

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

DATE: September 13, 2017

TO: Planning Commission

FROM: Planning Staff

SUBJECT: EXECUTIVE SUMMARY: Consideration of an After-The-Fact Coastal Development Permit and Grading Permit for the removal of approximately 400 cubic yards of fill material placed on the upper channel bank of Purisima Creek located at 2050 Purisima Creek Road, a developed parcel in the unincorporated North San Gregorio area of San Mateo County. This project is located in the Purisima Creek Road County Scenic Corridor and is appealable to the California Coastal Commission.

County File Number: PLN 2016-00412
(Midpeninsula Regional Open Space District)

PROPOSAL

In response to a violation case (VIO 2016-00235) regarding the illegal placement of fill material into the upper channel bank of Purisima Creek on the subject parcel, the applicant has removed approximately 400 cubic yards (c.y.) from the upper channel bank of Purisima Creek. To restore the channel bank after removal of the fill material, the channel bank was seeded with a native grass mix and treated with erosion control blankets and coir rolls. The lower third of the slope was replanted with willow cuttings. The fill material removed was tested and determined to be absent of contamination, spread onto a nearby agricultural field, and then seeded. This project represents the retroactive Coastal Development Permit (CDP) and Grading Permit required after issuance of the Emergency CDP and will assess the completed project for its compliance with applicable County regulations.

RECOMMENDATION

That the Planning Commission approve the After-The-Fact Coastal Development Permit and Grading Permit, County File Number PLN 2016-00412, by making the required findings and conditions of approval as listed in Attachment A.

SUMMARY

Setting: The project parcel is located 1.63 miles east of the intersection of Verde Road and Highway 1 (Cabrillo Highway). The project site is approximately 650 feet southeast

from the entrance to the property at Purisima Creek Road. The area in which the project is located (the northwestern corner of the 391-acre property) is currently under lease for a cut-flower and vegetable agricultural operation. Located within this lease area are structures such as barns, sheds, and residences that are ancillary to the agricultural operation. The project site is located on the upper channel bank of Purisima Creek located on the property. The project site is on a gently sloping terrace with a moderately steep slope (50-75%) that drops down to a low narrow flood plain of Purisima Creek. Parcels within the surrounding area are largely undeveloped with some parcels developed sporadically with single-family residential and agricultural uses.

General Plan Compliance: The proposed project complies with all applicable General Plan policies regarding Vegetative, Water, Fish, and Wildlife Resources and Soil Resources. The project included the implementation of avoidance measures to mitigate any potential impacts to sensitive habitats. Revegetation monitoring after the grading work was completed determined that the restoration component of the project was successful and no additional actions are recommended. Monitoring will continue to take place annually for the next two years to ensure that the natural regeneration of riparian scrub habitat proceeds as anticipated. The project was also regulated to minimize soil erosion, sedimentation, and removal of vegetation cover and to ensure stabilization of disturbed areas.

Local Coastal Program Compliance: The project was reviewed and found to be in compliance with all applicable Local Coastal Program policies regarding Sensitive Habitats. No sensitive species were observed during the pre-construction and construction stage of the project. The project area was monitored after the completion of grading work and it was determined that the restoration component of this project was successful and no additional actions are recommended.

Zoning Compliance: The project involves approximately 400 c.y. of grading to remediate the illegal placement of fill material on the upper channel bank of Purisima Creek on the subject parcel. No development or use is proposed as part of the subject application, therefore no Planned Agricultural District Permit is required.

Grading Permit: The project complies with all applicable standards in the County Building Regulations regarding grading which includes timing of grading activity, erosion and sediment control, and dust control. The project has also been reviewed and conditionally approved by the Geotechnical Section.

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

DATE: September 13, 2017

TO: Planning Commission

FROM: Planning Staff

SUBJECT: Consideration of an After-The-Fact Coastal Development Permit and Grading Permit, pursuant to Section 6328.4 of the San Mateo County Zoning Regulations and Section 9298 of the San Mateo County Building Regulations, respectively, for the removal of approximately 400 cubic yards of fill material placed on the upper channel bank of Purisima Creek located at 2050 Purisima Creek Road, a developed parcel in the unincorporated North San Gregorio area of San Mateo County. This project is located in the Purisima Creek Road County Scenic Corridor and is appealable to the California Coastal Commission.

County File Number: PLN 2016-00412
(Midpeninsula Regional Open Space District)

PROPOSAL

In response to a violation case (VIO 2016-00235) regarding the illegal placement of fill material into the upper channel bank of Purisima Creek on the subject parcel, the applicant has removed approximately 400 cubic yards (c.y.) from the upper channel bank of Purisima Creek. To restore the channel bank after removal of the fill material, the channel bank was seeded with a native grass mix and treated with erosion control blankets and coir rolls. The lower third of the slope was replanted with willow cuttings. The fill material removed was tested and determined to be absent of contamination, spread onto a nearby agricultural field, and then seeded. This project requires the retroactive Coastal Development Permit (CDP) and Grading Permit required after issuance of the Emergency CDP to complete and remediate the bank repair. These retroactive permits will assess the completed project for its compliance with applicable County regulations.

RECOMMENDATION

That the Planning Commission approve the After-The-Fact Coastal Development Permit and Grading Permit, County File Number PLN 2016-00412, by making the required findings and conditions of approval as listed in Attachment A.

BACKGROUND

Report Prepared By: Carmelisa Morales, Project Planner, 650/363-1873

Applicant/Owner: Midpeninsula Regional Open Space District

Location: 2050 Purisima Creek Road, Half Moon Bay

APN: 066-230-030

Size: 391 acres

Existing Zoning: PAD/CD (Planned Agricultural District/ Coastal Development)

General Plan Designation: Agriculture Rural

Local Coastal Plan Designation: Agriculture

Sphere-of-Influence: None

Existing Land Use: Agriculture

Water Supply: The water supply on the property is supplied through a diversion from Purisima Creek. A residential water pump and irrigation pump are connected to Purisima Creek and routed through an irrigation water pipeline to a potable water treatment and water storage tank area north of Purisima Creek and southeast of two outhouses located on the property (see Exhibits 3 and 7 of Attachment B).

Sewage Disposal: The site is currently improved with an on-site septic system which services the residences on the property. The septic tanks are located south of the residences on the property.

Flood Zone: The project site is located in Flood Zone X as defined by FEMA (Community Panel Number 06081C0270E, dated October 16, 2012), which is an area with minimal potential for flooding.

Environmental Evaluation: Categorically exempt under provisions of Class 1, Section 15301, of the California Environmental Quality Act (CEQA) Guidelines for repair and maintenance of existing topographical features involving no expansion of use, and Class 33, Section 15333, of the CEQA Guidelines for the restoration, stabilization, and revegetation of the disturbed areas of a creek bank.

Setting: The project parcel is located 1.63 miles east of the intersection of Verde Road and Highway 1 (Cabrillo Highway). The project site is approximately 650 feet southeast from the entrance to the property at Purisima Creek Road. The area in which the project is located (the northwestern corner of the 391-acre property) is currently under lease for a cut-flower and vegetable agricultural operation. Located within this lease area are structures such as barns, sheds, and residences that are ancillary to the agricultural operation. The project site is located on the upper channel bank of Purisima Creek located on the property. The project site is on a gently sloping terrace with a moderately steep slope (50-75%) that drops down to a low narrow flood plain of

Purisima Creek. Parcels within the surrounding area are largely undeveloped with some parcels developed sporadically with single-family residential and agricultural uses.

Chronology:

<u>Date</u>	<u>Action</u>
July 1, 2016	- Violation case opened (VIO 2016-00235) to investigate fill material illegally placed on the upper channel bank of Purisima Creek.
September 30, 2016	- Application for Emergency CDP (under the same Planning Case Number as subject application) submitted.
October 18, 2016	- Emergency CDP and Grading Remediation approved.
November 14, 2016	- Applications for an After-The-Fact (ATF) CDP and Grading Permit, the subject of this application, submitted.
June 9, 2017	- Application deemed complete.
September 13, 2017	- Planning Commission public hearing date.

DISCUSSION

A. KEY ISSUES

1. Issuance of the Emergency Coastal Development Permit and Grading Remediation

On July 1, 2016, a violation case (VIO 2016-00235) was opened for the illegal grading activity on the subject parcel that was conducted without the benefit of a grading permit. Approximately 400 c.y. of fill material was found to be illegally placed on the upper channel bank of Purisima Creek on the subject parcel. The area of illegal fill placement extended for 100 feet along the outer edge of the Purisima Creek terrace and 10 to 30 feet downslope to the flood plain. The illegal fill placement resulted in an unstable slope and disturbed riparian vegetation, mainly small Bay trees and scattered brush. At the time, no fill material was directly entering the waterway.

The applicant submitted an Emergency Coastal Development Permit (CDP) application and Grading Remediation request on September 30, 2016 to propose the removal of the illegally placed fill material and to stabilize and restore the damaged area. The proposal indicated that the fill material would be transported off-site and disposed of at an appropriate facility or spread on-site in a manner to prevent erosion. The limits of spoil spread sites were to be field verified by the Project Geotechnical Consultant,

Timothy C. Best. Disturbance to the riparian vegetation would be minimized to the extent feasible and no large trees would be removed.

A biotic assessment prepared by Lisa Bankosh of Midpeninsula Regional Open Space District (MROSD) and an engineering geotechnical assessment prepared by Timothy C. Best were submitted with the application (see Attachments F and H). Avoidance and erosion control measures from these assessments were included as conditions of approval in the letter of decision for the Emergency CDP and Grading Remediation (see Attachment E).

As discussed in the letter of decision, the proposal complied with Section 6328.19 of the County Zoning Regulations (*Coastal Development Permit Regulations*) to allow the issuance of an Emergency CDP, and Section 9298.1 (*Enforcement By The Planning Director*) and Section 9298.4 (*Restoration or Remedial Work*) of the County Building Regulations to remediate the grading violation. The Emergency CDP and Grading Remediation request were approved on October 18, 2016 (see Attachment E). The approval was conditioned to require the applicant to submit for an ATF CDP and Grading Permit within five days of commencing the remediation work. Compliance with all applicable policies for the ATF CDP and Grading Permit are discussed in the subsequent sections below.

2. Conformance with the General Plan

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

Vegetative, Water, Fish, and Wildlife Resources

Policy 1.28 (*Regulate Development to Protect Sensitive Habitats*) aims to regulate land uses and development activities within and adjacent to sensitive habitats in order to protect critical vegetative, water, fish, and wildlife resources, protect rare, endangered, and unique plants and animals from reduction in their range or degradation of their environment, and protect and maintain the biological productivity of important plant and animal habitats.

A biotic assessment prepared by Lisa Bankosh of MROSD for the ATF CDP and Grading Permit included the results of the construction monitoring and first-year restoration success monitoring of the project (see Attachment G). The project was designed to reduce impacts to sensitive habitats. The biotic assessment submitted for the Emergency CDP and Grading Remediation found that the California red-legged frog (CRLF) was known to occur in the project vicinity, and marginally suitable habitat for the San Francisco garter snake (SFGS) is present (see Attachment F). Based on these findings, the project included mitigation measures to avoid impacts to these species

during the construction phase of the project. The mitigation measures are Best Management Practices for working in or near streams from the MROSD's Routine Maintenance Agreement with the California Department of Fish and Wildlife (CDFW). The mitigation measures included a survey to be conducted within 48 hours of the start of construction to determine if CRLFs were in the project area, biological monitors on-site, limitations on vegetation removal with mechanized equipment, vehicle restrictions, and no stockpiling.

A pre-construction survey for CRLF and monitoring of initial vegetation and fill removal activities was conducted on November 7, 2016 by Steve Davison, a CDFW approved biologist. No sensitive species were observed. An MROSD Technician (trained to observe CRLF) monitored the subsequent project activities until the project was completed on November 9, 2016 and no sensitive species were observed.

The biotic assessment stated that the revegetation monitoring was conducted by Lisa Bankosh of MROSD on June 28, 2017. The upper channel bank and the spoils site were supported to have nearly 100% of native grass, primarily California brome and blue wild rye. The lower channel bank was heavily colonized by the natural regrowth of native California blackberry, stinging nettle, and hedge nettle. The willow cutting was present and vigorous on the lower bank in addition to the heavy native re-growth. The biotic assessment stated that all erosion control materials were observed to be intact. Due to heavy vegetation growth, the erosion control materials have naturally degraded and will not require replacement. There was no evidence of erosion or sedimentation from the past winter season's heavy storms and no noxious weeds were observed in the restoration area. Conclusively, the biotic assessment stated that the restoration component of the project was successful and no additional actions are recommended. Monitoring will continue to take place annually for the next two years to ensure that the natural regeneration of riparian scrub habitat proceeds as anticipated.

Soil Resource Policies

Policy 2.17 (*Regulate Development to Minimize Soil Erosion and Sedimentation*) aims to regulate development to minimize soil erosion and sedimentation including, but not limited to, measures which consider the effects of slope, minimize removal of vegetative cover, and ensure stabilization of disturbed areas and protect and enhance natural plant communities and nesting and feeding areas of fish and wildlife. In addition, Policy 2.30 (*Emergency Creekside Erosion Control*) seeks to assure timely implementation of emergency creekside erosion control activities.

As discussed in Section 1 above, the limits of spoil spread sites were to be field verified by the Project Geotechnical Consultant, Timothy C. Best. Erosion control measures from the engineering geotechnical assessment

prepared by Best were also included as conditions of approval in the letter of decision for the Emergency CDP and Grading Remediation to minimize any further impact caused by the unpermitted grading work (see Attachment E).

A final observation letter prepared by Best was submitted with the ATF CDP and Grading Permit applications which discusses his observations during the construction stage (see Attachment I). Best observed approximately 400 c.y. of fill material excavated from the site on November 7, 2016 and November 8, 2016. The final observation letter stated that the fill material was excavated in accordance with the project plans for the Emergency CDP and Grading Remediation (see Attachment C). The embankment was laid back to a final slope of 1:5H:1V to 2H:1V as specified in the project plans. Drainage on the farm road above the embankment was shaped to prevent water from discharging onto the newly graded area. Lastly, erosion control measures were implemented by MROSD staff as conditioned in the letter of decision for the Emergency CDP and Grading Remediation. The project was regulated to minimize soil erosion, sedimentation, and removal of vegetation cover and to ensure stabilization of disturbed areas. As discussed in the section above, the project was also mitigated and implemented to ensure the protection of sensitive habitats. Due to the nature of the Emergency CDP and Grading Remediation, the project was implemented in a timely manner.

3. Conformance with the Local Coastal Program

Based on the project proposal, removal of fill material from the upper channel bank of Purisima Creek, an ATF CDP is required pursuant to Section 6328.4 of the County Zoning Regulations for development in the Coastal Development (CD) District. Staff has determined that the project is in compliance with all applicable Local Coastal Program (LCP) Policies, elaborated as follows:

Sensitive Habitats Component

Policy 7.3a (*Protection of Sensitive Habitats*) prohibits any land use or development which would have a significant adverse impact on sensitive habitat areas. As discussed in the sections above, the letter of decision for the Emergency CDP and Grading Remediation included avoidance measures as recommended in the biotic assessment to ensure that impacts to sensitive habitats were mitigated (see Attachment E). A biotic assessment prepared by Lisa Bankosh of MROSD was submitted for the ATF CDP and Grading Permit that provided the results of the construction monitoring and first-year restoration success monitoring of the project (see Attachment G). No sensitive species were observed during the pre-construction and construction stage of the project. During the monitoring of the revegetation, the biotic assessment stated that all erosion control materials were observed to be intact. Due to heavy vegetation growth, the

erosion control materials have naturally degraded and will not require replacement. There was also no evidence of erosion or sedimentation from the past winter season's heavy storms and no noxious weeds were observed in the restoration area. The biotic assessment concluded that the restoration component of the project was successful and no additional actions are recommended. Monitoring will continue to take place annually for the next two years to ensure that the natural regeneration of riparian scrub habitat proceeds as anticipated. The project was mitigated and monitored to ensure that there not a significant adverse impact on sensitive habitat areas.

4. Conformance with the Planned Agricultural District Regulations

The subject parcel is zoned PAD/CD (Planned Agricultural District (PAD)/Coastal Development). The parcel does not contain prime soils, but is identified as having lands suitable for agriculture. Section 6352.B of the County Zoning Regulations states that agriculture and non-residential development customarily considered accessory to agricultural uses are allowed on Land Suitable for Agriculture and Other Lands. The current agricultural operation to grow cut-flowers and vegetables and the existing structures used for the agricultural operation are allowed uses. The project involves approximately 400 c.y. of grading to remediate the illegal placement of fill material on the upper channel bank of Purisima Creek on the subject parcel. No development or use is proposed as part of the subject application, therefore no PAD Permit is required.

5. Conformance with the Grading Regulations

The applicant has removed approximately 400 c.y. of fill material placed illegally on the upper channel bank of Purisima Creek on the subject parcel. Although the project involves less than 1,000 c.y. of grading, the project is appealable to the California Coastal Commission (CCC) and is therefore subject to the review of the Planning Commission.

In order to approve this Grading Permit, the Planning Commission must make the required findings as specified in Section 9290 (Findings, Conditions, and Actions) of the County Building Regulations. The findings and supporting evidence are outlined below:

a. That the project will not have a significant adverse effect on the environment.

Section 21084 of the Public Resources Code requires that the CEQA Guidelines include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall be exempt from the provisions of CEQA. This project is categorically exempt under provisions of Class 1, Section 15301, of the California Environmental Quality Act (CEQA) Guidelines for repair

and maintenance of existing topographical features involving no expansion of use, and Class 33, Section 15333, of the CEQA Guidelines for the restoration, stabilization, and revegetation of the disturbed areas of a creek bank.

- b. That the project conforms to the criteria of Chapter 5 (Regulations for Excavating, Grading, Filling, and Clearing on Lands in Unincorporated San Mateo County) of the San Mateo County Building Regulations including the standards referenced in Section 9296.**

The project, as conditioned, conformed to the standards in Chapter 5 of the San Mateo County Building Regulations, including timing of grading activity, erosion and sediment control, and dust control. An erosion control plan was submitted and approved for the Emergency CDP and Grading Remediation (see Attachment C). As discussed in the sections above, erosion control measures were implemented prior to the start of construction and did not require replacement due to the successful revegetation growth of the project. No additional erosion control measures or actions were recommended. Lastly, the project also included conditions of approval requiring the implementation of dust control measures and timing restrictions for grading activities.

- c. That the project is consistent with the General Plan.**

The project, as conditioned, conformed to the standards in Chapter 5 of the San Mateo County Building Regulations, including timing of grading activity, erosion and sediment control, and dust control. An erosion control plan was submitted and approved for the Emergency CDP and Grading Remediation (see Attachment C). As discussed in the sections above, erosion control measures were implemented prior to the start of construction and did not require replacement due to the successful revegetation growth of the project. No additional erosion control measures or actions were recommended. In addition, the project has been reviewed and conditionally approved by the Geotechnical Section. The project included conditions of approval requiring the implementation of dust control measures and timing restrictions for grading activities.

B. REVIEW BY THE CALIFORNIA COASTAL COMMISSION

Upon receipt of Staff's referral for this project, California Coastal Commission (CCC) Staff stated they had no comments. The CCC has been notified of the Planning Commission's review of this project. In addition, as the final decision on the CDP is appealable to the CCC, they will be duly notified of the County's final decision, which will initiate their appeal period.

C. ENVIRONMENTAL REVIEW

This project is categorically exempt pursuant to Section 15301, Class 1, of the California Environmental Quality Act (CEQA) Guidelines related to the repair and maintenance of existing topographical features involving no expansion of use, and Class 33, Section 15333, of the CEQA Guidelines for the restoration, stabilization, and revegetation of the disturbed areas of a creek bank.

D. REVIEWING AGENCIES

Building Inspection Section
Geotechnical Section

ATTACHMENTS

- A. Conditions of Approval
- B. Site Maps
- C. Project Plans for Emergency CDP and Grading Remediation
- D. Project Plans for ATF CDP and Grading Permit
- E. Emergency Coastal Development Permit and Remediation of Grading Violation Letter of Decision, dated October 18, 2016
- F. Biotic Assessment Memorandum prepared by Lisa Bankosh, dated September 19, 2016
- G. Biotic Assessment Memorandum prepared by Lisa Bankosh, dated June 30, 2017
- H. Engineering Geologic Assessment prepared by Timothy C. Best, dated September 27, 2016
- I. Engineering Geologic Assessment prepared by Timothy C. Best, dated November 21, 2016

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County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2016-00412 Hearing Date: September 13, 2017

Prepared By: Carmelisa Morales
Project Planner

For Adoption By: Planning Commission

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That this project is categorically exempt from environmental review, pursuant to Class 1, Section 15301, of the California Environmental Quality Act (CEQA) Guidelines for the repair and maintenance of existing topographical features involving no expansion of use, and Class 33, Section 15333, of the CEQA Guidelines for the restoration, stabilization, and revegetation of the disturbed areas of a creek bank.

Regarding the After-The-Fact Coastal Development Permit, Find:

2. That the project, as described in the application and accompanying materials required by Section 6328.7, and as conditioned in accordance with Section 6328.14, conforms to the plans, policies, requirements, and standards of the San Mateo County Local Coastal Program as described in the staff report to the Planning Commission dated September 13, 2017.
3. That the project conforms to the findings required by policies of the San Mateo County Local Coastal Program. Specifically, in regard to the Sensitive Habitats Component, that the grading work approved included implementation of avoidance measures to ensure impacts to sensitive habitats were mitigated. No sensitive species were observed during the pre-construction and construction stage of the project. In addition, the project area was monitored after the completion of grading work and it was determined that the restoration component of this project was successful and no additional actions are recommended.

Regarding the After-The-Fact Grading Permit, Find:

4. That the granting of the permit will not have a significant adverse effect on the environment. The project is categorically exempt under provisions of Class 1, Section 15301, of the CEQA Guidelines for the repair and maintenance of existing topographical features involving no expansion of use, and Class 33,

Section 15333, of the CEQA Guidelines for the restoration, stabilization, and revegetation of the disturbed areas of a creek bank, and as such will not have a significant effect on the environment.

5. That the project conforms to the criteria of Chapter 5 of the San Mateo County Building Regulations, including the standards referenced in Section 9296. The project, as proposed and conditioned, conformed to the standards in the Building Regulations, including timing of grading activity, erosion and sediment control, and dust control. The project has been reviewed and conditionally approved by the Geotechnical Section.
6. That the project is consistent with the General Plan, specifically urban land use, visual resources, water supply, and wastewater. The project will be in an urban residentially zoned area. The project, as proposed and conditioned, complies with applicable design review standards and will connect to local public utilities. Conditions of approval have been provided to ensure that grading operations minimize erosion and sedimentation resulting from the project.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on May 24, 2017. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of and in substantial conformance with this approval.
2. This permit shall be valid for one (1) year from the date of approval in which time a building permit shall be issued. Any extension of this permit shall require submittal of an application for permit extension and payment of applicable extension fees sixty (60) days prior to the expiration date.
3. The applicant shall schedule and pass the final building inspection for the associated building permit (Building Case No. BLD 2016-02008) for the emergency grading work. Prior to Planning's final approval of the building permit, the project engineering geologist and biologist shall assess and confirm that the bank repair and remediation are stable and satisfactory. Any recommendations for any additional work shall occur, to the satisfaction of the Community Development Director, prior to this final approval.
4. Monitoring of the project shall continue to take place annually for the next two years to ensure that the natural regeneration of riparian scrub habitat proceeds as anticipated. The applicant shall submit a document summarizing the observations of each site visit to the Planning Department. The final site visit shall include confirmation from a qualified biologist that the restoration component of the project requires no further monitoring. If additional monitoring is required, the applicant

shall submit a report from a qualified biologist that shall include recommendations on additional monitoring and required erosion control measures, if any.

5. This permit does not allow for the removal of any trees. Any tree removal will require a separate permit.
6. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 5:00 p.m., Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360).
7. During project construction, the applicant shall, pursuant to Chapter 4.100 of the San Mateo County Ordinance Code, minimize the transport and discharge of stormwater runoff from the construction site into storm drain systems by:
 - a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.
 - b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.
 - c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.
 - d. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.
 - e. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.
 - f. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.
 - g. Performing clearing and earth-moving activities only during dry weather.
 - h. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.
 - i. Limiting construction access routes and stabilizing designated access points.

- j. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.
- k. The contractor shall train and provide instruction to all employees and subcontractors regarding the construction Best Management Practices.

Geotechnical Section

- 8. The Geotechnical Consultant shall observe and approve all relevant work.

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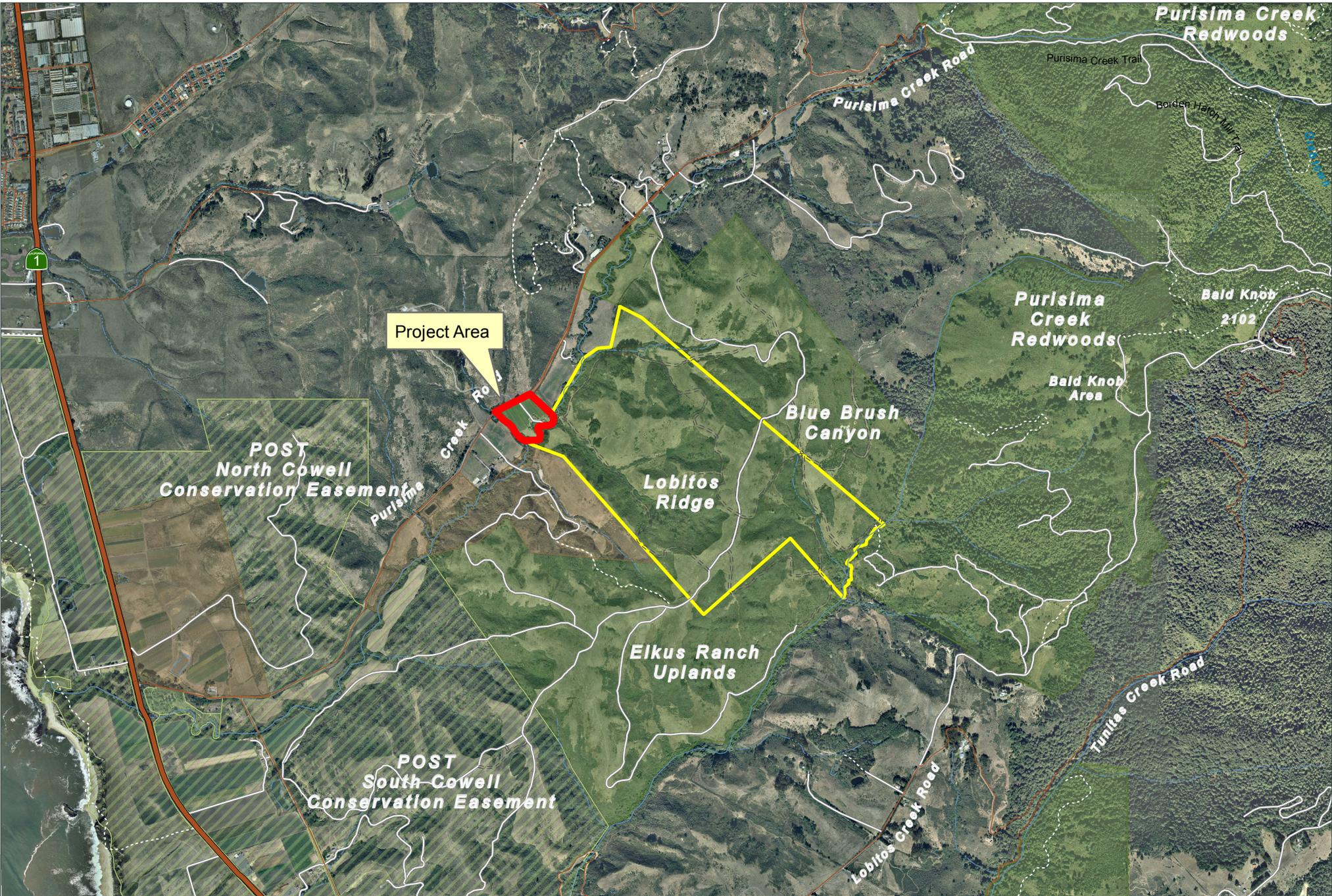


Exhibit 1

- MROSD
- Other Protected Open Space or Park Lands
- Conservation or Agricultural Easement
- Other Public Agency

Attachment B

Midpeninsula Regional Open Space District

February 2011



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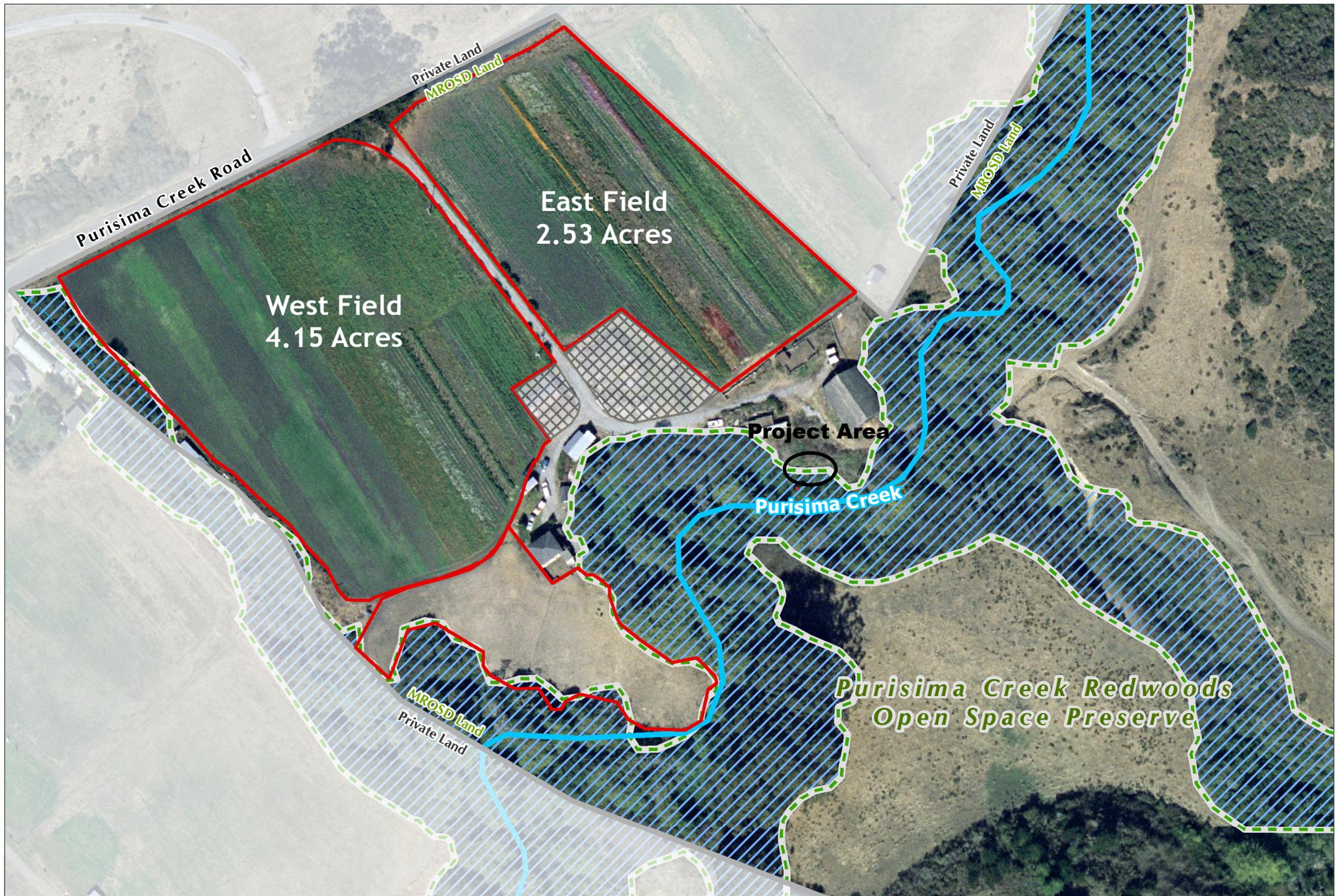


Exhibit 2: Lobitos Ridge Farm Lease - Riparian Corridor and Tree Line

-  Riparian Corridor
-  Lobitos Agriculture Fields
-  Separate Residential Lease
Not Included in Ag Lease
-  Tree Line

Attachment B

Midpeninsula Regional
Open Space District

January 2011



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Exhibit 3: Lobitos Ridge Farm Lease - Lease Designation Areas and Acreages

 Lobitos Agriculture Fields

 Separate Residential Lease
Not Included in Ag Lease

Attachment B

Midpeninsula Regional
Open Space District

January 2011



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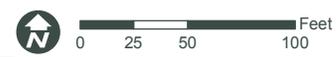


Exhibit 7: Lobitos Ridge Farm Lease - Infrastructure

-  Leach Field for Septic System
No Cultivation or Parking
-  Equipment Parking/Storage
-  Livestock Pen

-  Residential Water Pump & Irrigation Pump
-  Water Storage Tanks & Potable Water Treatment
-  Irrigation Water Valve
-  Irrigation Water Pipeline

Midpeninsula Regional
Open Space District
January 2011



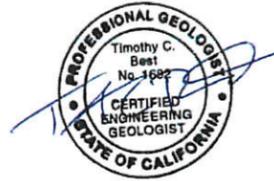
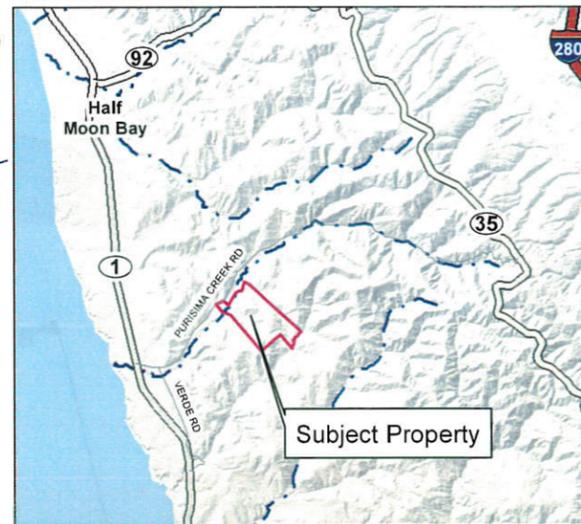
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT

APN 066-230-030

Midpeninsula Regional Open Space District

330 Distel Circle
Los Altos, CA 94022

VICINITY MAP



PROJECT DESCRIPTION

In order to stabilize Purisima Creek channel bank the project proposes to remove approximately 200 to 400 cubic yards of unpermitted fill. The fill shall be either transported off site and disposed of at an appropriate facility, or spread onsite in a manner to prevent erosion and as described in these plans and approved by CEG and MROSD. Limits of spoil spread sites to be field verified by CEG prior to placement.

