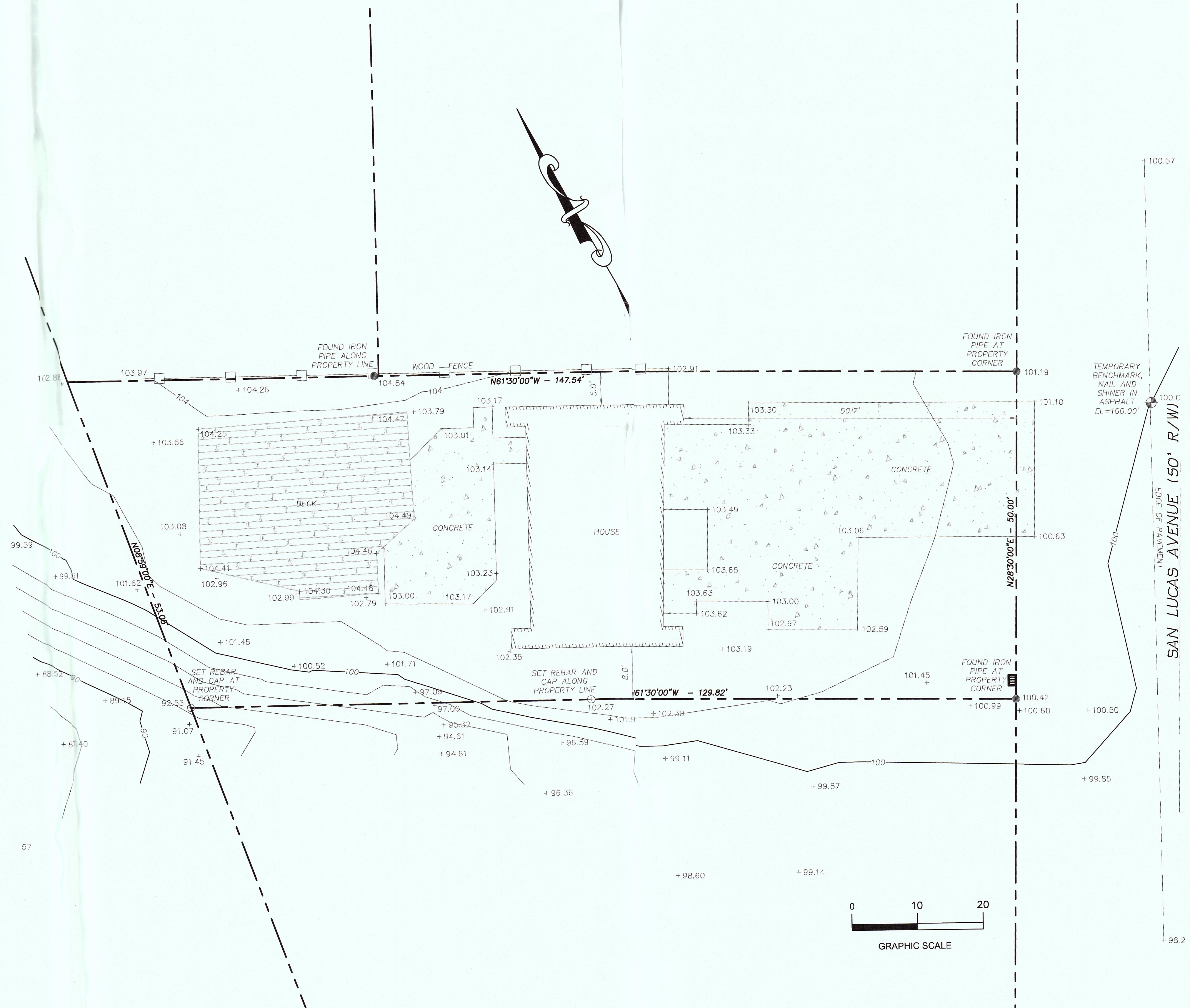
KHIMANI RESIDENCE
105 SAN LUCAS AVENUE
MOSS BEACH (SMCO), CA 94038



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.



ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
ATD	ATRIUM DRAIN
BFP	BACK FLOW PREVENTION DEVICE
BW	BOTTOM OF WALL ELEVATION
CB	CATCH BASIN
CL	CENTER LINE
CS	CRAWL SPACE ELEVATION
CIP	CAST IRON PIPE
CONC	CONCRETE
DD	DECK DRAIN
DDCV	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DIP	DUCTILE IRON PIPE
DS	ROOF DOWN SPOUT
DWY	DRIVEWAY
(E)	EXISTING
ELEC	ELECTRICAL
EM	ELECTRICAL METER
EP	EDGE OF PAVEMENT
FC	FACE OF CURB ELEVATION
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR ELEVATION
FG	FINISHED GROUND ELEVATION
FL	FLOW LINE ELEVATION
FM	FORCE MAIN LINE
FS	FINISHED SURFACE ELEVATION
FP	FINISHED PAVEMENT ELEVATION
FW	FIRE WATER LINE
GB	GRADE BREAK
GM	GAS METER
GR	GRATE ELEVATION
GV	GATE VALVE
HP	HIGH POINT
HW	HEATED WATER LINE
INV	PIPE INVERT ELEVATION
JT	JOINT TRENCH
JP	JOINT POLE
LD	LANDSCAPE DRAIN
LF	LINEAR FEET
LP	LOW POINT
(N)	NEW
PIV	POST INDICATOR VALVE
POC	POINT OF CONNECTION
RIM	RIM ELEVATION
S	SLOPE
SAP	SEE ARCHITECTURAL PLANS
SBD	STORM SUB DRAIN
SBDCO	STORM SUB DRAIN CLEANOUT
SD	STORM DRAIN
SDCO	STORM DRAIN CLEANOUT
SGR	SEE GEOTECHNICAL REPORT
SICB	SIDE INLET CATCH BASIN
SLP	SEE LANDSCAPE PLANS
SPP	SEE PLUMBING PLANS
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSP	SEE STRUCTURAL PLANS
TW	TOP OF WALL ELEVATION
TYP	TYPICAL
VD	PIPE VERTICAL DROP
W	DOMESTIC WATER LINE
WM	WATER METER

LEGEND:

EXISTING	PROPOSED	
SS	SS	SANITARY SEWER
SD	SD	STORM DRAIN
		STORM SUB-DRAIN (PERFORATED PIPE)
		TRANSITION FROM PERF. PIPE TO SOLID PIPE
FM	FM	FORCE MAIN
FW	FW	FIRE WATER LINE
W	W	DOMESTIC WATER SERVICE
IRR	IRR	IRRIGATION SERVICE
G	G	NATURAL GAS
E	E	ELECTRIC
JT	JT	JOINT TRENCH
x		FENCE
		CLEAN OUT
		DOUBLE DETECTOR CHECK VALVE
		POST INDICATOR VALVE
		VALVE
		METER BOX
		STREET LIGHT
		AREA DRAIN
		CATCH BASIN
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		BENCHMARK
		MANHOLE
		SIGN
		DOWNSPOUT
		SPLASH BLOCK
		CONTOURS
		PROPERTY LINE
		SETBACK

SHEET INDEX

SHEET NO.	DESCRIPTION
C-0	TITLE SHEET
C-1	NOTES AND DETAIL SHEET
C-2	GRADING AND DRAINAGE PLAN

RESUBMITTAL
MAY 12 2017
San Mateo County Building Inspection

1-800-227-2600 CALL BEFORE YOU DIG USA UNDERGROUND SERVICE ALERT

Attachment A

PRECISION ENGINEERING AND CONSTRUCTION, INC.
901 Waltermire Street
Belmont, CA 94002
T: 650.226.8640
F: 650.637.1059
Travis@precision-ec.com

	REVISIONS:	DATE:
1	COUNTY COMMENTS	07/28/2016
2	COUNTY COMMENTS	10/03/2016
3	COUNTY COMMENTS	02/02/2017
4	COUNTY COMMENTS	05/11/2017

REGISTERED PROFESSIONAL ENGINEER TRAVIS R. LUTZ 73638 CIVIL STATE OF CALIFORNIA

TITLE SHEET
KHIMANI RESIDENCE
105 SAN LUCAS AVENUE
MOSS BEACH (SMCO), CA 94038

Date:	06/06/2016
Scale:	AS SHOWN
Design:	AJP
Check:	TRL
Drawing Number:	C-0
PEC Job No.	PEC 16-063

CAUTION:

1. THE LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES). CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO ANY EXCAVATION OR IMPROVEMENT.
2. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. PHONE (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AND SHALL CLEARLY MARK (AND THEN PRESERVE THESE MARKERS) FOR THE DURATION OF CONSTRUCTION OF ALL TELEPHONE, DATA, STREET LIGHT, SIGNAL LIGHT AND POWER FACILITIES THAT ARE IN OR NEAR THE AREA OF CONSTRUCTION PRIOR TO BEGINNING ANY WORK ON THIS SITE.
3. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED OR SUSPECTED OF BEING CONTAMINATED.

GENERAL SITE NOTES:

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
3. ALL WORK ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
4. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE DISTRICT, THE CONSULTING ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE CONSULTING ENGINEER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THE JOB SITE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT UNAUTHORIZED PERSONS ON THE JOB SITE BY PROVIDING A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING AND STORAGE AREAS. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
7. EXISTING PEDESTRIAN WALKWAYS, BIKE PATHS AND ACCESSIBLE PATHWAYS SHALL BE MAINTAINED, WHERE FEASIBLE, DURING CONSTRUCTION.
8. IF A CONFLICT ARISES BETWEEN THE SPECIFICATIONS AND THE PLAN NOTES, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
9. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT IF ONE EXIST.

EXISTING CONDITIONS:

1. EXISTING TOPOGRAPHIC SURVEYS PERFORMED BY DMG ENGINEERING, INC. ON OCTOBER 9, 2015 (JOB #15-104). GRADES ENCOUNTERED ON-SITE MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL REVIEW THE PLANS AND CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE PROJECT SITE.
2. CLIENT AGREES TO HOLD ENGINEER HARMLESS FROM ANY AND ALL OCCURRENCES RESULTING FROM THE INACCURA CIES OF THE CLIENT SUPPLIED TOPOGRAPHIC AND/OR BOUNDARY SURVEY (PREPARED BY OTHERS).

SURVEYOR'S NOTES:

BASIS OF BEARING:

FOUND IRON PIPE MONUMENTS AT THE FRONT PROPERTY CORNERS ALONG SAN LUCAS AVENUE AS SHOWN ON THE MAP REFERENCED IN THE LEGAL DESCRIPTION. BEARING TAKEN AS NORTH 28°30'00" EAST.

BENCHMARK:

ELEVATIONS SHOWN ARE BASED UPON AN ASSUMED ELEVATION. THE ELEVATION OF THE TEMPORARY BENCHMARK SHOWN HEREON (NAIL IN PAVEMENT IN SAN LUCAS AVENUE) TAKEN AS 100.00'.

STORM DRAIN NOTES:

1. USE DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 6" BELOW THE SURFACE. TAPE SHALL BE A BRIGHT COLOR AND IMPRINTED WITH "CAUTION-BURIED STORM DRAIN LINE BELOW".
2. PRIVATE STORM DRAIN LINE 4-INCH THROUGH 12-INCH IN NON-TRAFFIC AREAS SHALL BE INSTALLED WITH A MINIMUM OF EIGHTEEN (18) INCHES OF COVER AND SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35. ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, 22.5° ELBOWS, 45° ELBOWS OR LONG SWEEP ELBOWS, 90° ELBOWS AND TEE's ARE PROHIBITED.
3. PRIVATE STORM DRAIN LINE 4-INCH THROUGH 12-INCH WITHIN VEHICULAR TRAFFIC AREAS SHALL BE INSTALLED WITH A MINIMUM OF EIGHTEEN (18) INCHES OF COVER AND SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 PIPE. ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, OBTUSE ELBOWS OR LONG SWEEP ELBOWS, 90° ELBOWS AND TEE's ARE PROHIBITED.
4. PAINT THE TOP OF THE CURBS ADJACENT TO EACH CATCH BASIN INSTALLED UNDER THIS WORK OR ADJACENT TO THIS SITE WITH THE WORDS "NO DUMPING". WORDING TO BE BLUE 4" HIGH LETTERS ON A PAINTED WHITE BACKGROUND.
5. ALL AREA DRAINS AND CATCH BASINS GRATES WITHIN PEDESTRIAN ACCESSIBLE AREAS SHALL MEET ADA REQUIREMENTS.
6. DRAINS SHOWN ON CIVIL PLANS ARE NOT INTENDED TO BE THE FINAL NUMBER AND LOCATION OF ALL DRAINS. PLACEMENT AND NUMBER OF LANDSCAPING DRAINS ARE HIGHLY DEPENDENT ON GROUND COVER TYPE AND PLANT MATERIAL. CONTRACTOR SHALL ADD ADDITIONAL AREA DRAINS AS NEEDED AND AS DIRECTED BY THE LANDSCAPE ARCHITECT/OWNER.

