INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

PERMITS

United States Army Corps of Engineers

Nationwide Non-Reporting Permit No. 14 dated March 19, 2012

Humboldt County Coastal Development Permit CDP 15-034

WATER QUALITY

California Regional Water Quality Control Board

North Coast Region,
401 Certification dated March 24, 2016
401 Certification Amendment dated May 4, 2016

AGREEMENTS

California Department of Fish and Wildlife

Notification No. 1600-2015-0406-R1

MATERIALS INFORMATION

Foundation Report (Wall 04E0035 and Wall 04E0036) dated November 6, 2014

Foundation Report (Wall 04E0037) dated November 4, 2014.

Division of Occupational Safety and Health Mining and Tunneling Underground Classification Highway 101 Soldier Pile Wall NO. 14

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PERMIT

United States Army Corps of Engineers

Nationwide Non-Reporting Permit No. 14 dated March 19, 2012

U S Army Corps of Engineers
Sacramento District

Nationwide Permit Summary

33 CFR Part 330; Issuance of Nationwide Permits – March 19, 2012

14. Linear Transportation Projects. Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 31.) (Sections 10 and 404)

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

A. **Regional Conditions**

1. **Regional Conditions for California, excluding the Tahoe Basin**

http://www.spk.usace.army.mil/Portals/12/documents/regulatory/nwp/2012_nwps/2012-NWP-RC-CA.pdf

2. **Regional Conditions for Nevada, including the Tahoe Basin**

http://www.spk.usace.army.mil/Portals/12/documents/regulatory/nwp/2012_nwps/2012-NWP-RC-NV.pdf

3. **Regional Conditions for Utah**

http://www.spk.usace.army.mil/Portals/12/documents/regulatory/nwp/2012_nwps/2012-NWP-RC-UT.pdf

4. **Regional Conditions for Colorado**.

http://www.spk.usace.army.mil/Portals/12/documents/regulatory/nwp/2012_nwps//2012-NWP-RC-CO.pdf

B. **Nationwide Permit General Conditions**

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

☐ 1. **Navigation**.

☐ (a) No activity may cause more than a minimal adverse effect on navigation.

☐ (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

☐ (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters,

the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

☐ 2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

☐ 3. **Spawning Areas**. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

☐ 4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

☐ 5. **Shellfish Beds**. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

☐ 6. **Suitable Material**. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

☐ 7. **Water Supply Intakes**. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

☐ 8. **Adverse Effects From Impoundments**. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

☐ 9. **Management of Water Flows**. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

☐ 10. **Fills Within 100-Year Floodplains**. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

☐ 11. **Equipment**. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

☐ 12. **Soil Erosion and Sediment Controls**. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

☐ 13. **Removal of Temporary Fills**. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

☐ 14. **Proper Maintenance**. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

☐ 15. **Single and Complete Project**. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

☐ 16. **Wild and Scenic Rivers**. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

☐ 17. **Tribal Rights**. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

☐ 18. **Endangered Species**.

☐ (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

☐ (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to

demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

☐ (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

☐ (e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

☐ (f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

☐ 19. **Migratory Birds and Bald and Golden Eagles**. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

☐ 20. **Historic Properties**.

☐ (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

☐ (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified

historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

☐ (d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non- Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

☐ (e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

☐ 21. **Discovery of Previously Unknown Remains and Artifacts**. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

☐ **22. Designated Critical Resource Waters**. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

☐ (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

☐ (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

☐ **23. Mitigation**. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

☐ (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

☐ (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

☐ (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

☐ (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

☐ (2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

☐ (3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

☐ (4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

☐ (5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

☐ (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

☐ (e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

☐ (f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

☐ (g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

☐ **24. Safety of Impoundment Structures**. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

☐ **25. Water Quality**. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

☐ **26. Coastal Zone Management**. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

☐ **27. Regional and Case-By-Case Conditions**. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

☐ **28. Use of Multiple Nationwide Permits**. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

☐ **29. Transfer of Nationwide Permit Verifications**. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

(Transferee)

(Date)

☐ **30. Compliance Certification**. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

☐ (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

☐ (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

☐ (c) The signature of the permittee certifying the completion of the work and mitigation.

☐ **31. Pre-Construction Notification**.