The fill removal area along the channel bank shall be stabilized by recompacting the loose surficial soils and applying appropriate erosion control measures. These measures include but are not limited to the application of seed, mulch, erosion control blanket and straw rolls. Drainage along the road bounding the site will also be improved to prevent uncontrolled runoff from draining into the work area.

Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) will be minimized to the extent feasible. No large trees are expected to be removed.

All grading and erosion control work will be supervised by the project engineering geologist and revegetation by the District restoration ecologist.

SHEET INDEX

SHEET	TITLE
C1	Title Sheet and Location Map
C2	Grading Plan
C3	Cross Sections
C4	Erosion Control (Temp/Perm)
N1	Project Notes
N2	Typical Details

CONTACTS

OWNER
MIDPENINSULA REGIONAL
OPEN SPACE DISTRICT
330 DISTEL CIRCLE
LOS ALTOS, CA. 94022
(650) 691-1200
CONTACT: LISA BANKOSH

ENGINEERING GEOLOGIST/PLAN PREP
TIMOTHY C BEST, CEG
1002 COLUMBIA STREET
SANTA CRUZ, CA 95060
(831) 425-5832
CONTACT: TIM BEST

SYMBOLS

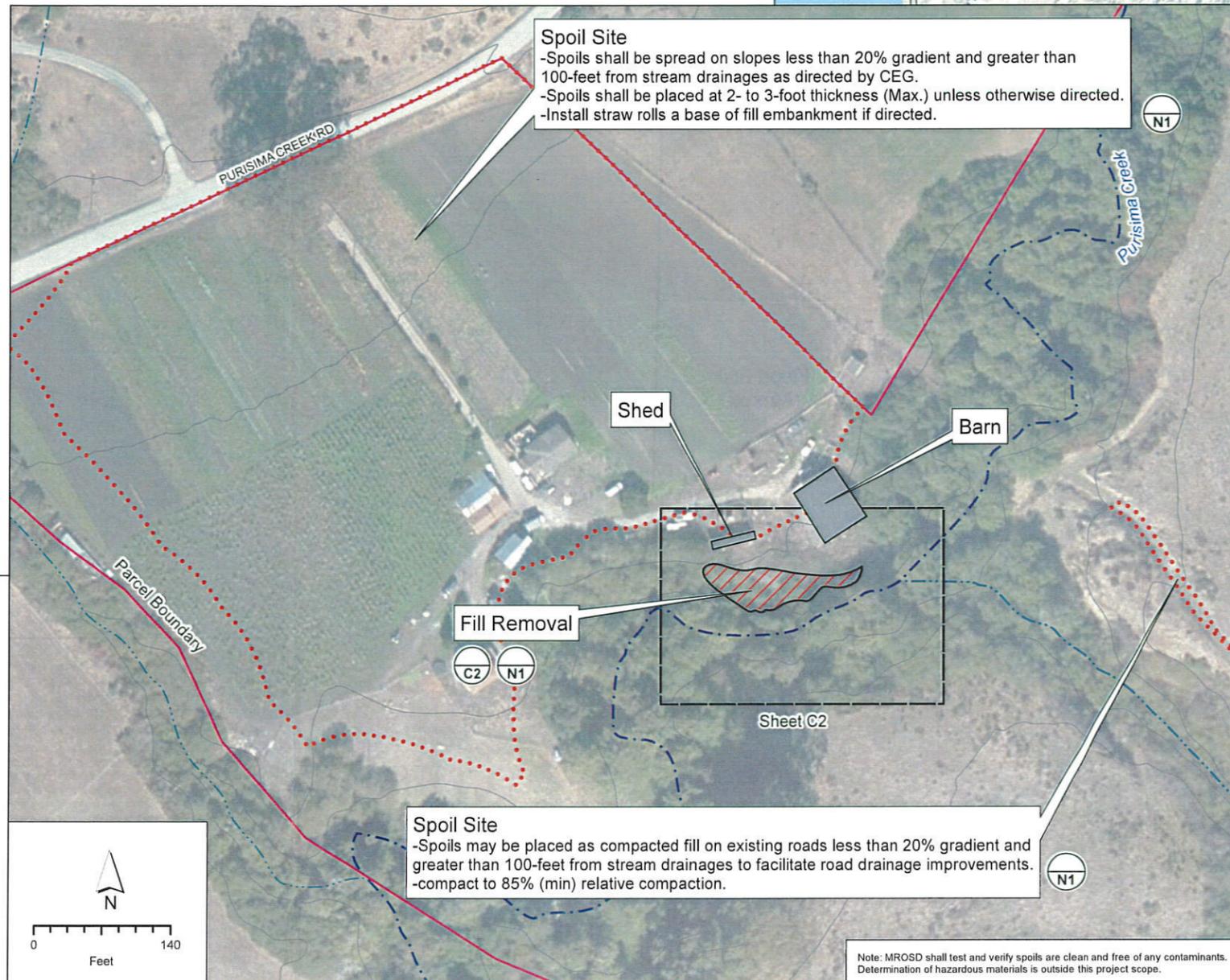
WATERCOURSES

- Perennial
- Intermittent
- Ephemeral

ROADS/TRAILS

- Paved road
- Parcel boundary (Approx.)
- Fill removal
- Spoil Site

Contours generated from San Mateo County
LIDAR Data Contour interval: 20 feet.

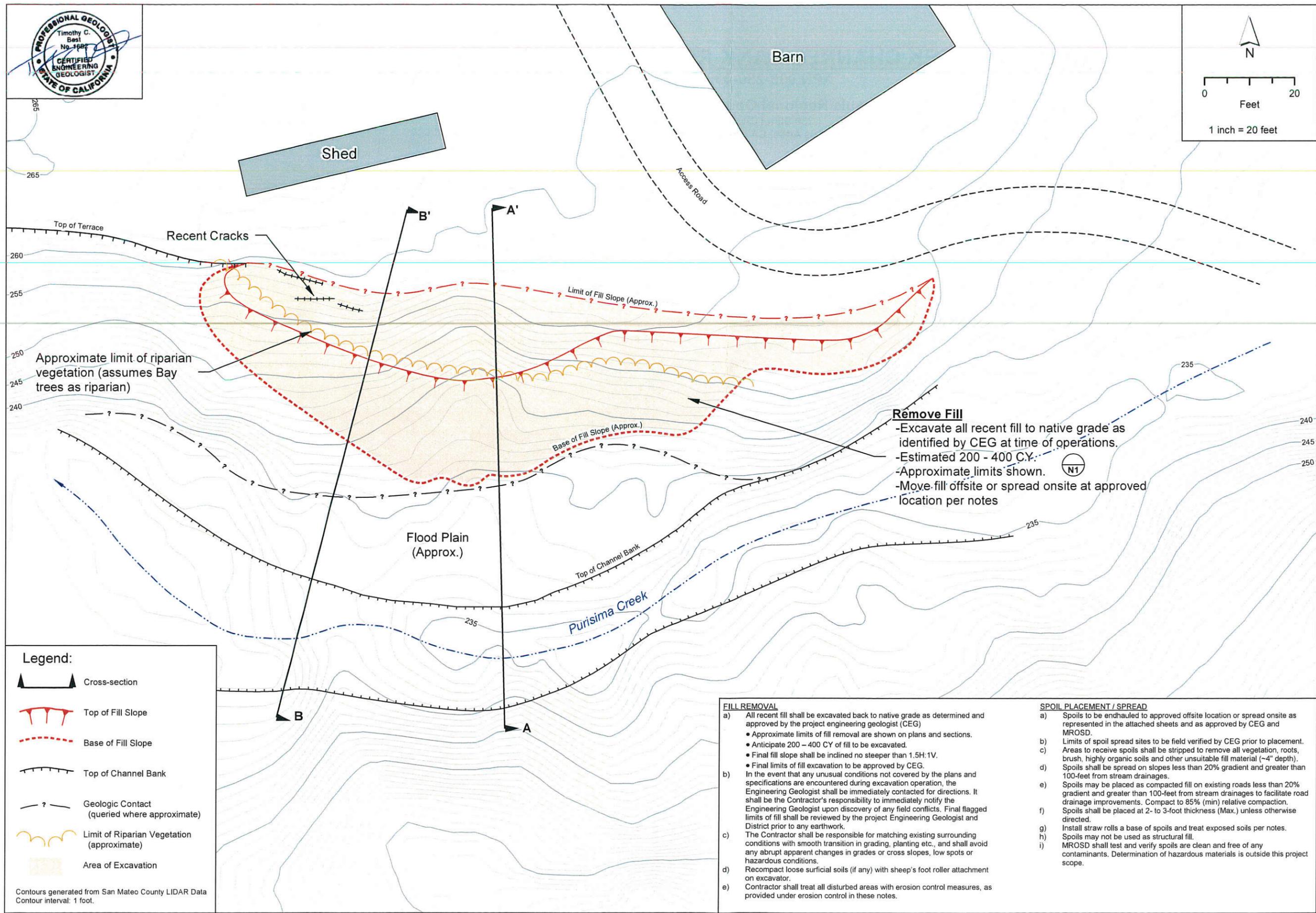
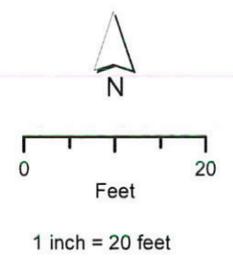
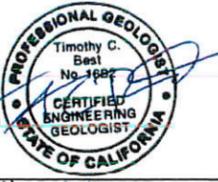


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TITLE SHEET
PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET
C1



- Legend:**
- Cross-section
 - Top of Fill Slope
 - Base of Fill Slope
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Limit of Riparian Vegetation (approximate)
 - Area of Excavation

Contours generated from San Mateo County LIDAR Data
Contour interval: 1 foot.

- FILL REMOVAL**
- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - Approximate limits of fill removal are shown on plans and sections.
 - Anticipate 200 – 400 CY of fill to be excavated.
 - Final fill slope shall be inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation to be approved by CEG.
 - b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
 - c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
 - d) Recompact loose surficial soils (if any) with sheep's foot roller attachment on excavator.
 - e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

- SPOIL PLACEMENT / SPREAD**
- a) Spoils to be enhauded to approved offsite location or spread onsite as represented in the attached sheets and as approved by CEG and MROSD.
 - b) Limits of spoil spread sites to be field verified by CEG prior to placement.
 - c) Areas to receive spoils shall be stripped to remove all vegetation, roots, brush, highly organic soils and other unsuitable fill material (~4" depth). Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
 - e) Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements. Compact to 85% (min) relative compaction.
 - f) Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
 - g) Install straw rolls a base of spoils and treat exposed soils per notes.
 - h) Spoils may not be used as structural fill.
 - i) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside this project scope.

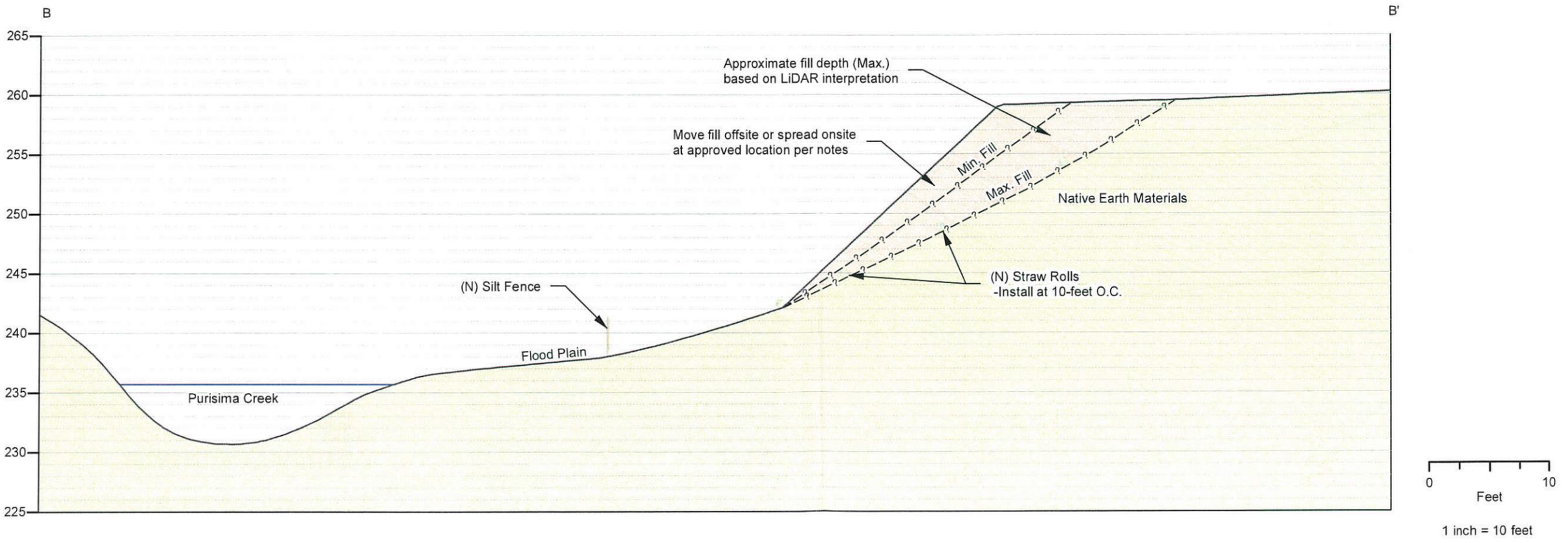
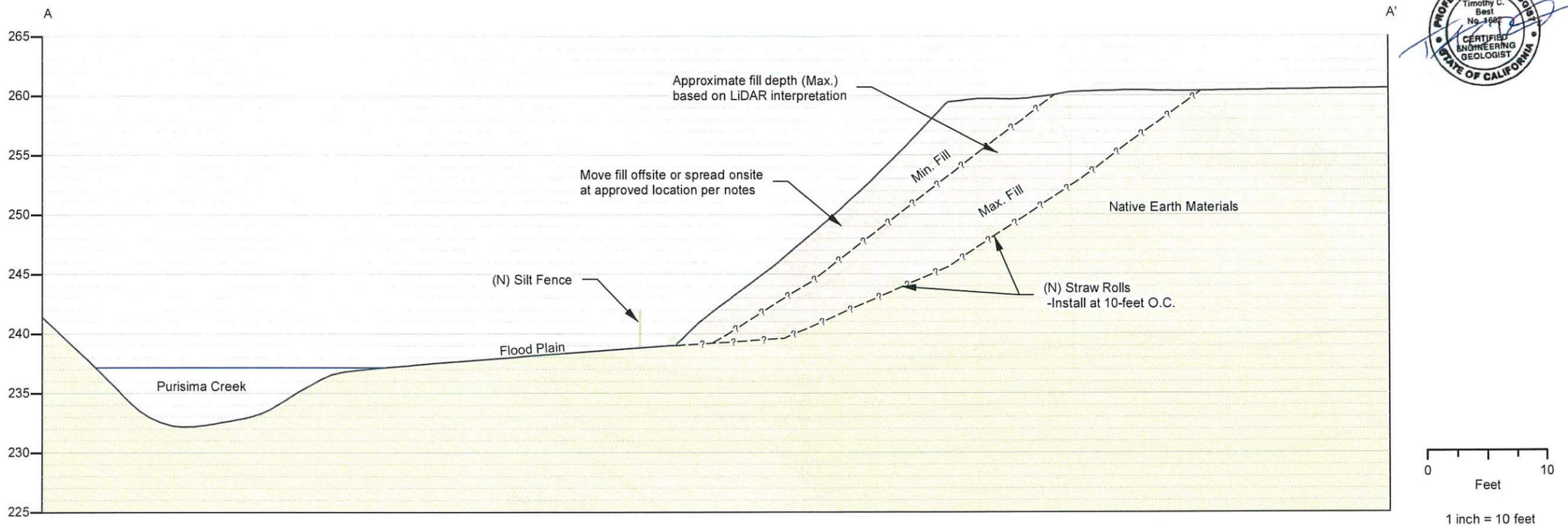
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**GRADING PLAN
PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT**

APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

**SHEET
C2**



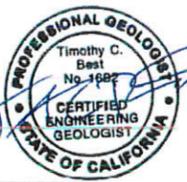
**CROSS SECTIONS
 PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**

Date: August 31, 2016
 Revised: Sept. 27, 2016
 Project: MPEN-
 PURISMAGRADE-743

**SHEET
 C3**

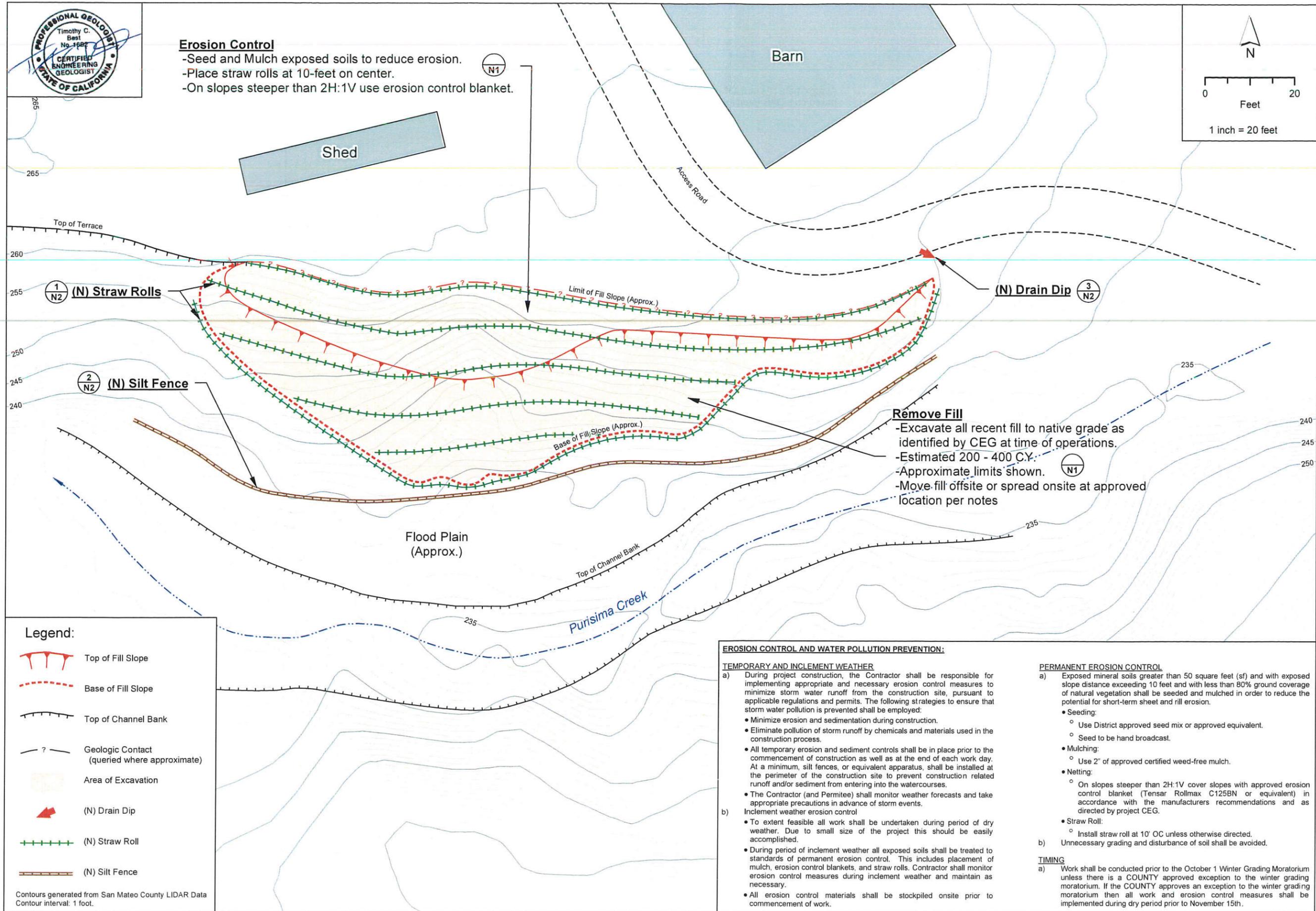
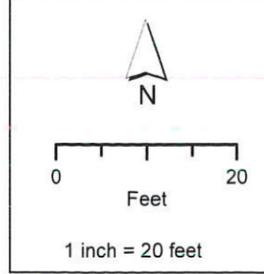
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APN 066-230-030; Midpeninsula Regional Open Space District



Erosion Control

- Seed and Mulch exposed soils to reduce erosion.
- Place straw rolls at 10-feet on center.
- On slopes steeper than 2H:1V use erosion control blanket.



1
N2 (N) Straw Rolls

2
N2 (N) Silt Fence

(N) Drain Dip 3
N2

Remove Fill
 -Excavate all recent fill to native grade as identified by CEG at time of operations.
 -Estimated 200 - 400 C.Y.
 -Approximate limits shown.
 -Move fill offsite or spread onsite at approved location per notes

Legend:

- Top of Fill Slope
- Base of Fill Slope
- Top of Channel Bank
- Geologic Contact (queried where approximate)
- Area of Excavation
- (N) Drain Dip
- (N) Straw Roll
- (N) Silt Fence

Contours generated from San Mateo County LIDAR Data
 Contour interval: 1 foot.

EROSION CONTROL AND WATER POLLUTION PREVENTION:

TEMPORARY AND INCLEMENT WEATHER

- a) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
- b) Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work.

PERMANENT EROSION CONTROL

- a) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.
- b) Unnecessary grading and disturbance of soil shall be avoided.

TIMING

- a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

**EROSION CONTROL (TEMP / PERM)
 PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**

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Date: August 31, 2016
 Revised: Sept. 27, 2016
 Project: MPEN-
 PURISMAGRADE-743

**SHEET
 C4**

APN 066-230-030; Midpeninsula Regional Open Space District

GENERAL

1) GENERAL NOTES

- a) The "District" shall be Midpeninsula Regional Open Space District, the "Engineering Geologist" (CEG) shall be Timothy C. Best and the "Contractor" shall be the District or independent contractor to perform the work described herein. The Engineering Geologist has been retained by the District and is not affiliated with the Contractor.
- b) All materials and workmanship shall conform to the project documents and applicable requirements.
- c) The Contractor shall be responsible for coordinating the project documents with conditions at the site and shall verify existing grades, elevations and conditions prior to commencing work. Any discrepancies shall be reported to the Engineering Geologist and shall be resolved before proceeding with the work. Any deviation, substitution or alteration to the trail layout shall be subject to review by the Engineering Geologist.
- d) The Contractor shall be responsible for the safety of the construction area during construction and shall provide necessary safety measures in accordance with all state and local safety ordinances. This requirement shall apply continuously and not be limited to normal working hours.
- e) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- f) Contractor shall assume all responsibility for location and avoidance or repair of all utilities, including, but not limited to water. Contractor shall verify location of all utilities whether shown on the drawings or not. If the Contractor fails to adequately protect the utilities, any resulting damage shall be repaired at Contractor's cost.
- g) The Contractor shall provide the District and Engineering Geologist with the name and telephone number of the responsible person to contact, with regard to this project, 24 hours a day.
- h) Contractor shall be responsible for following any requirements of the permitting agencies. Any discrepancies between permits and plans shall be brought to the attention of the Engineering Geologist prior to construction.
- i) Contractor shall be responsible for site clean-up to the satisfaction of the District.
- j) All construction equipment shall avoid contact with stream waters.
- k) Unapproved over-excavation shall be considered a permanent construction defect with potential significant risks and hazards for the owner and downslope properties.

2) EXAMINATION OF JOB SITE, PLANS AND SPECIFICATIONS

- a) The documents indicate general and typical details of construction.
- b) The Contractor shall examine carefully the site of work and the Plans and Specifications. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of this Investigation and the Plans and Specifications.
- c) The Contractor shall recognize that the plans used for the drawings may differ from the actual physical site. Dimensions are approximate. Before proceeding with the work, it shall be the Contractor's responsibility to check the site in relation to the drawings and specifications. Report any discrepancies to the Owner and the Engineering Geologist.
- d) The Contractor must attend a pre-bid meeting with the Engineer prior to submitting a proposal to complete the proposed work. The Contractor may be required to attend a pre-construction meeting with the Engineer prior to the commencement of construction. The purpose of these meetings is so the Contractor may ask questions concerning the work and to make sure the Contractor understands the permit conditions and environmental constraints.
- e) At all times during project construction activities, copies of the approved final plans, copies of permits, and a copy of this report shall be maintained at the construction job site (where such copies shall be available for public review) and all persons involved with the construction shall be briefed on the content and meaning of each prior to commencement of construction

3) VEGETATION CLEARING

- a) The fill shall be cleared of all vegetation including trees and logs less than 3 inches DBH(diameter breast height). Trees greater than 3 inches DBH shall be removed only if indicated on the plans or with the authorization of the District representative.
- b) All roots exposed during construction shall be clean cut to avoid tree damage.
- c) When pruning, prevent branches from damaging tree or stripping the bark when the branch falls to the ground.
- d) The Contractor shall exercise due care to preserve existing vegetation outside of grading.

4) FILL REMOVAL

- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - Approximate limits of fill removal are shown on plans and sections.
 - Anticipate 200 – 400 CY of fill to be excavated.
 - Final fill slope shall be inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation to be approved by CEG.
- b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
- c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
- d) Recompact loose surficial soils (if any) with sheep's foot roller attachment on excavator.
- e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

5) SPOIL PLACEMENT / SPREAD

- a) Spoils to be endhailed to approved offsite location or spread onsite as represented in the attached sheets and as approved by CEG and MROSD.
- b) Limits of spoil spread sites to be verified by CEG prior to placement.
- c) Areas to receive spoils shall be stripped to remove all vegetation, roots, brush, highly organic soils and other unsuitable fill material (~4" depth).
- d) Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
- e) Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements. Compact to 85% (min) relative compaction.
- f) Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
- g) Install straw rolls a base of spoils and treat exposed soils per notes.
- h) Spoils may not be used as structural fill.
- i) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside this project scope.

6) EROSION CONTROL AND WATER POLLUTION PREVENTION

- a) Temporary and inclement weather erosion control
 - i) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
 - ii) Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work
- b) Permanent erosion control
 - i) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.
 - c) Unnecessary grading and disturbance of soil shall be avoided.

7) TIMING

- a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

8) STAGING AND ACCESS

- a) Construction access shall be as directed by owner. Impacts to the access route must be minimized and disturbance along the access route must be restored to pre-construction conditions upon project completion.
- b) Upon completion of construction the access route and staging areas shall be restored to their original condition.
- c) The contractor shall carefully preserve the surrounding property by confining operations within the limits of work. Construction work or equipment operations shall not be conducted outside the designated work area boundary without approval of the engineer.