TREE/PLANT PROTECTION NOTES:

1. PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
2. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE CITY'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.

HORIZONTAL CONTROL NOTES:

1. ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.

PAVEMENT SECTION:

1. SEE STRUCTURAL DRAWINGS FOR BUILDING SLAB SECTIONS AND PAD PREPARATIONS.
2. SEE GEOTECHNICAL REPORT FOR ALL FLATWORK AND VEHICULAR PAVEMENT SECTIONS AND BASE REQUIREMENTS.
3. THE FINAL OR SURFACE LAYER OF ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL ALL ON-SITE IMPROVEMENTS HAVE BEEN COMPLETED, INCLUDING ALL GRADING, AND ALL UNACCEPTABLE CONCRETE WORK HAS BEEN REMOVED AND REPLACED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND/OR DEVELOPER'S CIVIL ENGINEER.
4. ALL PAVING SHALL BE IN CONFORMANCE WITH SECTION 26 "AGGREGATE BASE" AND SECTION 39 "ASPHALT CONCRETE" PER LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.

GRADING NOTES:

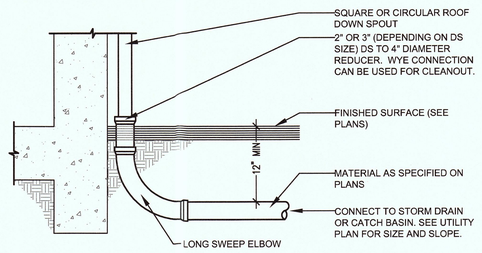
1. PROVIDE POSITIVE SURFACE DRAINAGE AWAY FROM ALL STRUCTURES BY SLOPING THE FINISHED GROUND SURFACE AT LEAST 5%, UNLESS OTHERWISE NOTED ON THE PLANS. SLOPE LANDINGS 2% (1/4" PER FOOT) AWAY FROM, STRUCTURES UNLESS OTHERWISE NOTED ON PLANS. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE CIVIL ENGINEER PRIOR TO PROCEEDING WITH PLACEMENT OF BASE ROCK OR FORMWORK FOR CURBS AND/OR FLATWORK.
2. CONTRACTOR SHALL DETERMINE EARTHWORK QUANTITIES BASED ON THE TOPOGRAPHIC SURVEY, THE GEOTECHNICAL INVESTIGATION AND THE PROPOSED SURFACE THICKNESS AND BASE THE BID ACCORDINGLY. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM IF A SEPARATE DEMOLITION CONTRACT HAS BEEN ISSUED TO TAKE THE SITE FROM THE WAY IT IS AT THE TIME OF THE BID TO THE CONDITIONS DESCRIBED IN THESE DOCUMENTS. BRING ANY DIFFERENCES BETWEEN THE STATE IN WHICH THE SITE IS DELIVERED TO THE CONTRACTOR AND THESE DOCUMENTS TO THE ATTENTION OF THE CIVIL ENGINEER.
3. ALL FILL SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE PROJECT GEOTECHNICAL ENGINEER TO TAKE THE APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.
4. IMPORT SOILS SHOULD MEET THE REQUIREMENTS OF THE SOILS REPORT AND SPECIFICATIONS.
5. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF THE CIVIL ENGINEER.
6. SITE STRIPPINGS THAT CONTAIN ONLY ORGANIC MATERIAL (NO DEBRIS TRASH, BROKEN CONC. OR ROCKS GREATER THAN 1" IN DIAMETER) MAY BE USED IN LANDSCAPE AREAS, EXCEPT FOR AREAS IDENTIFIED AS IMPORT TOP SOIL BY THE LANDSCAPE DRAWINGS. EXCESS STRIPPINGS SHALL BE REMOVED FROM SITE.
7. ROUGH GRADING TO BE WITHIN 0.1' AND FINISH GRADES ARE TO BE WITHIN 0.05', HOWEVER CONTRACTOR SHALL NOT CONSTRUCT ANY IMPROVEMENTS THAT WILL CAUSE WATER TO POND OR NOT MEET REQUIREMENTS IN GRADING NOTE #1.
8. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO CONFORM TO THE LINES, GRADES, SECTIONS, AND DIMENSIONS AS SET FORTH ON THESE PLANS. ALL GRADED AREAS SHALL CONFORM TO THE VERTICAL ELEVATIONS SHOWN WITH A TOLERANCE OF ONE-TENTH OF A FOOT. WHERE GRADED AREAS DO NOT CONFORM TO THESE TOLERANCES, THE CONTRACTORS SHALL BE REQUIRED TO DO CORRECTIVE GRADING, AT NO EXTRA COST TO THE CLIENT.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE GROUND ELEVATIONS AND OVERALL TOPOGRAPHY OF THE SITE PRIOR TO THE START OF CONSTRUCTION AS TO THE ACCURACY BETWEEN THE WORK SET FORTH ON THESE PLANS AND THE WORK IN THE FIELD. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND CIVIL ENGINEER IN WRITING PRIOR TO START OF CONSTRUCTION WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR AFFECT THE EARTHWORK QUANTITIES.
10. THE CONTRACTOR SHALL ADJUST TO FINAL GRADE ALL EXISTING MANHOLES, CURB INLETS, CATCH BASINS, VALVES, MONUMENT COVERS, AND OTHER CASTINGS WITHIN THE WORK AREA TO FINAL GRADE IN PAVEMENT AND LANDSCAPE AREAS UNLESS NOTED OTHERWISE.

RECORD DRAWINGS:

1. THE CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE OWNER PRIOR TO FINAL ACCEPTANCE .

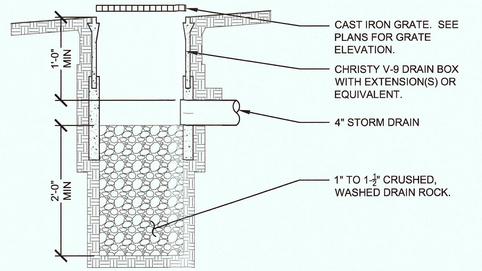
SITE MAINTENANCE

1. UPON PROJECT COMPLETION THE OWNER SHALL BE SOLELY RESPONSIBLE TO ROUTINELY INSPECT AND MAINTAIN ALL ON-SITE STORM DRAIN FACILITIES. STORM DRAIN FACILITIES INCLUDE: ROOF GUTTERS AND DOWNSPOUTS, SURFACE DRAINS AND DISCHARGE POINTS (BUBBLE BOX). STORM DRAIN SYSTEM SHALL BE CLEANED AND/OR FLUSHED ON A BIANNUAL BASIS OR AS FOUND NECESSARY.



1 **DOWNSPOUT CONNECTION**

SCALE : 3/4"=1'-0" DS CONNECT-016-*MSTR



2 **BUBBLE BOX**

SCALE : 1"=1'-0" BUBBLE BOX-012-*MSTR

RESUBMITTAL
MAY 12 2017
San Mateo County
Building Inspection

PRECISION ENGINEERING AND CONSTRUCTION, INC.
T: 650.226.8640
F: 650.637.1059
Travis@precision-ec.com
901 Waltermire Street
Belmont, CA 94002

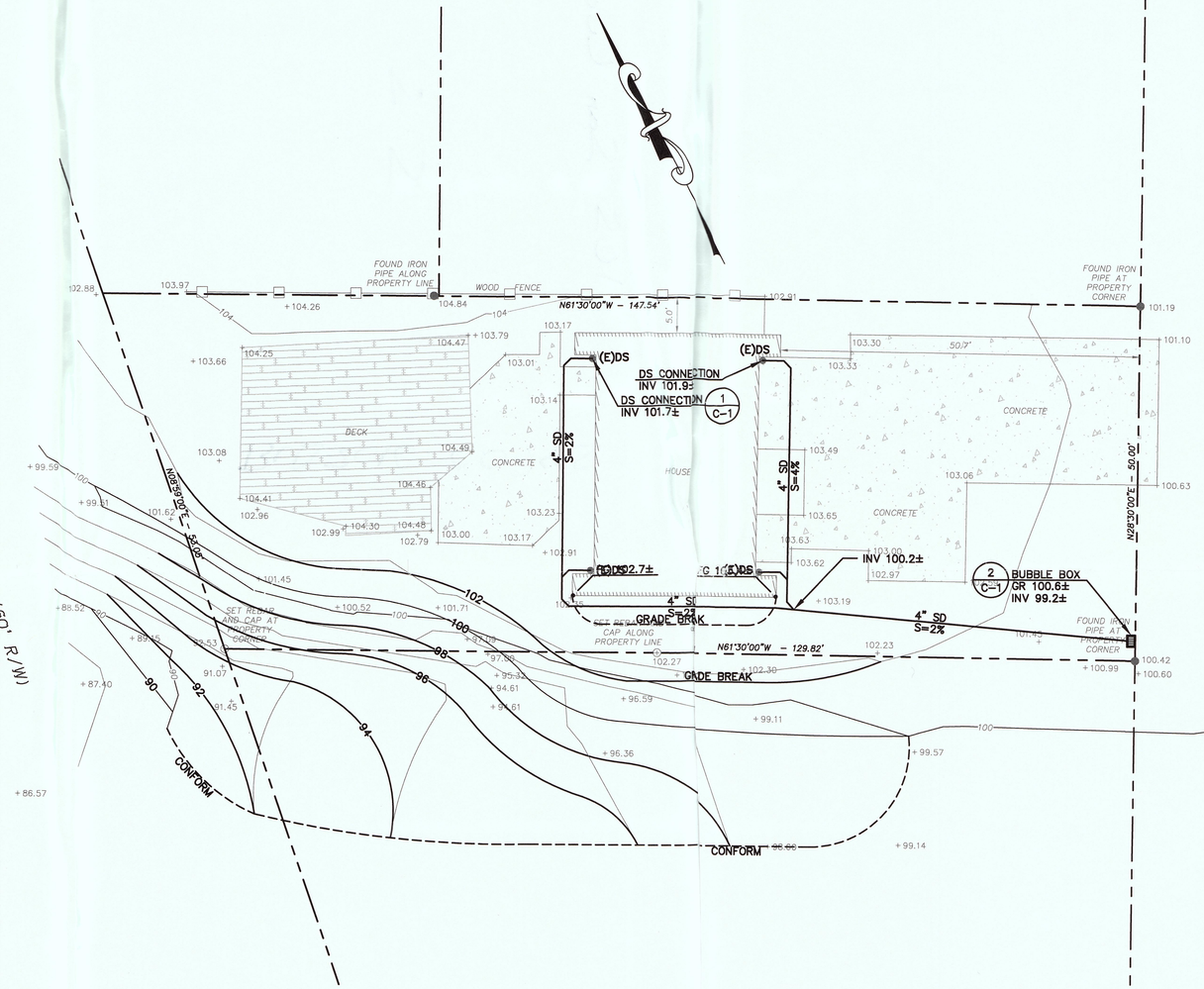
REVISIONS:	DATE:
1 COUNTY COMMENTS	07/28/2016
2 COUNTY COMMENTS	10/03/2016
3 COUNTY COMMENTS	02/02/2017
4 COUNTY COMMENTS	05/11/2017

REGISTERED PROFESSIONAL ENGINEER
TRAVIS R. LUTTER
73638
CIVIL
STATE OF CALIFORNIA

NOTES AND DETAIL SHEET
KHIMANI RESIDENCE
105 SAN LUCAS AVENUE
MOSS BEACH (SMCO), CA 94038

Date: 06/06/2016
Scale: NONE
Design: AJP
Check: TRL
Drawing Number: C-1
PEC Job No. PEC 16-063

DRAWING NAME: P:\PEC Server\PROJECT FILES\2015\PEC 16-063 - 105 San Lucas Avenue, Moss Beach (SMCO)\Dwg\PEC 16-063 SHEETS.dwg
PLOT DATE: 05/11/17
PLOT BY: Travis



EARTHWORK QUANTITIES

CUT	0 C.Y.
FILL	100 C.Y.
TOTAL TO BE MOVED	100 C.Y.
BALANCE	100 C.Y. FILL (IMPORT)

EARTHWORK QUANTITIES SHOWN ABOVE ARE FOR PLANNING PURPOSES ONLY. CONTRACTOR SHALL CALCULATE THEIR OWN EARTHWORK QUANTITIES, AND USE THEIR CALCULATIONS FOR BIDDING AND COST ESTIMATING PURPOSES.