☐ (a) **Timing**. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

☐ (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

☐ (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2)..

☐ (b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

☐ (1) Name, address and telephone numbers of the prospective permittee;

☐ (2) Location of the proposed project;

☐ (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

☐ (4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

☐ (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

☐ (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

☐ (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

☐ (c) Form of Pre-Construction Notification: he standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

☐ (d) Agency Coordination:

☐ (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

☐ (2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where

there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

☐ (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

☐ (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. District Engineer's Decision

☐ 1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. For a linear project, this determination will include an evaluation of the individual crossings to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to intermittent or ephemeral streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51 or 52, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in minimal adverse effects. When making minimal effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

☐ 2. If the proposed activity requires a PCN and will result in a loss of greater than 1/10- acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

☐ 3. If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (a) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (c) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period, with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

D. **Further Information**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project.

E. **Definitions**

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

I**ntermittent stream**: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a jurisdictional wetland is adjacent – meaning bordering, contiguous, or neighboring – to a waterbody determined to be a water of the United States under 33 CFR 328.3(a)(1)-(6), that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

PERMIT

Humboldt County Coastal Development Permit CDP 15-034

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
1385 EIGHTH STREET, SUITE 130
ARCATA, CA 95521
(707) 826-8950 FAX (707) 826-8960

www.coastal.ca.gov

NOTIFICATION OF APPEAL PERIOD

Date: May 25, 2016

To: Michelle Nielsen
County of Humboldt Planning & Building Dept.
3015 H Street
Eureka, CA 95501

From: Melissa Kraemer, Supervising Analyst

Re: **Application No. 1-HUM-15-1171**

Please be advised that on May 24, 2016, our office received notice of local action on the coastal development permit described below:

Local Permit #: CDP 15-034; SP 15-063

Applicant(s): CA Dept. of Transportation, Attn: Kevin Church

Description: The proposed project is for Highway 101 improvements in the Big Lagoon area at post mile (PM) 111.4 through PM 111.7, including reconstruction of the southbound lane and shoulder and associated drainage elements. Three structures are proposed to restore and stabilize the project area: one timber lagging soldier pile ground anchor wall, and two anchored pile systems. Temporary access roads will be constructed at each structure location and one-way controlled traffic with a temporary signal system will be used throughout construction. Two staging areas will be in the vicinity of Kane Road: one at PM 111.87 and another at 111.72.

Location: In the Caltrans right-of-way on the west side of State Highway 101 from PM 111.4 through PM 111.7 in the Big Lagoon area (Humboldt County) (APN(s): 000-000-00)

Unless an appeal is filed with the Coastal Commission, the action will become final at the end of the Commission appeal period. The appeal period will end at 5:00 PM on June 08, 2016.

Our office will notify you if an appeal is filed.

If you have any questions, please contact me at the address and telephone number shown above.

cc: CA Dept. of Transportation – District 1, Attn: Kevin Church
CA Dept. of Transportation - District 3, Attn: Dotrik Wilson

PLANNING AND BUILDING DEPARTMENT
COUNTY OF HUMBOLDT
PLANNING DIVISION

3015 H Street, Eureka, CA 95501
Phone (707) 445-7541 • Fax (707) 268-3792
http://www.humboldtgov.org/156

California Coastal Commission
1385 8th Street, Ste 130
Arcata, CA 95521

Notice of Final Action Taken

Date May 23, 2016 **Appealable Status** Appealable

Applicant Kevin Church
Address CalTrans
1656 Union Street
Eureka, CA 95501

Assessor Parcel No. 000-000-000-000 **Apps No.** 10025

Permit CDP 15-034, SP 15-063

Contact Michelle Nielsen at 268-3708

Description
The applicant is seeking approval of a Coastal Development Permit and Special Permit for Design Review for improvements Highway 101 in the Big Lagoon area at post mile (PM) 111.4 through to PM 111.7. Improvements will include reconstruction of the southbound lane and shoulder, and associated drainage elements. Three structures are proposed to restore and stabilize the project area: one timber lagging soldier pile ground anchor wall and two anchored pile systems. Temporary access roads will be constructed at each structure location. One-way controlled traffic with a temporary signal system will be used throughout construction. There will be two staging areas in the vicinity of Kane Road: one at PM 111.87 and another at PM 111.72. In addition, at PM 111.4 an existing 18 inch culvert and downdrain will be replaced with a new 24-inch culvert and downdrain. Any excess soils from construction will be disposed of at a commercial disposal site. Construction is expected to last approximately 290 days over two construction seasons. Upon completion of construction the temporary access roads will be removed, regraded, and replanted with native vegetation to match adjacent conditions.