9) INSPECTIONS

- a) The project engineering geologist (CEG) shall be provided an opportunity to review project plans with the contractor during the pre-construction meeting to evaluate if recommendations have been properly interpreted. They shall also provide excavation and earthwork observations and testing during construction. This allows them to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If they do not review the plans and provide observation and testing services during the earthwork phase of the project, they assume no responsibility for misinterpretation of the recommendations.
- b) Regulatory agencies may require a final grading compliance letter. We can only offer this letter if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. It is anticipated that full time construction observation will be required. Please contact our office: Tim Best 831-425-5832 (office) 831-332-7791 (mobile).
- c) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- d) The following inspections are required:
 - i. Pre-construction / pre-bid
 - ii. Progress inspection of fill removal
 - iii. Progress inspection of erosion control and site restoration
 - iv. Final inspection

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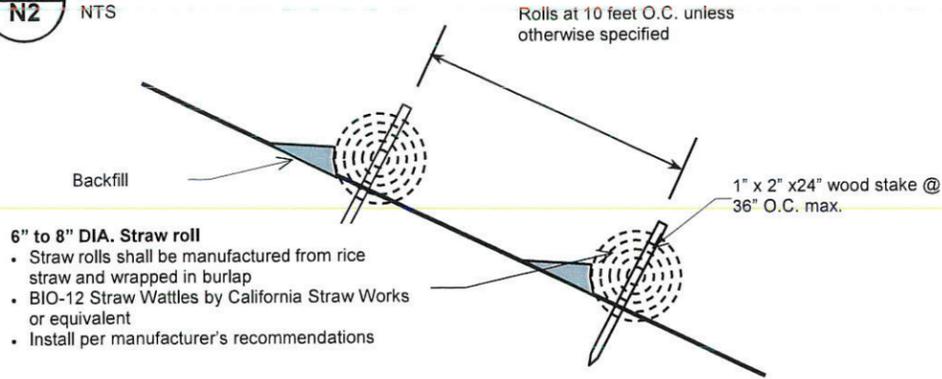
PROJECT NOTES
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET

N1

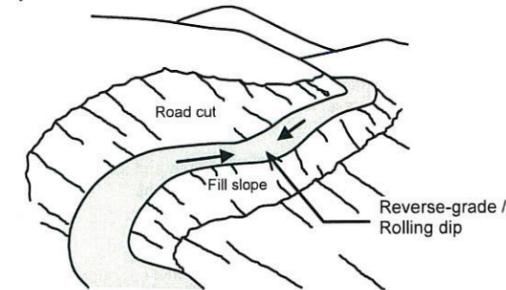
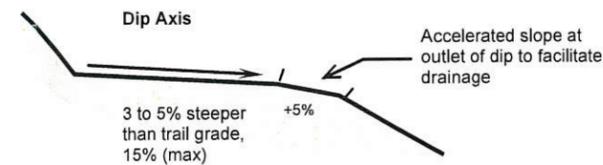
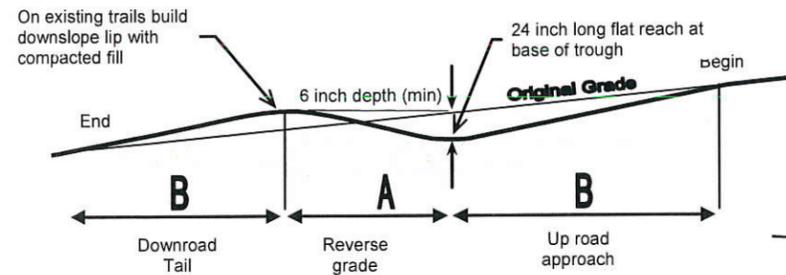
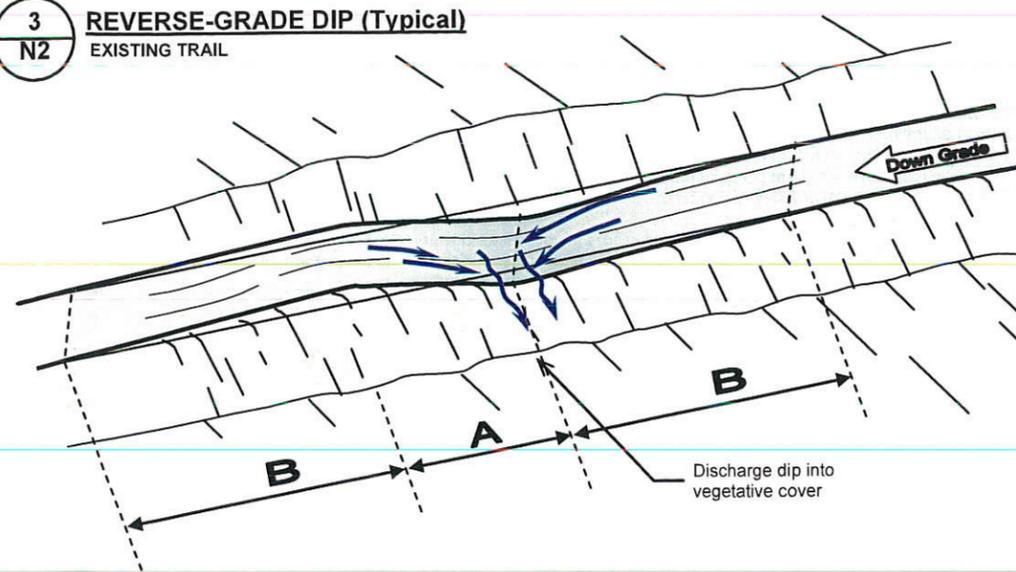
1 STRAW ROLL (Typical)
N2 NTS



- 6" to 8" DIA. Straw roll**
- Straw rolls shall be manufactured from rice straw and wrapped in burlap
 - BIO-12 Straw Wattles by California Straw Works or equivalent
 - Install per manufacturer's recommendations

- NOTES:**
- Location
 - Install at base of disturbed areas and at outlets of new or reconstructed reverse grades/rolling dips unless otherwise specified
 - Rolls to extend across entire width of disturbed area unless otherwise specified or directed
 - Placement
 - Install per manufacturer's recommendations
 - Rolls to be placed on slope contour
 - Adjacent rolls to overlap; turn ends of rolls up
 - Runoff must not be allowed to run under or around the roll

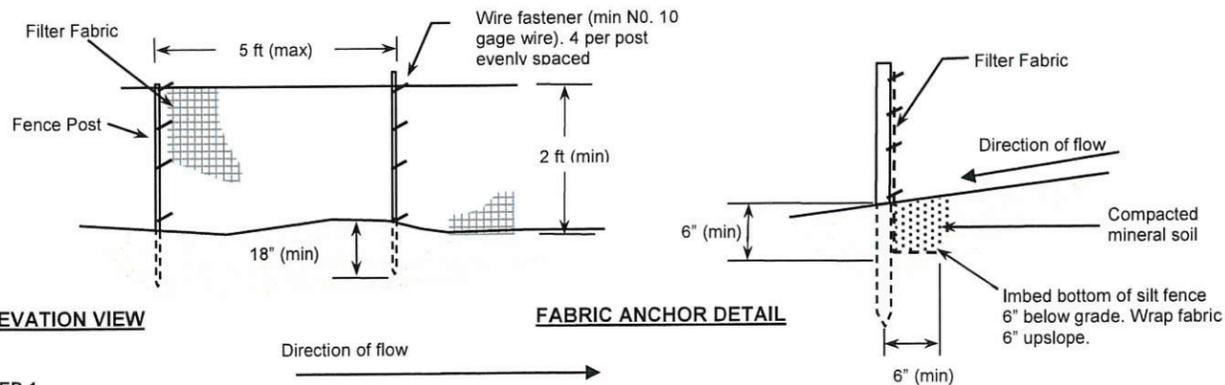
3 REVERSE-GRADE DIP (Typical)
N2 EXISTING TRAIL



ROAD GRADE (%)	TROUGH	A: REVERSE GRADE	B: UP ROAD APPROACH DOWN ROAD TAIL	
	Minimum depth below downslope crest	Minimum distance and grade from trough axis to downroad crest (ft)	Distance from up-road start of rolling dip to trough axis (ft)	Grade (%)
<5%	6 inches	20 feet at 3% (Unless otherwise directed)	30	10%
10%			30	15%
15%			40	20%
>15%			40	25%

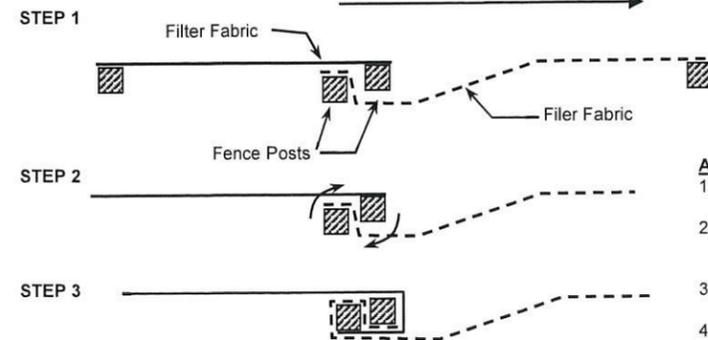
- NOTES**
- A reverse-grade dip (or rolling dip) is a broad, long, permanent dip constructed into native soils. It is intended to drain the trail/road while not significantly impeding traffic.
 - On existing trails/roads the dip is cut into the existing tread with the downroad dip built up on compacted fill.
 - The dip shall be a minimum of 8 inches deep and incorporate a 2 foot long flat reach at the base of the trough (unless otherwise directed).
 - The dip axis should be outsloped 3% greater than trail grade to maximum 15%. Dip axis may be skewed down road at 30 degree – this will make installation of dips on steeper grades easier.
 - Dip outlets should be located to drain into areas with adequate sediment filter quality and non-erodible material such as rock, slash, brush, etc. Where specified, the bottom of the outfall of the dip will be surface-rocked.
 - Where natural slopes exceed 50%, fill shall not be pushed over the dip outlet. A backhoe or excavator may be required to pull back fill at outlet of existing dips.
 - Dips shall be placed as specified in the plans. If not specified, then dips shall be placed at maximum 75 foot spacings.

2 SILT FENCE (Typical)
N2 NTS



ELEVATION VIEW

FABRIC ANCHOR DETAIL



ATTACHING TWO SILT FENCES SECTION TOGETHER

ATTACHMENT NOTES:

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material overlap.
3. Drive both posts a minimum of 18" into the ground and bury the material flap a minimum of 6" deep.
4. Use approved filter fabric for silt fence.

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TYPICAL DETAILS
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

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SHEET

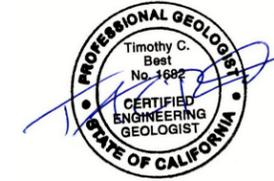
N2

PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT

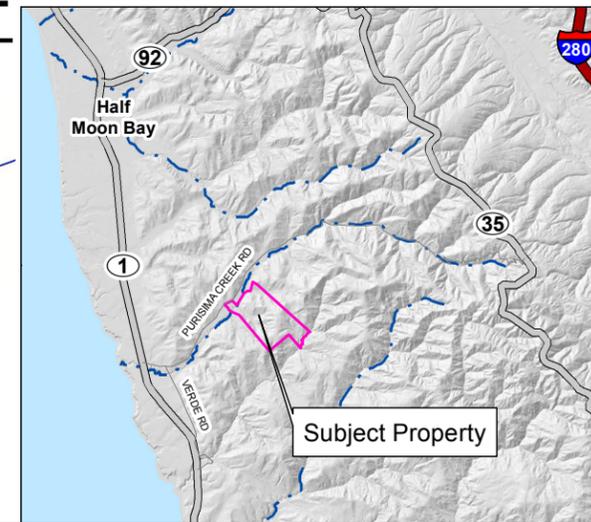
AS BUILT PLANS

APN 066-230-030

Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022



VICINITY MAP



PROJECT DESCRIPTION

In order to stabilize Purisima Creek channel bank the project removed approximately 400 cubic yards of unpermitted fill. The fill was transported to a suitable onsite location and disposed of in a manner to prevent erosion.

The fill removal area along the channel bank was stabilized by recompacting the loose surficial soils and applying appropriate erosion control measures. These measures included the application of seed, mulch, erosion control blanket and straw rolls. Drainage along the road bounding the site was also improved to prevent uncontrolled runoff from draining into the work area.

Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) was minimized to the extent feasible. No large trees were removed.

All grading and erosion control work was supervised by the project engineering geologist and revegetation by the District restoration ecologist.

SHEET INDEX

SHEET	TITLE
C1	Title Sheet and Location Map
C2	Grading Plan
C3	Cross Sections
C4	Erosion Control

CONTACTS

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ENGINEERING GEOLOGIST/PLAN PREP
TIMOTHY C BEST, CEG
1002 COLUMBIA STREET
SANTA CRUZ, CA 95060
(831) 425-5832
CONTACT: TIM BEST

SYMBOLS

WATERCOURSES

- Perennial
- Intermittent
- Ephemeral

ROADS/TRAILS

- Paved road

- Parcel boundary (Approx.)

- Removed fill

- Spoil Site

- Straw Roll

Contours generated from San Mateo County
LIDAR Data Contour interval: 20 feet.

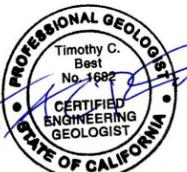


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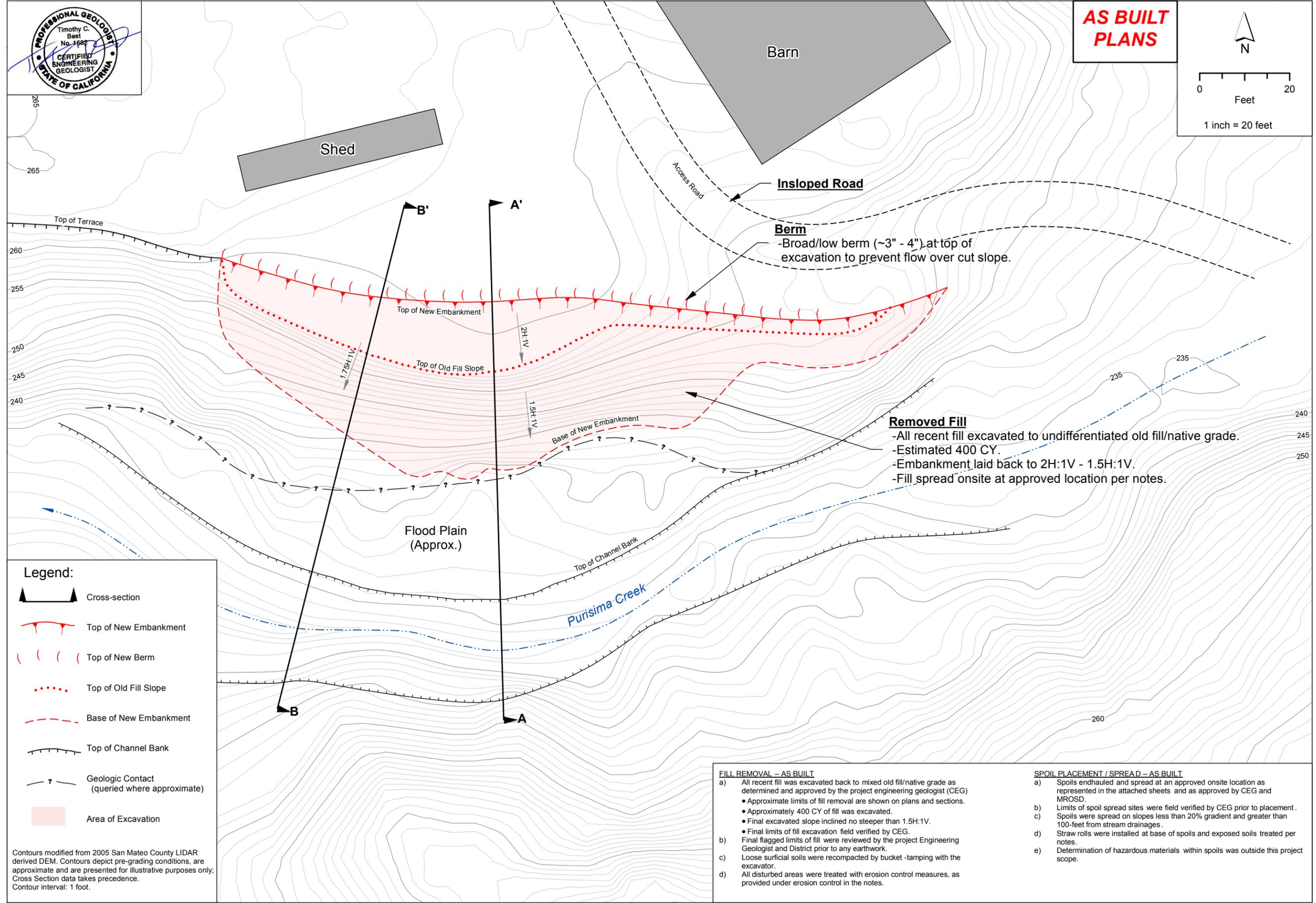
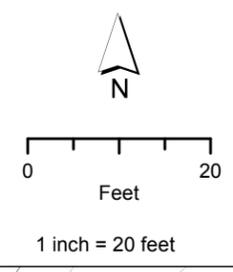
AS BUILT: PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: March 20, 2017
Project: MPEN -
PURISMAGRADE-743

SHEET
C1



**AS BUILT
PLANS**



- Legend:**
- Cross-section
 - Top of New Embankment
 - Top of New Berm
 - Top of Old Fill Slope
 - Base of New Embankment
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Area of Excavation

Contours modified from 2005 San Mateo County LIDAR derived DEM. Contours depict pre-grading conditions, are approximate and are presented for illustrative purposes only. Cross Section data takes precedence. Contour interval: 1 foot.

Barn

Shed

Access Road

Insloped Road

Berm
-Broad/low berm (~3" - 4") at top of excavation to prevent flow over cut slope.

Top of Terrace

Top of New Embankment

Top of Old Fill Slope

Base of New Embankment

Top of Channel Bank

Purisima Creek

Flood Plain (Approx.)

Removed Fill
-All recent fill excavated to undifferentiated old fill/native grade.
-Estimated 400 CY.
-Embankment laid back to 2H:1V - 1.5H:1V.
-Fill spread onsite at approved location per notes.

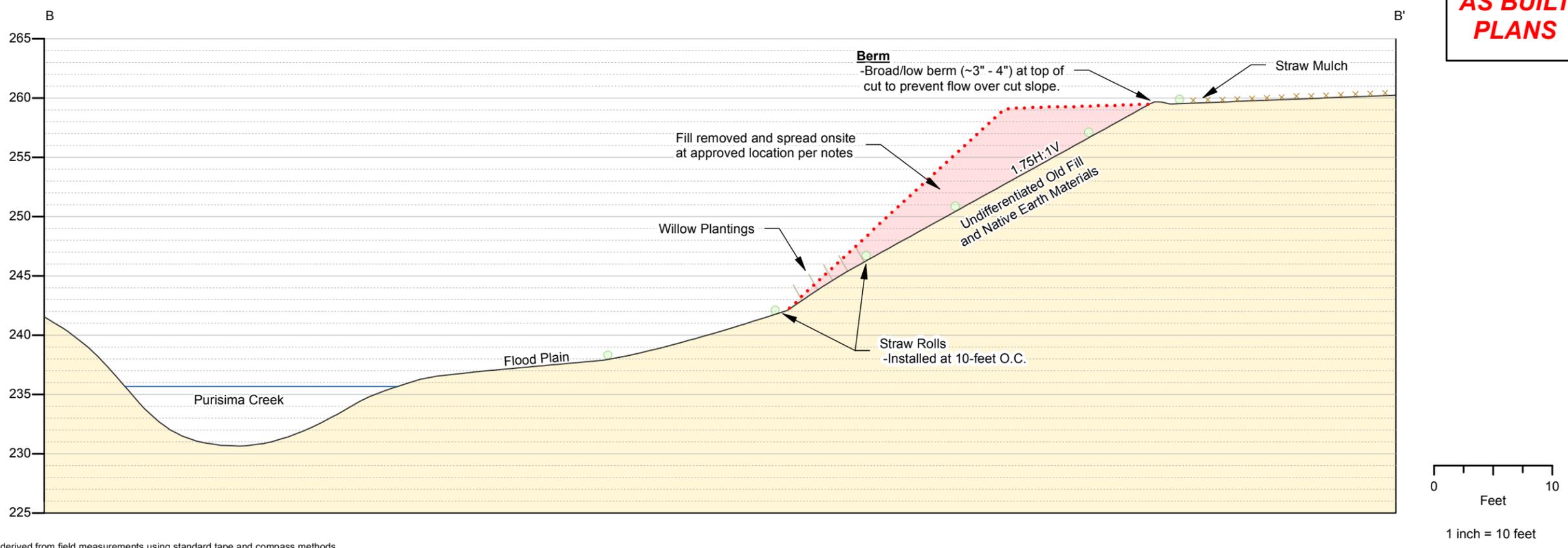
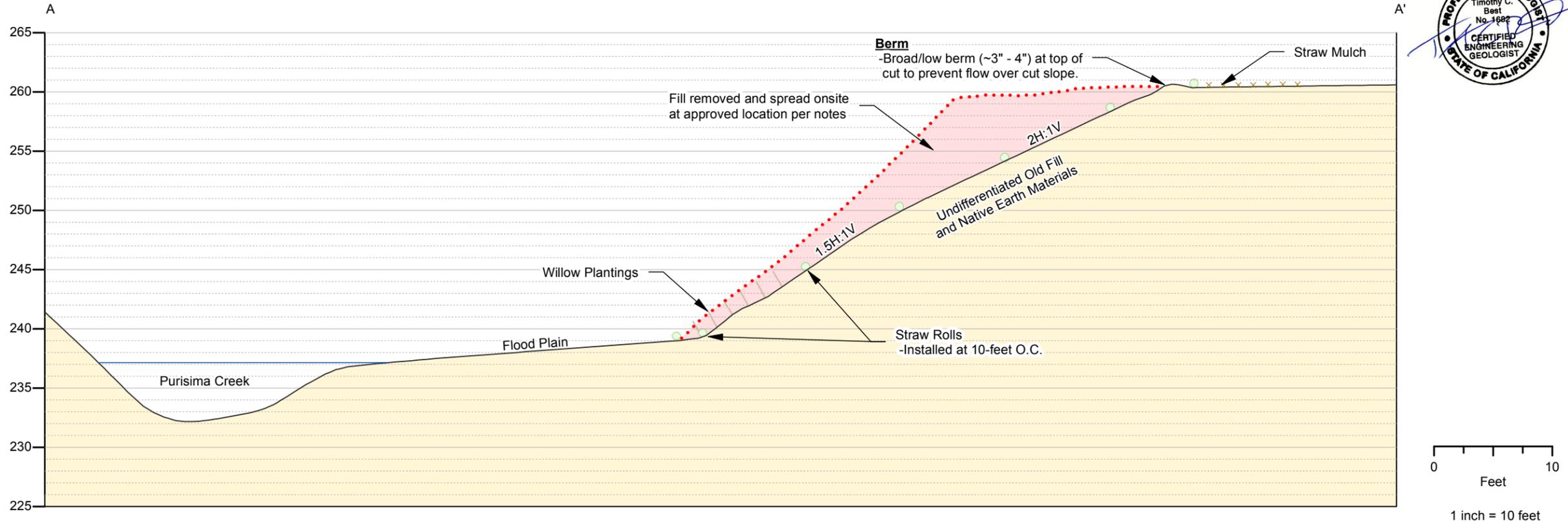
- FILL REMOVAL - AS BUILT**
- a) All recent fill was excavated back to mixed old fill/native grade as determined and approved by the project engineering geologist (CEG).
 - Approximate limits of fill removal are shown on plans and sections.
 - Approximately 400 CY of fill was excavated.
 - Final excavated slope inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation field verified by CEG.
 - b) Final flagged limits of fill were reviewed by the project Engineering Geologist and District prior to any earthwork.
 - c) Loose surficial soils were recompacted by bucket -tamping with the excavator.
 - d) All disturbed areas were treated with erosion control measures, as provided under erosion control in the notes.
- SPOIL PLACEMENT / SPREAD - AS BUILT**
- a) Spoils endhauled and spread at an approved onsite location as represented in the attached sheets and as approved by CEG and MROSD.
 - b) Limits of spoil spread sites were field verified by CEG prior to placement.
 - c) Spoils were spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
 - d) Straw rolls were installed at base of spoils and exposed soils treated per notes.
 - e) Determination of hazardous materials within spoils was outside this project scope.

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**SHEET
C2**



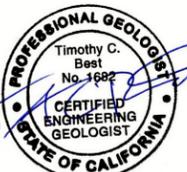
Note: Topographic sections derived from field measurements using standard tape and compass methods.

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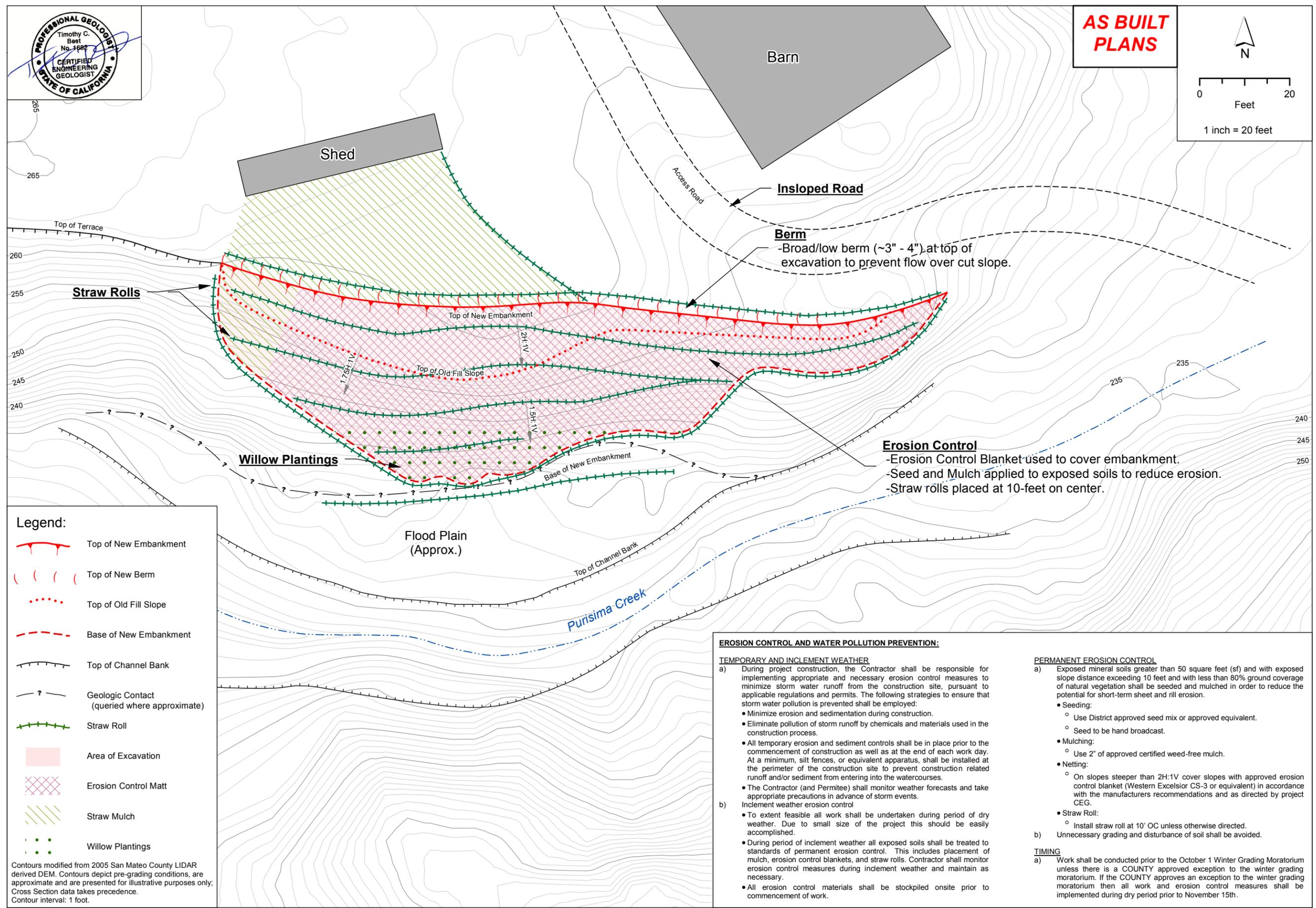
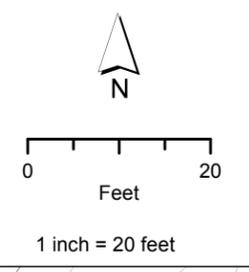
**AS BUILT: PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**
 APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
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 PURISMAGRADE-743

**SHEET
 C3**



**AS BUILT
PLANS**



- Legend:**
- Top of New Embankment
 - Top of New Berm
 - Top of Old Fill Slope
 - Base of New Embankment
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Straw Roll
 - Area of Excavation
 - Erosion Control Matt
 - Straw Mulch
 - Willow Plantings

Contours modified from 2005 San Mateo County LIDAR derived DEM. Contours depict pre-grading conditions, are approximate and are presented for illustrative purposes only. Cross Section data takes precedence. Contour interval: 1 foot.

Erosion Control
 -Erosion Control Blanket used to cover embankment.
 -Seed and Mulch applied to exposed soils to reduce erosion.
 -Straw rolls placed at 10-feet on center.

Berm
 -Broad/low berm (~3" - 4") at top of excavation to prevent flow over cut slope.

EROSION CONTROL AND WATER POLLUTION PREVENTION:

TEMPORARY AND INCLEMENT WEATHER

a) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:

- Minimize erosion and sedimentation during construction.
- Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
- All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
- The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.

b) Inclement weather erosion control

- To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
- During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
- All erosion control materials shall be stockpiled onsite prior to commencement of work.

PERMANENT EROSION CONTROL

a) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.

- Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
- Mulching:
 - Use 2" of approved certified weed-free mulch.
- Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Western Excelsior CS-3 or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
- Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.

b) Unnecessary grading and disturbance of soil shall be avoided.

TIMING

a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

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 PURISIMAGRADE-743

**SHEET
 C4**

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
650-363-4849 F
www.planning.smcgov.org

October 18, 2016

Lisa Bankosh
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

Dear Ms. Bankosh:

SUBJECT: **EMERGENCY COASTAL DEVELOPMENT PERMIT
AND REMEDIATION OF GRADING VIOLATION**
2050 Purisima Creek Road, North San Gregorio
APN 066-230-030; County File No. PLN 2016-00412

I am writing in response to your September 30, 2016 request for an Emergency Coastal Development Permit (CDP) for the purpose of removing approximately 400 cubic yards of fill material placed illegally on the banks of Purisima Creek located at 2050 Purisima Creek Road (APN 066-230-030). The purpose of this letter is also to resolve the Violation case (VIO 2016-00235) for the illegal grading activity on the subject parcel without the benefit of a grading permit. The area of illegal fill placement extends for 100 feet along the outer edge of the Purisima Creek terrace and 10 to 30 feet downslope to the flood plain. Currently, there is no fill material directly entering the waterway. The property owner is proposing to remediate the grading violation by removing the illegally placed fill material which will either be transported off site and disposed of at an appropriate facility or spread on-site in a manner to prevent erosion. The limits of spoil spread sites will be field verified by the project's certified geotechnical consultant, Timothy Best, CEG. Disturbance to the riparian vegetation, mainly small Bay trees and scattered brush, will be minimized to the extent feasible. No large trees will be removed. While a Violation case was opened for this unpermitted grading work, a Grading Violation was never recorded on the subject parcel.

A memorandum providing biotic assessment results for this project prepared by Bryan Apple, a planner at Midpeninsula Regional Open Space District (MROSD), dated September 19, 2016, was submitted with this request. Apple visited the project site to characterize the biotic habitats present within the project area and identify special-status species potentially affected by the project. Central coast riparian scrub, a sensitive habitat, and ruderal/upland, are present on the project site. The understory of the central coast riparian scrub area is heavily disturbed due to the illegal fill placement activities with many areas consisting of bare soil. The observed wildlife in the project area consisted of primarily various species of birds. No bird nests or nesting behavior was observed and all work will occur outside of the bird nesting season. The special-status species that may have the potential to occur in this sensitive habitat are the California red legged frog, San Francisco garter snake, and San Francisco dusky footed woodrat. The nearest documented occurrence of the San Francisco garter snake is located to the south approximately 3 miles away. The ruderal/upland within the

Attachment E



illegally placed fill area is mostly bare mineral soil (approximately 75%) due to the recent grading. There are various exotic species that may have the potential to be in this area, but no suitable habitat for special-status species occurs in this habitat. However, dispersing California red legged frogs could traverse the area, particularly during the wet season.

The project area is within the California Department of Fish and Wildlife jurisdiction and grading remediation will be carried out in accordance with MROSD's Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3. Avoidance measures of the Agreement and the biotic assessment have been included as conditions of approval to mitigate potential impacts and include temporary and permanent erosion control measures (native seed mix), survey and on-site sensitive species biological monitors, and vehicle restrictions for vehicles parked on-site for more than 15 minutes to be inspected.

Emergency Coastal Development Permit

Section 6328.19 of the County Zoning Regulations (Coastal Development Permit Regulations) allows for the issuance of Emergency Coastal Development Permits. The granting of an Emergency Coastal Development Permit is subject to the following findings:

1. An emergency exists and requires action more quickly than permitted by the procedures for ordinary permits and the development can be completed within 30 days unless otherwise specified by the terms of the permit;
2. Public comment on the proposed emergency action has been reviewed if time allows; and
3. The work proposed will be consistent with the requirements of the certified Local Coastal Program (LCP).

The applicant has submitted an engineering geological assessment prepared by Timothy C. Best, CEG, dated September 27, 2016. The assessment states that based on field observations, the recently placed fill is unstable with a high potential for settlement and failure. Best recommends that all recent fill material be removed and the excavated slope be stabilized.

The project will take place during the wet season (October 1 through April 30) and is located within a sensitive habitat as discussed above. Due to the immediate nature of this emergency (location and wet season), staff did not have time to refer this matter to other agencies. Prior to a decision on this matter, Planning staff reviewed the proposal against the policies and requirements of the County's Local Coastal Program and found it to be consistent. Specifically, the project meets the requirements regarding Sensitive Habitats and Visual Resources. The project will mitigate the potential impacts on sensitive habitats by removing recently placed fill material from the banks of Purisima Creek. The project site is not located in a County Scenic Corridor and will have minimal visual impact. No roads will be created as part of this application. The project will remove the recently placed fill material

and restore the area back to its native grade. The location of the project meets the regulations regarding the Visual Resource component of the Local Coastal Program.

Therefore, an Emergency Coastal Development Permit for the removal of illegally placed fill material located at APN 066-230-030, in unincorporated North San Gregorio, is hereby approved subject to Conditions Nos. 1-5.

Community Development Director's Determination About The Extent Of Grading Violation

The County Grading Regulations Section 8607.1 (Enforcement by Community Development Director) states that the Community Development Director shall enforce the provisions of the Grading Ordinance and, if it has been determined that grading or clearing has been done without a required permit (as has occurred in this case) or beyond the terms and conditions of an issued permit, shall require, as stated in Subsection (c), that the property owner or permit applicant prepare and implement a grading plan, which meets the requirements of the Grading Chapter and accomplishes one of the following:

1. Restores the property to the condition which existed prior to the violation;
2. Requires such remedial work as is necessary to make the grading or land clearing work already completed to conform with all requirements of the Grading Chapter; or
3. Requires such remedial work as is necessary to mitigate impacts of the grading work so that such work conforms as nearly as possible to all requirements of the Grading Chapter. The Community Development Director's determination shall be guided by the factors or findings set forth in Section 8607.4.

In consideration of the above remedial options, the applicant's proposed plans will restore the property to as near the condition which existed prior to the violation (option 1). Toward that end, the applicant has submitted a Grading Plan and Erosion Control Plan all prepared by Timothy C. Best, CEG, last revised on September 27, 2016, along with a geotechnical recommendation letter also prepared by Timothy C. Best, CEG, dated September 27, 2016.