NOTE: Permit Application only applies to work done at 105 San Lucas Avenue.

SEE SHEET C-0 FOR LEGEND AND SHEET C-1 FOR NOTES

RESUBMITTAL
MAY 12 2017
San Mateo County Building Inspection

CALL BEFORE YOU DIG 1-800-227-2600 UNDERGROUND SERVICE ALERT

0 10 20
GRAPHIC SCALE

PRECISION ENGINEERING AND CONSTRUCTION, INC.
901 Walkermire Street
Belmont, CA 94002
T: 650.226.8640
F: 650.637.1059
Travis@precision-ec.com

REVISIONS:	DATE:
1 COUNTY COMMENTS	07/28/2016
2 COUNTY COMMENTS	10/03/2016
3 COUNTY COMMENTS	02/02/2017
4 COUNTY COMMENTS	05/11/2017

REGISTERED PROFESSIONAL ENGINEER TRAVIS R. LUTTRELL 73638 CIVIL STATE OF CALIFORNIA

GRADING AND DRAINAGE PLAN
KHIMANI RESIDENCE
105 SAN LUCAS AVENUE
MOSS BEACH (SMCO), CA 94038

Date: 06/06/2016
Scale: 1" = 10'
Design: AJP
Check: TRL
Drawing Number: C-2
PEC Job No. PEC 16-063

Attachment B

RJ2016-00745

Regreen™

RESUBMITTAL
MAY 1 2 2017
San Mateo County
Building Inspection

Pacific Coast Seed INC.

Wheatgrass X Wheat, Elymus X Triticum

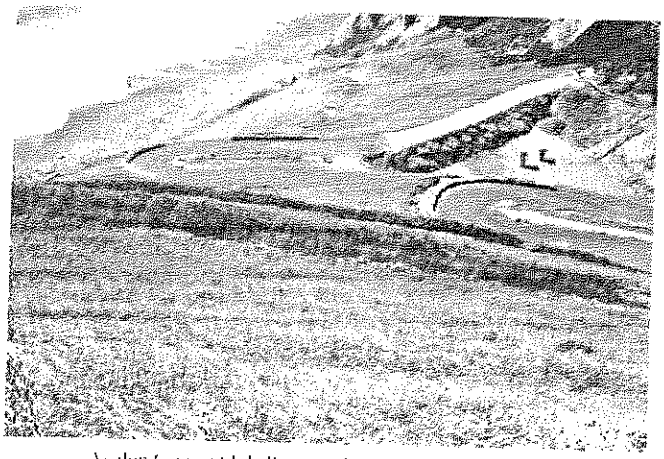
A quick germinating, rapid growing ground cover, Regreen will stabilize the soil surface, but won't reseed itself and compete with desired species. Why??? Because its seeds are sterile!

Cool Season, Soil Stabilizing Nurse Crop

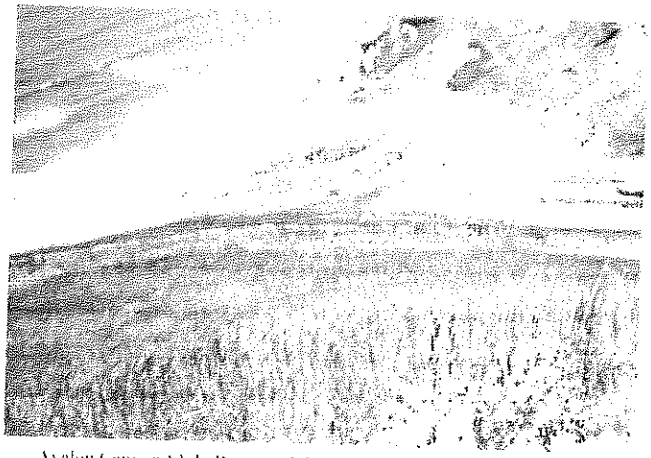
Combining the best characteristics of wheat and wheatgrass, Regreen is an effective aid during the re-establishment of native plant communities. A highly versatile temporary cover crop, this hybrid produces sterile seeds. After it completes its life cycle, it is programmed to vacate the site and allow other vegetation to develop free from the competition of a new generation of plants. In California, Regreen is planted before and through winter moisture periods and may be sown before snow cover at higher elevations. Large-seeded, Regreen germinates quickly and forms a dense, fibrous root system stabilizing the soil surface and providing the anchor for vigorous seedlings. A deep root system also allows the plant to be drought tolerant, winter hardy and adaptable to varying soil and moisture conditions. With characteristics from both parents, wheat and wheatgrass, Regreen is ideal for aiding in the establishment of important native plant communities. This long-lived annual plant will grow in a variety of soil types and environmental conditions. If your objective calls for quick cover and long-term establishment, Regreen may be your best alternative!

Applications

Sites include: erodible hillsides, mining sites, ski areas, forest fires, landfills, waterways, wetlands, roadsides, pipelines, and more. Use your imagination to put this plant to work for you.



Avalon Canyon Slide Repair - March 1997 - Quick Cover



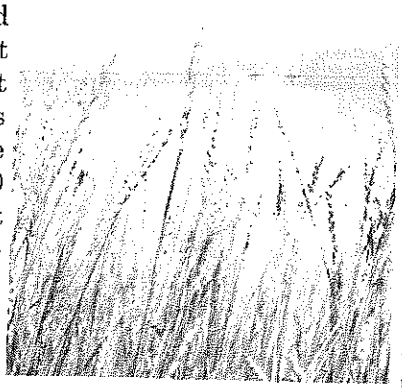
Avalon Canyon Slide Repair - July 1997 - Native Plant Establishment

For restoration and erosion control, Regreen can be used anytime the soil is disturbed. The Avalon Canyon Emergency Slide Repair pictured here illustrates one successful planting using Regreen.

Plant Description and Seeding Rates

Plant Description

Technically speaking, Regreen is a cross between wheat and wheatgrass (Elymus X Triticum). Cross parenting in northern latitude production fields produces a plant that is one-quarter wheatgrass and three-quarters wheat. The plant takes on many of the strong plant characteristics of wheat such as quick germination, large seed size (approximately 10,000 – 12,000 seeds per pound), and excellent seedling vigor. Dense root development and drought and disease tolerance are attributed to the Elymus parent. Regreen produces a cereal grain that is nutritious yet non-viable. Site managers can now be assured that their nurse crop will not be volunteering new seedlings to compete with other desirable plants.



Regreen

Seeding Rates and Planting Suggestions

When seeded in a mix with other perennial plants to provide some stabilizing cover and minimal competition, 10-20 pounds per acre is usually adequate. If a monoculture is desired for maximum soil stabilization, 60-80 pounds per acre is desirable. For best results, seed should be placed in a firm seed bed or planted under a protective clean straw-mulch or Bonded Fiber Matrix (BFM) product. In particularly dry sites, place seed at a depth of 1 inch before mulching so that germination will not occur until sufficient precipitation has penetrated the soil and will be available to support plant life. Use a drill, hydroseeder or a spin spreader to apply the seed.

Native Grasses and *Regreen*™

When the success of your project depends on erosion control and the establishment and survival of slow developing or sensitive species, Regreen can serve as the nurse crop. Regreen stabilizes the soil and protects young seedlings. If planted a year in advance, Regreen can be established as a monoculture to stabilize the site and reduce the resident seed bank. Alternatively, the Regreen can be planted in conjunction with native mixtures or other sustainable plant species. The skeletons of dying Regreen plants offer protection from wind and will assist in protecting the soil surface from initial rains during the second growing season. Use Regreen to **enhance** the success of your project.

Pacific Coast Seed INC.

533 Hawthorne Place
Livermore, CA 94550
(800) 733-3462

info@pcseed.com

Pacific Coast Seed

NATIVE EROSION CONTROL MIX

#/ Ac. SPECIES/Common Name – 45 Total lbs lbs.

25	Bromus carinatus California Brome
10	Elymus glaucus,/ Blue Wildrye
6	Festuca microstachys/ Small Fescue
4	Trifolium willdenovii/ Tomcat Clover

This native erosion control mixture features prompt germinating California native grasses that are acclimated to varying harsh site conditions. Please provide adequate surface soil protect to allow these plants to become fully established.

533 Hawthorne Place, Livermore CA 94550 Ph: 925-373-4417 Fax: 925-373-6855 www.pcseed.com

BLD 2016-00745

Attachment C

RESUBMITTAL

OCT 19 2016

San Mateo County
Building Inspection

Peters & Ross

Geotechnical & Geoenvironmental Consultants

Geotechnical Investigation
Khimani Residence Wall

105 San Lucas Avenue, Moss Beach, California

Project No. 16129.001

July, 2016 Revised October, 2016

INTRODUCTION

This report presents the results of a geotechnical investigation performed by Peters & Ross for the proposed retaining wall located on the slope behind the existing house at 105 San Lucas Avenue in Moss Beach, California. The location of the site is shown on the Site Vicinity Map (Figure 1). The ground surface topography near the site is shown on Figure 2.

Project Description

The project site is a developed 0.16 acre downslope lot located on the west side of San Lucas Avenue. A two story wood-frame house was constructed in the central portion of the lot. Based on information provided by Sinbordes Design, current plans are to construct a 5-foot high masonry retaining wall along 39 feet of the western property line and 67 feet of the southern property line.

Scope of Services

Peters & Ross scope of services for the project was presented in our proposal dated April 26, 2016. Our services on the project were limited to the following:

- Drilling three exploratory test borings
- Logging and obtaining samples of the materials encountered in the test borings
- Performing laboratory tests on selected samples
- Performing engineering analyses sufficient to develop conclusions and recommendations regarding:

    1. Site geology and seismicity
    2. Soil and groundwater conditions
    3. Site preparation, excavation, and grading
    4. The most appropriate type of retaining wall for the site
    5. Geotechnical design parameters for the wall
    6. Geotechnical aspects of site drainage
    7. Construction considerations

- Preparing this report.

FIELD EXPLORATION AND LABORATORY TESTING

Subsurface conditions were explored by drilling two deeper exploratory test borings rather than 3 shallow test borings because of the surrounding landslide. One was drilled to a depth of 25 feet and the second was drilled to a depth of 28.5 feet using 3.5-inch portable hydraulic auger operated by DeNovo Drilling of Richmond, California. The locations of the borings are shown on the Site Plan, Figure 3. Samples of the materials

encountered in the borings were obtained at frequent depth intervals, for field classification and laboratory testing. A description of the drilling and sampling equipment used and other details of the subsurface exploration, as well as the logs of the test borings, are presented in Appendix A. The laboratory tests performed are discussed in Appendix B.

SITE CONDITIONS

Site Geology and Seismicity

The property is located at the top of the coastal bluff above the Pacific Ocean. Geologic mapping by Pampeyan (1994) indicates that the site is underlain by upper Pleistocene age marine terrace deposits (Qmt). The marine terrace deposits generally consist of poorly to moderately consolidated marine, eolian, and alluvial sand, silt, gravel, and clay deposits. The marine terrace deposits are underlain by Pliocene age Purisima Formation (Tp). The Purisima Formation consists of interbedded mudstone, siltstone, and sandstone.