Action Taken
Following a noticed public hearing the County of Humboldt Planning Commission approved the referenced application on May 5, 2016 .

Appeal Completion
The appeal period for this project has been completed and no appeal was received.

Effective Date
Coastal Development Permit CDP 15-034 will become effective at the end of the California Coastal Commission appeal period and will expire 12 months from the effective date.

PLANNING DIVISION
PLANNING AND BUILDING DEPARTMENT
COUNTY OF HUMBOLDT

3015 H Street, Eureka, CA 95501
Phone (707) 445-7541 • Fax (707) 268-3792
http://www.humboldtgov.org/156

Applicant	Owner	Agent
Kevin Church Caltrans 1656 Union Street Eureka, CA 95501	State of California Caltrans Right-of-Way	Dotrik Wilson Caltrans 703 B St Marysville, CA 95901

Notice of Planning Commission Decision

Date May 6, 2016

Assessor Parcel No. 000-000-000-000 **Apps No.** 10025

Permit CDP-15-034 and SP-15-063

Contact Michelle Nielsen 268-3708

Description
The applicant is seeking approval of a Coastal Development Permit and Special Permit for Design Review for improvements Highway 101 in the Big Lagoon area at post mile (PM) 111.4 through to PM 111.7. Improvements will include reconstruction of the southbound lane and shoulder, and associated drainage elements. Three structures are proposed to restore and stabilize the project area: one timber lagging soldier pile ground anchor wall and two anchored pile systems. Temporary access roads will be constructed at each structure location. One-way controlled traffic with a temporary signal system will be used throughout construction. There will be two staging areas in the vicinity of Kane Road: one at PM 111.87 and another at PM 111.72. In addition, at PM 111.4 an existing 18-inch culvert and downdrain will be replaced with a new 24-inch culvert and downdrain. Any excess soils from construction will be disposed of at a commercial disposal site. Construction is expected to last approximately 290 days over two construction seasons. Upon completion of construction the temporary access roads will be removed, regraded, and replanted with native vegetation to match adjacent conditions.

Decision
The project was approved by the Planning Commission on May 5, 2016 by Resolution 16-13 and is subject to the attached Conditions of Approval.

PACKET INCLUDES:

Appeals
This project may be appealed by any aggrieved person within **10 working** days. The last day to appeal to the Board of Supervisors is 5:00 p.m. May 20, 2016. Additional information regarding appeals is included with this notice.

Conditions of Approval

SUPPLEMENTAL INFORMATION #1

For Planning Commission Agenda of:
May 5, 2016

[x]	Consent Agenda Item	}
[]	Continued Hearing Item	}
[]	Public Hearing Item	}
[]	Department Report	}
[]	Old Business	}

Re: **DEPARTMENT OF TRANSPORTATION (CALTRANS) Coastal Development Permit and Special Permit**
Application Number 10025
Case Number CDP-15-034 and SP-15-063
Assessor Parcel Number 000-000-000
The project is located in Humboldt County, in the Big Lagoon area, on the west side of State Highway 101, in the southbound lane and shoulder area.

Attached for the Planning Commission's record and review is (are) the following supplementary information item(s):

A. Replacement of Page 78 of the staff report: the original staff report page shows the project limits with a greater extent than proposed or authorized if approved. The attached page replaces Page 78 and is consistent with the project limits shown on Page 15 of the staff report.

B. Revised Attachment 1 Recommended Conditions of Approval. The language of Conditions of Approval 2(d) and 7 were revised as shown. To summarize:

Condition of Approval #2(d) has been revised to state that erosion control will be applied and maintained in all disturbed areas, and that revegetation work will commence when the 2-year construction period is complete.