Required Finding For Making Determination Of Proposed Remediation

The County Grading Regulations Section 8607.4 (*Restoration or Remedial Work*) states that in determining what remedial action shall be required, as provided by the previously indicated section, the Community Development Director shall consider the above-cited remedial work as the most appropriate remedy. In making this determination, the Community Development Director shall consider:

1. The amount of grading which has been done in violation of the Grading Chapter.

County Response: It is estimated that the violation consists of approximately 400 cubic yards (cy) of grading, in violation of Section 8602.1 since: a) there is no exemption

pursuant to Section 8603 for such grading, and b) the subject grading was done without issuance of any Grading Permit.

2. The amount of grading which would be necessary to either restore the property to its original condition or bring the grading or clearing into conformance with the requirements of this Chapter.

County Response: *The submitted plans stipulate that the restoration of the illegally graded area would involve the removal of a total of approximately 400 cy of grading of imported fill to restore the property to as near the condition it was in prior to the illegal grading as practical.*

3. The environmental damage which would occur as a result of either restoring the property to its original condition or bring the grading into conformance with the requirements of this chapter.

County Response: *The proposed grading plans to restore and remediate the illegal grading will mitigate the potential impacts to any sensitive or protected habitats. Central coast riparian scrub is present within the project area. The project area is within the California Department of Fish and Wildlife jurisdiction and grading remediation will be carried out in accordance with MROSD's Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3. Avoidance measures of the Agreement include best management practices for working in or near streams and replanting with native seed mix. These items are included in the submitted erosion control plan and have been made conditions of approval in addition to Conditions Nos. 6-7 to mitigate any potential impacts to sensitive species.*

4. The economic feasibility of either restoring the property to its original condition or bring the grading into conformance with the requirements of this chapter.

County Response: *The property owner is proposing to restore the property to as near the condition it was in prior to the illegal grading as practical. The proposed restoration will restore the site's overall stability.*

5. The degree of culpability of the person committing the violation.

County Response: *While the current property owner is responsible for the illegal grading activity that has occurred on the parcel, staff has no evidence or reason to believe that there was any malicious intention to violate the County Grading Ordinance. Furthermore, the property owner has been responsive to the Violation and has not continued further illegal grading activity since the Violation was issued.*

Findings

For the Environmental Review:

1. That this project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15304 (*Minor Alterations to Land*), where subsection (c) allows the "filling of earth into previously excavated land with material compatible with the natural features of the site", and (f) which allows "minor trenching and backfilling where the surface is restored". Further, once completed, the project will effectively reduce or eliminate any future adverse impacts relative to erosion.

For the Emergency Coastal Development Permit:

2. That due to the immediate nature of this emergency, this project requires action more quickly than permitted by the procedures for ordinary permits and development can be completed within 30 days unless otherwise specified by the terms of the permit. Thus, Staff did not have time to refer this matter to other agencies.
3. That Planning staff reviewed the proposal against the policies and requirements of the County's Local Coastal Program and found it to be consistent. Specifically, the project meets the requirements regarding Sensitive Habitats and Visual Resources. The project will mitigate potential impact on sensitive habitats by removing recently placed fill material from the banks of Purisima Creek.

For the Grading Remediation:

4. That the Community Development Director hereby finds that the subject remedial work to restore the grading, along with the required erosion and sediment control measures, complies with Section 8607.4 of the San Mateo County Grading Regulations as discussed above.

Conditions Of Approval

Current Planning Section

1. This approval applies to the project as described on the plans and documents and as described in this letter approved by the Community Development Director on October 18, 2016. This approval is only for the project as depicted on the plans. Any revisions to the plans must be submitted to the Current Planning Section for review and approval prior to implementation. Minor adjustments to the project may be approved by the Community Development Director if they are consistent with the intent of and are in substantial conformance with this approval.
2. This permit shall be valid for thirty (30) days from the date of this approval, in which time a building permit (for monthly construction stormwater inspections) and grading permit

"hard card" shall be issued. An extension of this approval will be considered upon written request and payment of the applicable fees.

3. No additional work, beyond what is described in this letter, is permitted by this approval. Any additional work will be subject to a separate permitting process.
4. The applicant is required to submit for an After-the-Fact Coastal Development Permit for the work covered by this approval within five (5) days of commencing construction.
5. The applicant is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into local storm drain systems and water bodies.
6. Impacts to California red-legged frogs (CRLF) must be avoided through the following Midpeninsula Regional Open Space District's Routine Maintenance Agreement measures (final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):
 - a. 2.50 CRLF Survey: Prior to and within 48 hours of the planned start of project activities, a focused survey for CRLF using agency approved protocol shall be conducted by a qualified biologist to determine if they are in the area. If CRLF are found, the California Department of Fish and Wildlife (CDFW) shall be notified immediately to determine the correct course of action, and routine maintenance activities shall not commence until after May 30 and not begin until approved by the CDFW. CDFW reserves the right to provide additional measures to these Agreement measures to protect sensitive species.
 - b. 2.51 Monitors On-Site for CRLF: If CRLF are found, biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.
 - c. 2.52 Vegetation Removal by Mechanized Equipment at CRLF Sensitive Sites: For vegetation removal on berms or other sites with known CRLF observances, vegetation shall be cut down to 3 inches by hand tools (weed whacker, etc). Once the ground is visible, a visual survey for CRLF shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a CRLF is observed, all activities shall cease and CDFW shall be notified immediately. CRLF can be relocated only if a person is permitted by the United States Fish and Wildlife Service (USFWS) and approved by CDFW for this specific project to handle CRLF.
 - d. 2.53 Vehicle Restrictions: If CRLF are found, any vehicle parked on-site for more than 15 minutes shall be inspected by the biological monitor or qualified biologist before it is moved to ensure that CRLF have not moved under the vehicle. Any

parking areas must be checked in advance by the biological monitor or qualified biologist.

- e. 2.54 No Stockpiling of Vegetation: If CRLF are found, vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on-site for erosion control or slash and not be moved or disturbed.
 - f. 2.55 No Stockpiling of Soil: Soil shall not be stockpiled on the ground unless it is on a paved surface or staging area where there are no burrows.
 - g. 2.56 CRLF Exclusion for Sediment Removal with Large Equipment: If CRLF are found in routine maintenance activity sites using large equipment to remove sediment, CRLF shall be excluded from the project site. CDFW-approved exclusion fencing shall be installed around the sediment removal site, staging areas, and any areas where fill may be dumped. After installation of the fence barrier, a biological monitor or qualified biologist shall inspect, daily, the project work area, staging and stockpiling area prior to the commencement of activities. If the biological monitor or qualified biologist determines that sensitive species are not within the work area, equipment or materials may be moved onto the work site and project activities may commence under the observation of the biological monitor.
7. Impacts to San Francisco garter snakes (SFGS) (specifically where they have not yet been documented) must be avoided through the following Midpeninsula Regional Open Space District's Routine Maintenance Agreement measures (final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):
- a. 2.69 Monitors On-Site for SFGS: Biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.
 - b. 2.70 Vegetation Removal by Mechanized Equipment: For vegetation removal on berms or other sites with SFGS habitat, vegetation shall be cut down to 3 inches by hand tools (weed whacker, etc). Once the ground is visible, a visual study for SFGS shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a SFGS is observed, all activities shall cease and CDFW shall be notified immediately.
 - c. 2.71 No Stockpiling of Vegetation: Vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on-site for erosion control or slash and not be moved or disturbed.

8. A building permit is required to track monthly wet season Erosion Control inspections. Weekly inspections are required in ASBS areas.
9. The applicant must comply with all conditions of approval of the Grading Permit.
10. If the grading period must be extended, provide an updated schedule to the project planner.
11. The applicant shall send photos of final stabilization to the project planner within one week of completion of grading.
12. The site is considered a Construction Stormwater Regulated Site. Any grading and/or ground disturbance activities conducted during the wet weather season (October 1 to April 30) will require monthly erosion and sediment control inspections by the Building Inspection Section.
13. Grading work may only occur during dry weather days only and no grading shall occur within 24 hours after a rain event. All work shall be carried out as stipulated in the approved plans prepared by Timothy C. Best, CEG, last revised September 27, 2016. Any revisions to the approved plans shall be prepared and signed by the engineer, and shall be submitted to the Current Planning Section for concurrence prior to commencing any work pursuant to the proposed revision.
14. The applicant shall immediately notify the Current Planning Section of any changes or updates to the designated Erosion Control Point of Contact Information.
15. Prior to beginning any grading activities, the applicant shall implement the approved Erosion and Sediment Control Plan, which shall be maintained throughout the duration of the project. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:
 - a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.
 - b. Removing spoils promptly, and avoiding stockpiling of fill materials when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.
 - c. Storing, handling, and disposing of construction materials and wastes so as to avoid their entry to a local storm drain system or water body.
 - d. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

- e. The applicant is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into local water bodies and adhere to appropriate erosion control measures.

- 16. The building inspector has the authority to require additional erosion and sediment control measures at any time during the course of the remediation work. If any measures are found to be deficient, a Stop Work Notice may be issued pursuant to the County's Stormwater Enforcement Response Plan until corrections have been made and applicable fees paid for staff enforcement time. The property owner shall demonstrate via building inspection that the site is stabilized, either with adequate erosion control or landscaping, prior to final inspection approval of the permit.

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

- 18. Pursuant to San Mateo County Ordinance Section 8605.5, all equipment used in grading operations shall meet spark arrester and fire-fighting tool requirements, as specified in the California Public Resources Code.

Extent of Approval

This approval includes only that illegally graded area described above and does not cover any other future grading or clearing activity on the subject parcel. Thank you for your cooperation and patience with this matter. If you have any further questions, please feel free to contact Carmelisa Morales, Project Planner, at 650/363-1873.

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

FOR STEVE MONOWITZ
COMMUNITY DEVELOPMENT DIRECTOR, By:



Melissa Ross, Senior Planner

MAR:CJM:jlh – CJMAA0583_WJN.DOCX

cc: Steve Monowitz, Community Development Director
Renee Ananda, California Coastal Commission



Midpeninsula Regional
Open Space District

Memorandum

DATE: 9/19/2016

MEMO TO: Melissa Ross, San Mateo County Planning Department

FROM: Lisa Bankosh, Open Space Planner

SUBJECT: Purisima Creek Channel Bank Restoration Project

This memorandum provides results of a biotic assessment for the Purisima Creek Channel Bank Restoration Project.

Midpeninsula Regional Open Space District (MROSD) is proposing to remove up to 400 cy of unstable fill material from an area adjacent to Purisima Creek within MROSD's Purisima Creek Redwoods Open Space Preserve. The property where the fill occurred is currently under lease for cut-flower agricultural production. According to the engineering geology report for the project (Best, 2016) the area of fill placement extends for 100 feet along the outer edge of the terrace and 10 to 30 feet downslope to the flood plain of Purisima Creek. Fill appears to have been sidecast over vegetation and without keying or compaction. Fill does not extend into the channel or within the ordinary flow of Purisima Creek.

MROSD planner Bryan Apple visited the site on September 14, 2016, in order to characterize the biotic habitats present within the project area, and identify special-status species potentially affected by the project. In addition to this reconnaissance survey, the most current California Natural Diversity Database and MROSD's internal sensitive species database were consulted on September 19, 2016.

Two habitats, central coast riparian scrub and ruderal/upland, are present on the project site. Central coast riparian scrub is dominated by Arroyo willow (*Salix lasiolepis*) with about 65% coverage in the filled riparian area. The overstory also includes white alder (*Alnus rhombifolia*), and several coast live oaks (*Quercus agrifolia*) closer to the creek channel. The understory is heavily disturbed due to fill activities with many areas consisting of bare soil. The dominant understory species is stinging nettle (*Urtica dioica*), with California blackberry (*Rubus ursinus*) intermixed. The east end of the illegal grading consists primarily of a mix of stinging nettle and poison hemlock (*Conium maculatum*). The approximate width of the riparian corridor is 80 feet. Observed wildlife in the area was primarily various species of birds. No bird nests or nesting behavior was observed and all work will occur outside of nesting bird season. Other potential species could include California newt, rough skinned newt, ensatina, chorus frog, rainbow trout, bobcat, deer, mountain lion, raptors, songbirds and woodpeckers. California red legged frog (CRLF), San Francisco garter snake (SFGS) and San Francisco dusky footed woodrat (SFDFW) special-status species, also potentially occurs in this habitat. The nearest documented occurrence of CRLF is approximately 0.5 miles from the project site (Figure 1). The nearest documented occurrence of SFGS is located to the south over 3 miles away, which is greater than

the expected distance an individual would be expected to travel to reach this site. However due to the fully protected status of the species, avoidance measures have been included (see below). Although SFDFW nests occur on other portions of the Preserve, no nests were observed in proximity to the project area during the September 14, 2016 field visit.

Ruderal/upland habitat within the illegal fill area is dominated by bermuda grass (*Cynodon dactylon*). The majority of this area is bare (~75%) mineral soil due to the recent nature of the grading. There are a number of other exotic species including but not limited to *Rumex crispis*, *Raphanus sp.*, *Amaranthus sp.*, *Conium maculatum*, *Picris echioides*, *Portulaca oleracea*, and *Cucurbita sp.* No suitable habitat for special-status species occurs in the ruderal/upland habitat. However, dispersing CRLF could traverse the area, particularly during the wet season.

The remainder of the project area, where clean spoils will be spread, consists of agricultural field.

Potential Project Impacts

Removal of the unstable fill and restoration of the disturbed bank of Purisima Creek, while resulting in overall beneficial impacts to biotic habitats, has the potential to impact individual CRLF during construction, and may remove several small (<3" diameter) arroyo willow trees, as well as understory vegetation. Construction is expected to span 3-5 days. The project is located on banks of Purisima Creek, which is under the jurisdiction of the California Department of Fish and Wildlife. No construction activities will occur within the jurisdiction of the U.S. Army Corps of Engineers. Clean fill will be spread on agricultural fields at a minimum of 100 feet away from Purisima Creek, in a manner to preserve erosion.

Impact Avoidance Measures

The proposed project will be implemented under MROSD'S Routine Maintenance Agreement (RMA) with the California Department of Fish and Wildlife, a programmatic Lake or Streambed Alteration Agreement. The RMA contains best management practices for working in or near streams, including the use of silt fencing and other barriers, and replanting with native seed, which will be implemented as part of the project and are included on the Erosion Control Plan. Impacts to California red-legged frog will be avoided through the following RMA measures (Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):

California red-legged frog (CRLF)

In Jurisdictional areas within 1 mile of a known occurrence of CRLF

2.50 CRLF Survey. Prior to and within 48 hours of the planned start of project activities, a focused survey for CRLF using agency approved protocol shall be conducted by a qualified biologist to determine if they are in the area. If CRLF are found, the CDFW shall be notified immediately to determine the correct course of action and routine maintenance activities shall not commence until after May 30 and not begin until approved by the CDFW. CDFW reserves the right to provide additional measures to this Agreement to protect sensitive species.

2.51 Monitors On-Site for CRLF. If CRLF are found, biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.

2.52 Vegetation Removal by Mechanized Equipment at CRLF Sensitive Sites. For vegetation removal on berms or other sites with known CRLF observances, vegetation shall be cut down to

3 inches by handtools (weedwhacker, etc). Once the ground is visible, a visual survey for CRLF shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a CRLF is observed, all activities shall cease and CDFW shall be notified immediately. CRLF can be relocated only if a person is permitted by the USFWS and approved by CDFW for this specific project to handle CRLF.

2.53 Vehicle Restrictions. If CRLF are found, any vehicle parked on site for more than 15 minutes shall be inspected by the biological monitor or qualified biologist before it is moved to ensure that CRLF have not moved under the vehicle. Any parking areas must be checked in advance by the biological monitor or qualified biologist.

2.54 No Stockpiling of Vegetation. If CRLF are found, vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on site for erosion control or slash and not be moved or disturbed.

2.55 No Stockpiling of Soil. Soil shall not be stockpiled on the ground unless it is on a paved surface or staging area where there aren't burrows.

2.56 CRLF Exclusion for Sediment Removal with Large Equipment. If CRLF are found in routine maintenance activity sites using large equipment to remove sediment, CRLF shall be excluded from the project site. CDFW-approved exclusion fencing shall be installed around the sediment removal site, staging areas and any areas where fill may be dumped. After installation of the fence barrier, a biological monitor or qualified biologist shall daily inspect the project work area, staging and stockpiling area prior to the commencement of activities. If the biological monitor or qualified biologist determines that sensitive species are not within the work area, equipment or materials may be moved onto the work site and project activities may commence under the observation of the biological monitor.

San Francisco garter snake (SFGS)

In jurisdictional areas having suitable habitat where SFGS has not yet been documented:

2.69 Monitors On-Site for SFGS. Biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.

2.70 Vegetation Removal by Mechanized Equipment. For vegetation removal on berms or other sites with SFGS habitat, vegetation shall be cut down to 3 inches by handtools (weedwhacker, etc). Once the ground is visible, a visual survey for SFGS shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a SFGS is observed, all activities shall cease and CDFW shall be notified immediately.

2.71 No Stockpiling of Vegetation. Vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on site for erosion control or slash and not be moved or disturbed.



DATE: 6/30/2017

MEMO TO: Carmelisa Morales, San Mateo County Planning Department

FROM: Lisa Bankosh, Open Space Planner

SUBJECT: Purisima Creek Channel Bank Restoration Project

This memorandum provides results of the construction monitoring and first-year restoration success monitoring of the Purisima Creek Channel Bank Restoration project. The project addressed unpermitted placement of soil on the upper channel bank, which resulted in an unstable fill slope and impacts to riparian habitat. To restore the channel bank, approximately 400cy of unstable fill material was removed with an excavator, exposing the native bank, which was then seeded with a native grass mix and treated with erosion control blanket and coir rolls. The lower 1/3 of the slope was replanted with willow cuttings. The fill soil was tested and determined to be absent of contamination, spread on a nearby agricultural field, and seeded.

Impacts to Sensitive Species

The project was designed to reduce impacts to habitat for sensitive aquatic species due to unstable fill placement. According to the pre-project biotic assessment, California red-legged frog (CRLF) is known to occur in the vicinity, and marginally suitable habitat for San Francisco garter snake (SFGS) is present. Therefore, the project included standard measures to avoid construction-phase impacts to CRLF and SFGS, including: CRLF survey, monitors on-site, vegetation removal by non-mechanized equipment, vehicle restrictions, and no stockpiling of vegetation or soil. California Department of Fish and Wildlife (CDFW) provided these measures to allow bank stabilization work to occur.

A pre-construction survey for CRLF and monitoring of initial vegetation and fill removal activities was conducted on November 7, 2016 by a CDFW approved biologist Steve Davison. No sensitive species were observed during the survey or monitoring. Subsequent project activities were monitored by a District Open Space Technician with the required CRLF training, also with negative results. Therefore, the project did not result in direct impacts to sensitive species. The project was completed on November 9, 2016.

Impacts to Sensitive Habitats- Riparian Scrub

Bank restoration required the removal of several small (<3" dbh) arroyo willow trees which had been partially buried in fill. The disturbed area was seeded with a native seed mix of blue wild rye, purple needlegrass, and california brome, and planted with willow cuttings. The spoil site was also seeded with the native grass mix.

Monitoring of revegetation success was conducted by District Open Space Planner Lisa Bankosh on June 28, 2017. Both the upper channel bank and the spoils site were observed to support

nearly 100% cover of native grass, primarily California brome and blue wild rye (Photos 1 and 2). The lower channel bank was heavily colonized by natural regrowth of native California blackberry, stinging nettle, and hedge nettle. The willow cutting were observed to be present and vigorous on the lower bank, in addition to heavy native regrowth (Photos 3 and 4). All erosion control materials were observed to be intact (Photos 5) and, due to the heavy vegetation growth, will not require replacement after they have naturally degraded. No evidence of erosion or sedimentation from this winter's heavy storms was observed, and no noxious weeds were observed in the restoration area.

In conclusion, the site meets District standard restoration success criteria, and no additional actions are recommended at this time. Monitoring will take place annually for an additional two years to ensure that natural regeneration of riparian scrub habitat proceeds as anticipated.



Photo 1. Upper channel bank



Photo 2. Spoil site.



Photo 3 Lower channel bank.



Photo 4. Lower channel bank, willow cuttings.



Photo 5. Erosion control.

PUN2016-00412



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ENGINEERING GEOLOGY AND HYDROLOGY

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(831) 425-5832 • Fax: (831) 425-5830 • e-mail: timbest@coastgeo.com

September 27, 2016

Lisa Bankosh
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

RECEIVED

SEP 30 2016

San Mateo County
JOB: MPEN-PURISMAGRADE-743

SUBJECT: ENGINEERING GEOLOGIC ASSESSMENT OF THE PURISIMA CREEK STREAM CHANNEL RESTORATION PROJECT
APN 066-230-030
2050 Purisima Creek Road, Half Moon Bay CA
Midpeninsula Regional Open Space District
San Mateo County, CA

INTRODUCTION

This letter report summarizes the findings of our engineering geologic assessment of the Purisima Creek Stream Channel Restoration Project. The project is located on the north side of Purisima Creek about 2 miles upstream of Highway 1 in unincorporated San Mateo County, California (Figure 1).

At the project site several hundred cubic yards of import fill was recently placed along the outer edge of the Purisima Creek terrace with loose fill descending 30+ feet down to the flood plain but without any fill material directly entering the waterway. The grading work was undertaken without permits or sanction by the property owner. A grading violation was issued by County of San Mateo requiring the site to be restored.

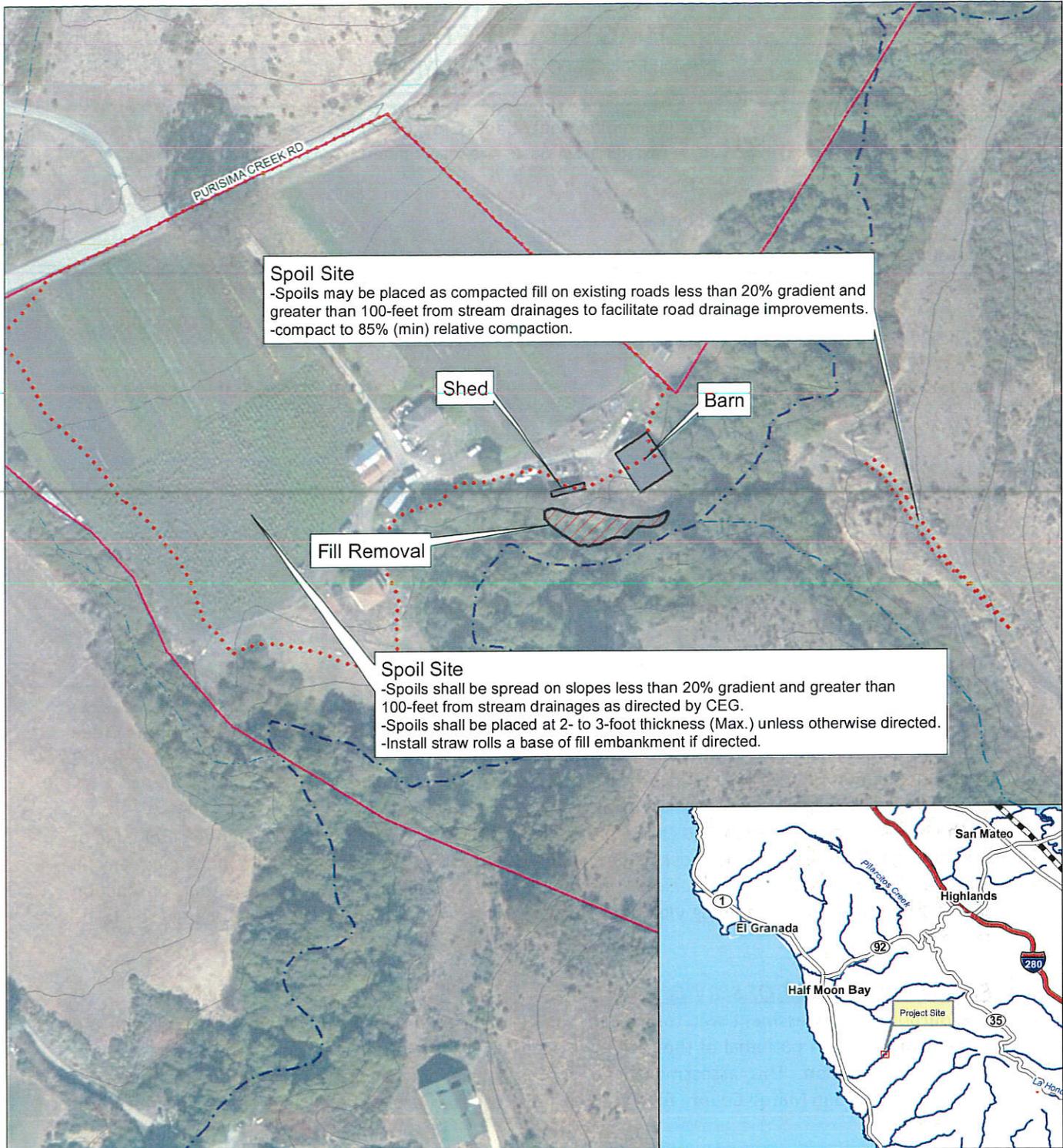
PURPOSE AND SCOPE OF SERVICES

The purpose our assessment was to evaluate the geologic conditions at the project site, evaluate the stability and erosion potential of the recently placed fill, and provide recommendations for its removal and site restoration. This assessment and accompanying plan sheets are intended to fulfill the requirements of San Mateo County for a grading and erosion control plan, calculations, and geotechnical investigation.

The scope of work performed for this investigation included 1) review of published and unpublished literature relevant to the site and vicinity; 2) site reconnaissance and geologic field mapping, 3) review of LiDAR derived bare earth imagery, 4) qualitative observations of exposed earth materials, 5) analysis, and 6) preparation of this letter and accompanying restoration plans. Subsurface investigation was not undertaken due to the relatively simple nature of the project and the fact that little benefit would be achieved by such a study since all of the recent fill material is proposed to be removed.

ENGINEERING GEOLOGY ■ GEOMORPHOLOGY ■ HYDROLOGY

11/10/10-11/10/10



Spoil Site
 -Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements.
 -compact to 85% (min) relative compaction.

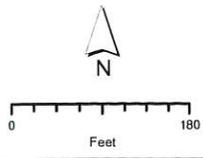
Spoil Site
 -Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages as directed by CEG.
 -Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
 -Install straw rolls a base of fill embankment if directed.

LEGEND

- Paved road
- Parcel boundary (Approx.)
- Fill removal
- Approved spoil placement

WATERCOURSES

- Perennial
- Intermittent
- Ephemeral



 TIMOTHY C. BEST, CEG ENGINEERING GEOLOGY AND HYDROLOGY 1002 Columbia Street, Santa Cruz, CA 95060 (831) 425 5832 (831) 425 5830 (fax)	SITE MAP PURISMA CREEK STREAM RESTORATION PROJECT Midpeninsula Regional Open Space District	FIGURE 1 Date: Sept 27, 2016 Revised: Project: MPEN- PURISMAGRADE-743
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PROJECT DESCRIPTION

The project proposes to remove approximately 200 to 400 cubic yards of unpermitted fill in order to stabilize the embankment.

After fill removal the loose surficial soils shall be stabilized by recompacting and appropriate erosion control measures applied. Drainage along the road bounding the site will be also improved to prevent uncontrolled runoff from draining into the work area. Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) will minimize to the extent feasible. No large trees are expected to be removed. All grading and erosion control work will be supervised by the project engineering geologist and revegetation by the District restoration ecologist. Revegetation will be via seeding with the District standard native seed mix.

Excavated spoils shall be transported off site and disposed of at an appropriate facility or spread onsite in a manner to prevent erosion. If spread onsite spoils to be placed on slopes less than 20% gradient and more than 100 feet from a watercourse. Spoils shall not be placed on native grassland areas. MROSD shall test and verify that all spoils are clean and free of contaminants.

SITE CONDITIONS

The project site is located along the outer edge of a gently sloping fluvial terrace. Purisma Creek is incised 25 to 30 feet though the deposits resulting in a moderately steep (50% to 75%) slope that drops down to a low narrow flood plain of Purisma Creek.

The flat terrace is used for farming with several residential homes, barns, sheds and other farm structures. The slope dropping down to Purisma Creek is undeveloped prior to the recent grading.

Limits of Fill Placement

In late spring to early summer 2016 an estimated 200 to 400 cy hundred cubic yards of import fill was sidecast over the edge of the embankment apparently to gain additional flat ground for farm operations. The area of fill placement extends for 100 feet along the outer edge of the terrace and 10 to 30 feet downslope to the flood plain of Purisma Creek. Fill appears to have been sidecast over vegetation and without keying or compaction. The resulting fill embankment is inclined at greater than 1.5H:1V.

The toe and lateral limits of the recent fill is well defined by where the material over rides vegetation. The upslope limits and depth of the recent fill is more difficult to determine and were estimated using a hand soil probe to differentiate between loose and compacted earth materials, and by comparing existing topography against LiDAR derived topography. Based on soil probing, the loose fill extends up to 5 to 9 feet back from the current top edge of the embankment and is estimated to be up to 6 to 7 feet deep. Comparing current topography to the 2004 LiDAR data suggests that recent fill may extend much further back to about to 20 feet back from the current top edge of the embankment and may be up to 12 feet thick. Given the uncertainties in the resolution of the LiDAR data, we believe this is likely an overestimate of the amount of fill and that the soil probing provides a much better estimate.

A more definitive determination of the upslope limits of fill could be obtained through subsurface trenching, but this would be of little value since it would not change the final recommendation to remove all of the recent unstable fill material. The limits of fill removal will ultimately be determined from site observations made at the time of operations.

TIMOTHY C. BEST, CEG

Surface drainage on the terrace and embankment slope is primarily by shallow sheetwash. Some of the adjacent farm roads are rilled and slightly rutted suggesting some concentrated runoff during storms. Purisima Creek occupies a roughly 20 foot wide active channel with peak flows spreading out onto a narrow well vegetated flood plain.

Subsurface conditions

The project area is mapped as underlain by old alluvial sediments consisting of lightly consolidated mixed sand, silt, gravel and clay (Brabb et al., 1998). Soils are variable ranging from gravelly loam to clayey loam (NRCS, 2007).

The recent fill material is from an unknown source (not derived onsite) and appears to be of variable composition. Most of the material consists of loose sandy clayey silt to silty clay with local organic debris (mainly grass) and some chunks of concrete. The material appeared very loose and uncompacted.

Groundwater was not observed during out site visit though is expected during the winter.

Seismicity

The subject property is located within a highly seismically-active region of California. The regional faults of significance include the San Andreas and San Gregorio faults. Strong ground movement from a major earthquake on a nearby fault could affect the project during the next 30 years with a Modified Mercalli Intensities of up to MM8 (Very Strong) possible. There are no mapped faults transecting the project area.

CONCLUSIONS

Fill Stability

Based on field observations the recent placed fill is unstable with a **High** potential for settlement and failure. We recommend that all of the loose recent fill material be removed to native grade (approximately 1.5H:1V or gentler), any underlying surficial soils disturbed by excavation be stabilized by recompacting using an excavator mounted sheep's foot roller, and erosion control measures (seed, mulch, blanket and straw roll) applied to the exposed earth materials. By removing the recent fill the potential for fill related instability will be mitigated.

Surface Drainage and Erosion

Based on our experience the loose exposed soils comprising the embankment face are **moderately to highly** susceptible to surficial erosion. After fill removal, erosion control measures (seed, mulch, blanket and straw roll) shall be applied to all exposed earth materials outside roadways. A drainage dip shall be installed on the adjacent farm road to prevent uncontrolled runoff from discharging over the treated slope.

Stream Bank Erosion

Based on our field reconnaissance and mapping we judge there to be a **low to moderate** potential for stream bank erosion at this site. The risk for stream bank erosion is unrelated to the recent grading and will not be affected by the proposed remedial work.

TIMOTHY C. BEST, CEG

RECOMMENDATIONS

Based on our field investigation all recent fill material shall be removed and the excavated slope stabilized. Proposed grading excavation should be within the capabilities of moderate to heavy conventional excavation equipment

1) SITE PREPARATION

- a) The fill shall be cleared of all vegetation including trees and logs less than 3 inches DBH (diameter breast height). Trees greater than 3 inches DBH shall be removed only if indicated on the plans or with the authorization of the District representative. This may be required for equipment access.
- b) All roots exposed during construction shall be clean cut to avoid tree damage. Very few roots are proposed to be cut.
- c) When pruning, prevent branches from damaging tree or stripping the bark when the branch falls to the ground.
- d) A silt fence shall be installed at the base of the work area.
- e) The Contractor shall exercise due care to preserve existing vegetation outside of grading.