Landslide mapping of the area by Pampeyan (1994) shows a large landslide just west of the site. William Cotton and Associates developed a geologic hazard map for the County of San Mateo in 1980. They mapped the subject site as being within Zone 1 which includes all properties that are affected by active landslide processes. William Cotton and Associates (1980) stated that the feasibility of stabilizing the bluff is extremely low. In 2005, the County geologist increased the boundary of the active slide to include the subject property as shown in Figure 4.

Peters & Ross observed on May 3, 2016, that temporary erosion control measures were in place. This obscured the possibility of mapping any headscarps that may have developed on the site due to earth movement.

The site is within the seismically active San Francisco Bay Area. Several active faults capable of generating strong earthquake groundshaking at the site are located nearby. The closest of these are the Seal Cove trace of the San Gregorio Fault which is about 400 feet northeast of the site and the San Andreas Fault which is about 11 kilometers northeast. The site is located within the Active Fault Near-Source Zone which means that the project will be subject to a large magnitude earthquake that will cause strong groundshaking.

Subsurface Conditions

Generally, 20 feet to 22 feet of disturbed marine terrace deposits were encountered in both borings. In Boring 2, the disturbed marine terrace deposits were overlain by 5 feet of sandy lean clay fill materials. The disturbed marine terrace deposits were underlain by disturbed fine sandstone of the Purisima Formation which extended to the depths explored. Atterberg limits tests indicate that the clayey sand materials from Boring 2 at a

depth of 7.5 feet have a liquid limit of 38 percent and a plasticity index of 15 percent, with 35 percent passing the #200 sieve. These results indicate that the clayey sand materials have a low expansion potential (expansive soils shrink and swell in response to changes in moisture).

Groundwater

Groundwater was not encountered and boreholes were backfilled with grout in accordance with San Mateo County Soil Boring Permit No.16-1546. It should be noted that fluctuations in the groundwater level may occur due to variations in rainfall, temperature, and other factors not evident at the time the measurements were made.

CONCLUSIONS AND RECOMMENDATIONS

Based on the field investigation, laboratory testing, and engineering analyses, it is our opinion that the proposed wall is located on an active landslide. Peters & Ross judges that the bluff on which the wall is to be constructed, is unstable and will not support the proposed masonry wall. The primary geotechnical concern is the mapped active landslide. It is our opinion that the risk of the landslide failing is extremely high. Several homes and Ocean Boulevard have been destroyed around the subject property by the active landslide processes. William Cotton and Associates (1980) stated that the feasibility of reducing the risk to acceptable levels is extremely low. Therefore, Peters & Ross recommends that the masonry retaining wall not be constructed. Rather the cut for the wall should be restored using either a geogrid reinforced soil slope or a geogrid reinforced segmental wall.

1. Seismic Concerns

In accordance with Section 1613 of the 2013 CBC, Peters & Ross classifies the site as a D Site Class with a latitude of 37.5157 degrees and a longitude of -122.5113 degrees. According to USGS 2013 Design Maps website, the MCE peak ground acceleration is 0.892g. Peters & Ross recommends that a seismic coefficient of 0.60g be used for design of the segmental wall or the reinforced soil slope. The CBC parameters presented in the following table should be used for seismic design.

PERIOD (sec)	0.2	1.0
SPECTRAL RESPONSE Ss, Sl	2.272	0.960
SITE COEFFICIENT Fa, Fv (SITE CLASS D)	1.0	1.5
MAXIMUM SPECTRAL RESPONSE Sms, Sml	2.272	1.440
DESIGN SPECTRAL RESPONSE SDs, SDl	1.515	0.960

The site is not within an Alquist-Priolo Earthquake Fault Zone. However, Cotton (1980) states that "a number of branching fault traces pass through the...residential area" and "all of these faults are considered to be active, and thus, capable of generating earthquakes with associated ground shaking, surface faulting and ground failure".

Though the subsurface materials can be classified as sandy clays and resistant to liquefaction, the disturbed subsurface materials and fills are susceptible to densification during a large magnitude earthquake.

2. Site Preparation, Excavation, and Grading

Clear the area of vegetation within the limits of the geogrid reinforced soil slope or segmental walls before performing earthwork. In areas where fill will be placed, the ground surface exposed by site clearing and stripping should be scarified to a depth of at least 6 inches, moisture conditioned as necessary to achieve a moisture content between optimum and optimum plus 3 percent, and compacted to at least 90 percent relative compaction (as determined by a laboratory compaction test performed in accordance with ASTM D1557). Fill should be placed on level benches in layers not more than 8 inches thick. Each layer should be moisture conditioned as above, and compacted to at least 90 percent relative compaction.

Some material generated by onsite excavations may be suitable for reuse as compacted fill, excepting surface stripping containing organic material. Imported fill, if needed, should contain no rocks with a diameter of 4 inches or more, and should not contain organic, contaminated, or other deleterious material. It should have a liquid limit not exceeding 40 percent and a plasticity index not exceeding 20 percent. Peters & Ross should check the suitability of prospective fill before it is transported to the site.

3. Segmental Retaining Wall Design Parameters

Peters & Ross estimated geotechnical soil parameters based on the results of our exploratory test borings, laboratory testing, and our engineering judgment. The soil parameters that should be used in design of a segmental wall are summarized in the following table:

Material	Unit Weight (pcf)	Drained Strength Parameters		Undrained Strength Parameters	
		Cohesion, c' (psf)	Friction, ϕ' (degrees)	Cohesion, c (psf)	Friction, ϕ (degrees)
Disturbed Marine Terrace Deposits	120	0	25	50	20
Engineered Fill	125	0	32	20	30

Peters & Ross recommends that the segmental wall be buried 2 blocks below the lowest adjacent grade and be founded on a 6 inch layer of Caltran Class 2 aggregate road base. The road base should be compacted to 95 percent of the maximum density (ASTM D-1557-12) and extend 6 inches beyond the front and back of the segmental block. We recommend that we monitor and test, as appropriate, during sorting, processing, placement and compaction of the onsite soils to verify that the compacted materials meet or exceed the above values.

4. Alternative Reinforced Soil Slope

Peters & Ross recommends that a reinforced soil slope consist of an 8-foot long primary geogrid of Fortrac 55 at a vertical spacing of 24 inches with a secondary 4 foot length of Fornit 20 geogrid placed between primary geogrids. A 10-foot wide keyway should start 2 feet below the lowest adjacent grade. Engineered fill should be placed and compacted in accordance with Section 2 above. No backdrain will be required for the reinforced soil slope.

5. Site Drainage

Since the subject property is located within an active landslide area, Peters & Ross recommends that no discharge of storm water be allowed below the house. Rather all collected storm water from downspouts and area drains should be conveyed by pipes to the City's storm drain. If a segmental retaining wall is selected then water from its backdrain should collected in a sump and discharged to the City's storm drain.

Disturbed areas should be planted with drought resistant woody vegetation, grasses, and trees. To the extent possible preserve natural vegetation. Water or irrigate with care, do not soak or allow water to pond. Do not deposit vegetative debris on slopes. If scars develop due to earth movements, immediate remedial action is needed. Scars should be filled and smoothed and the resulting disturbed area replanted.

6. Plan Review and Services during Construction

Peters & Ross should be retained to review project plans, to check that the geotechnical engineering recommendations contained in this report are properly incorporated.

Peters & Ross should also be retained to provide geotechnical observation services on an as-needed basis during construction, to check that geotechnical aspects of the work are completed in accordance with the plans. These services should include observing site grading, engineered fill placement and compaction testing, wall back drain and other drainage measures, and providing consultation to the contractor regarding any geotechnical concerns that arise during construction. Peters & Ross cannot accept responsibility for geotechnical aspects of construction that are not observed by its staff.

Peters & Ross will make every reasonable effort to accommodate the contractor's work schedule during construction, so that necessary observations can be performed in a timely manner to avoid construction delays. However, since our field services are often required on several projects concurrently, we request that 48 hours advance notice be given for site visits, in order to minimize scheduling conflicts.

LIMITATIONS

Peters & Ross services consist of professional opinions and recommendations that are made in accordance with generally accepted geotechnical engineering principles and practices. The opinions and recommendations presented in this report are based on a site reconnaissance, review of published and unpublished geologic maps, two exploratory test borings, laboratory testing, engineering analyses, and discussions with you regarding the planned replacement walls. This warranty is in lieu of all other warranties either expressed or implied.

Subsurface conditions commonly vary significantly from those encountered at the test boring locations. Unanticipated, adverse soil conditions encountered during construction often require additional expenditures to achieve a properly constructed project. It is advised that a contingency fund be established to accommodate possible consulting and construction cost increases due to unanticipated conditions.

LIST OF FIGURES

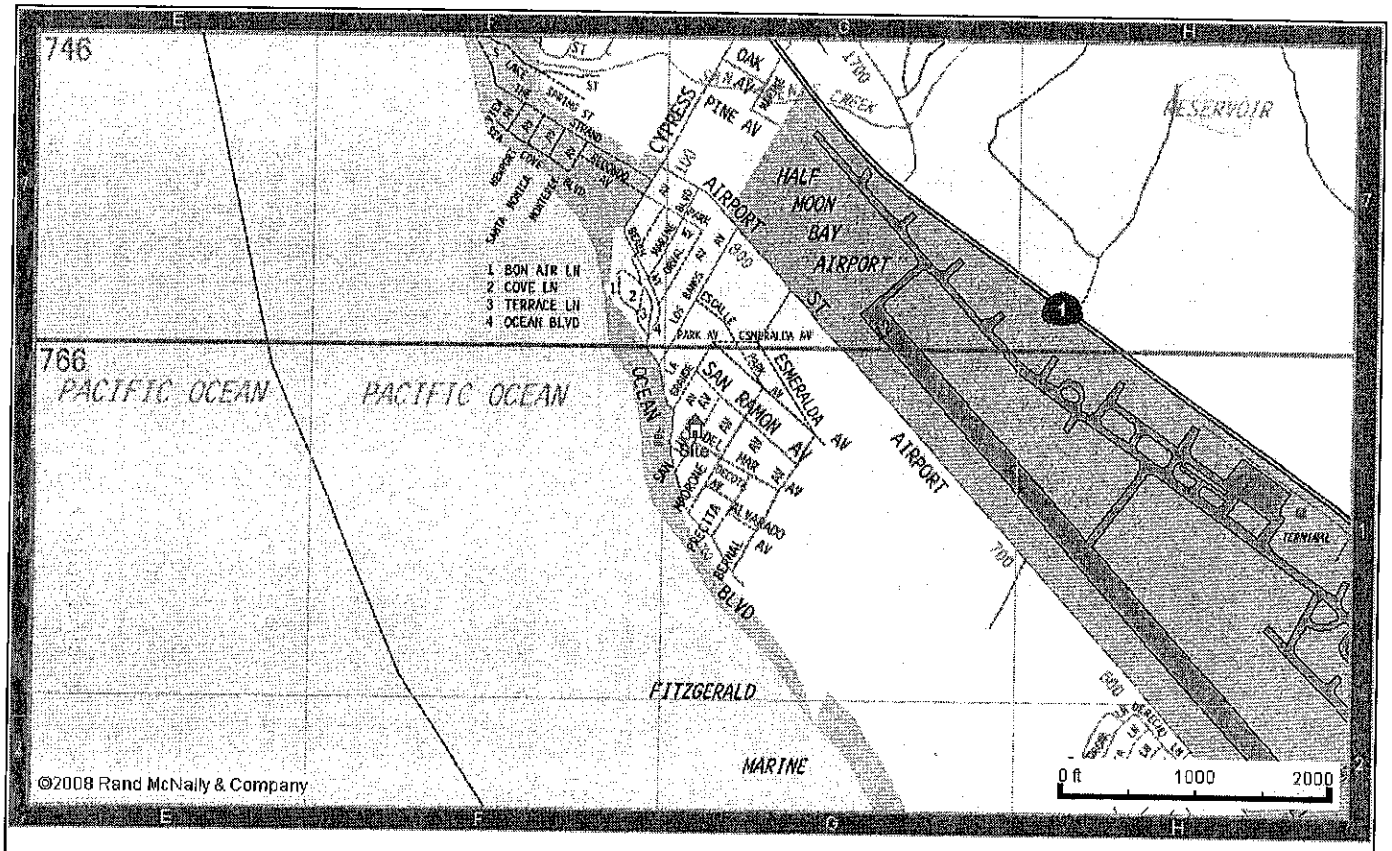
Figure 1 Site Vicinity Map
Figure 2 Site Topography
Figure 3 Site Plan
Figure 4 San Mateo County Landslide Map