Condition of Approval #7 has been revised to reflect the following: 1) that monitoring will be for a period of five years beginning at the completion of the 2-year construction period; 2) revegetation will include all disturbed areas including the Coastal wetland; 3) that monitoring reports are to be submitted in years 1, 3, and 5; and 3) although there are Army Corps of Engineers jurisdictional wetlands, these are will not be disturbed by the project. Therefore, that agency does not need to be included in the monitoring agency pool.

The applicant shall monitor all disturbed areas, including the Coastal wetland, for a period of five years commencing when the 2-year construction period is complete. The purpose of the monitoring is to ensure the performance and success criteria as described in the Revegetation Plan dated November 2015, are met. The applicant shall prepare and submit monitoring reports for years 1, 3, and 5 (beginning post-construction) to the Planning Director. Additional reports shall be provided to the State Parks, North Coast Regional Water Quality Control Board, and California Department of Fish and Wildlife, consistent with the applicant's approved Initial Study-Mitigated Negative Declaration dated August 2014, Addendum dated March 2016, and Revegetation Plan dated November 2015. The report shall be prepared by a qualified professional(s) and shall document the success of the restoration measures and identify follow-on measures, if necessary, to achieve the identified level of revegetation.

8. The applicant is required to pay for permit processing on a time and material basis as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors. The Department will provide a bill to the applicant after the decision. Any and all outstanding Planning fees to cover the processing of the application to decision by the Hearing Officer shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka.

9. **Prior to hearing:** The applicant shall provide the County a check in the amount of $50.00 payable to the Humboldt County Clerk/Recorder for the Department's filing of the Notice of Determination as Responsible Agency under CEQA.

Ongoing Requirements/Development Restrictions which Must be Satisfied for the Life of the Project:

1. The project shall be conducted in accordance with the project description and approved project site plan.

2. Per the Plan of Operations excess soil will be disposed of at a commercial disposal site. However, if this practice were to change all excavated excess material must then be placed on an approved location with all required permits. Testing of the soil for potential contamination may be required by the Building Division. Before placement of excavate excess material documentation must be submitted to the Planning Division which verifies that the property owner(s) receiving the fill material have consented to its placement and that all required permit(s) have been obtained prior to commencement of the excavation and grading work. **Note: A Coastal Development Permit is required for fill placed in the Coastal Zone.**

Informational Notes:

1. If buried archaeological or historical resources are encountered during construction activities, the contractor on-site shall call all work in the immediate area to halt temporarily, and a qualified archaeologist is to be contacted to evaluate the materials. Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, dietary bone, and human burials. If human burial is found during construction, state law requires that the County Coroner be contacted immediately. If the remains are found to be those of a Native American, the California Native American Heritage Commission will then be contacted by the Coroner to determine appropriate treatment of the remains.

   The applicant is ultimately responsible for ensuring compliance with this condition.

2. The applicant is responsible for receiving all necessary permits and/or approvals from other federal, state and local agencies.

3. The Coastal Development Permit and Special Permit shall expire and become null and void at the expiration of one (1) year after all appeal periods have lapsed (see "Effective Date"); except where use in reliance on the permit has commenced prior to such anniversary date. The period within

APPEALS OF PLANNING COMMISSION ACTIONS

WHO MAY APPEAL?

County Ordinance and State Law provides the opportunity for the applicant or any other person who disagrees with the Planning Commission's decision to approve, conditionally approve, or deny a project, to appeal that decision to the Board of Supervisors.

WHAT CONSTITUTES A FORMAL APPEAL?

All appeals must be submitted in writing and must be accompanied by the fee established for appeals by the Board of Supervisors. The person filing the appeal shall state specifically why the decision of the Planning Commission is not in accord with the standards and regulations of the zoning ordinances, or why it is believed that there was an error or an abuse of discretion by the Planning Commission. A copy of the receipt can be used as proof of payment when filing with the Clerk of the Board.

WHAT IS THE FEE FOR FILING AN APPEAL?

The County's adopted schedule of fees and charges establishes fees for appeals of Planning Commission actions. Appeal fees include charges by other County departments (e.g., Division of Environmental Health or Public Works Land Use). If the appeal does not involve issues within the jurisdiction of a particular County department, it may be possible to reduce the appeal fee by the amount normally collected. This can be done by providing a written fee waiver authorization from that department with the appeal request. Please contact the Planning Division for updated fee information.