2) FILL REMOVAL

- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - i) Approximate limits of fill removal are shown on plans and sections.
 - ii) Anticipate 200 – 400 CY of fill to be excavated.
 - iii) Final fill slope shall be inclined no steeper than 1.5H:1V.
 - iv) Final limits of fill excavation to be approved by the Engineering Geologist (CEG)
- b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
- c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
- d) Recompect loose surficial soils (if any) with sheep's foot roller attachment on excavator.
- e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

3) SPOIL PLACEMENT

- a) Spoils to be either endhauled off site or spread onsite at an approved location.
- b) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside project scope.
- c) If spread onsite
 - i) Spoils shall be spread on slopes less than 20% and greater than 100 feet from watercourses. Fill shall not be spread on native grassland areas.
 - ii) Fill may be placed as compacted fill on existing roads with less than 20% grade and greater than 100 feet from watercourses to facilitate road drainage. Compact to 85% (min) relative compaction.
 - iii) Spoils shall be placed at 2 to 3 foot thickness (max) unless otherwise directed

TIMOTHY C. BEST, CEG

- iv) Limits of spoil spread to be verified by CEG prior to placement
- v) Install straw roll at base of spoils and treat exposed soils per notes

4) EROSION CONTROL AND WATER POLLUTION PREVENTION (temporary and permanent)

- a) Temporary and inclement weather erosion control
 - i) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
 - ii) Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work
- b) Permanent erosion control
 - i) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed

5) TIMING

- a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium.
- b) If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

6) **STAGING AND ACCESS**

- a) Construction access shall be as directed by owner. Impacts to the access route must be minimized and disturbance along the access route must be restored to pre-construction conditions upon project completion.
- b) Upon completion of construction the access route and staging areas shall be restored to their original condition.
- c) The contractor shall carefully preserve the surrounding property by confining operations within the limits of work. Construction work or equipment operations shall not be conducted outside the designated work area boundary without approval of the engineer.

7) **INSPECTIONS**

- a) The project engineering geologist (CEG) shall be provided an opportunity to review project plans with the contractor during the pre-construction meeting to evaluate if recommendations have been properly interpreted. They shall also provide excavation and earthwork observations and testing during construction. This allows them to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If they do not review the plans and provide observation and testing services during the earthwork phase of the project, they assume no responsibility for misinterpretation of the recommendations.
- b) Regulatory agencies may require a final grading compliance letter. We can only offer this letter if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. It is anticipated that full time construction observation will be required. Please contact our office: Tim Best 831-425-5832 (office) 831-332-7791 (mobile).
- c) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- d) The following inspections are required:
 - i. Pre-construction / pre-bid
 - ii. Progress inspection of fill removal
 - iii. Progress inspection of erosion control and site restoration
 - iv. Final inspection

REFERENCES

- Brabb, E.E., Graymer, R.W. and Jones, D.L., 1998. Geology of onshore part of San Mateo County: A digital data base. USGS Open File Report 98-137.
- NRCS, 2007. Soil Survey: San Mateo Area, California. U.S. Dept. of Agriculture, Soil Conservation Service. Online database.

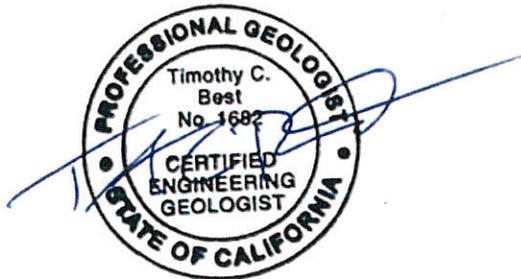
INVESTIGATIVE LIMITATIONS

1. This investigation was performed in accordance with the usual and current standards of the profession for sediment reduction as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.
2. My observations were limited to surface expressions and limited natural and artificial exposures of subsurface materials at and adjacent to the project site. For the above reasons, the conclusions should be considered limited in extent. The plan does not guarantee stability of the site, rather it is intended to provide recommendations that will reduce the likelihood of future erosion. Unforeseen drainage and soil conditions may result in additional erosion.
3. This written report comprises all of my professional opinions, conclusions and recommendations. This report supersedes any previous oral or written communications concerning my opinions, conclusions and recommendations.
4. This report is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Contractor for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.
5. I do not practice or consult in the field of safety engineering. I do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.
6. The findings of this report are valid as of the present date. However, changes in the conditions of a property or landform can occur with the passage of time, whether they be due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Therefore, this report should be not be relied upon after a period of three years without being reviewed by myself.

Thank you for this opportunity to assist you in your land use planning. If you have any questions or desire additional clarification, please don't hesitate to contact me.

Sincerely,

Timothy C. Best
Engineering Geologist #1682



TIMOTHY C. BEST, CEG



TIMOTHY C. BEST, CEG
ENGINEERING GEOLOGY AND HYDROLOGY

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RECEIVED

November 21, 2016

DEC 08 2016

Lisa Bankosh
 Midpeninsula Regional Open Space District
 330 Distel Circle
 Los Altos, CA 94022

San Mateo County
 Planning and Building Department

JOB: MPEN-PURISMAGRADE-743

SUBJECT: FINAL OBSERVATION REPORT:
PURISMA CREEK STREAM CHANNEL RESTORATION PROJECT
 APN 066-230-030
 2050 Purisima Creek Road, Half Moon Bay CA
 Midpeninsula Regional Open Space District
 San Mateo County, CA

Dear Ms. Bankosh:

On November 10, 2016 I observed completed grading and erosion control associated with the Purisma Creek Stream Channel Restoration Project. The recommended work is detailed in my July 27, 2016 plan sheets.

Approximately 400 cy of recently placed unpermitted fill was excavated from the site on November 7 and 8, 2016 by Halfmoon Bay Grading and Paving. The material was excavated in accordance with plans to a depth below the recent fill material and to where more competent (denser) earth materials were encountered. The embankment was laid back to a final slope of 1.5H:1V to 2H:1V per plan specifications. Spoils were endhauled and spread onsite in adjacent field per plan specifications. Drainage on the farm road above the embankment was shaped to prevent water from discharging onto the newly graded area.

Erosion control measures were implemented by District maintenance staff. This work included seeding of exposed soils, placement of erosion control mats, straw rolls and straw mulch. The lower 1/3 of the slope was replanted with willow cuttings.

All upgrades and erosion control measures were completed in general conformance with the intent of the recommendations as outlined on the project plans. Site Photographs are found in Appendix 1

Please give me a call if you have any questions or concerns.

Very truly yours,



Timothy C. Best
Certified Engineering Geologist #1682

TIMOTHY C. BEST, CEG

Attachment I

APPENDIX 1: SITE PHOTOGRAPHS



Photo 1: Prior to work



Photo 2: Prior to work



Photo 3: Initial excavation



Photo 4: Excavation proceeding to toe of fill



Photo 5: Final excavated slope



Photo 6: Final erosion control



Photo 7: Final erosion control

TIMOTHY C. BEST, CEG

Attachment I

File: G:\Projects\Purissima_Creek_Redwoods\LobitosAg_Mgt_plan\Lobitas_Area_Aerial.mxd

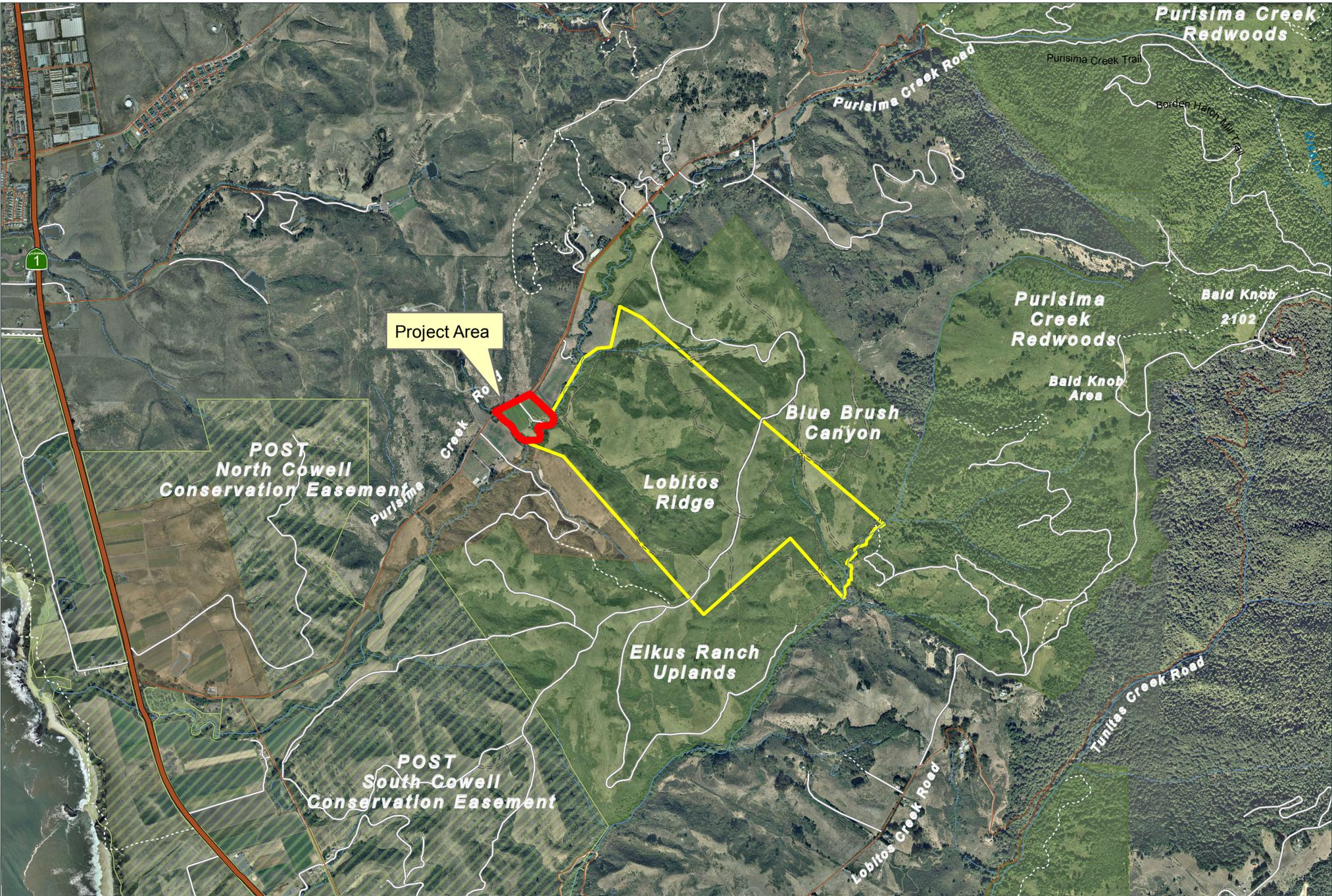


Exhibit 1

- MROSD
- Other Protected Open Space or Park Lands
- Conservation or Agricultural Easement
- Other Public Agency

Attachment B

Midpeninsula Regional Open Space District

February 2011



Path: G:\Projects\Purissima_Creek_Redwoods\LobitosVAg_Mgt_plan\LobitasRidgeFarmLease_Riparian_and_TreeLine.mxd

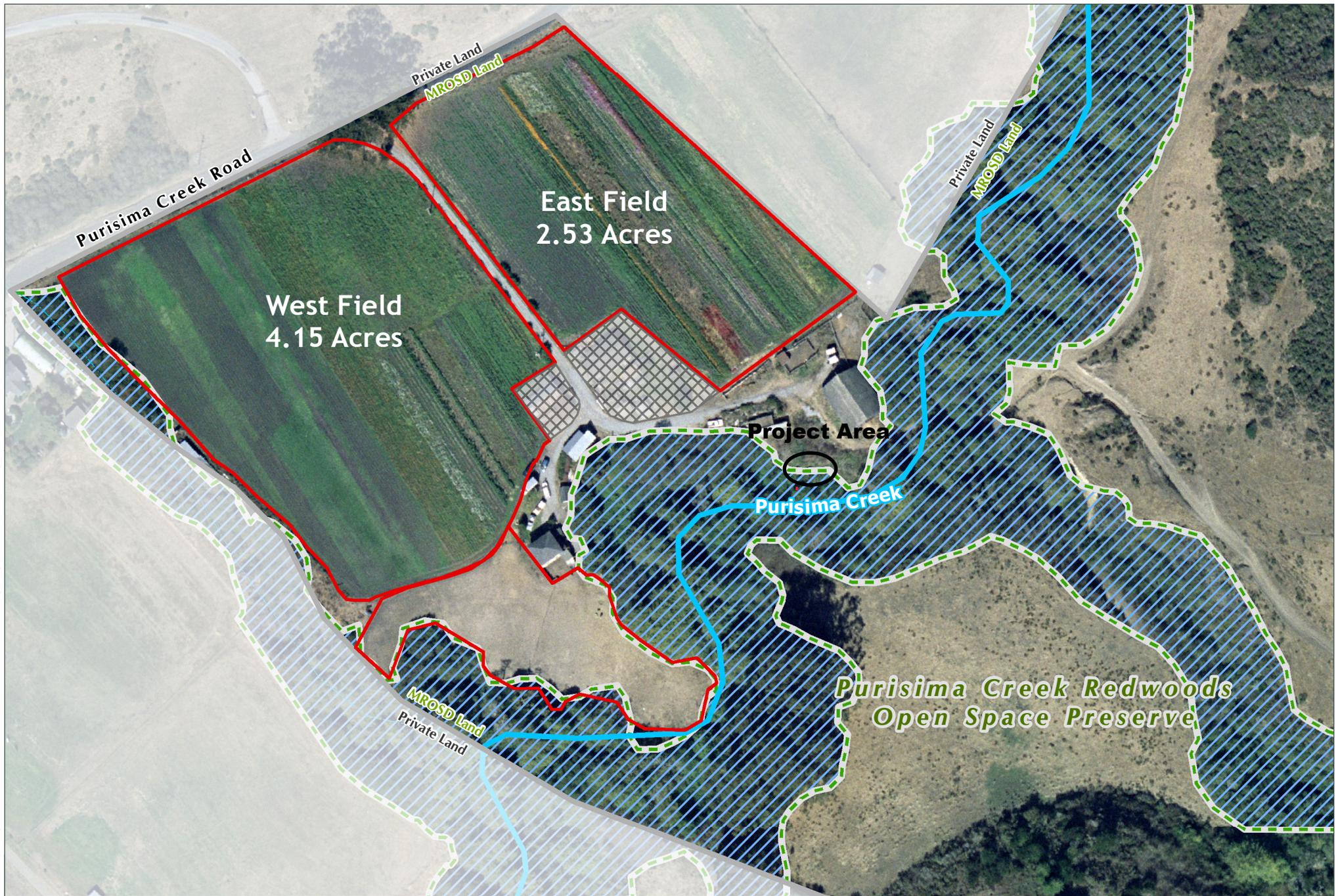


Exhibit 2: Lobitos Ridge Farm Lease - Riparian Corridor and Tree Line

- Riparian Corridor
- Lobitos Agriculture Fields
- Separate Residential Lease Not Included in Ag Lease
- Tree Line

Attachment B

Midpeninsula Regional Open Space District
 January 2011

Path: G:\Projects\Purisima_Creek_Redwoods\Lobitos\Ag_Mgt_plan\LobitasRidgeFarmLease_Areas.mxd



- 1** - Residential Structures Included in Ag Lease
- 2** - Historic Barn Included in Ag Lease
- 3** - Out Building Included in Ag Lease
- 4** - Out Building Included in Ag Lease

Exhibit 3: Lobitos Ridge Farm Lease - Lease Designation Areas and Acreages

	Lobitos Agriculture Fields		Separate Residential Lease Not Included in Ag Lease
--	----------------------------	--	--

Attachment B

Midpeninsula Regional
Open Space District
January 2011

Path: G:\Projects\Purisima_Creek_Redwoods\LOBITOS\Ag_Mgt_plan\LOBITASRidgeFarmInfrastructure.mxd

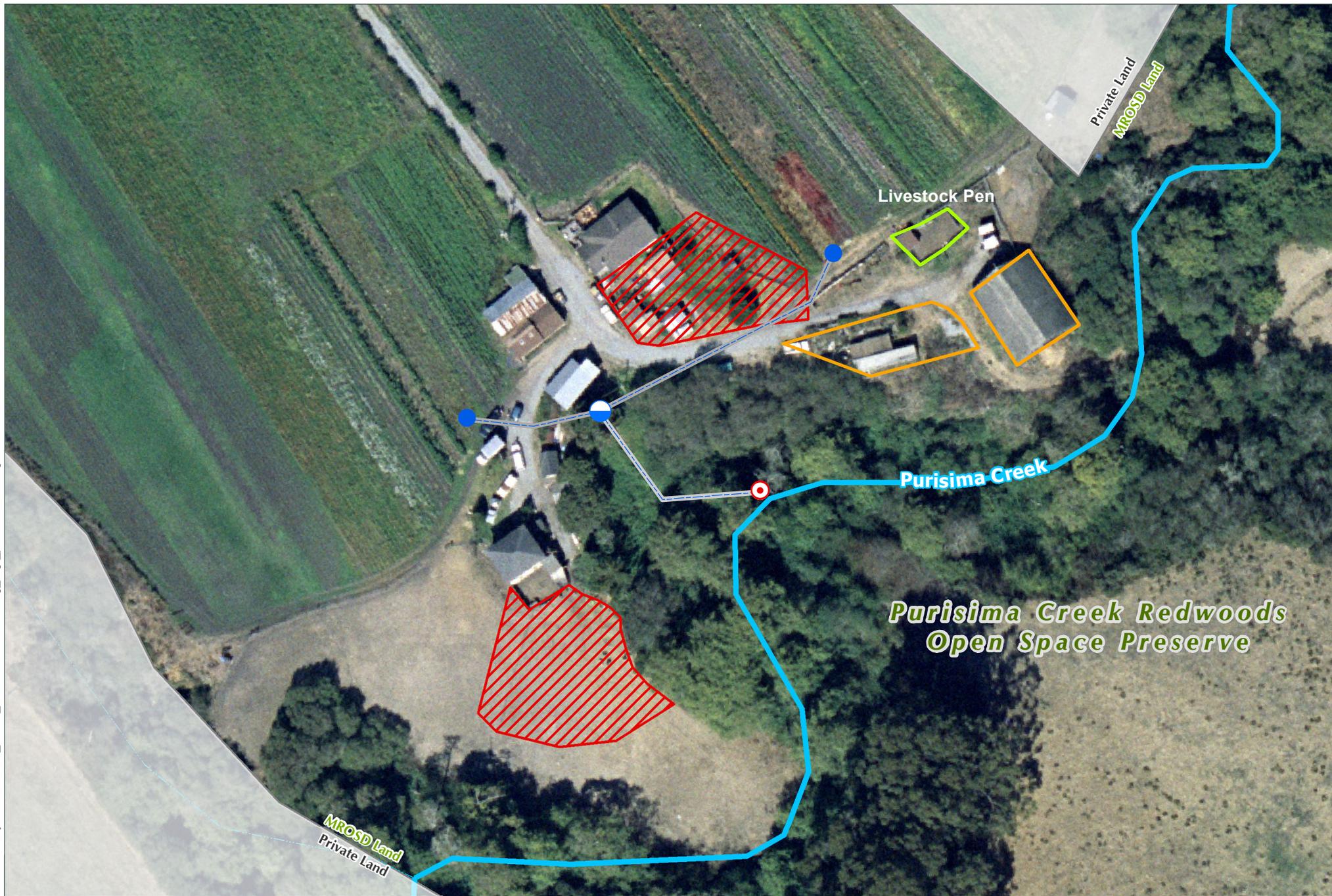
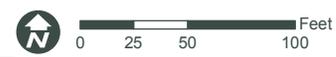


Exhibit 7: Lobitos Ridge Farm Lease - Infrastructure

-  Leach Field for Septic System
No Cultivation or Parking
-  Equipment Parking/Storage
-  Livestock Pen

-  Residential Water Pump & Irrigation Pump
-  Water Storage Tanks & Potable Water Treatment
-  Irrigation Water Valve
-  Irrigation Water Pipeline

Midpeninsula Regional
Open Space District
January 2011



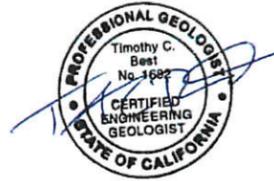
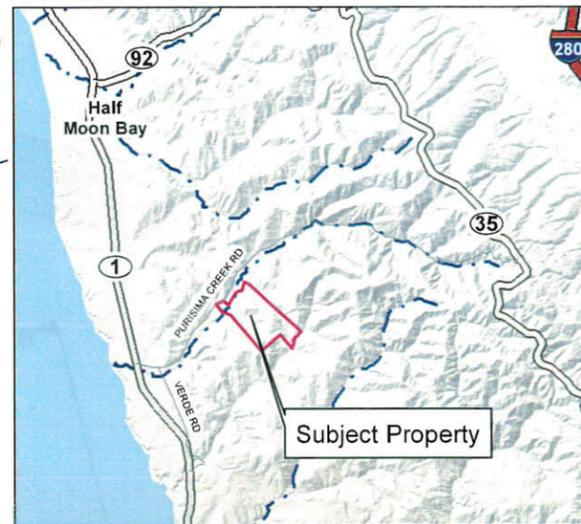
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT

APN 066-230-030

Midpeninsula Regional Open Space District

330 Distel Circle
Los Altos, CA 94022

VICINITY MAP



PROJECT DESCRIPTION

In order to stabilize Purisima Creek channel bank the project proposes to remove approximately 200 to 400 cubic yards of unpermitted fill. The fill shall be either transported off site and disposed of at an appropriate facility, or spread onsite in a manner to prevent erosion and as described in these plans and approved by CEG and MROSD. Limits of spoil spread sites to be field verified by CEG prior to placement.

The fill removal area along the channel bank shall be stabilized by recompacting the loose surficial soils and applying appropriate erosion control measures. These measures include but are not limited to the application of seed, mulch, erosion control blanket and straw rolls. Drainage along the road bounding the site will also be improved to prevent uncontrolled runoff from draining into the work area.

Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) will be minimized to the extent feasible. No large trees are expected to be removed.

All grading and erosion control work will be supervised by the project engineering geologist and revegetation by the District restoration ecologist.

SHEET INDEX

SHEET	TITLE
C1	Title Sheet and Location Map
C2	Grading Plan
C3	Cross Sections
C4	Erosion Control (Temp/Perm)
N1	Project Notes
N2	Typical Details

CONTACTS

OWNER
MIDPENINSULA REGIONAL
OPEN SPACE DISTRICT
330 DISTEL CIRCLE
LOS ALTOS, CA. 94022
(650) 691-1200
CONTACT: LISA BANKOSH

ENGINEERING GEOLOGIST/PLAN PREP
TIMOTHY C BEST, CEG
1002 COLUMBIA STREET
SANTA CRUZ, CA 95060
(831) 425-5832
CONTACT: TIM BEST

SYMBOLS

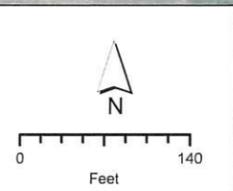
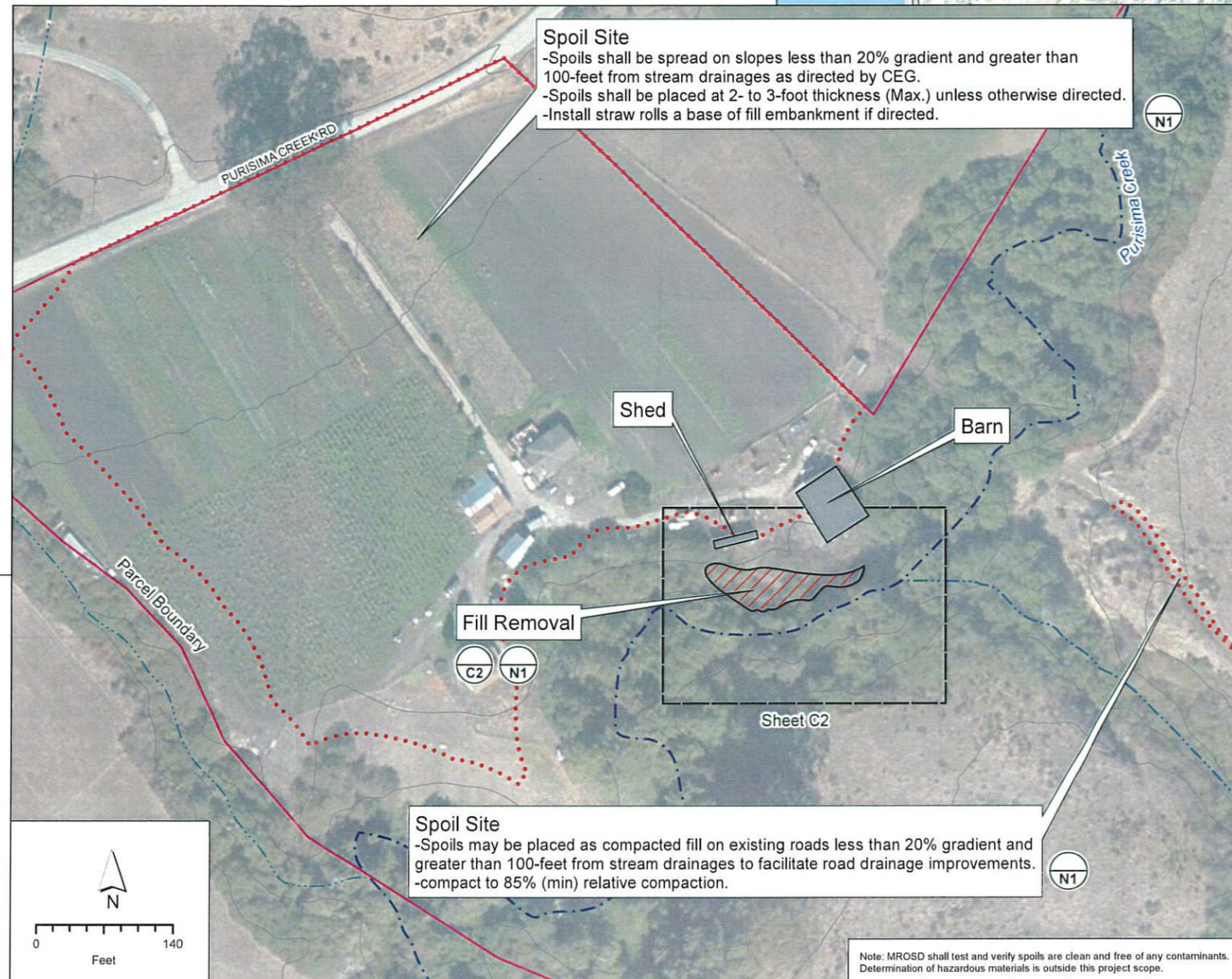
WATERCOURSES

- Perennial
- Intermittent
- Ephemeral

ROADS/TRAILS

- Paved road
- Parcel boundary (Approx.)
- Fill removal
- Spoil Site

Contours generated from San Mateo County
LIDAR Data Contour interval: 20 feet.



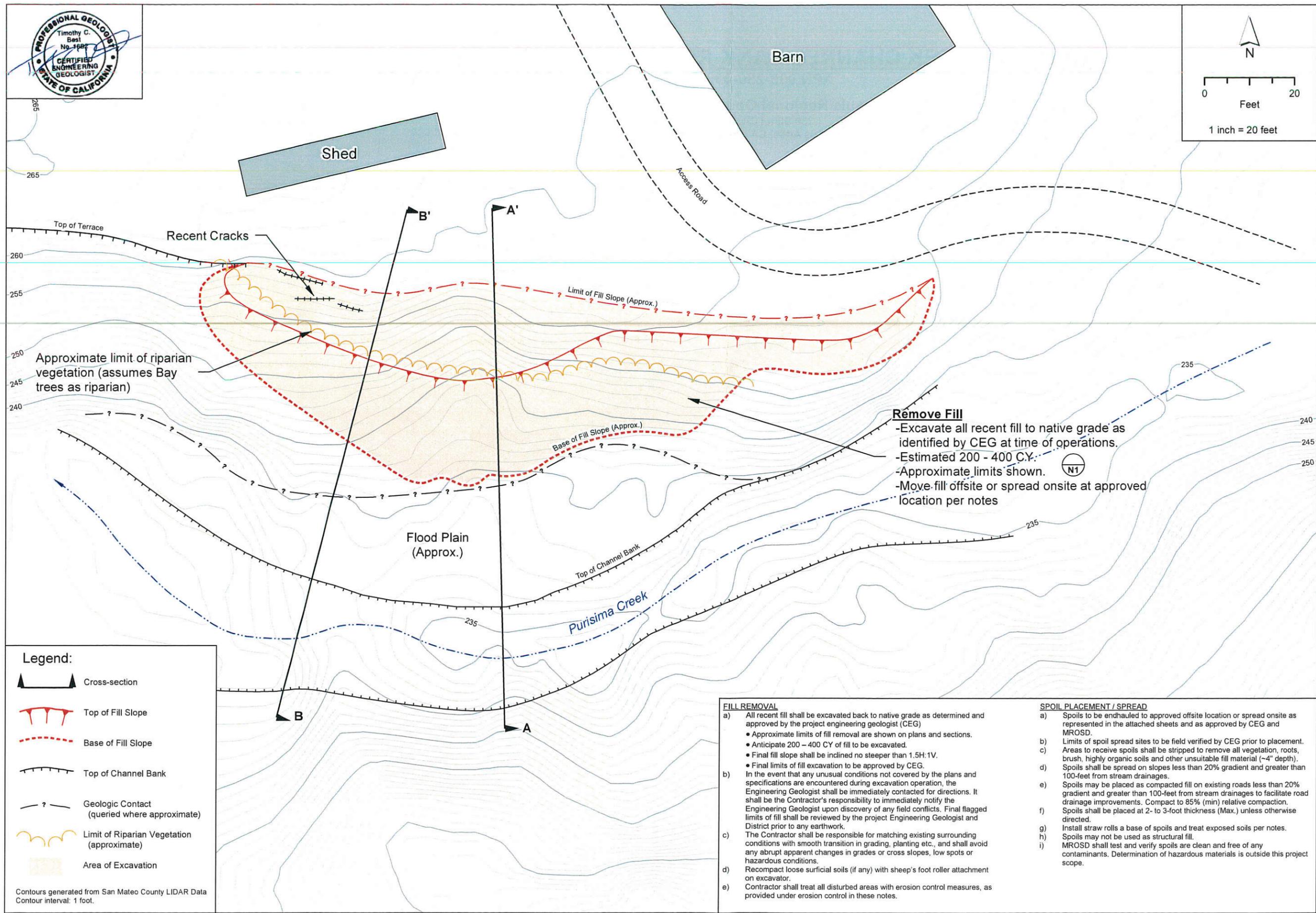
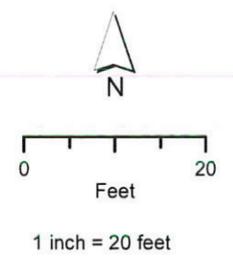
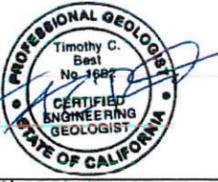
Note: MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside this project scope.

TIMOTHY C. BEST, CEG
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TITLE SHEET
PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET
C1



- Legend:**
- Cross-section
 - Top of Fill Slope
 - Base of Fill Slope
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Limit of Riparian Vegetation (approximate)
 - Area of Excavation

Contours generated from San Mateo County LIDAR Data
Contour interval: 1 foot.