APPENDICES

Appendix A Field Investigation
Appendix B Laboratory Testing

DISTRIBUTION

5 copies: Mr. Anish Khimani
105 San Lucas Avenue
Moss Beach, CA 94038

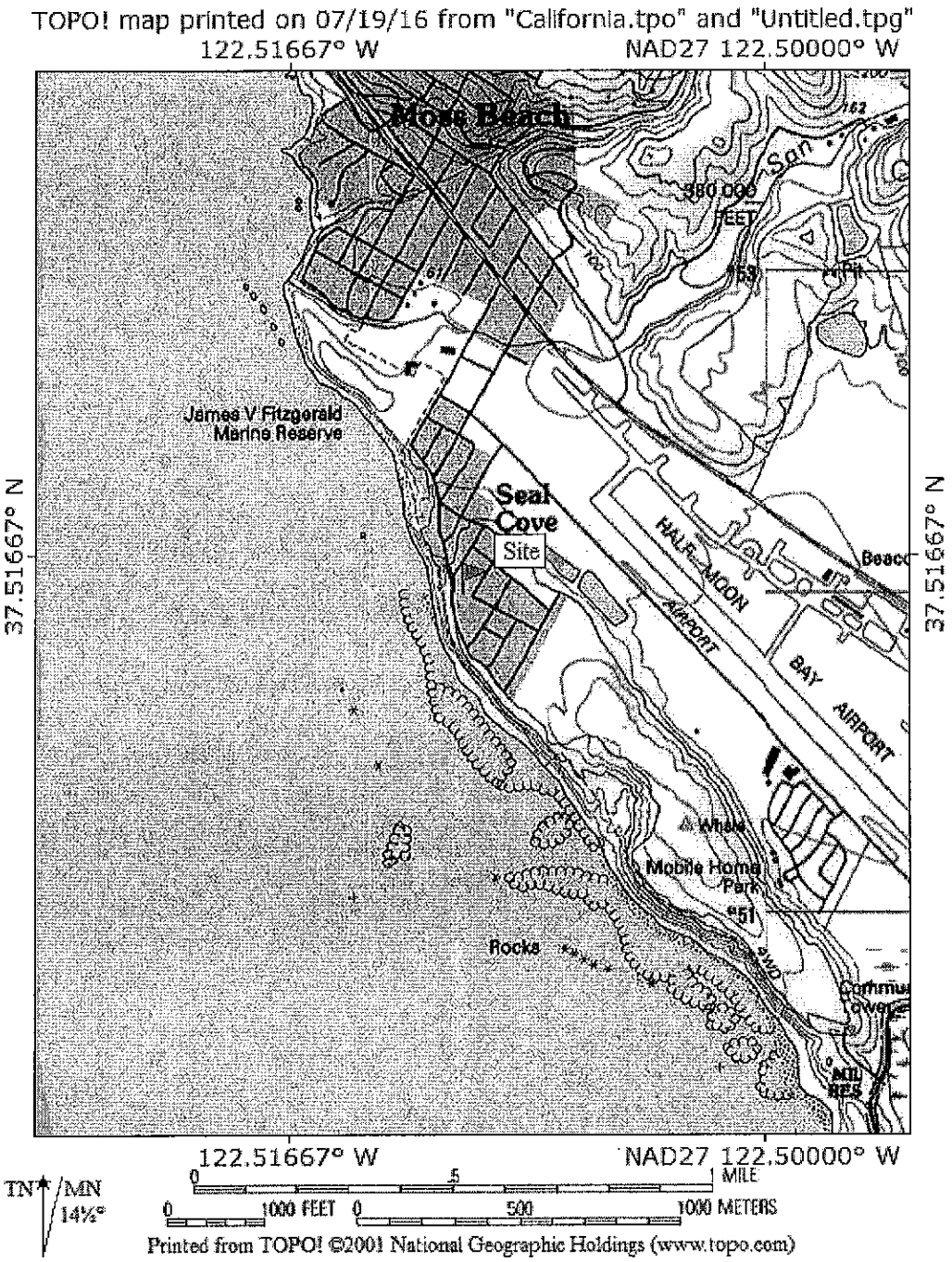


Peters & Ross
Geotechnical and Geoenvironmental Consultants

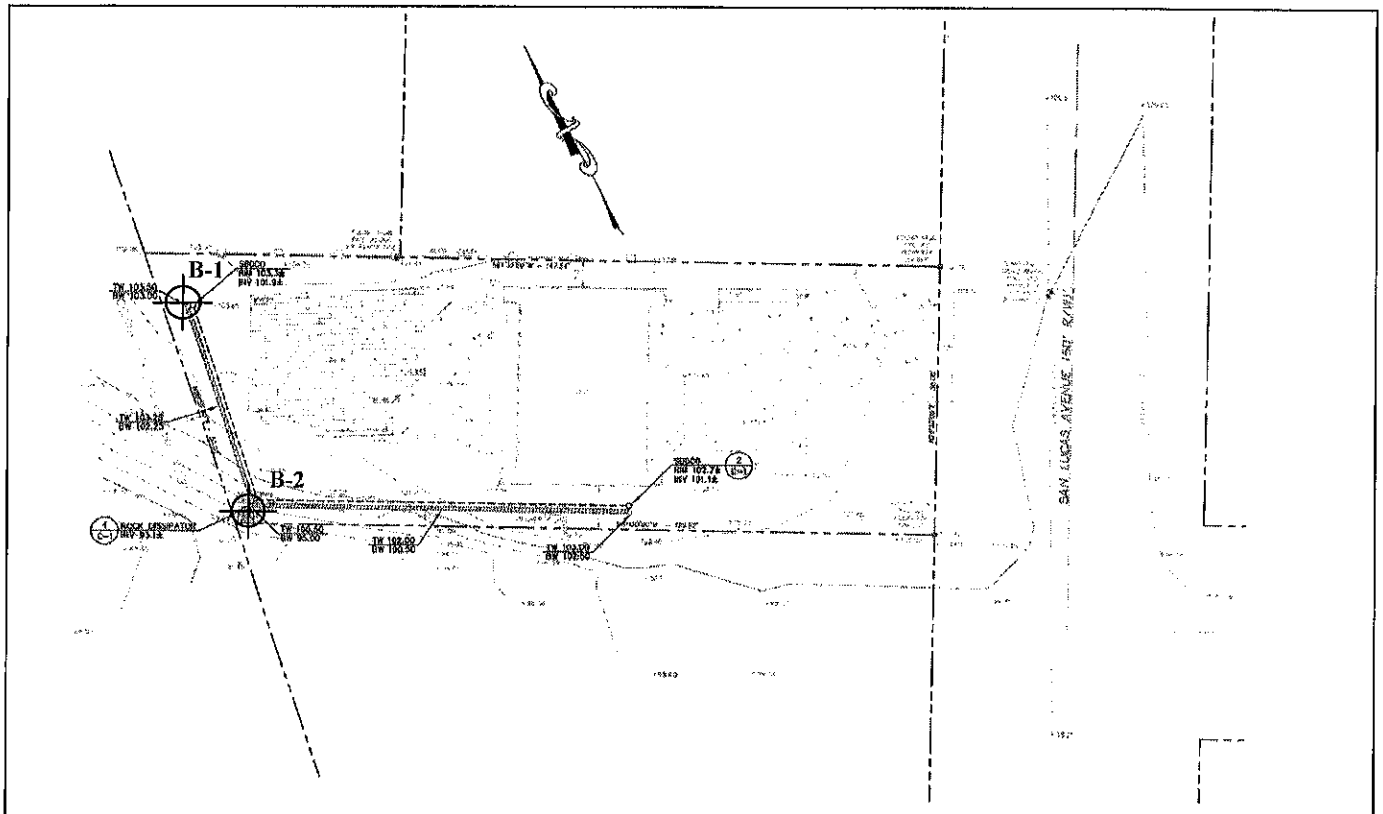
114 Hopeco Road
Pleasant Hill, CA 94523
tel. (925) 942-3629
fax. (925) 665-1700
PetersRoss@aol.com

Figure 1 - Site Vicinity Map

PROJECT No.	Khimani Residence Wall 105 San Lucas Avenue Moss Beach, CA 94038
16129.001	
DATE	
July 2016	



Peters & Ross Geotechnical and Geoenvironmental Consultants	114 Hopeco Road Pleasant Hill, CA 94523 tel. (925) 942-3629 fax. (925) 665-1700 PetersRoss@aol.com	Figure 2 - Site Topography
	PROJECT No. 16129.001	Khimani Residence Wall 105 San Lucas Avenue Moss Beach, CA 94038
	DATE July 2016	



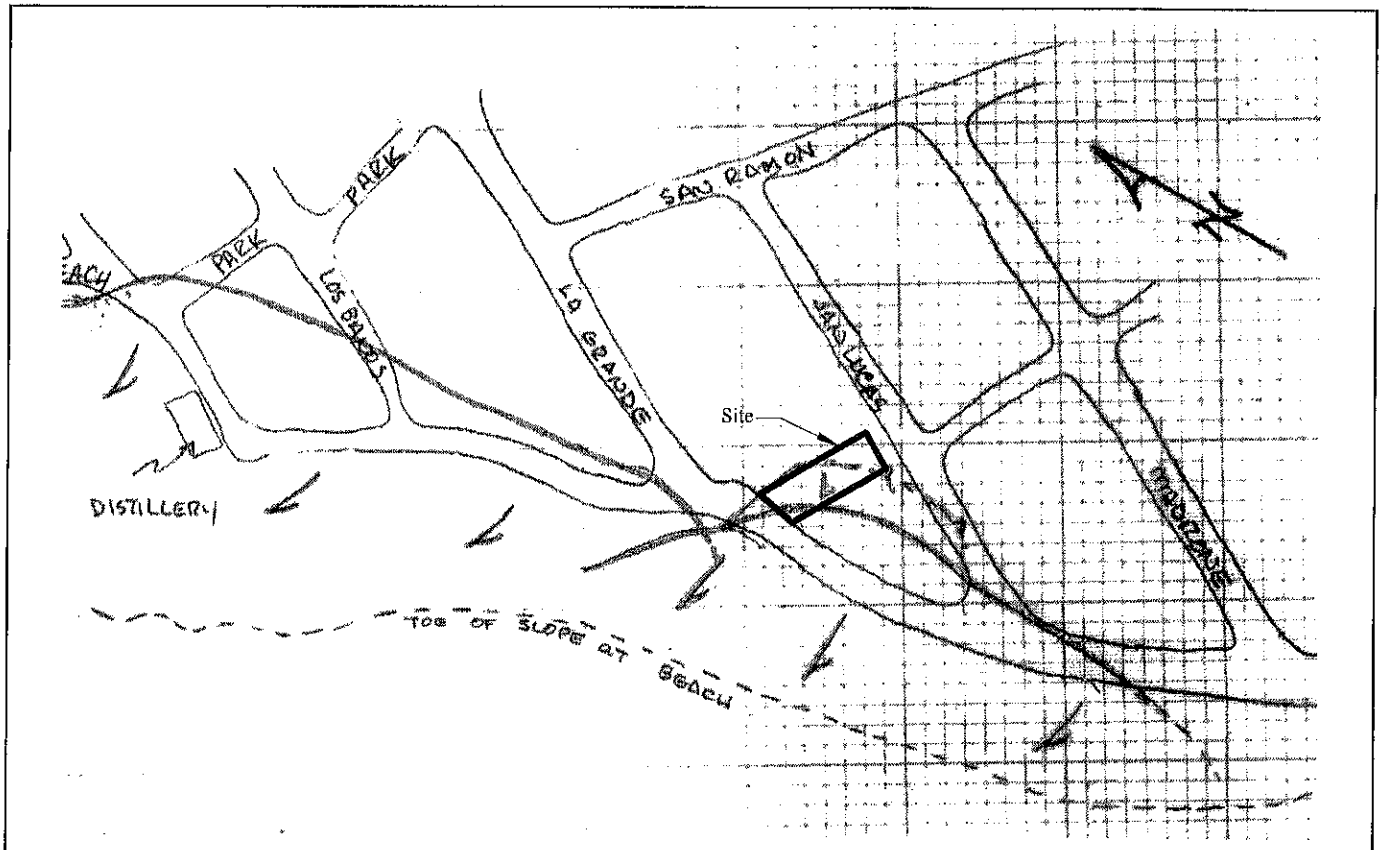
⊕ B-1 Approximate Location of Exploratory Test Borings

Peters & Ross
Geotechnical and
Geoenvironmental Consultants

114 Hopeco Road
Pleasant Hill, CA 94523
tel. (925) 942-3629
fax. (925) 665-1700
PetersRoss@aol.com

Figure 3 - Site Plan

PROJECT No.	
16129.001	Khimani Residence Wall 105 San Lucas Avenue Moss Beach, CA 94038
DATE	
July 2016	



Peters & Ross
Geotechnical and
Geoenvironmental Consultants

114 Hopeco Road
Pleasant Hill, CA 94523
tel. (925) 942-3629
fax. (925) 665-1700
PetersRoss@aol.com

Figure 4 - San Mateo County Landslide Map

PROJECT No.	
16129.001	Khimani Residence Wall 105 San Lucas Avenue Moss Beach, CA 94038
DATE	
July 2016	

APPENDIX A – FIELD INVESTIGATION

Peters & Ross explored subsurface conditions at the site by drilling two exploratory test borings to a maximum depth of 28.5 feet. The location of the test borings are shown on the Site Plan.

The borings were drilled using a portable hydraulic auger and our field engineer continuously logged the materials encountered. The boring logs that show the materials encountered are included in this Appendix. Soils are classified in accordance with the Unified Soil Classification System.

The boring logs indicate Peters & Ross interpretations of subsurface conditions encountered at the locations and times the borings were drilled, and may not be representative of subsurface conditions at other locations and times. Stratification lines represent the approximate boundaries between soil and rock types. The transitions between soil and rock layers are often gradual.

Samples of the materials encountered were obtained at frequent depth intervals, for visual classification and laboratory testing. Samples were obtained using a Modified California sampler (outer diameter of 3.0 inches, inner diameter of 2.5 inches) with thin-wall brass sampler liners, and a Standard Penetration Test sampler (outer diameter of 2.0 inches, inner diameter of 1.375 inches). A 140 pound safety hammer was used to drive the samplers. The hammer was lifted and dropped 30 inches using a rope and cat head system.

Peters & Ross Geotechnical Services
114 Hopeco Road
Pleasant Hill, CA 94523
925-942-3629

BOREHOLE B-1

Project Name: Khimani Residence Wall
Project No.: 16129.001
Location: 105 San Lucas Ave., Moss Beach, CA
Client: Anish Khimani
Drilling Method: Portable Hydraulic Auger
Date Drilled: 5/3/16 Revised 10/17/16
Elevation: 102 feet
Water Level: Not Encountered
Remarks: Samplers driven with 140 lb safety hammer lifted and dropped 30 inches using a rope and cathead system

DESCRIPTION	SYMBOL	DEPTH FT.	SAMPLE TYPE	BLOWS/FT.	MOISTURE %	DRY DENSITY PCF	UNCONFINED STRENGTH KSF	REMARKS
Ground Surface		0						
Sandy Lean CLAY (CL-DISTURBED) yellow brown, stiff, moist, white pebbles			MC	33	20	104	(4.25)	
Clayey SAND (SC-DISTURBED) mottled dark orange brown, medium dense, medium to coarse grained			SS	19	15			
		5	SS	24	17			
Silty SAND (SM-DISTURBED) gray to yellow brown, medium dense, fine grained		10	SS	22	16			
		15	SS	16	15			
		20						

Peters & Ross Geotechnical Services
114 Hopeco Road
Pleasant Hill, CA 94523
925-942-3629

BOREHOLE B-1

Project Name: Khimani Residence Wall
Project No.: 16129.001
Location: 105 San Lucas Ave., Moss Beach, CA
Client: Anish Khimani
Drilling Method: Portable Hydraulic Auger
Date Drilled: 5/3/16 Revised 10/17/16
Elevation: 102 feet
Water Level: Not Encountered
Remarks: Samplers driven with 140 lb safety hammer lifted and dropped 30 inches using a rope and cathead system

DESCRIPTION	SYMBOL	DEPTH FT.	SAMPLE TYPE	BLOWS/FT.	MOISTURE %	DRY DENSITY PCF	UNCONFINED STRENGTH KSF	REMARKS
Silty SAND (SM-DISTURBED) gray to yellow brown, medium dense, fine grained								
			SS	18	17			
Silty Fine SANDSTONE (DISTURBED) dark gray, moist, soft hardness, well cemented								
		25	SS	*	9			* = 50/4"
End of Borehole = 25 feet								
		30						
		35						
		40						

NOTES:
1. Penetration resistance values are not standard N values, they are the values measured in the field.
2. Stratification lines represent the approximate boundaries between material types, and the transitions may be gradual.
3. Groundwater was not encountered and the borehole was backfilled with cuttings immediately after drilling.
4. Shear strength values in parentheses are in tons per square foot and were obtained using a pocket penetrometer.

Peters & Ross Geotechnical Services
114 Hopèco Road
Pleasant Hill, CA 94523
925-942-3629

BOREHOLE B-2

Project Name: Khimani Residence Wall
Project No.: 16129.001
Location: 105 San Lucas Ave., Moss Beach, CA
Client: Anish Khimani
Drilling Method: Portable Hydraulic Auger
Date Drilled: 5/3/16 Revised 10/17/16
Elevation: 94 feet
Water Level: Not Encountered
Remarks: Samplers driven with 140 lb safety hammer lifted and dropped 30 inches using a rope and cathead system

DESCRIPTION	SYMBOL	DEPTH FT.	SAMPLE TYPE	BLOWS/FT.	MOISTURE %	DRY DENSITY PCF	UNCONFINED STRENGTH KSF	REMARKS
Ground Surface		0						
Sandy Lean CLAY (CL-FILL) mottled yellowish brown with dark brown, medium stiff, moist			MC	10	16	107	(3.5)	
Clayey SAND (SC-DISTURBED) mottled dark orange brown, medium dense, fine to coarse grained, abundant white quartz subangular fragments, poorly cemented		5	MC	11	16	107	(>4.5)	LL=38%, PI=15% -200 = 35 percent
SAND (SP-DISTURBED) dark orange brown, medium dense, medium to coarse grained		10	MC	13	11	108	(3.5)	
Silty SAND (SM-DISTURBED) dark orange brown, loose, medium to coarse grained		15	SS	8	8			
		20						

Peters & Ross Geotechnical Services
114 Hopeco Road
Pleasant Hill, CA 94523
925-942-3629

BOREHOLE B-2

Project Name: Khimani Residence Wall
Project No.: 16129.001
Location: 105 San Lucas Ave., Moss Beach, CA
Client: Anish Khimani
Drilling Method: Portable Hydraulic Auger
Date Drilled: 5/3/16 Revised 10/17/16
Elevation: 94 feet
Water Level: Not Encountered
Remarks: Samplers driven with 140 lb safety hammer lifted and dropped 30 inches using a rope and cathead system

DESCRIPTION	SYMBOL	DEPTH FT.	SAMPLE TYPE	BLOWS/FT.	MOISTURE %	DRY DENSITY PCF	UNCONFINED STRENGTH KSF	REMARKS
Silty SAND (SM-DISTURBED) dark orange brown, loose, medium to coarse grained								
		25						
Silty Fine SANDSTONE (DISTURBED) dark gray, moist, soft hardness, well cemented			SS	59	11			
End of Borehole = 28.5 feet		30						
		35						
		40						

NOTES:
1. Penetration resistance values are not standard N values, they are the values measured in the field.
2. Stratification lines represent the approximate boundaries between material types, and the transitions may be gradual.
3. Groundwater was not encountered and the borehole was backfilled with cuttings immediately after drilling.
4. Shear strength values in parentheses are in tons per square foot and were obtained using a pocket penetrometer.

APPENDIX B - LABORATORY TESTING

Laboratory tests were performed on representative samples of the materials encountered in the test borings, to achieve a quantitative and qualitative evaluation of the physical and mechanical properties of the materials that underlie the site. The tests included moisture content/dry density determinations, #200 washed sieve tests, and Atterberg limits tests. The test results are presented on the boring logs in Appendix A. Test reports provided by the testing laboratory are included in this Appendix. Brief descriptions of the tests performed follow.

Moisture Content/Dry Density (ASTM 2937): Performed on undisturbed samples to determine the moisture content (the ratio of the weight of water to the weight of solids in the field sample, expressed as a percentage) and dry density (the ratio of the weight of solids in the field sample to its volume, expressed in pounds per cubic foot).

#200 Washed Sieve Test (ASTM D-1140): Performed on undisturbed or disturbed samples to determine the fine-grained (silt and clay) fraction of the materials. The fine-grained fraction is used to classify the soils according to the Unified Soils Classification System.

Atterberg Limits Test (ASTM D-4318): Performed on undisturbed or disturbed samples to determine the liquid limit (LL) and plastic limit (PL) of the samples. These limits are used to classify fine-grained soils and to evaluate the plasticity index (PI), the moisture content range over which the material exhibits plasticity. Atterberg limits correlations also provide an indication of the compressibility and expansion potential of the sample.

B. HILLEBRANDT SOILS TESTING, INC.

29 Sugarloaf Terrace, Alamo, CA 94507 - Tel: (510) 409-2916 - Fax: (925) 891-9267 - Email: soiltesting@aol.com

LAB RESULTS SUMMARY FORM

Project Number: 16129.001 **Project Name:** Khimani Residence Wall **Results Due By:**
Requested By: PM **Request Date:** 5/21/2016 **Throw Samples Out On:**

Boring #	Sample Depth (feet)	Dry Density (pcf)	Moisture Content (%)	Unconfined Compressive (ksf)	Atterberg			-200			Compaction		Pocket Penetrometer (tsf)	Torvane (tsf)	Remarks
					Liquid Limit	Plastic Limit	Plasicity Index	Passing #4 Sieve (%)	Passing #40 sieve (%)	Passing #200 sieve (%)	Maximum Dry Density (pcf)	Optimum Moisture (%)			
B-1	2.5	104	20.3										4.25		
B-1	4.5		14.7												
B-1	7.5		16.7												
B-1	10.5		15.5												
B-1	16.5		14.9												
B-1	22.5		16.9												
B-1	25.0		8.5												
B-2	4.5	107	15.5										3.5		
B-2	7.5	107	16.3		38	23	15	92	53	35			>4.5		
B-2	13.5	108	11.0										3.5		
B-2	19.5		8.3												
B-2	28.5		10.7												

B. HILLEBRANDT SOILS TESTING, INC.

29 Sugarloaf Terrace, Alamo, CA 94507 - Tel: (510) 409-2916 - Fax: (925) 891-9267 - Email: soiltesting@aol.com

MOISTURE CONTENT/DRY DENSITY

Job #: 16129.001
Job Name: Khimani Residence Wall
Date: 5/21/2016
Tested by: Brad Hillebrandt