- FILL REMOVAL**
- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - Approximate limits of fill removal are shown on plans and sections.
 - Anticipate 200 – 400 CY of fill to be excavated.
 - Final fill slope shall be inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation to be approved by CEG.
 - b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
 - c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
 - d) Recompact loose surficial soils (if any) with sheep's foot roller attachment on excavator.
 - e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

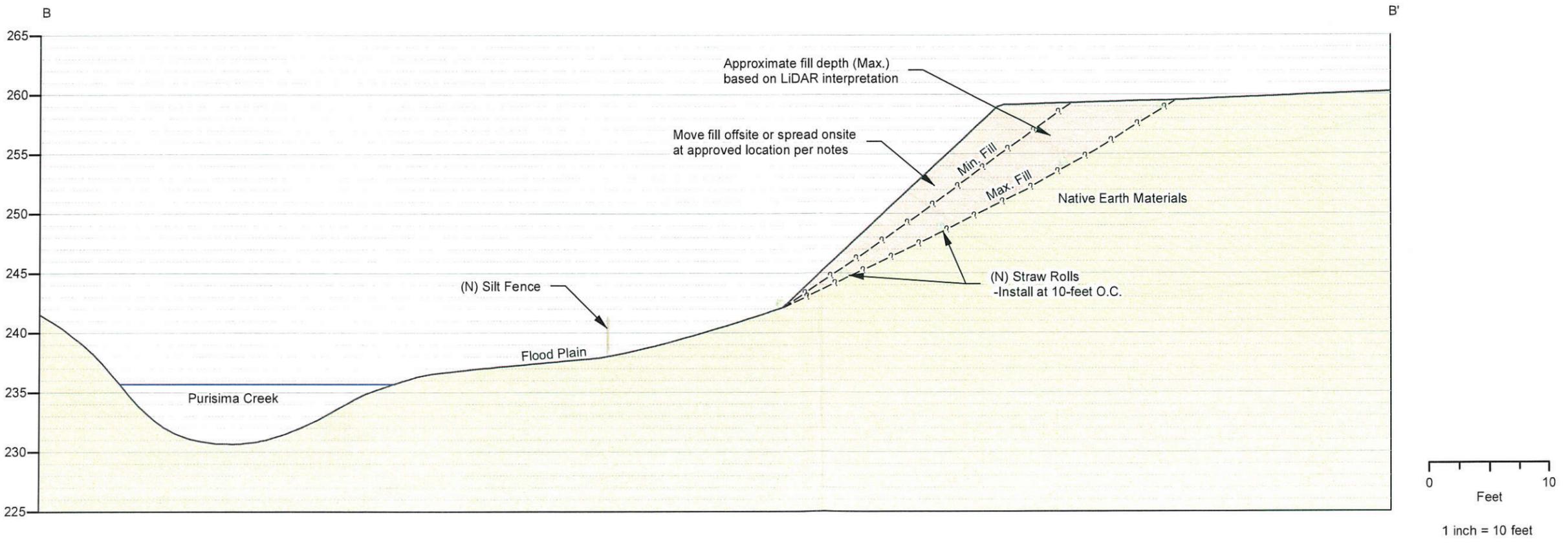
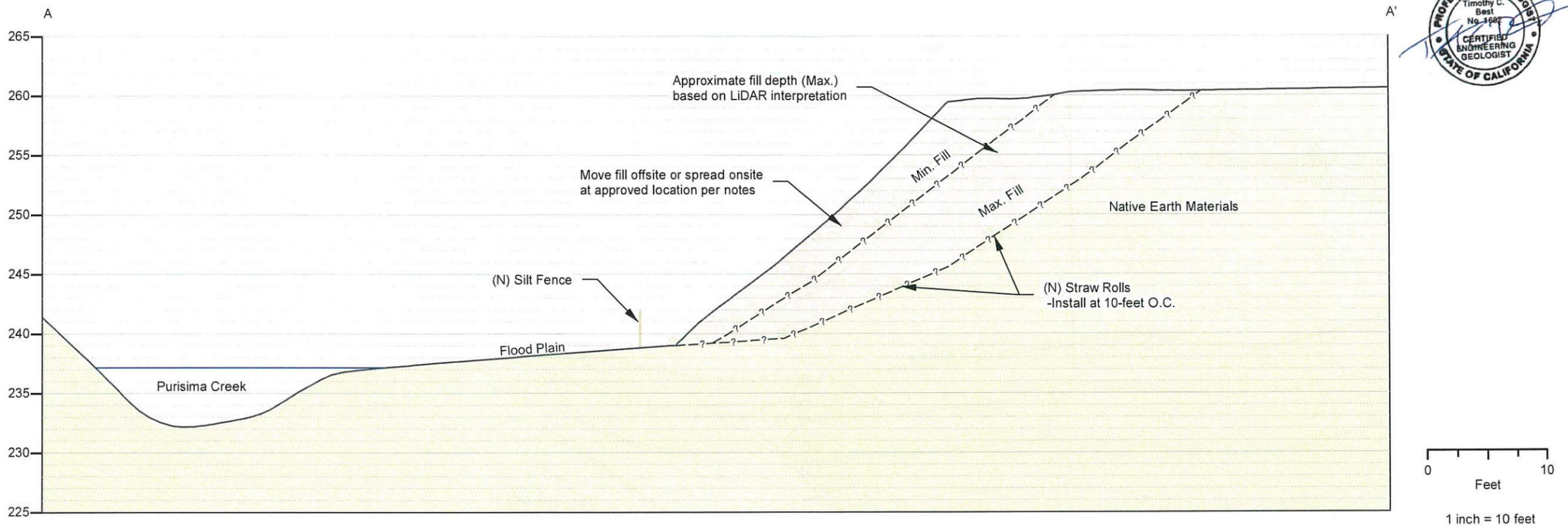
- SPOIL PLACEMENT / SPREAD**
- a) Spoils to be enhaauled to approved offsite location or spread onsite as represented in the attached sheets and as approved by CEG and MROSD.
 - b) Limits of spoil spread sites to be field verified by CEG prior to placement.
 - c) Areas to receive spoils shall be stripped to remove all vegetation, roots, brush, highly organic soils and other unsuitable fill material (~4" depth). Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
 - d) Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements. Compact to 85% (min) relative compaction.
 - e) Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
 - f) Install straw rolls a base of spoils and treat exposed soils per notes.
 - g) Spoils may not be used as structural fill.
 - h) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside this project scope.

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(831) 425 5832 (831) 425 5830 (fax)

GRADING PLAN
PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET
C2



TIMOTHY C. BEST, CEG
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 (831) 425 5832 (831) 425 5830 (fax)

**CROSS SECTIONS
 PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**

APN 066-230-030; Midpeninsula Regional Open Space District

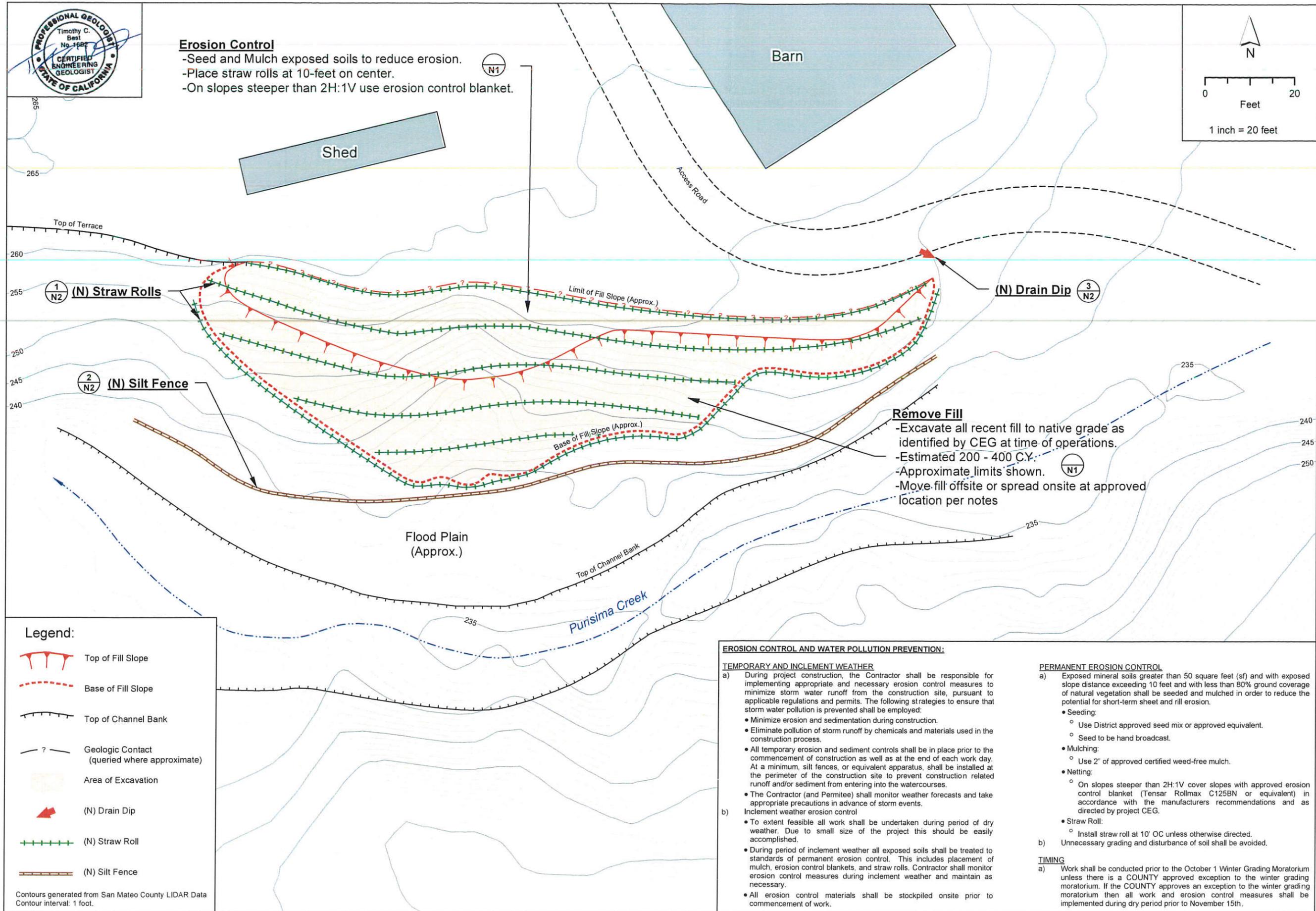
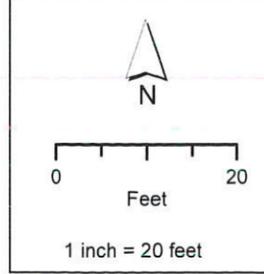
Date: August 31, 2016
 Revised: Sept. 27, 2016
 Project: MPEN-
 PURISMAGRADE-743

**SHEET
 C3**



Erosion Control

- Seed and Mulch exposed soils to reduce erosion.
- Place straw rolls at 10-feet on center.
- On slopes steeper than 2H:1V use erosion control blanket.



Remove Fill
 -Excavate all recent fill to native grade as identified by CEG at time of operations.
 -Estimated 200 - 400 C.Y.
 -Approximate limits shown.
 -Move fill offsite or spread onsite at approved location per notes

Legend:

- Top of Fill Slope
- Base of Fill Slope
- Top of Channel Bank
- Geologic Contact (queried where approximate)
- Area of Excavation
- (N) Drain Dip
- (N) Straw Roll
- (N) Silt Fence

Contours generated from San Mateo County LIDAR Data
 Contour interval: 1 foot.

EROSION CONTROL AND WATER POLLUTION PREVENTION:

TEMPORARY AND INCLEMENT WEATHER

- During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
- Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work.

PERMANENT EROSION CONTROL

- Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.
- Unnecessary grading and disturbance of soil shall be avoided.

TIMING

- Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

**EROSION CONTROL (TEMP / PERM)
 PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**



APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
 Revised: Sept. 27, 2016
 Project: MPEN-
 PURISIMAGRADE-743

**SHEET
 C4**

GENERAL

1) GENERAL NOTES

- a) The "District" shall be Midpeninsula Regional Open Space District, the "Engineering Geologist" (CEG) shall be Timothy C. Best and the "Contractor" shall be the District or independent contractor to perform the work described herein. The Engineering Geologist has been retained by the District and is not affiliated with the Contractor.
- b) All materials and workmanship shall conform to the project documents and applicable requirements.
- c) The Contractor shall be responsible for coordinating the project documents with conditions at the site and shall verify existing grades, elevations and conditions prior to commencing work. Any discrepancies shall be reported to the Engineering Geologist and shall be resolved before proceeding with the work. Any deviation, substitution or alteration to the trail layout shall be subject to review by the Engineering Geologist.
- d) The Contractor shall be responsible for the safety of the construction area during construction and shall provide necessary safety measures in accordance with all state and local safety ordinances. This requirement shall apply continuously and not be limited to normal working hours.
- e) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- f) Contractor shall assume all responsibility for location and avoidance or repair of all utilities, including, but not limited to water. Contractor shall verify location of all utilities whether shown on the drawings or not. If the Contractor fails to adequately protect the utilities, any resulting damage shall be repaired at Contractor's cost.
- g) The Contractor shall provide the District and Engineering Geologist with the name and telephone number of the responsible person to contact, with regard to this project, 24 hours a day.
- h) Contractor shall be responsible for following any requirements of the permitting agencies. Any discrepancies between permits and plans shall be brought to the attention of the Engineering Geologist prior to construction.
- i) Contractor shall be responsible for site clean-up to the satisfaction of the District.
- j) All construction equipment shall avoid contact with stream waters.
- k) Unapproved over-excavation shall be considered a permanent construction defect with potential significant risks and hazards for the owner and downslope properties.

2) EXAMINATION OF JOB SITE, PLANS AND SPECIFICATIONS

- a) The documents indicate general and typical details of construction.
- b) The Contractor shall examine carefully the site of work and the Plans and Specifications. The submission of a bid shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of this Investigation and the Plans and Specifications.
- c) The Contractor shall recognize that the plans used for the drawings may differ from the actual physical site. Dimensions are approximate. Before proceeding with the work, it shall be the Contractor's responsibility to check the site in relation to the drawings and specifications. Report any discrepancies to the Owner and the Engineering Geologist.
- d) The Contractor must attend a pre-bid meeting with the Engineer prior to submitting a proposal to complete the proposed work. The Contractor may be required to attend a pre-construction meeting with the Engineer prior to the commencement of construction. The purpose of these meetings is so the Contractor may ask questions concerning the work and to make sure the Contractor understands the permit conditions and environmental constraints.
- e) At all times during project construction activities, copies of the approved final plans, copies of permits, and a copy of this report shall be maintained at the construction job site (where such copies shall be available for public review) and all persons involved with the construction shall be briefed on the content and meaning of each prior to commencement of construction

3) VEGETATION CLEARING

- a) The fill shall be cleared of all vegetation including trees and logs less than 3 inches DBH(diameter breast height). Trees greater than 3 inches DBH shall be removed only if indicated on the plans or with the authorization of the District representative.
- b) All roots exposed during construction shall be clean cut to avoid tree damage.
- c) When pruning, prevent branches from damaging tree or stripping the bark when the branch falls to the ground.
- d) The Contractor shall exercise due care to preserve existing vegetation outside of grading.

4) FILL REMOVAL

- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - Approximate limits of fill removal are shown on plans and sections.
 - Anticipate 200 – 400 CY of fill to be excavated.
 - Final fill slope shall be inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation to be approved by CEG.
- b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
- c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
- d) Recompact loose surficial soils (if any) with sheep's foot roller attachment on excavator.
- e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

5) SPOIL PLACEMENT / SPREAD

- a) Spoils to be endhailed to approved offsite location or spread onsite as represented in the attached sheets and as approved by CEG and MROSD.
- b) Limits of spoil spread sites to be verified by CEG prior to placement.
- c) Areas to receive spoils shall be stripped to remove all vegetation, roots, brush, highly organic soils and other unsuitable fill material (~4" depth).
- d) Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
- e) Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements. Compact to 85% (min) relative compaction.
- f) Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
- g) Install straw rolls a base of spoils and treat exposed soils per notes.
- h) Spoils may not be used as structural fill.
- i) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside this project scope.

6) EROSION CONTROL AND WATER POLLUTION PREVENTION

- a) Temporary and inclement weather erosion control
 - i) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
 - ii) Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work
- b) Permanent erosion control
 - i) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.
 - c) Unnecessary grading and disturbance of soil shall be avoided.

7) TIMING

- a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

8) STAGING AND ACCESS

- a) Construction access shall be as directed by owner. Impacts to the access route must be minimized and disturbance along the access route must be restored to pre-construction conditions upon project completion.
- b) Upon completion of construction the access route and staging areas shall be restored to their original condition.
- c) The contractor shall carefully preserve the surrounding property by confining operations within the limits of work. Construction work or equipment operations shall not be conducted outside the designated work area boundary without approval of the engineer.

9) INSPECTIONS

- a) The project engineering geologist (CEG) shall be provided an opportunity to review project plans with the contractor during the pre-construction meeting to evaluate if recommendations have been properly interpreted. They shall also provide excavation and earthwork observations and testing during construction. This allows them to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If they do not review the plans and provide observation and testing services during the earthwork phase of the project, they assume no responsibility for misinterpretation of the recommendations.
- b) Regulatory agencies may require a final grading compliance letter. We can only offer this letter if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. It is anticipated that full time construction observation will be required. Please contact our office: Tim Best 831-425-5832 (office) 831-332-7791 (mobile).
- c) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- d) The following inspections are required:
 - i. Pre-construction / pre-bid
 - ii. Progress inspection of fill removal
 - iii. Progress inspection of erosion control and site restoration
 - iv. Final inspection

TIMOTHY C. BEST, CEG
ENGINEERING GEOLOGY AND HYDROLOGY
1002 Columbia Street, Santa Cruz, CA 95060
(831) 425-5832 (831) 425-5830 Fax



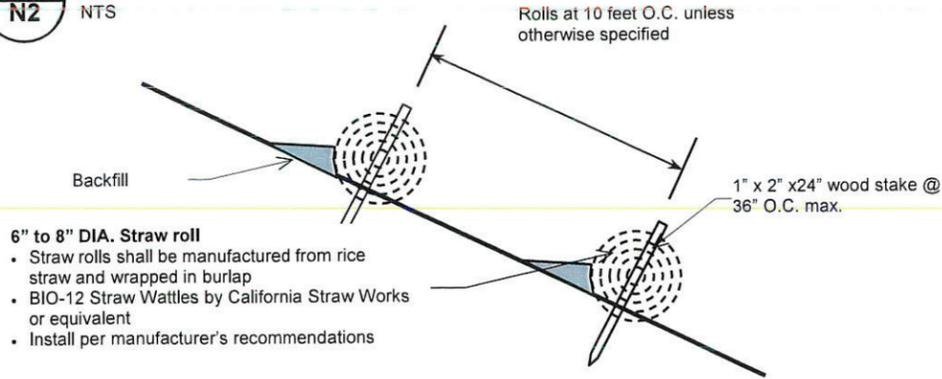
PROJECT NOTES
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET

N1

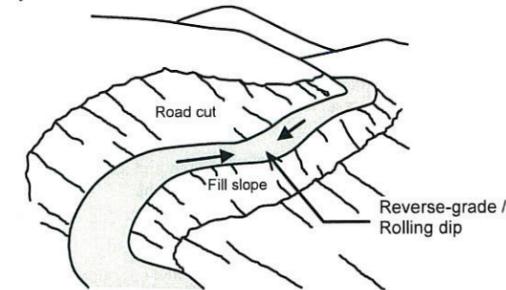
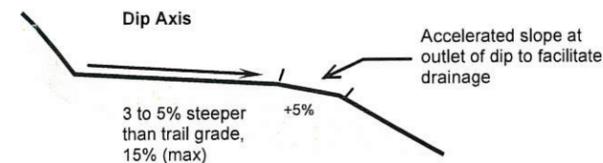
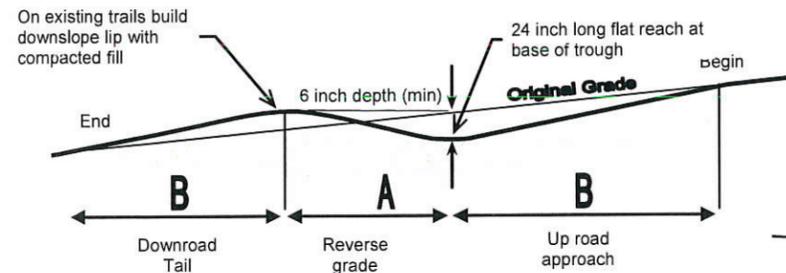
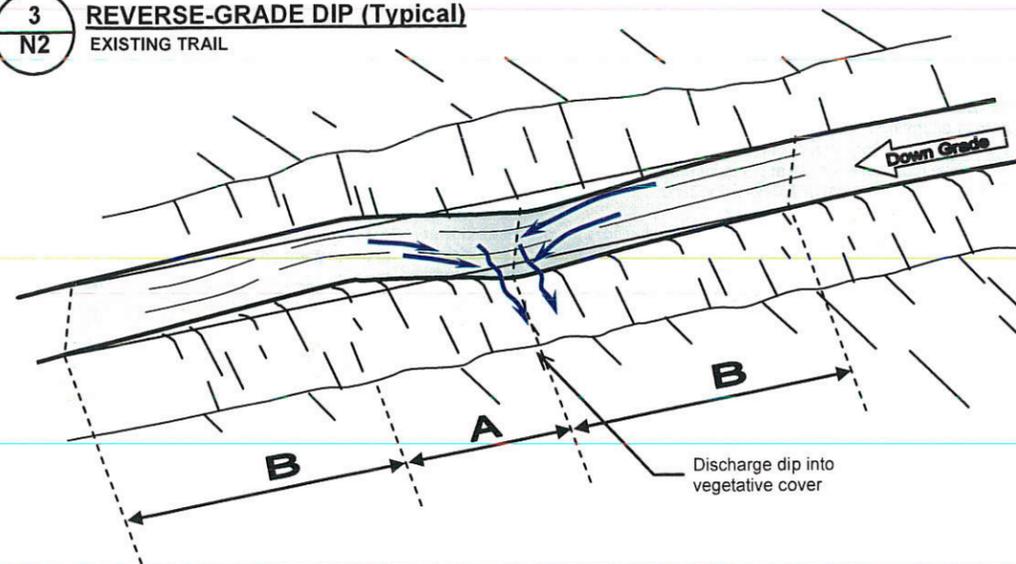
1 STRAW ROLL (Typical)
N2 NTS



- 6" to 8" DIA. Straw roll**
- Straw rolls shall be manufactured from rice straw and wrapped in burlap
 - BIO-12 Straw Wattles by California Straw Works or equivalent
 - Install per manufacturer's recommendations

- NOTES:**
- Location
 - Install at base of disturbed areas and at outlets of new or reconstructed reverse grades/rolling dips unless otherwise specified
 - Rolls to extend across entire width of disturbed area unless otherwise specified or directed
 - Placement
 - Install per manufacturer's recommendations
 - Rolls to be placed on slope contour
 - Adjacent rolls to overlap; turn ends of rolls up
 - Runoff must not be allowed to run under or around the roll

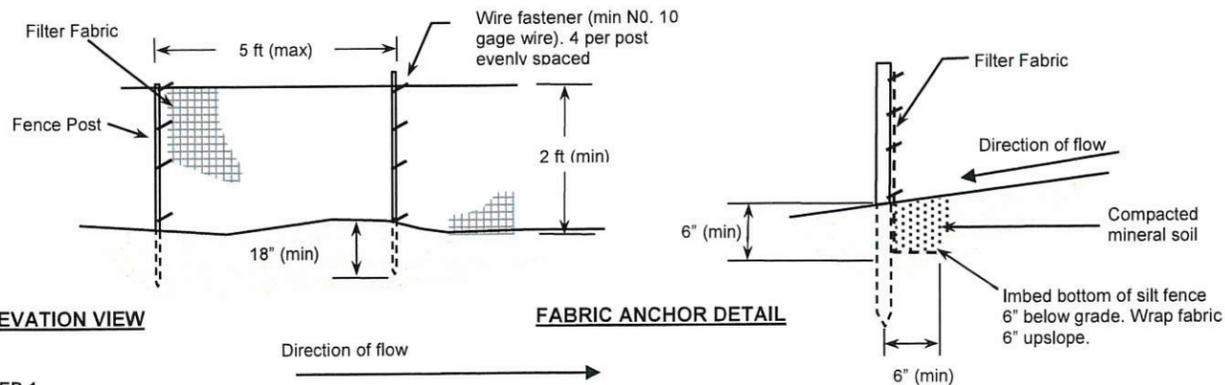
3 REVERSE-GRADE DIP (Typical)
N2 EXISTING TRAIL



ROAD GRADE (%)	TROUGH	A: REVERSE GRADE	B: UP ROAD APPROACH DOWN ROAD TAIL	
	Minimum depth below downslope crest	Minimum distance and grade from trough axis to downroad crest (ft)	Distance from up-road start of rolling dip to trough axis (ft)	Grade (%)
<5%	6 inches	20 feet at 3% (Unless otherwise directed)	30	10%
10%			30	15%
15%			40	20%
>15%			40	25%

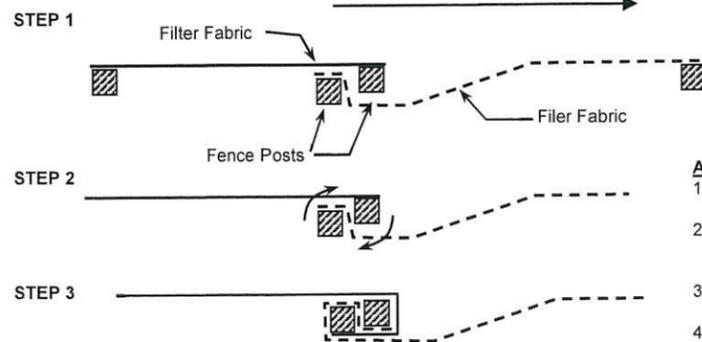
- NOTES**
- A reverse-grade dip (or rolling dip) is a broad, long, permanent dip constructed into native soils. It is intended to drain the trail/road while not significantly impeding traffic.
 - On existing trails/roads the dip is cut into the existing tread with the downroad dip built up on compacted fill.
 - The dip shall be a minimum of 8 inches deep and incorporate a 2 foot long flat reach at the base of the trough (unless otherwise directed).
 - The dip axis should be outsloped 3% greater than trail grade to maximum 15%. Dip axis may be skewed down road at 30 degree – this will make installation of dips on steeper grades easier.
 - Dip outlets should be located to drain into areas with adequate sediment filter quality and non-erodible material such as rock, slash, brush, etc. Where specified, the bottom of the outfall of the dip will be surface-rocked.
 - Where natural slopes exceed 50%, fill shall not be pushed over the dip outlet. A backhoe or excavator may be required to pull back fill at outlet of existing dips.
 - Dips shall be placed as specified in the plans. If not specified, then dips shall be placed at maximum 75 foot spacings.

2 SILT FENCE (Typical)
N2 NTS



ELEVATION VIEW

FABRIC ANCHOR DETAIL



ATTACHING TWO SILT FENCES SECTION TOGETHER

ATTACHMENT NOTES:

1. Place the end post of the second fence inside the end post of the first fence.
2. Rotate both posts at least 180 degrees in a clockwise direction to create a tight seal with the fabric material overlap.
3. Drive both posts a minimum of 18" into the ground and bury the material flap a minimum of 6" deep.
4. Use approved filter fabric for silt fence.

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TYPICAL DETAILS
PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT
APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
Revised: Sept. 27, 2016
Project: MPEN-
PURISMAGRADE-743

SHEET

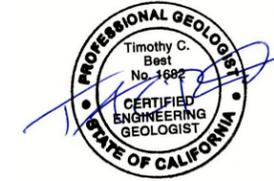
N2

PURISIMA CREEK CHANNEL BANK RESTORATION PROJECT

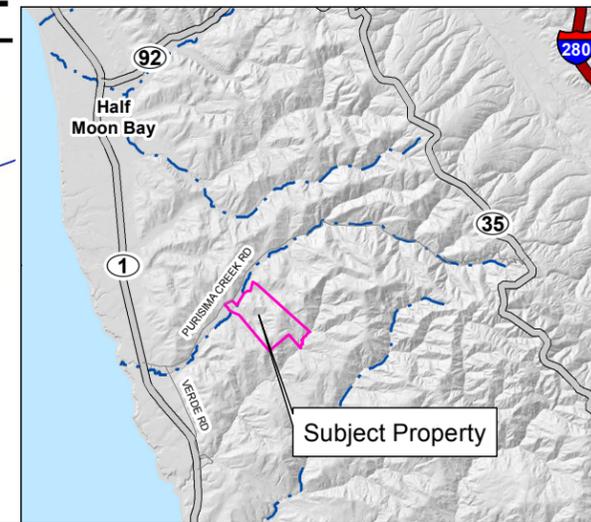
AS BUILT PLANS

APN 066-230-030

Midpeninsula Regional Open Space District
 330 Distel Circle
 Los Altos, CA 94022



VICINITY MAP



PROJECT DESCRIPTION

In order to stabilize Purisima Creek channel bank the project removed approximately 400 cubic yards of unpermitted fill. The fill was transported to a suitable onsite location and disposed of in a manner to prevent erosion.

The fill removal area along the channel bank was stabilized by recompacting the loose surficial soils and applying appropriate erosion control measures. These measures included the application of seed, mulch, erosion control blanket and straw rolls. Drainage along the road bounding the site was also improved to prevent uncontrolled runoff from draining into the work area.

Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) was minimized to the extent feasible. No large trees were removed.

All grading and erosion control work was supervised by the project engineering geologist and revegetation by the District restoration ecologist.

SHEET INDEX

SHEET	TITLE
C1	Title Sheet and Location Map
C2	Grading Plan
C3	Cross Sections
C4	Erosion Control

CONTACTS

OWNER
 MIDPENINSULA REGIONAL
 OPEN SPACE DISTRICT
 330 DISTEL CIRCLE
 LOS ALTOS, CA. 94022
 (650) 691-1200
 CONTACT: LISA BANKOSH

ENGINEERING GEOLOGIST/PLAN PREP
 TIMOTHY C BEST, CEG
 1002 COLUMBIA STREET
 SANTA CRUZ, CA 95060
 (831) 425-5832
 CONTACT: TIM BEST

SYMBOLS

WATERCOURSES

- Perennial
- Intermittent
- Ephemeral

ROADS/TRAILS

- Paved road

- Parcel boundary (Approx.)

- Removed fill

- Spoil Site

- Straw Roll

Contours generated from San Mateo County
 LIDAR Data Contour interval: 20 feet.

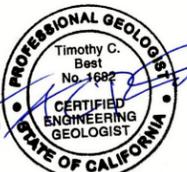


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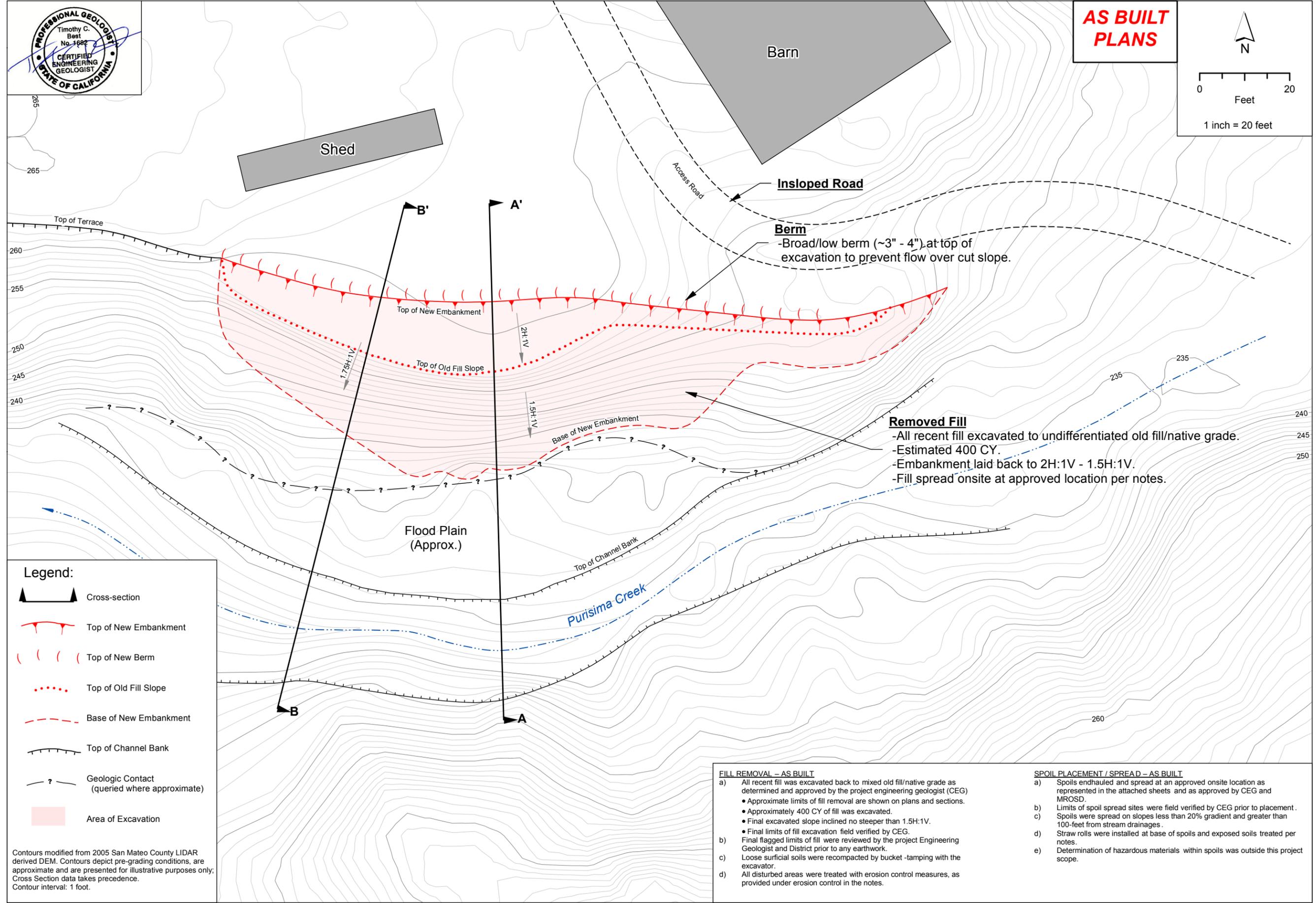
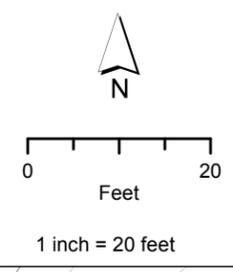
**AS BUILT: PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**
 APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
 Revised: March 20, 2017
 Project: MPEN -
 PURISMAGRADE-743

**SHEET
 C1**



**AS BUILT
PLANS**



- Legend:**
- Cross-section
 - Top of New Embankment
 - Top of New Berm
 - Top of Old Fill Slope
 - Base of New Embankment
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Area of Excavation

Contours modified from 2005 San Mateo County LIDAR derived DEM. Contours depict pre-grading conditions, are approximate and are presented for illustrative purposes only. Cross Section data takes precedence. Contour interval: 1 foot.