Additional Tests:			PI, -200			
Boring #:	B-1	B-2	B-2	B-2		
Depth:	2.5	4.5	7.5	13.5		
Sample Description:	Yellowish brown sandy CLAY	Dark brown clayey SAND	Yellowish brown silty SAND	Yellowish brown clayey SAND		
Can #:	332	306	310	341		
Wet Sample + can	351.0	298.6	278.6	340.3		
Dry Sample + can	298.2	263.5	244.8	310.3		
Weight can	37.8	37.5	38.0	38.0		
Weight water	52.8	35.1	33.8	30		
Weight Dry Sample	260.4	226	206.8	272.3		
WATER CONTENT (%)	**20.3%**	**15.5%**	**16.3%**	**11.0%**		
Weight Sample + Liner	1116.2	1008.6	1099.7	1020.5		
Weight Liner	221.9	211.5	210.1	216.6		
Sample Length	6.0	5.5	6.0	5.65		
Sample Diameter	2.40	2.39	2.40	2.40		
DRY DENSITY (pcf)	**104.4**	**106.5**	**107.3**	**107.9**		

B. HILLEBRANDT SOILS TESTING, INC.

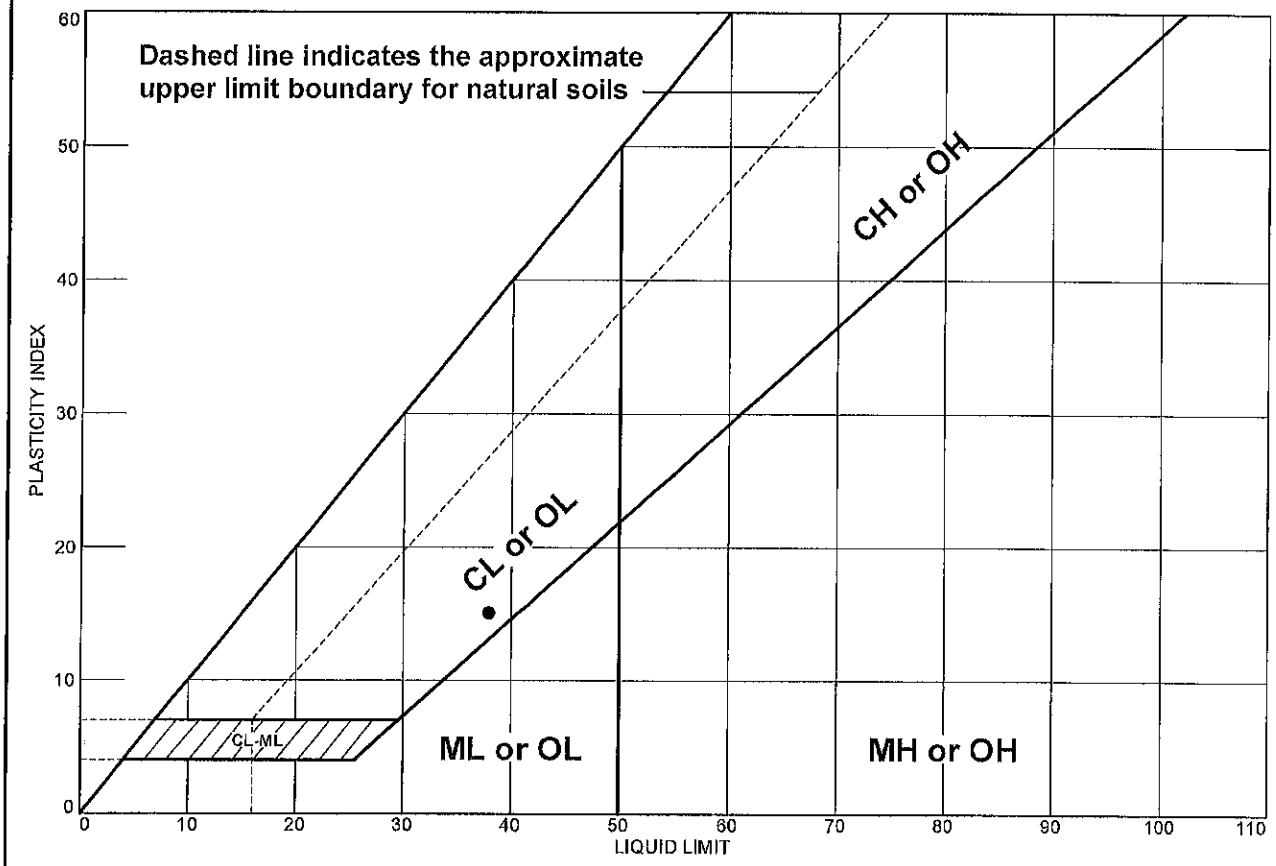
29 Sugarloaf Terrace, Alamo, CA 94507 - Tel: (510) 409-2916 - Fax: (925) 891-9267 - Email: soiltesting@aol.com

MOISTURE CONTENT WORKSHEET

Job #: 16129.001
Job Name: Khimani Residence Wall
Date: 6/21/2016
Tested by: B. Hillebrandt

Additional Tests:									
Boring #:	B-1	B-1	B-1	B-1	B-1	B-1	B-2	B-2	
Depth:	4.5	7.5	10.5	16.5	22.5	25.0	19.5	28.5	
Sample Description:	Yellowish brown silty SAND	Yellowish brown silty SAND	Yellowish brown silty SAND	Yellowish brown silty SAND	Olive brown silty SAMD with clay	Dark gray SILTSTONE	Olive brown silty SAMD with clay	Dark gray SILTSTONE	
Can #:	316	367	303	370	327	363	314	346	
Wet Sample + can	268.5	313.1	248.1	289.5	299.5	203.4	282.5	217.3	
Dry Sample + can	238.9	273.2	219.8	256.9	261.7	190.1	263.7	200.0	
Weight can	37.7	33.7	37.4	37.8	38.1	33.4	38.0	38.1	
Weight water	29.6	39.9	28.3	32.6	37.8	13.3	18.8	17.3	
Weight Dry Sample	201.2	239.5	182.4	219.1	223.6	156.7	225.7	161.9	
WATER CONTENT (%)	14.7%	16.7%	15.5%	14.9%	16.9%	8.5%	8.3%	10.7%	

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Yellowish brown silty SAND	38	23	15	52.6	34.5	SC

Project No. 16129.001 **Client:** Peters & Ross

Project: Khimani Residence Wall

●**Source of Sample:** B-2 **Depth:** 7.5'

Remarks:

B. HILLEBRANDT SOILS TESTING, INC.
+1 510-409-2816
SoilTesting@aol.com

Figure

Tested By: BH

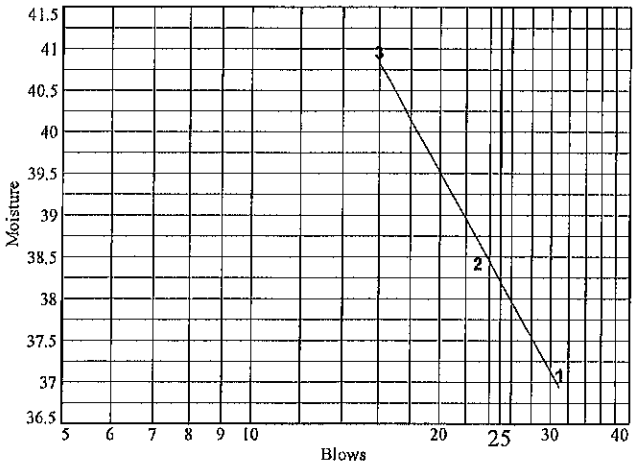
LIQUID AND PLASTIC LIMIT TEST DATA

5/27/2016

Client: Peters & Ross
Project: Khimani Residence Wall
Project Number: 16129.001
Location: B-2
Depth: 7.5'
Material Description: Yellowish brown silty SAND
%<#40: 52.6 **%<#200:** 34.5 **USCS:** SC **AASHTO:** A-2-6(1)
Tested by: BH

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	27.50	24.96	28.60			
Dry+Tare	23.12	21.16	23.57			
Tare	11.31	11.27	11.29			
# Blows	31	23	16			
Moisture	37.1	38.4	41.0			



Liquid Limit= 38
Plastic Limit= 23
Plasticity Index= 15
Natural Moisture= 16.3
Liquidity Index= -0.4

Plastic Limit Data

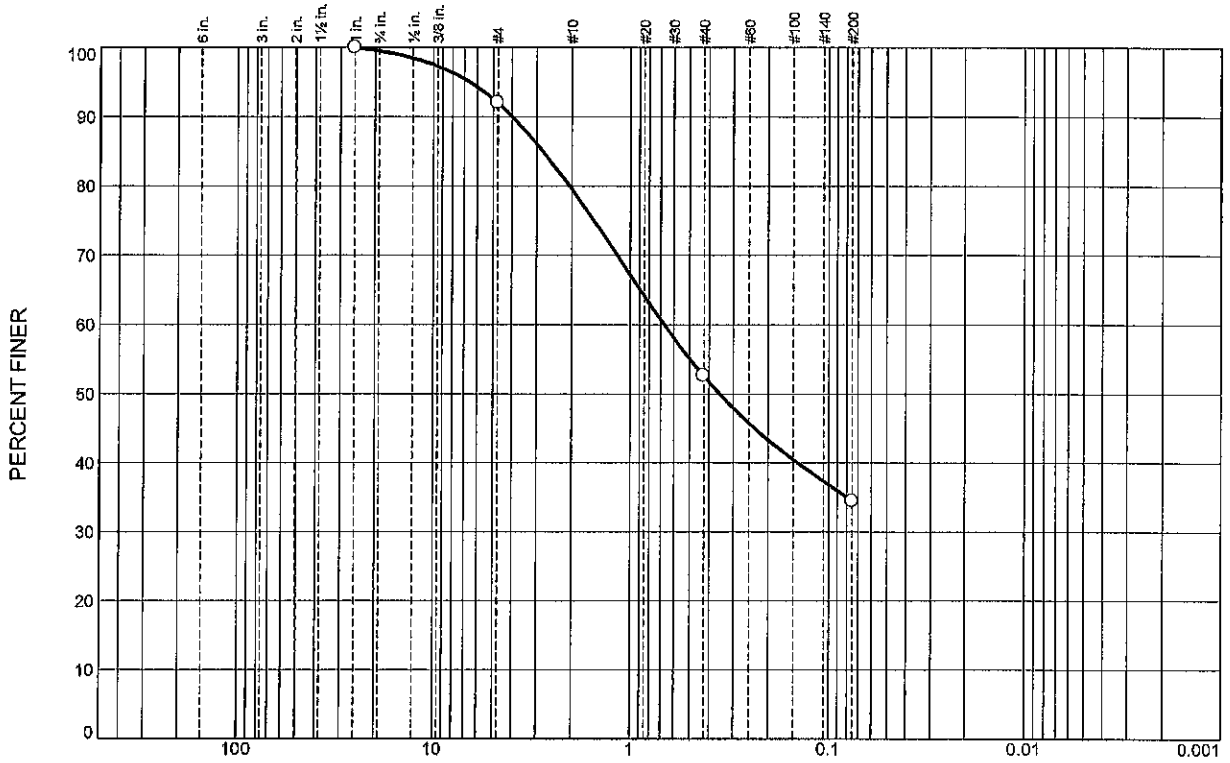
Run No.	1	2	3	4	
Wet+Tare	17.44	17.82			
Dry+Tare	16.29	16.62			
Tare	11.29	11.31			
Moisture	23.0	22.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
278.6	244.8	38.0	16.3

B. Hillebrandt Soils Testing, Inc.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay

MATERIAL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	B-2		7.5'	Yellowish brown silty SAND	SC

B. HILLEBRANDT SOILS TESTING, INC.
+1 510-409-2816
SoilTesting@aol.com

Client: Peters & Ross
Project: Khimani Residence Wall
Project No.: 16129.001 **Figure**

Tested By: BH

GRAIN SIZE DISTRIBUTION TEST DATA

5/27/2016

Client: Peters & Ross
Project: Khimani Residence Wall
Project Number: 16129.001
Location: B-2
Depth: 7.5'
Material Description: Yellowish brown silty SAND
USCS: SC
Tested by: BH

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
244.80	38.00	1"	0.00	0.00	100.0
		#4	16.43	0.00	92.1
		#40	81.49	0.00	52.6
		#200	37.63	0.00	34.5

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.5	7.4	7.9	12.5	27.0	18.1	57.6			34.5

D_5	D_{10}	D_{15}	D_{20}	D_{30}	D_{40}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
					0.1423	0.3520	0.6703	2.0449	2.7822	3.9788	6.5703

Fineness Modulus
2.12

Attachment D1

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

March 27, 2018 File No.: 17-2233

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

re: PLN2016-00327 / 105 San Lucas Ave, APN 037258240

Dear Camille Leung,

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.**

Project Description: REVISED 6/2/17: 'After-the-Fact' Coastal Development Permit (CDP) to legalize installation of a Geogrid system and associated re-grading (100 cy of fill) of an existing residential property (between back of existing residence and the coastal bluffs) to stabilize the site and correct unauthorized retaining wall work and vegetation removal performed in Fall of 2016. Reference BLD2016-007 45, SWN 2016-00035, and VIO 2016-00139.