Removed Fill
 -All recent fill excavated to undifferentiated old fill/native grade.
 -Estimated 400 CY.
 -Embankment laid back to 2H:1V - 1.5H:1V.
 -Fill spread onsite at approved location per notes.

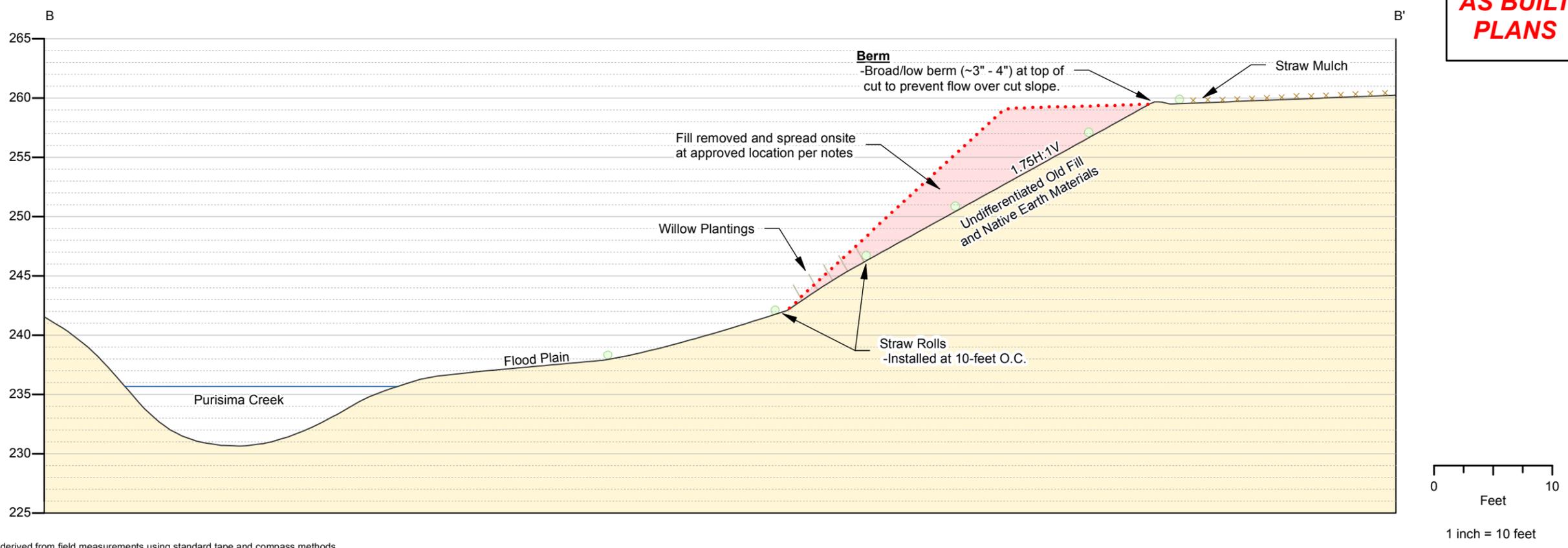
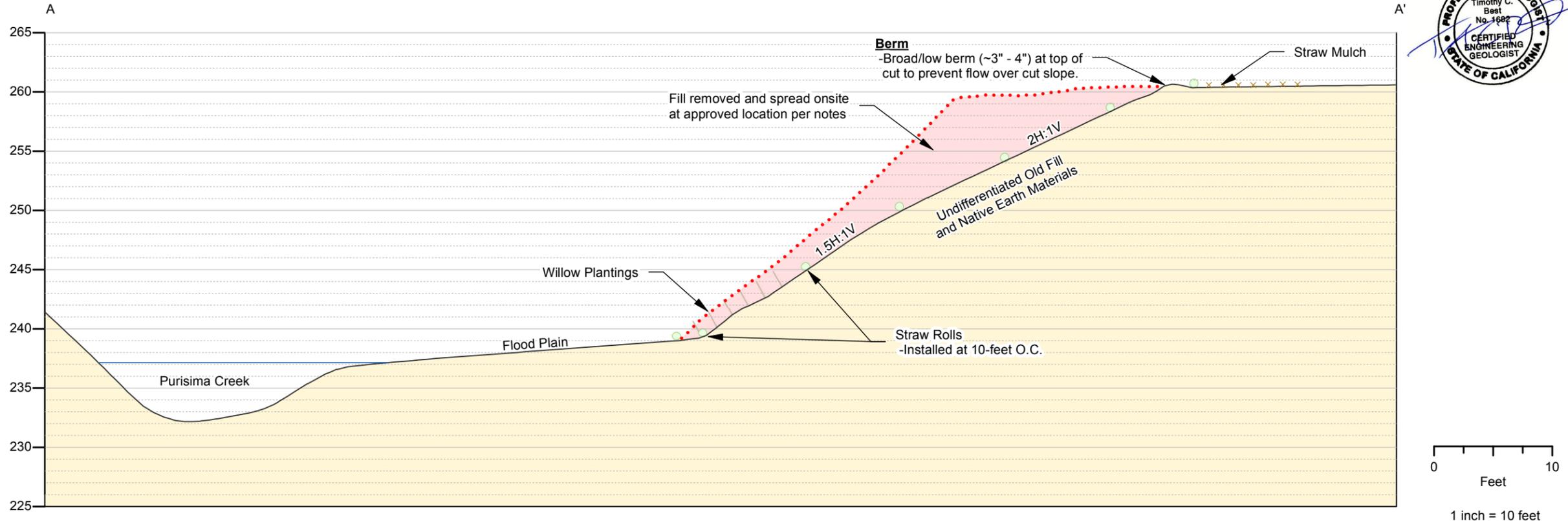
- FILL REMOVAL - AS BUILT**
- All recent fill was excavated back to mixed old fill/native grade as determined and approved by the project engineering geologist (CEG).
 - Approximate limits of fill removal are shown on plans and sections.
 - Approximately 400 CY of fill was excavated.
 - Final excavated slope inclined no steeper than 1.5H:1V.
 - Final limits of fill excavation field verified by CEG.
 - Final flagged limits of fill were reviewed by the project Engineering Geologist and District prior to any earthwork.
 - Loose surficial soils were recompacted by bucket -tamping with the excavator.
 - All disturbed areas were treated with erosion control measures, as provided under erosion control in the notes.
- SPOIL PLACEMENT / SPREAD - AS BUILT**
- Spoils endhailed and spread at an approved onsite location as represented in the attached sheets and as approved by CEG and MROSD.
 - Limits of spoil spread sites were field verified by CEG prior to placement.
 - Spoils were spread on slopes less than 20% gradient and greater than 100-feet from stream drainages.
 - Straw rolls were installed at base of spoils and exposed soils treated per notes.
 - Determination of hazardous materials within spoils was outside this project scope.

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**AS BUILT: PURISIMA CREEK
CHANNEL BANK RESTORATION PROJECT**
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 PURISIMAGRADE-743

**SHEET
C2**



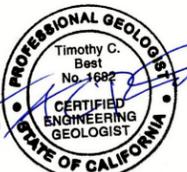
Note: Topographic sections derived from field measurements using standard tape and compass methods.

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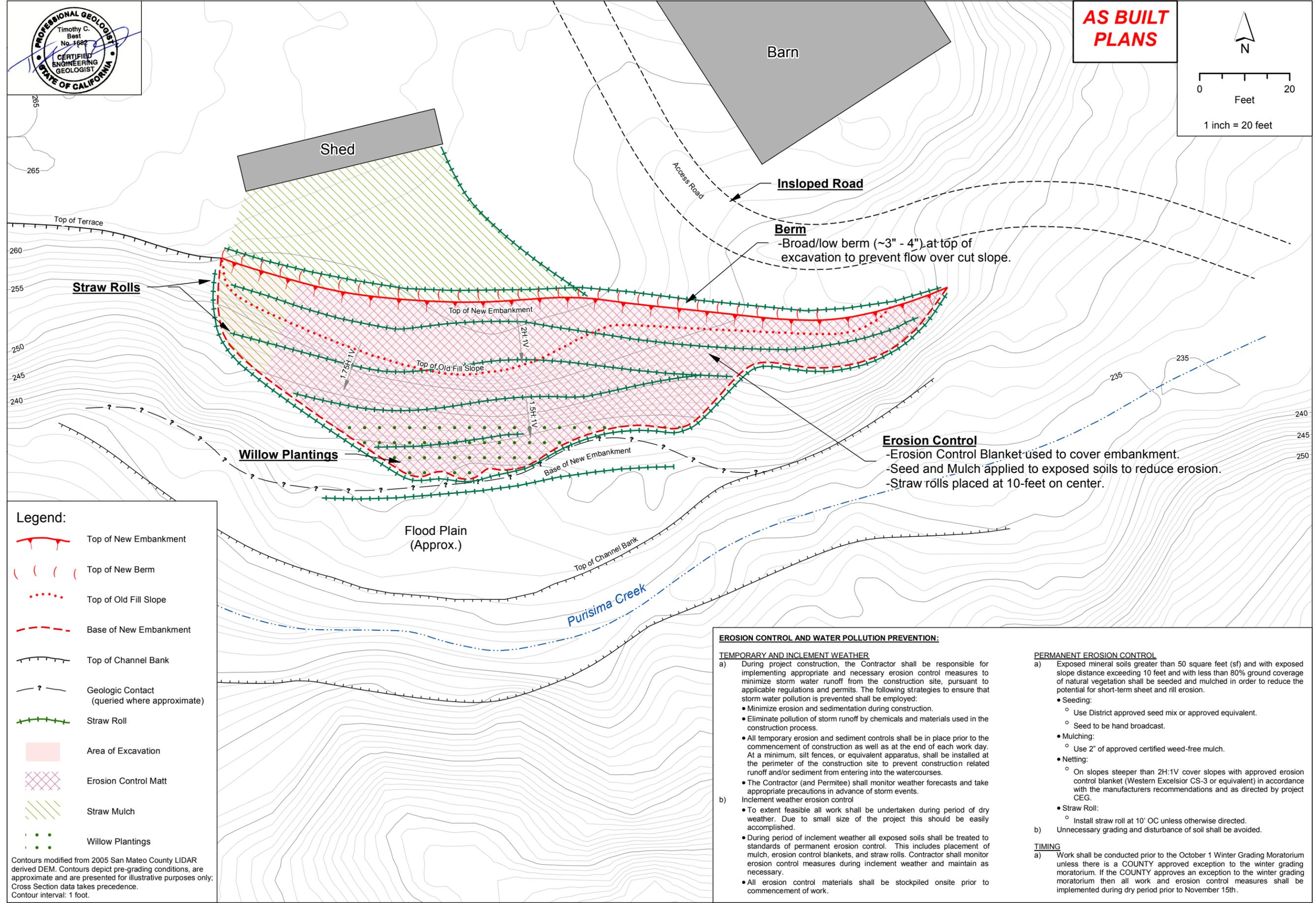
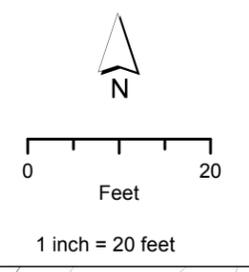
**AS BUILT: PURISIMA CREEK
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 PURISMAGRADE-743

**SHEET
 C3**



**AS BUILT
PLANS**



- Legend:**
- Top of New Embankment
 - Top of New Berm
 - Top of Old Fill Slope
 - Base of New Embankment
 - Top of Channel Bank
 - Geologic Contact (queried where approximate)
 - Straw Roll
 - Area of Excavation
 - Erosion Control Matt
 - Straw Mulch
 - Willow Plantings

Contours modified from 2005 San Mateo County LIDAR derived DEM. Contours depict pre-grading conditions, are approximate and are presented for illustrative purposes only. Cross Section data takes precedence. Contour interval: 1 foot.

Erosion Control
 -Erosion Control Blanket used to cover embankment.
 -Seed and Mulch applied to exposed soils to reduce erosion.
 -Straw rolls placed at 10-feet on center.

Berm
 -Broad/low berm (~3" - 4") at top of excavation to prevent flow over cut slope.

EROSION CONTROL AND WATER POLLUTION PREVENTION:

TEMPORARY AND INCLEMENT WEATHER

a) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:

- Minimize erosion and sedimentation during construction.
- Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
- All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
- The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.

b) Inclement weather erosion control

- To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
- During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
- All erosion control materials shall be stockpiled onsite prior to commencement of work.

PERMANENT EROSION CONTROL

a) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.

- Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
- Mulching:
 - Use 2" of approved certified weed-free mulch.
- Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Western Excelsior CS-3 or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
- Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed.

b) Unnecessary grading and disturbance of soil shall be avoided.

TIMING

a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium. If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

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**AS BUILT: PURISIMA CREEK
 CHANNEL BANK RESTORATION PROJECT**
 APN 066-230-030; Midpeninsula Regional Open Space District

Date: August 31, 2016
 Revised: March 20, 2017
 Project: MPEN -
 PURISIMAGRADE-743

**SHEET
 C4**

COUNTY OF SAN MATEO
PLANNING AND BUILDING

County Government Center
455 County Center, 2nd Floor
Redwood City, CA 94063
650-363-4161 T
650-363-4849 F
www.planning.smcgov.org

October 18, 2016

Lisa Bankosh
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

Dear Ms. Bankosh:

SUBJECT: **EMERGENCY COASTAL DEVELOPMENT PERMIT
AND REMEDIATION OF GRADING VIOLATION**
2050 Purisima Creek Road, North San Gregorio
APN 066-230-030; County File No. PLN 2016-00412

I am writing in response to your September 30, 2016 request for an Emergency Coastal Development Permit (CDP) for the purpose of removing approximately 400 cubic yards of fill material placed illegally on the banks of Purisima Creek located at 2050 Purisima Creek Road (APN 066-230-030). The purpose of this letter is also to resolve the Violation case (VIO 2016-00235) for the illegal grading activity on the subject parcel without the benefit of a grading permit. The area of illegal fill placement extends for 100 feet along the outer edge of the Purisima Creek terrace and 10 to 30 feet downslope to the flood plain. Currently, there is no fill material directly entering the waterway. The property owner is proposing to remediate the grading violation by removing the illegally placed fill material which will either be transported off site and disposed of at an appropriate facility or spread on-site in a manner to prevent erosion. The limits of spoil spread sites will be field verified by the project's certified geotechnical consultant, Timothy Best, CEG. Disturbance to the riparian vegetation, mainly small Bay trees and scattered brush, will be minimized to the extent feasible. No large trees will be removed. While a Violation case was opened for this unpermitted grading work, a Grading Violation was never recorded on the subject parcel.

A memorandum providing biotic assessment results for this project prepared by Bryan Apple, a planner at Midpeninsula Regional Open Space District (MROSD), dated September 19, 2016, was submitted with this request. Apple visited the project site to characterize the biotic habitats present within the project area and identify special-status species potentially affected by the project. Central coast riparian scrub, a sensitive habitat, and ruderal/upland, are present on the project site. The understory of the central coast riparian scrub area is heavily disturbed due to the illegal fill placement activities with many areas consisting of bare soil. The observed wildlife in the project area consisted of primarily various species of birds. No bird nests or nesting behavior was observed and all work will occur outside of the bird nesting season. The special-status species that may have the potential to occur in this sensitive habitat are the California red legged frog, San Francisco garter snake, and San Francisco dusky footed woodrat. The nearest documented occurrence of the San Francisco garter snake is located to the south approximately 3 miles away. The ruderal/upland within the

Attachment E



illegally placed fill area is mostly bare mineral soil (approximately 75%) due to the recent grading. There are various exotic species that may have the potential to be in this area, but no suitable habitat for special-status species occurs in this habitat. However, dispersing California red legged frogs could traverse the area, particularly during the wet season.

The project area is within the California Department of Fish and Wildlife jurisdiction and grading remediation will be carried out in accordance with MROSD's Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3. Avoidance measures of the Agreement and the biotic assessment have been included as conditions of approval to mitigate potential impacts and include temporary and permanent erosion control measures (native seed mix), survey and on-site sensitive species biological monitors, and vehicle restrictions for vehicles parked on-site for more than 15 minutes to be inspected.

Emergency Coastal Development Permit

Section 6328.19 of the County Zoning Regulations (Coastal Development Permit Regulations) allows for the issuance of Emergency Coastal Development Permits. The granting of an Emergency Coastal Development Permit is subject to the following findings:

1. An emergency exists and requires action more quickly than permitted by the procedures for ordinary permits and the development can be completed within 30 days unless otherwise specified by the terms of the permit;
2. Public comment on the proposed emergency action has been reviewed if time allows; and
3. The work proposed will be consistent with the requirements of the certified Local Coastal Program (LCP).

The applicant has submitted an engineering geological assessment prepared by Timothy C. Best, CEG, dated September 27, 2016. The assessment states that based on field observations, the recently placed fill is unstable with a high potential for settlement and failure. Best recommends that all recent fill material be removed and the excavated slope be stabilized.

The project will take place during the wet season (October 1 through April 30) and is located within a sensitive habitat as discussed above. Due to the immediate nature of this emergency (location and wet season), staff did not have time to refer this matter to other agencies. Prior to a decision on this matter, Planning staff reviewed the proposal against the policies and requirements of the County's Local Coastal Program and found it to be consistent. Specifically, the project meets the requirements regarding Sensitive Habitats and Visual Resources. The project will mitigate the potential impacts on sensitive habitats by removing recently placed fill material from the banks of Purisima Creek. The project site is not located in a County Scenic Corridor and will have minimal visual impact. No roads will be created as part of this application. The project will remove the recently placed fill material

and restore the area back to its native grade. The location of the project meets the regulations regarding the Visual Resource component of the Local Coastal Program.

Therefore, an Emergency Coastal Development Permit for the removal of illegally placed fill material located at APN 066-230-030, in unincorporated North San Gregorio, is hereby approved subject to Conditions Nos. 1-5.

Community Development Director's Determination About The Extent Of Grading Violation

The County Grading Regulations Section 8607.1 (Enforcement by Community Development Director) states that the Community Development Director shall enforce the provisions of the Grading Ordinance and, if it has been determined that grading or clearing has been done without a required permit (as has occurred in this case) or beyond the terms and conditions of an issued permit, shall require, as stated in Subsection (c), that the property owner or permit applicant prepare and implement a grading plan, which meets the requirements of the Grading Chapter and accomplishes one of the following:

1. Restores the property to the condition which existed prior to the violation;
2. Requires such remedial work as is necessary to make the grading or land clearing work already completed to conform with all requirements of the Grading Chapter; or
3. Requires such remedial work as is necessary to mitigate impacts of the grading work so that such work conforms as nearly as possible to all requirements of the Grading Chapter. The Community Development Director's determination shall be guided by the factors or findings set forth in Section 8607.4.

In consideration of the above remedial options, the applicant's proposed plans will restore the property to as near the condition which existed prior to the violation (option 1). Toward that end, the applicant has submitted a Grading Plan and Erosion Control Plan all prepared by Timothy C. Best, CEG, last revised on September 27, 2016, along with a geotechnical recommendation letter also prepared by Timothy C. Best, CEG, dated September 27, 2016.

Required Finding For Making Determination Of Proposed Remediation

The County Grading Regulations Section 8607.4 (*Restoration or Remedial Work*) states that in determining what remedial action shall be required, as provided by the previously indicated section, the Community Development Director shall consider the above-cited remedial work as the most appropriate remedy. In making this determination, the Community Development Director shall consider:

1. The amount of grading which has been done in violation of the Grading Chapter.

County Response: It is estimated that the violation consists of approximately 400 cubic yards (cy) of grading, in violation of Section 8602.1 since: a) there is no exemption

pursuant to Section 8603 for such grading, and b) the subject grading was done without issuance of any Grading Permit.

2. The amount of grading which would be necessary to either restore the property to its original condition or bring the grading or clearing into conformance with the requirements of this Chapter.

County Response: *The submitted plans stipulate that the restoration of the illegally graded area would involve the removal of a total of approximately 400 cy of grading of imported fill to restore the property to as near the condition it was in prior to the illegal grading as practical.*

3. The environmental damage which would occur as a result of either restoring the property to its original condition or bring the grading into conformance with the requirements of this chapter.

County Response: *The proposed grading plans to restore and remediate the illegal grading will mitigate the potential impacts to any sensitive or protected habitats. Central coast riparian scrub is present within the project area. The project area is within the California Department of Fish and Wildlife jurisdiction and grading remediation will be carried out in accordance with MROSD's Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3. Avoidance measures of the Agreement include best management practices for working in or near streams and replanting with native seed mix. These items are included in the submitted erosion control plan and have been made conditions of approval in addition to Conditions Nos. 6-7 to mitigate any potential impacts to sensitive species.*

4. The economic feasibility of either restoring the property to its original condition or bring the grading into conformance with the requirements of this chapter.

County Response: *The property owner is proposing to restore the property to as near the condition it was in prior to the illegal grading as practical. The proposed restoration will restore the site's overall stability.*

5. The degree of culpability of the person committing the violation.

County Response: *While the current property owner is responsible for the illegal grading activity that has occurred on the parcel, staff has no evidence or reason to believe that there was any malicious intention to violate the County Grading Ordinance. Furthermore, the property owner has been responsive to the Violation and has not continued further illegal grading activity since the Violation was issued.*

Findings

For the Environmental Review:

1. That this project is exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15304 (*Minor Alterations to Land*), where subsection (c) allows the "filling of earth into previously excavated land with material compatible with the natural features of the site", and (f) which allows "minor trenching and backfilling where the surface is restored". Further, once completed, the project will effectively reduce or eliminate any future adverse impacts relative to erosion.

For the Emergency Coastal Development Permit:

2. That due to the immediate nature of this emergency, this project requires action more quickly than permitted by the procedures for ordinary permits and development can be completed within 30 days unless otherwise specified by the terms of the permit. Thus, Staff did not have time to refer this matter to other agencies.
3. That Planning staff reviewed the proposal against the policies and requirements of the County's Local Coastal Program and found it to be consistent. Specifically, the project meets the requirements regarding Sensitive Habitats and Visual Resources. The project will mitigate potential impact on sensitive habitats by removing recently placed fill material from the banks of Purisima Creek.

For the Grading Remediation:

4. That the Community Development Director hereby finds that the subject remedial work to restore the grading, along with the required erosion and sediment control measures, complies with Section 8607.4 of the San Mateo County Grading Regulations as discussed above.

Conditions Of Approval

Current Planning Section

1. This approval applies to the project as described on the plans and documents and as described in this letter approved by the Community Development Director on October 18, 2016. This approval is only for the project as depicted on the plans. Any revisions to the plans must be submitted to the Current Planning Section for review and approval prior to implementation. Minor adjustments to the project may be approved by the Community Development Director if they are consistent with the intent of and are in substantial conformance with this approval.
2. This permit shall be valid for thirty (30) days from the date of this approval, in which time a building permit (for monthly construction stormwater inspections) and grading permit

"hard card" shall be issued. An extension of this approval will be considered upon written request and payment of the applicable fees.

3. No additional work, beyond what is described in this letter, is permitted by this approval. Any additional work will be subject to a separate permitting process.
4. The applicant is required to submit for an After-the-Fact Coastal Development Permit for the work covered by this approval within five (5) days of commencing construction.
5. The applicant is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into local storm drain systems and water bodies.
6. Impacts to California red-legged frogs (CRLF) must be avoided through the following Midpeninsula Regional Open Space District's Routine Maintenance Agreement measures (final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):
 - a. 2.50 CRLF Survey: Prior to and within 48 hours of the planned start of project activities, a focused survey for CRLF using agency approved protocol shall be conducted by a qualified biologist to determine if they are in the area. If CRLF are found, the California Department of Fish and Wildlife (CDFW) shall be notified immediately to determine the correct course of action, and routine maintenance activities shall not commence until after May 30 and not begin until approved by the CDFW. CDFW reserves the right to provide additional measures to these Agreement measures to protect sensitive species.
 - b. 2.51 Monitors On-Site for CRLF: If CRLF are found, biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.
 - c. 2.52 Vegetation Removal by Mechanized Equipment at CRLF Sensitive Sites: For vegetation removal on berms or other sites with known CRLF observances, vegetation shall be cut down to 3 inches by hand tools (weed whacker, etc). Once the ground is visible, a visual survey for CRLF shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a CRLF is observed, all activities shall cease and CDFW shall be notified immediately. CRLF can be relocated only if a person is permitted by the United States Fish and Wildlife Service (USFWS) and approved by CDFW for this specific project to handle CRLF.
 - d. 2.53 Vehicle Restrictions: If CRLF are found, any vehicle parked on-site for more than 15 minutes shall be inspected by the biological monitor or qualified biologist before it is moved to ensure that CRLF have not moved under the vehicle. Any

parking areas must be checked in advance by the biological monitor or qualified biologist.

- e. 2.54 No Stockpiling of Vegetation: If CRLF are found, vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on-site for erosion control or slash and not be moved or disturbed.
 - f. 2.55 No Stockpiling of Soil: Soil shall not be stockpiled on the ground unless it is on a paved surface or staging area where there are no burrows.
 - g. 2.56 CRLF Exclusion for Sediment Removal with Large Equipment: If CRLF are found in routine maintenance activity sites using large equipment to remove sediment, CRLF shall be excluded from the project site. CDFW-approved exclusion fencing shall be installed around the sediment removal site, staging areas, and any areas where fill may be dumped. After installation of the fence barrier, a biological monitor or qualified biologist shall inspect, daily, the project work area, staging and stockpiling area prior to the commencement of activities. If the biological monitor or qualified biologist determines that sensitive species are not within the work area, equipment or materials may be moved onto the work site and project activities may commence under the observation of the biological monitor.
7. Impacts to San Francisco garter snakes (SFGS) (specifically where they have not yet been documented) must be avoided through the following Midpeninsula Regional Open Space District's Routine Maintenance Agreement measures (final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):
- a. 2.69 Monitors On-Site for SFGS: Biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.
 - b. 2.70 Vegetation Removal by Mechanized Equipment: For vegetation removal on berms or other sites with SFGS habitat, vegetation shall be cut down to 3 inches by hand tools (weed whacker, etc). Once the ground is visible, a visual study for SFGS shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a SFGS is observed, all activities shall cease and CDFW shall be notified immediately.
 - c. 2.71 No Stockpiling of Vegetation: Vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on-site for erosion control or slash and not be moved or disturbed.

8. A building permit is required to track monthly wet season Erosion Control inspections. Weekly inspections are required in ASBS areas.
9. The applicant must comply with all conditions of approval of the Grading Permit.
10. If the grading period must be extended, provide an updated schedule to the project planner.
11. The applicant shall send photos of final stabilization to the project planner within one week of completion of grading.
12. The site is considered a Construction Stormwater Regulated Site. Any grading and/or ground disturbance activities conducted during the wet weather season (October 1 to April 30) will require monthly erosion and sediment control inspections by the Building Inspection Section.
13. Grading work may only occur during dry weather days only and no grading shall occur within 24 hours after a rain event. All work shall be carried out as stipulated in the approved plans prepared by Timothy C. Best, CEG, last revised September 27, 2016. Any revisions to the approved plans shall be prepared and signed by the engineer, and shall be submitted to the Current Planning Section for concurrence prior to commencing any work pursuant to the proposed revision.
14. The applicant shall immediately notify the Current Planning Section of any changes or updates to the designated Erosion Control Point of Contact Information.
15. Prior to beginning any grading activities, the applicant shall implement the approved Erosion and Sediment Control Plan, which shall be maintained throughout the duration of the project. Erosion control measure deficiencies, as they occur, shall be immediately corrected. The goal is to prevent sediment and other pollutants from leaving the project site and to protect all exposed earth surfaces from erosive forces. Said plan shall adhere to the San Mateo Countywide Stormwater Pollution Prevention Program "General Construction and Site Supervision Guidelines," including:
 - a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30.
 - b. Removing spoils promptly, and avoiding stockpiling of fill materials when rain is forecast. If rain threatens, stockpiled soils and other materials shall be covered with a tarp or other waterproof material.
 - c. Storing, handling, and disposing of construction materials and wastes so as to avoid their entry to a local storm drain system or water body.
 - d. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in an area designated to contain and treat runoff.

- e. The applicant is responsible for ensuring that all contractors minimize the transport and discharge of pollutants from the project site into local water bodies and adhere to appropriate erosion control measures.

- 16. The building inspector has the authority to require additional erosion and sediment control measures at any time during the course of the remediation work. If any measures are found to be deficient, a Stop Work Notice may be issued pursuant to the County's Stormwater Enforcement Response Plan until corrections have been made and applicable fees paid for staff enforcement time. The property owner shall demonstrate via building inspection that the site is stabilized, either with adequate erosion control or landscaping, prior to final inspection approval of the permit.

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

- 18. Pursuant to San Mateo County Ordinance Section 8605.5, all equipment used in grading operations shall meet spark arrester and fire-fighting tool requirements, as specified in the California Public Resources Code.

Extent of Approval

This approval includes only that illegally graded area described above and does not cover any other future grading or clearing activity on the subject parcel. Thank you for your cooperation and patience with this matter. If you have any further questions, please feel free to contact Carmelisa Morales, Project Planner, at 650/363-1873.

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

FOR STEVE MONOWITZ
COMMUNITY DEVELOPMENT DIRECTOR, By:



Melissa Ross, Senior Planner

MAR:CJM:jlh – CJMAA0583_WJN.DOCX

cc: Steve Monowitz, Community Development Director
Renee Ananda, California Coastal Commission



Midpeninsula Regional
Open Space District

Memorandum

DATE: 9/19/2016

MEMO TO: Melissa Ross, San Mateo County Planning Department

FROM: Lisa Bankosh, Open Space Planner

SUBJECT: Purisima Creek Channel Bank Restoration Project

This memorandum provides results of a biotic assessment for the Purisima Creek Channel Bank Restoration Project.

Midpeninsula Regional Open Space District (MROSD) is proposing to remove up to 400 cy of unstable fill material from an area adjacent to Purisima Creek within MROSD's Purisima Creek Redwoods Open Space Preserve. The property where the fill occurred is currently under lease for cut-flower agricultural production. According to the engineering geology report for the project (Best, 2016) the area of fill placement extends for 100 feet along the outer edge of the terrace and 10 to 30 feet downslope to the flood plain of Purisima Creek. Fill appears to have been sidecast over vegetation and without keying or compaction. Fill does not extend into the channel or within the ordinary flow of Purisima Creek.

MROSD planner Bryan Apple visited the site on September 14, 2016, in order to characterize the biotic habitats present within the project area, and identify special-status species potentially affected by the project. In addition to this reconnaissance survey, the most current California Natural Diversity Database and MROSD's internal sensitive species database were consulted on September 19, 2016.

Two habitats, central coast riparian scrub and ruderal/upland, are present on the project site. Central coast riparian scrub is dominated by Arroyo willow (*Salix lasiolepis*) with about 65% coverage in the filled riparian area. The overstory also includes white alder (*Alnus rhombifolia*), and several coast live oaks (*Quercus agrifolia*) closer to the creek channel. The understory is heavily disturbed due to fill activities with many areas consisting of bare soil. The dominant understory species is stinging nettle (*Urtica dioica*), with California blackberry (*Rubus ursinus*) intermixed. The east end of the illegal grading consists primarily of a mix of stinging nettle and poison hemlock (*Conium maculatum*). The approximate width of the riparian corridor is 80 feet. Observed wildlife in the area was primarily various species of birds. No bird nests or nesting behavior was observed and all work will occur outside of nesting bird season. Other potential species could include California newt, rough skinned newt, ensatina, chorus frog, rainbow trout, bobcat, deer, mountain lion, raptors, songbirds and woodpeckers. California red legged frog (CRLF), San Francisco garter snake (SFGS) and San Francisco dusky footed woodrat (SFDFW) special-status species, also potentially occurs in this habitat. The nearest documented occurrence of CRLF is approximately 0.5 miles from the project site (Figure 1). The nearest documented occurrence of SFGS is located to the south over 3 miles away, which is greater than

the expected distance an individual would be expected to travel to reach this site. However due to the fully protected status of the species, avoidance measures have been included (see below). Although SFDFW nests occur on other portions of the Preserve, no nests were observed in proximity to the project area during the September 14, 2016 field visit.

Ruderal/upland habitat within the illegal fill area is dominated by bermuda grass (*Cynodon dactylon*). The majority of this area is bare (~75%) mineral soil due to the recent nature of the grading. There are a number of other exotic species including but not limited to *Rumex crispis*, *Raphanus sp.*, *Amaranthus sp.*, *Conium maculatum*, *Picris echioides*, *Portulaca oleracea*, and *Cucurbita sp.* No suitable habitat for special-status species occurs in the ruderal/upland habitat. However, dispersing CRLF could traverse the area, particularly during the wet season.

The remainder of the project area, where clean spoils will be spread, consists of agricultural field.

Potential Project Impacts

Removal of the unstable fill and restoration of the disturbed bank of Purisima Creek, while resulting in overall beneficial impacts to biotic habitats, has the potential to impact individual CRLF during construction, and may remove several small (<3" diameter) arroyo willow trees, as well as understory vegetation. Construction is expected to span 3-5 days. The project is located on banks of Purisima Creek, which is under the jurisdiction of the California Department of Fish and Wildlife. No construction activities will occur within the jurisdiction of the U.S. Army Corps of Engineers. Clean fill will be spread on agricultural fields at a minimum of 100 feet away from Purisima Creek, in a manner to preserve erosion.

Impact Avoidance Measures

The proposed project will be implemented under MROSD'S Routine Maintenance Agreement (RMA) with the California Department of Fish and Wildlife, a programmatic Lake or Streambed Alteration Agreement. The RMA contains best management practices for working in or near streams, including the use of silt fencing and other barriers, and replanting with native seed, which will be implemented as part of the project and are included on the Erosion Control Plan. Impacts to California red-legged frog will be avoided through the following RMA measures (Final Lake or Streambed Alteration Agreement Notification No. 1600-20 12-0444-R3, 2013):

California red-legged frog (CRLF)

In Jurisdictional areas within 1 mile of a known occurrence of CRLF

2.50 CRLF Survey. Prior to and within 48 hours of the planned start of project activities, a focused survey for CRLF using agency approved protocol shall be conducted by a qualified biologist to determine if they are in the area. If CRLF are found, the CDFW shall be notified immediately to determine the correct course of action and routine maintenance activities shall not commence until after May 30 and not begin until approved by the CDFW. CDFW reserves the right to provide additional measures to this Agreement to protect sensitive species.

2.51 Monitors On-Site for CRLF. If CRLF are found, biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.

2.52 Vegetation Removal by Mechanized Equipment at CRLF Sensitive Sites. For vegetation removal on berms or other sites with known CRLF observances, vegetation shall be cut down to

3 inches by handtools (weedwhacker, etc). Once the ground is visible, a visual survey for CRLF shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a CRLF is observed, all activities shall cease and CDFW shall be notified immediately. CRLF can be relocated only if a person is permitted by the USFWS and approved by CDFW for this specific project to handle CRLF.

2.53 Vehicle Restrictions. If CRLF are found, any vehicle parked on site for more than 15 minutes shall be inspected by the biological monitor or qualified biologist before it is moved to ensure that CRLF have not moved under the vehicle. Any parking areas must be checked in advance by the biological monitor or qualified biologist.

2.54 No Stockpiling of Vegetation. If CRLF are found, vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on site for erosion control or slash and not be moved or disturbed.

2.55 No Stockpiling of Soil. Soil shall not be stockpiled on the ground unless it is on a paved surface or staging area where there aren't burrows.

2.56 CRLF Exclusion for Sediment Removal with Large Equipment. If CRLF are found in routine maintenance activity sites using large equipment to remove sediment, CRLF shall be excluded from the project site. CDFW-approved exclusion fencing shall be installed around the sediment removal site, staging areas and any areas where fill may be dumped. After installation of the fence barrier, a biological monitor or qualified biologist shall daily inspect the project work area, staging and stockpiling area prior to the commencement of activities. If the biological monitor or qualified biologist determines that sensitive species are not within the work area, equipment or materials may be moved onto the work site and project activities may commence under the observation of the biological monitor.

San Francisco garter snake (SFGS)

In jurisdictional areas having suitable habitat where SFGS has not yet been documented:

2.69 Monitors On-Site for SFGS. Biological monitor(s) and/or qualified biologists shall be on the project site while routine maintenance activities are being conducted at these sites.

2.70 Vegetation Removal by Mechanized Equipment. For vegetation removal on berms or other sites with SFGS habitat, vegetation shall be cut down to 3 inches by handtools (weedwhacker, etc). Once the ground is visible, a visual survey for SFGS shall be conducted. If no sensitive species are found in the area, removal of vegetation may continue by mowing or mechanized equipment very slowly with a biological monitor walking in front of the equipment to observe. If a SFGS is observed, all activities shall cease and CDFW shall be notified immediately.

2.71 No Stockpiling of Vegetation. Vegetation removed shall be placed directly into a disposal vehicle and removed from the site. Vegetation shall not be piled on the ground unless it is later transferred, piece by piece, under the direct supervision of the biological monitor or qualified biologist or is going to remain on site for erosion control or slash and not be moved or disturbed.



DATE: 6/30/2017

MEMO TO: Carmelisa Morales, San Mateo County Planning Department

FROM: Lisa Bankosh, Open Space Planner

SUBJECT: Purisima Creek Channel Bank Restoration Project

This memorandum provides results of the construction monitoring and first-year restoration success monitoring of the Purisima Creek Channel Bank Restoration project. The project addressed unpermitted placement of soil on the upper channel bank, which resulted in an unstable fill slope and impacts to riparian habitat. To restore the channel bank, approximately 400cy of unstable fill material was removed with an excavator, exposing the native bank, which was then seeded with a native grass mix and treated with erosion control blanket and coir rolls. The lower 1/3 of the slope was replanted with willow cuttings. The fill soil was tested and determined to be absent of contamination, spread on a nearby agricultural field, and seeded.

Impacts to Sensitive Species

The project was designed to reduce impacts to habitat for sensitive aquatic species due to unstable fill placement. According to the pre-project biotic assessment, California red-legged frog (CRLF) is known to occur in the vicinity, and marginally suitable habitat for San Francisco garter snake (SFGS) is present. Therefore, the project included standard measures to avoid construction-phase impacts to CRLF and SFGS, including: CRLF survey, monitors on-site, vegetation removal by non-mechanized equipment, vehicle restrictions, and no stockpiling of vegetation or soil. California Department of Fish and Wildlife (CDFW) provided these measures to allow bank stabilization work to occur.

A pre-construction survey for CRLF and monitoring of initial vegetation and fill removal activities was conducted on November 7, 2016 by a CDFW approved biologist Steve Davison. No sensitive species were observed during the survey or monitoring. Subsequent project activities were monitored by a District Open Space Technician with the required CRLF training, also with negative results. Therefore, the project did not result in direct impacts to sensitive species. The project was completed on November 9, 2016.

Impacts to Sensitive Habitats- Riparian Scrub

Bank restoration required the removal of several small (<3" dbh) arroyo willow trees which had been partially buried in fill. The disturbed area was seeded with a native seed mix of blue wild rye, purple needlegrass, and california brome, and planted with willow cuttings. The spoil site was also seeded with the native grass mix.

Monitoring of revegetation success was conducted by District Open Space Planner Lisa Bankosh on June 28, 2017. Both the upper channel bank and the spoils site were observed to support

nearly 100% cover of native grass, primarily California brome and blue wild rye (Photos 1 and 2). The lower channel bank was heavily colonized by natural regrowth of native California blackberry, stinging nettle, and hedge nettle. The willow cutting were observed to be present and vigorous on the lower bank, in addition to heavy native regrowth (Photos 3 and 4). All erosion control materials were observed to be intact (Photos 5) and, due to the heavy vegetation growth, will not require replacement after they have naturally degraded. No evidence of erosion or sedimentation from this winter's heavy storms was observed, and no noxious weeds were observed in the restoration area.

In conclusion, the site meets District standard restoration success criteria, and no additional actions are recommended at this time. Monitoring will take place annually for an additional two years to ensure that natural regeneration of riparian scrub habitat proceeds as anticipated.



Photo 1. Upper channel bank



Photo 2. Spoil site.



Photo 3 Lower channel bank.



Photo 4. Lower channel bank, willow cuttings.



Photo 5. Erosion control.

PUN2016-00412



TIMOTHY C. BEST, CEG
ENGINEERING GEOLOGY AND HYDROLOGY

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September 27, 2016

Lisa Bankosh
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

RECEIVED

SEP 30 2016

San Mateo County
JOB: MPEN-PURISMAGRADE-743

SUBJECT: ENGINEERING GEOLOGIC ASSESSMENT OF THE PURISIMA CREEK STREAM CHANNEL RESTORATION PROJECT
APN 066-230-030
2050 Purisima Creek Road, Half Moon Bay CA
Midpeninsula Regional Open Space District
San Mateo County, CA

INTRODUCTION

This letter report summarizes the findings of our engineering geologic assessment of the Purisima Creek Stream Channel Restoration Project. The project is located on the north side of Purisima Creek about 2 miles upstream of Highway 1 in unincorporated San Mateo County, California (Figure 1).

At the project site several hundred cubic yards of import fill was recently placed along the outer edge of the Purisima Creek terrace with loose fill descending 30+ feet down to the flood plain but without any fill material directly entering the waterway. The grading work was undertaken without permits or sanction by the property owner. A grading violation was issued by County of San Mateo requiring the site to be restored.

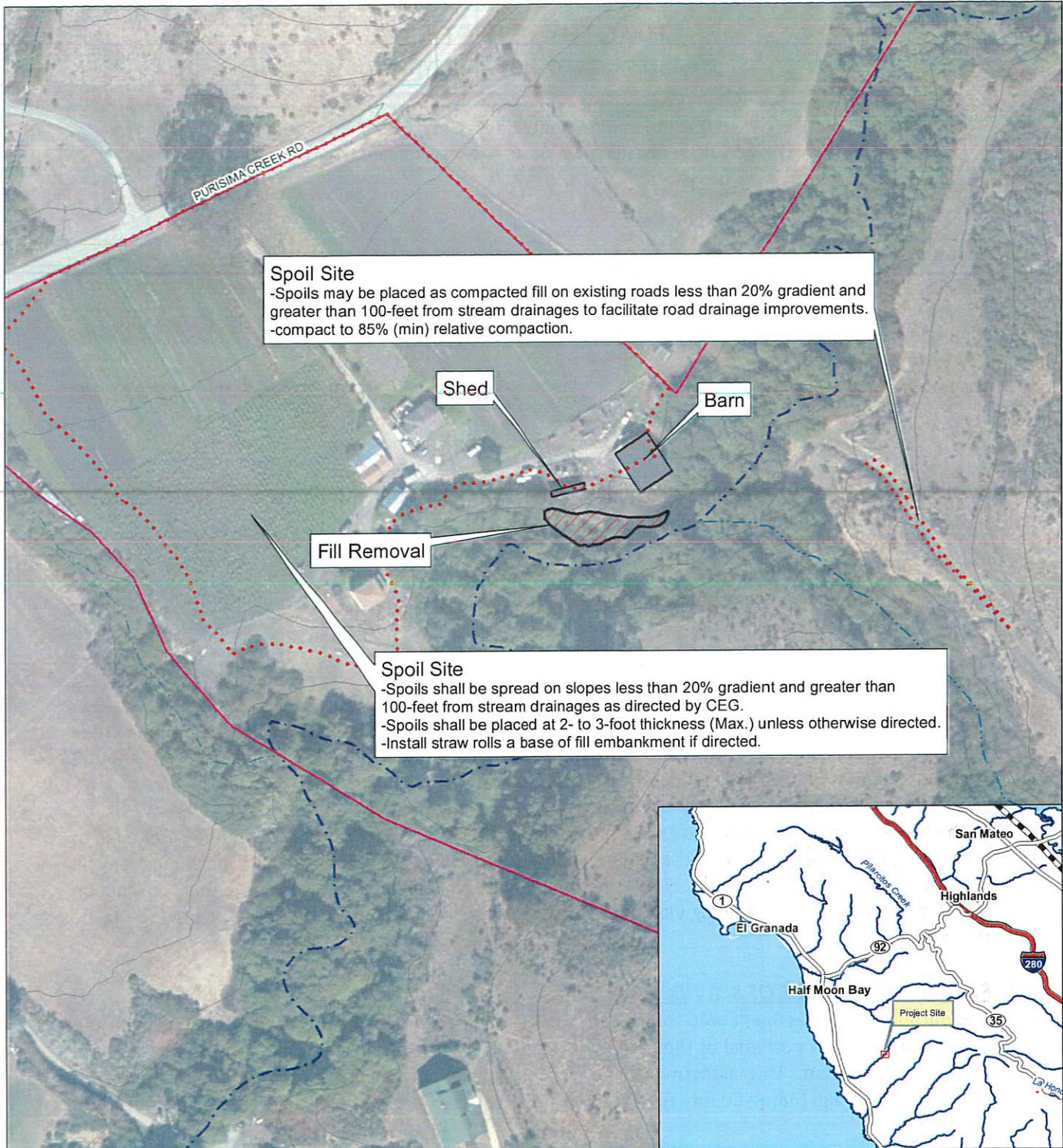
PURPOSE AND SCOPE OF SERVICES

The purpose our assessment was to evaluate the geologic conditions at the project site, evaluate the stability and erosion potential of the recently placed fill, and provide recommendations for its removal and site restoration. This assessment and accompanying plan sheets are intended to fulfill the requirements of San Mateo County for a grading and erosion control plan, calculations, and geotechnical investigation.

The scope of work performed for this investigation included 1) review of published and unpublished literature relevant to the site and vicinity; 2) site reconnaissance and geologic field mapping, 3) review of LiDAR derived bare earth imagery, 4) qualitative observations of exposed earth materials, 5) analysis, and 6) preparation of this letter and accompanying restoration plans. Subsurface investigation was not undertaken due to the relatively simple nature of the project and the fact that little benefit would be achieved by such a study since all of the recent fill material is proposed to be removed.

ENGINEERING GEOLOGY ■ GEOMORPHOLOGY ■ HYDROLOGY

11000-1150070



Spoil Site
 -Spoils may be placed as compacted fill on existing roads less than 20% gradient and greater than 100-feet from stream drainages to facilitate road drainage improvements.
 -compact to 85% (min) relative compaction.

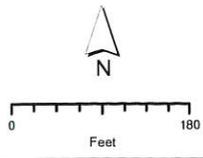
Spoil Site
 -Spoils shall be spread on slopes less than 20% gradient and greater than 100-feet from stream drainages as directed by CEG.
 -Spoils shall be placed at 2- to 3-foot thickness (Max.) unless otherwise directed.
 -Install straw rolls a base of fill embankment if directed.

LEGEND

- Paved road
- Parcel boundary (Approx.)
- Fill removal
- Approved spoil placement

WATERCOURSES

- Perennial
- Intermittent
- Ephemeral



 TIMOTHY C. BEST, CEG ENGINEERING GEOLOGY AND HYDROLOGY 1002 Columbia Street, Santa Cruz, CA 95060 (831) 425 5832 (831) 425 5830 (fax)	SITE MAP PURISMA CREEK STREAM RESTORATION PROJECT Midpeninsula Regional Open Space District	FIGURE 1 Date: Sept 27, 2016 Revised: Project: MPEN- PURISMAGRADE-743
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PROJECT DESCRIPTION

The project proposes to remove approximately 200 to 400 cubic yards of unpermitted fill in order to stabilize the embankment.

After fill removal the loose surficial soils shall be stabilized by recompacting and appropriate erosion control measures applied. Drainage along the road bounding the site will be also improved to prevent uncontrolled runoff from draining into the work area. Disturbance to the riparian vegetation (mainly small Bay trees and scattered brush) will minimize to the extent feasible. No large trees are expected to be removed. All grading and erosion control work will be supervised by the project engineering geologist and revegetation by the District restoration ecologist. Revegetation will be via seeding with the District standard native seed mix.

Excavated spoils shall be transported off site and disposed of at an appropriate facility or spread onsite in a manner to prevent erosion. If spread onsite spoils to be placed on slopes less than 20% gradient and more than 100 feet from a watercourse. Spoils shall not be placed on native grassland areas. MROSD shall test and verify that all spoils are clean and free of contaminants.

SITE CONDITIONS

The project site is located along the outer edge of a gently sloping fluvial terrace. Purisima Creek is incised 25 to 30 feet through the deposits resulting in a moderately steep (50% to 75%) slope that drops down to a low narrow flood plain of Purisima Creek.

The flat terrace is used for farming with several residential homes, barns, sheds and other farm structures. The slope dropping down to Purisima Creek is undeveloped prior to the recent grading.

Limits of Fill Placement

In late spring to early summer 2016 an estimated 200 to 400 cy hundred cubic yards of import fill was sidecast over the edge of the embankment apparently to gain additional flat ground for farm operations. The area of fill placement extends for 100 feet along the outer edge of the terrace and 10 to 30 feet downslope to the flood plain of Purisima Creek. Fill appears to have been sidecast over vegetation and without keying or compaction. The resulting fill embankment is inclined at greater than 1.5H:1V.

The toe and lateral limits of the recent fill is well defined by where the material over rides vegetation. The upslope limits and depth of the recent fill is more difficult to determine and were estimated using a hand soil probe to differentiate between loose and compacted earth materials, and by comparing existing topography against LiDAR derived topography. Based on soil probing, the loose fill extends up to 5 to 9 feet back from the current top edge of the embankment and is estimated to be up to 6 to 7 feet deep. Comparing current topography to the 2004 LiDAR data suggests that recent fill may extend much further back to about to 20 feet back from the current top edge of the embankment and may be up to 12 feet thick. Given the uncertainties in the resolution of the LiDAR data, we believe this is likely an overestimate of the amount of fill and that the soil probing provides a much better estimate.

A more definitive determination of the upslope limits of fill could be obtained through subsurface trenching, but this would be of little value since it would not change the final recommendation to remove all of the recent unstable fill material. The limits of fill removal will ultimately be determined from site observations made at the time of operations.

TIMOTHY C. BEST, CEG

Surface drainage on the terrace and embankment slope is primarily by shallow sheetwash. Some of the adjacent farm roads are rilled and slightly rutted suggesting some concentrated runoff during storms. Purisima Creek occupies a roughly 20 foot wide active channel with peak flows spreading out onto a narrow well vegetated flood plain.

Subsurface conditions

The project area is mapped as underlain by old alluvial sediments consisting of lightly consolidated mixed sand, silt, gravel and clay (Brabb et al., 1998). Soils are variable ranging from gravelly loam to clayey loam (NRCS, 2007).

The recent fill material is from an unknown source (not derived onsite) and appears to be of variable composition. Most of the material consists of loose sandy clayey silt to silty clay with local organic debris (mainly grass) and some chunks of concrete. The material appeared very loose and uncompacted.

Groundwater was not observed during out site visit though is expected during the winter.

Seismicity

The subject property is located within a highly seismically-active region of California. The regional faults of significance include the San Andreas and San Gregorio faults. Strong ground movement from a major earthquake on a nearby fault could affect the project during the next 30 years with a Modified Mercalli Intensities of up to MM8 (Very Strong) possible. There are no mapped faults transecting the project area.

CONCLUSIONS

Fill Stability

Based on field observations the recent placed fill is unstable with a **High** potential for settlement and failure. We recommend that all of the loose recent fill material be removed to native grade (approximately 1.5H:1V or gentler), any underlying surficial soils disturbed by excavation be stabilized by recompacting using an excavator mounted sheep's foot roller, and erosion control measures (seed, mulch, blanket and straw roll) applied to the exposed earth materials. By removing the recent fill the potential for fill related instability will be mitigated.

Surface Drainage and Erosion

Based on our experience the loose exposed soils comprising the embankment face are **moderately to highly** susceptible to surficial erosion. After fill removal, erosion control measures (seed, mulch, blanket and straw roll) shall be applied to all exposed earth materials outside roadways. A drainage dip shall be installed on the adjacent farm road to prevent uncontrolled runoff from discharging over the treated slope.

Stream Bank Erosion

Based on our field reconnaissance and mapping we judge there to be a **low to moderate** potential for stream bank erosion at this site. The risk for stream bank erosion is unrelated to the recent grading and will not be affected by the proposed remedial work.

TIMOTHY C. BEST, CEG

RECOMMENDATIONS

Based on our field investigation all recent fill material shall be removed and the excavated slope stabilized. Proposed grading excavation should be within the capabilities of moderate to heavy conventional excavation equipment

1) SITE PREPARATION

- a) The fill shall be cleared of all vegetation including trees and logs less than 3 inches DBH (diameter breast height). Trees greater than 3 inches DBH shall be removed only if indicated on the plans or with the authorization of the District representative. This may be required for equipment access.
- b) All roots exposed during construction shall be clean cut to avoid tree damage. Very few roots are proposed to be cut.
- c) When pruning, prevent branches from damaging tree or stripping the bark when the branch falls to the ground.
- d) A silt fence shall be installed at the base of the work area.
- e) The Contractor shall exercise due care to preserve existing vegetation outside of grading.

2) FILL REMOVAL

- a) All recent fill shall be excavated back to native grade as determined and approved by the project engineering geologist (CEG)
 - i) Approximate limits of fill removal are shown on plans and sections.
 - ii) Anticipate 200 – 400 CY of fill to be excavated.
 - iii) Final fill slope shall be inclined no steeper than 1.5H:1V.
 - iv) Final limits of fill excavation to be approved by the Engineering Geologist (CEG)
- b) In the event that any unusual conditions not covered by the plans and specifications are encountered during excavation operation, the Engineering Geologist shall be immediately contacted for directions. It shall be the Contractor's responsibility to immediately notify the Engineering Geologist upon discovery of any field conflicts. Final flagged limits of fill shall be reviewed by the project Engineering Geologist and District prior to any earthwork.
- c) The Contractor shall be responsible for matching existing surrounding conditions with smooth transition in grading, planting etc., and shall avoid any abrupt apparent changes in grades or cross slopes, low spots or hazardous conditions.
- d) Recompact loose surficial soils (if any) with sheep's foot roller attachment on excavator.
- e) Contractor shall treat all disturbed areas with erosion control measures, as provided under erosion control in these notes.

3) SPOIL PLACEMENT

- a) Spoils to be either endhauled off site or spread onsite at an approved location.
- b) MROSD shall test and verify spoils are clean and free of any contaminants. Determination of hazardous materials is outside project scope.
- c) If spread onsite
 - i) Spoils shall be spread on slopes less than 20% and greater than 100 feet from watercourses. Fill shall not be spread on native grassland areas.
 - ii) Fill may be placed as compacted fill on existing roads with less than 20% grade and greater than 100 feet from watercourses to facilitate road drainage. Compact to 85% (min) relative compaction.
 - iii) Spoils shall be placed at 2 to 3 foot thickness (max) unless otherwise directed

TIMOTHY C. BEST, CEG

- iv) Limits of spoil spread to be verified by CEG prior to placement
- v) Install straw roll at base of spoils and treat exposed soils per notes

4) EROSION CONTROL AND WATER POLLUTION PREVENTION (temporary and permanent)

- a) Temporary and inclement weather erosion control
 - i) During project construction, the Contractor shall be responsible for implementing appropriate and necessary erosion control measures to minimize storm water runoff from the construction site, pursuant to applicable regulations and permits. The following strategies to ensure that storm water pollution is prevented shall be employed:
 - Minimize erosion and sedimentation during construction.
 - Eliminate pollution of storm runoff by chemicals and materials used in the construction process.
 - All temporary erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each work day. At a minimum, silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction site to prevent construction related runoff and/or sediment from entering into the watercourses.
 - The Contractor (and Permittee) shall monitor weather forecasts and take appropriate precautions in advance of storm events.
 - ii) Inclement weather erosion control
 - To extent feasible all work shall be undertaken during period of dry weather. Due to small size of the project this should be easily accomplished.
 - During period of inclement weather all exposed soils shall be treated to standards of permanent erosion control. This includes placement of mulch, erosion control blankets, and straw rolls. Contractor shall monitor erosion control measures during inclement weather and maintain as necessary.
 - All erosion control materials shall be stockpiled onsite prior to commencement of work
- b) Permanent erosion control
 - i) Exposed mineral soils greater than 50 square feet (sf) and with exposed slope distance exceeding 10 feet and with less than 80% ground coverage of natural vegetation shall be seeded and mulched in order to reduce the potential for short-term sheet and rill erosion.
 - Seeding:
 - Use District approved seed mix or approved equivalent.
 - Seed to be hand broadcast.
 - Mulching:
 - Use 2" of approved certified weed-free mulch.
 - Netting:
 - On slopes steeper than 2H:1V cover slopes with approved erosion control blanket (Tensar Rollmax C125BN or equivalent) in accordance with the manufacturers recommendations and as directed by project CEG.
 - Straw Roll:
 - Install straw roll at 10' OC unless otherwise directed

5) TIMING

- a) Work shall be conducted prior to the October 1 Winter Grading Moratorium unless there is a COUNTY approved exception to the winter grading moratorium.
- b) If the COUNTY approves an exception to the winter grading moratorium then all work and erosion control measures shall be implemented during dry period prior to November 15th.

6) **STAGING AND ACCESS**

- a) Construction access shall be as directed by owner. Impacts to the access route must be minimized and disturbance along the access route must be restored to pre-construction conditions upon project completion.
- b) Upon completion of construction the access route and staging areas shall be restored to their original condition.
- c) The contractor shall carefully preserve the surrounding property by confining operations within the limits of work. Construction work or equipment operations shall not be conducted outside the designated work area boundary without approval of the engineer.

7) **INSPECTIONS**

- a) The project engineering geologist (CEG) shall be provided an opportunity to review project plans with the contractor during the pre-construction meeting to evaluate if recommendations have been properly interpreted. They shall also provide excavation and earthwork observations and testing during construction. This allows them to confirm anticipated soil conditions and evaluate conformance with our recommendations and project plans. If they do not review the plans and provide observation and testing services during the earthwork phase of the project, they assume no responsibility for misinterpretation of the recommendations.
- b) Regulatory agencies may require a final grading compliance letter. We can only offer this letter if we are called to the site to observe and test, as necessary, any grading and excavation operations **from the start of construction**. We cannot prepare a letter if we are not afforded the opportunity of observation from the **beginning of the grading operation**. The contractor must be made aware of this and earthwork testing and observation must be scheduled accordingly. It is anticipated that full time construction observation will be required. Please contact our office: Tim Best 831-425-5832 (office) 831-332-7791 (mobile).
- c) The Contractor shall notify the project Engineering Geologist a minimum of 7 days prior to commencement of work and a minimum of 7 days in advance of required inspections.
- d) The following inspections are required:
 - i. Pre-construction / pre-bid
 - ii. Progress inspection of fill removal
 - iii. Progress inspection of erosion control and site restoration
 - iv. Final inspection

REFERENCES

- Brabb, E.E., Graymer, R.W. and Jones, D.L., 1998. Geology of onshore part of San Mateo County: A digital data base. USGS Open File Report 98-137.
- NRCS, 2007. Soil Survey: San Mateo Area, California. U.S. Dept. of Agriculture, Soil Conservation Service. Online database.

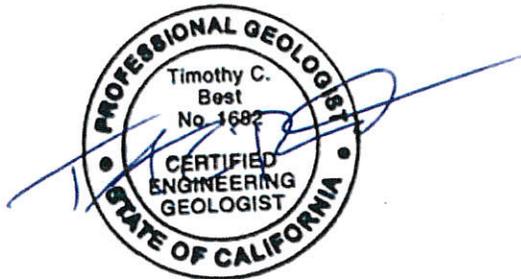
INVESTIGATIVE LIMITATIONS

1. This investigation was performed in accordance with the usual and current standards of the profession for sediment reduction as they relate to this and similar localities. No other warranty, expressed or implied, is provided as to the conclusions and professional advice presented in this report.
2. My observations were limited to surface expressions and limited natural and artificial exposures of subsurface materials at and adjacent to the project site. For the above reasons, the conclusions should be considered limited in extent. The plan does not guarantee stability of the site, rather it is intended to provide recommendations that will reduce the likelihood of future erosion. Unforeseen drainage and soil conditions may result in additional erosion.
3. This written report comprises all of my professional opinions, conclusions and recommendations. This report supersedes any previous oral or written communications concerning my opinions, conclusions and recommendations.
4. This report is issued with the understanding that it is the responsibility of the Owner, or of his Representative, to ensure that the information and recommendations contained herein are brought to the attention of the Contractor for the project and incorporated into the plans, and that it is ensured that the Contractor and Subcontractors implement such recommendations in the field. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.
5. I do not practice or consult in the field of safety engineering. I do not direct the Contractor's operations, and we are not responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the Contractor. The Contractor should notify the Owner if he considers any of the recommended actions presented herein to be unsafe.
6. The findings of this report are valid as of the present date. However, changes in the conditions of a property or landform can occur with the passage of time, whether they be due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur whether they result from legislation or the broadening of knowledge. Therefore, this report should be not be relied upon after a period of three years without being reviewed by myself.

Thank you for this opportunity to assist you in your land use planning. If you have any questions or desire additional clarification, please don't hesitate to contact me.

Sincerely,

Timothy C. Best
Engineering Geologist #1682



TIMOTHY C. BEST, CEG



TIMOTHY C. BEST, CEG
ENGINEERING GEOLOGY AND HYDROLOGY

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RECEIVED

November 21, 2016

DEC 08 2016

Lisa Bankosh
 Midpeninsula Regional Open Space District
 330 Distel Circle
 Los Altos, CA 94022

San Mateo County
 Planning and Building Department

JOB: MPEN-PURISMAGRADE-743

SUBJECT: FINAL OBSERVATION REPORT:
PURISMA CREEK STREAM CHANNEL RESTORATION PROJECT
 APN 066-230-030
 2050 Purisima Creek Road, Half Moon Bay CA
 Midpeninsula Regional Open Space District
 San Mateo County, CA

Dear Ms. Bankosh:

On November 10, 2016 I observed completed grading and erosion control associated with the Purisma Creek Stream Channel Restoration Project. The recommended work is detailed in my July 27, 2016 plan sheets.

Approximately 400 cy of recently placed unpermitted fill was excavated from the site on November 7 and 8, 2016 by Halfmoon Bay Grading and Paving. The material was excavated in accordance with plans to a depth below the recent fill material and to where more competent (denser) earth materials were encountered. The embankment was laid back to a final slope of 1.5H:1V to 2H:1V per plan specifications. Spoils were endhauled and spread onsite in adjacent field per plan specifications. Drainage on the farm road above the embankment was shaped to prevent water from discharging onto the newly graded area.

Erosion control measures were implemented by District maintenance staff. This work included seeding of exposed soils, placement of erosion control mats, straw rolls and straw mulch. The lower 1/3 of the slope was replanted with willow cuttings.

All upgrades and erosion control measures were completed in general conformance with the intent of the recommendations as outlined on the project plans. Site Photographs are found in Appendix 1

Please give me a call if you have any questions or concerns.

Very truly yours,



Timothy C. Best
Certified Engineering Geologist #1682

TIMOTHY C. BEST, CEG

Attachment I

APPENDIX 1: SITE PHOTOGRAPHS



Photo 1: Prior to work



Photo 2: Prior to work



Photo 3: Initial excavation



Photo 4: Excavation proceeding to toe of fill



Photo 5: Final excavated slope



Photo 6: Final erosion control



Photo 7: Final erosion control

TIMOTHY C. BEST, CEG

Attachment I