Previous Studies:

XX Study # 3082 (Jackson and Dietz 1970), included approximately 100% of the proposed project area, identified no cultural resources *(see recommendation below).*

Archaeological and Native American Resources Recommendations:

XX The proposed project area has the possibility of containing unrecorded archaeological site(s). Due to the passage of time since the previous survey (Jackson and Dietz 1970) and the changes in archaeological theory and method since that time, we recommend a qualified archaeologist conduct further archival and field study for the entire project area to identify cultural resources.

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.

Built Environment Recommendations:

XX The 1956 USGS Montara Mountain 7.5' quad depicts two buildings in the proposed project area. Since the Office of Historic Preservation has determined that any building or structure 45 years or older may be of historical value, if these, or similarly aged buildings, are present then it is recommended that 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,

Jillian Guldenbrein

For Bryan Much
Coordinator

Attachment D2

STATE OF CALIFORNIA — Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

July 3, 2018

Camille Leung

San Mateo County Planning Dept.

Sent by Email: cleung@smcgov.org

Re: SLope Repair at 105 San Lucas Ave. San Mateo County

Dear Ms. Leung,

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not preclude the presence of cultural resources in any project area. Other sources for cultural resources should also be contacted for information regarding known and/or recorded sites.

Enclosed is a list of Native Americans tribes who may have knowledge of cultural resources in the project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission 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 tribes, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at 916-573-1033 or frank.lienert@nahc.ca.gov.

Sincerely,

Frank Lienert
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contacts
7/3/2018

Coastanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street — Ohlone/Costanoan
Pomona , CA 91766
rumsen@aol.com

(909) 524-8041 Cell

(909) 629-6081

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road — Ohlone/Costanoan
Woodside , CA 94062
amahmutsuntribal@gmail.com

(650) 851-7489 Cell
(650) 851-7747 Office
(650) 332-1526 Fax

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791 — Ohlone / Costanoan
Milpitas , CA 95036
muwekma@muwekma.org

(408) 314-1898

(510) 581-5194

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3388 — Ohlone/Costanoan
Fremont , CA 94539 — Bay Miwok
chochenyo@AOL.com — Plains Miwok
(510) 882-0527 Cell — Patwin

(510) 687-9393 Fax

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28 — Ohlone/Costanoan
Hollister , CA 95024
ams@indiancanyon.org

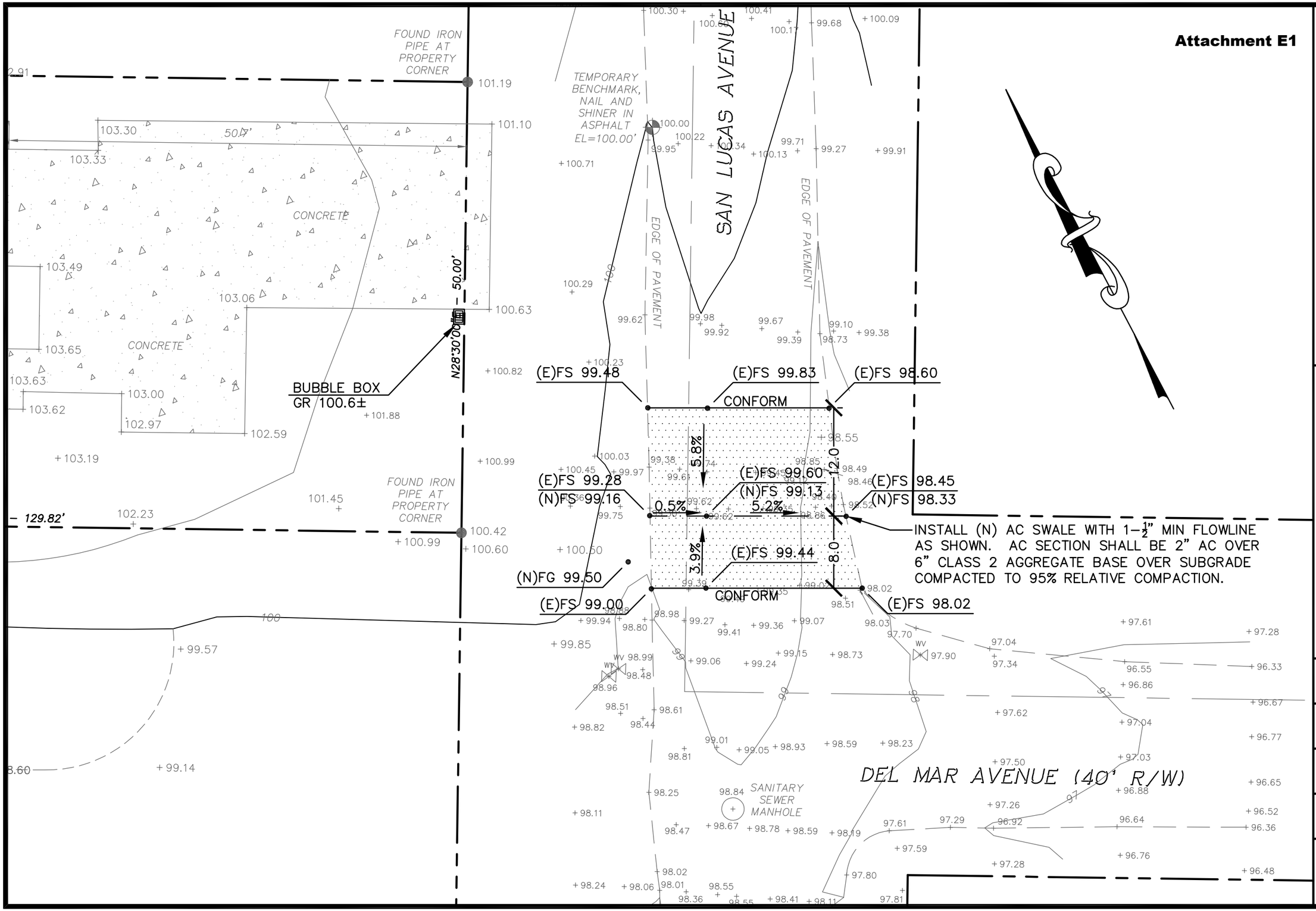
(831) 637-4238

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes with regard to cultural resources assessments for the proposed SLope Repair at 105 San Lucas Ave. San Mateo County

Attachment E1



PRECISION ENGINEERING AND CONSTRUCTION, INC.

901 Waltermire Street
Belmont, CA 94002

T: 650.226.8640
F: 650.637.1059
Travis@Precision-EC.com

OFF-SITE IMPROVEMENTS

KHIMANI RESIDENCE
105 SAN LUCAS AVENUE
MOSS BEACH, CA 94038

Date: 10/12/2017

Scale: 1" = 10'

Design:	Check:
TRL	TRL

PEC Job No.: PEC 16-063

Drawing Number: EX - 1

DRAWING NAME: C:\Users\t-luv\Desktop\PEC 16-063 SITE.dwg
PLOT TIME: 10-12-17
PLOTTED BY: t-luv

BLD
2016-00-745

Peters & Ross

Geotechnical & Geoenvironmental

Consultants

June 12, 2017
Project No. 16129.001

RECEIVED

JUN 19 2017

San Mateo County
Building Inspection

Mr. Anish Khimani
105 San Lucas Avenue
Moss Beach, CA 94038

RE: Construction Observation and Testing – Permit No. DPW2017-00138
Khimani Residence Emergency Slope Restoration and Winterization

Dear Mr. Khimani:

Pursuant to your request, Peters & Ross observed that the existing retaining wall footing excavations, located along the southern and western property lines, were backfilled with engineered fill and that the adjacent slopes were restored in accordance with the approved winterization plan prepared by Precsion Engineering and Construction Inc. and dated June 6, 2016, with latest revision February 2, 2017. These measures were implemented on an emergency basis so that storm water would not flow into the landslide head scarp located along the southern and western property lines.

Two 4-inch diameter plastic drainage pipe were encountered near the back left corner of the house and deck area. It is our understanding that storm water flow conveyed in these pipes will be rerouted to the street in a later submittal. In the interm, we recommend that the pipes discharge into a 10 foot long, 6-inch diameter perforated pipe, holes down, placed on contour at the base of the slope in the middle of a 4-foot wide bed of 3 inch rock.

The approved plans are based on a site survey performed by DMG Engineering dated October 9, 2015. On March 29, 2017, Peters & Ross observed that the elevation of the adjacent property at the southwest corner of the retaining wall footing excavation had dropped a couple of feet. We recommended that the proposed backfill slope in this area (about 30 feet starting from the south west property corner - mostly along the southern property line adjacent to the back deck) be steepened to minimize and or eliminate fill being placed on the adjacent property/head scarp area.

In this 30 foot section of the slope Peters & Ross had the contractor install four 8 foot long primary layers using Miragrid 5XT and three 4 foot long secondary layers using the same grid. The primary layers were spaced 2 foot vertical with the secondary layers being installed between the primary layers. Mr. Farrokh Keshavarzi obtained a sample of the backfill materials and performed a laboratory density test (ASTM D-1557-12). The test resulted in a maximum density of 113.0 pounds per cubic foot (pcf) at optimum moisture content of 12.7 percent. Engineered fill was then placed and compacted in 8 inch loose lifts.

114 Hopeco Road, Pleasant Hill, CA 94523 Phone: (925) 942-3629 Fax: (925) 665-1700 Email: PetersRoss@aol.com

Attachment E2

Mr. Keshavarzi performed field density tests using Nuclear Probe Method ASTM 6938-10. Mr. Keshavarzi's field density test results are summarized in the attached Table A. All field density tests exceeded 90 percent of ASTM D-1557. It is our opinion that the engineered fill was placed and compacted in general accordance with the geotechnical recommendations of our report and the requirements of Permit No. DPW2017-00138. This completes our construction observation and testing services. If you have any questions concerning the results of our observations, please call us.

Very truly yours,

Peter K. Mundy, P.E., G.E.
Geotechnical Engineer 2217

KHIMANI RESIDENCE WINTERIZATION
105 San Lucas Avenue
Moss Beach, California

TABLE A
FIELD DENSITY TEST SUMMARY

Test No.	Date of Test	Location	Elev. ft.	Operation	Moisture Content (%)	Dry Density (pcf)	Max. Dry Density (pcf)	Degree of Compaction (%)	Min. Comp. Specified (%)	Curve No.	Pass/Fail
1	4/4/17	Front	2.5	Fill	16.0	108.3	113.0	95.8	90	1	Pass
2	4/4/17	Back	f.g.	Fill	10.2	108.8	113.0	96.3	90	1	Pass
3	4/4/17	North	f.g.	Fill	12.7	109.2	113.0	96.6	90	1	Pass
4	4/4/17	Middle	2.5	Fill	17.5	104.9	113.0	92.8	90	1	Pass
5	4/5/17	Middle	f.g.	Fill	18.5	104.9	113.0	92.8	90	1	Pass
6	4/5/17	Front	f.g.	Fill	18.8	109.7	113.0	97.1	90	1	Pass

1. Field density tests performed using Nuclear Probe Method ASTM 6938-10.
2. Approximate elevations of tests determined from observations of grade stakes at the site.
3. Abbreviations used on the table refer to the following:

No. = number
Elev. = elevation
ft = feet
% = percent
f.g. = finished grade
pcf = pounds per cubic foot
Max. = maximum
Min. = minimum
Comp. = compaction

Attachment F