WHERE IS AN APPEAL FILED?

The appeal must be filed with the Planning Division at the Clark Complex, 3015 H Street, Eureka, CA 95501. However, for subdivisions and subdivision map extensions not involving property in the Coastal Zone, a copy of the appeal and proof of payment of the appeal fees must also be filed with the Clerk of the Board of Supervisors, in Room #111 of the Humboldt County Courthouse, 825 Fifth Street, Eureka, CA 95501.

HOW LONG DO I HAVE TO FILE AN APPEAL?

Subdivisions, discretionary permits and variances have different appeal filing periods and procedures under the law. Please refer to the back of this sheet for the specific ordinance requirements. The following information may be used for guidance.

Permit Type	Appeal Filing Period	Where To File
Subdivisions	10 calendar days	Planning Division and Clerk of the Board
Subdivision Map Extensions	15 calendar days (Appealable only if denied)	Planning Division and Clerk of the Board
Subdivisions in the Coastal Zone	10 calendar days	Planning Division only
Lot Line Adjustments	10 calendar days	Planning Division only
Permits and Variances In the Coastal Zone	10 working days	Planning Division only
Permits and Variances outside of the Coastal Zone (Inland Zoning)	10 working days	Planning Division

"Working Day" appeal periods begin the very next business day after the decision is made and end at 5:00 p.m. on the tenth (10th) business day counting sequentially (weekends and County-recognized holiday days are excluded as they are not normal working days).
"Calendar Day" appeal periods begin the very next day after the decision is made and end at 5:00 p.m. on the final appeal day by counting sequentially, unless the last day is a weekend or County-recognized holiday, then the appeal period would end on 5:00 p.m. the next business day following the weekend or County-recognized holiday.

WHAT IF THE "PROJECT" INVOLVES MULTIPLE PERMIT TYPES?

Different permit types have different appeal periods. If you wish to appeal a project as a whole, the most restrictive (i.e., shortest time period) appeal period must be used. If you wish to appeal a specific permit involved in the project, the appeal period for that specific permit must be followed. Failing to file an appeal in the correct timeframe can invalidate the appeal.

QUESTIONS?

For more information or if you have questions regarding the appeal process, contact the Planning Division at (707)445-7541.

COUNTY OF HUMBOLDT

JOHN BARTHOLOMEW
TREASURER—TAX COLLECTOR
825 Fifth Street Room 125
Eureka, California 95501

Phone: 707-476-2450
Fax: 707-445-7608
Toll Free: 877-897-5692
email: taxinfo@co.humboldt.ca.us

TAX COLLECTION INFORMATION
Important: all taxes and assessments must be paid in full before any parcel changes are recorded.

SUBDIVISION OR COMBINING LAND PARCELS
To complete the recording of any map change (subdivision or any combinations), the Treasurer-Tax Collector's office should be contacted to determine (1) if any taxes or assessments need payment and (2) if a tax performance bond is necessary. There is an application fee of $131.00 to provide this information.

If the map is recorded between:

January 1 and October 31:

A. All delinquent property taxes (secured and unsecured) must be paid in full.
B. Bonded assessments usually must be paid in full.
C. Current fiscal year taxes must be paid in full.
D. A deposit in the estimated amount of the tax for the next fiscal year, which becomes a lien on January 1, must be posted with the Treasurer.

November 1 and December 31:

A. All delinquent property taxes (secured and unsecured) must be paid in full.
B. Bonded assessments usually must be paid in full.
C. Current fiscal year taxes must be paid in full.

LOT LINE ADJUSTMENTS
It is to your benefit to make sure all taxes through the current tax year are paid before completing a lot line adjustment. Unpaid taxes could "cloud" title to all involved properties and could prevent combining property to simplify tax assessment. The Treasurer-Tax Collector's office should be contacted to determine if any taxes are unpaid.

FOR MORE INFORMATION
Please contact the Humboldt County Tax Collector's office at 707-476-2450, from 8:30 am to noon, and 1:00 pm to 5:00 pm, Monday through Friday.

INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

WATER QUALITY

California Regional Water Quality Control Board

North Coast Region,
401 Certification dated March 24, 2016
401 Certification Amendment dated May 4, 2016

March 24, 2016

In the Matter of
Water Quality Certification

for the

State Route 101 Big Lagoon Walls Storm Damage Repair Project
41.191097, -124.110092[1]
WDID No. 1B15134WNHU, ECM PIN CW-818406
Caltrans EA No. 01-0B430, EFIS No. 01-1200-0127

APPLICANT:	California Department of Transportation
RECEIVING WATER:	Unnamed drainage and Big Lagoon
HYDROLOGIC AREA:	Big Lagoon Hydrologic Sub Area 108.10
COUNTY:	Humboldt
FILE NAME:	CDOT HUM-101-PM 111.4-111.6 Big Lagoon Walls Storm Damage Repair Project

FINDINGS BY THE EXECUTIVE OFFICER:

1. On September 29, 2015, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from the California Department of Transportation (Caltrans), requesting Federal Clean Water Act, section 401, Water Quality Certification (certification) for activities related to the proposed State Route 101 Big Lagoon Walls Storm Damage Repair Project (Project).

[1] WGS84 datum

2. **Public Notice:** The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on January 22, 2016, and posted information describing the Project on the Regional Water Board's website. No comments were received.

3. **Receiving Waters**: The proposed Project would cause disturbances to un-named drainage that is a tributary to Big Lagoon (Big Lagoon Hydrologic Sub Area).

4. **Project Description:** The purpose of the Project is to protect State Route 101 (SR 101) by reconstructing and stabilizing three embankment slope failure areas. The Project area is on SR 101 through Humboldt County between post-miles (PM) 111.4 and 111.6, approximately eleven miles north of Trinidad.

   The scope of the proposed work involves:

   - Reconstruction of the southbound lane and shoulder of SR 101 through the Project area;
   - Installation of underdrains;
   - Widening discrete sections of the SR 101 northbound shoulder;
   - Construction of a timber lagging soldier pile tieback wall below the southbound shoulder of SR 101, between PMs 111.42 and 111.45. The wall would be approximately 25-feet-high, 140-feet-long, and required approximately 20 cast-in-drilled-hole (CIDH) H-piles. The wall would be placed just to the south of the proposed southernmost anchored pile system;
   - Construction of two anchored pile systems (APS) below the southbound shoulder of SR 101, on either side of the existing micropile buttress. Each of the two APS's would have CIDH W-piles placed at five foot intervals. A reinforced concrete beam will be placed along the entire length of the APS and will encase both the ground anchors and exposed W-beams. The APS proposed south of the existing micropile buttress would be approximately 320 feet long and require approximately 65 CIDH piles. The APS proposed north of the existing micropile buttress would be approximately 205 feet long and require approximately 40 CIDH piles;
   - Construction of an approximately 15-foot-wide temporary access road below the southbound shoulder to provide equipment access for construction of the three walls;
   - An existing 18-inch diameter culvert at post mile 111.42 is beginning to deteriorate. This 18-inch diameter culvert and downdrain would be replaced with a 24-inch diameter culvert and downdrain; and
   - At PM 111.43, approximately 25 linear feet of culvert will be removed and converted to an open, rock-lined drainage system.

5. **Construction Timing:** The Project is expected to require 290 working days of construction. The Project is proposed to begin in June 2016, and be completed in

October 2019. Work within waters will be conducted in the dry season (June 15-October 15).

6. **Project Impacts:** Project implementation would result in approximately ten linear feet (0.001 acres) of permanent impacts to jurisdictional waters due to placement of rock slope protection in an unnamed tributary at the outlets of two underdrains. Project implementation would also result in approximately 35 linear feet (0.009 acres) of temporary impacts to riparian vegetation due to trenching and equipment access. Additionally, approximately 20 linear feet (0.002 acres) of temporary impacts to jurisdictional waters would occur due to construction access.

7. **Mitigation for Project Impacts**: Mitigation is not required for the project because Caltrans will convert approximately 25 feet of existing culvert to an open drainage channel.

8. **Post-Construction Storm Water:** Project implementation would result in 0.015 acres of new and 0.35 acres of total replaced impervious area. Caltrans would apply 0.35 acres of treatment credit from the Klamath Capital Maintenance Project shall be applied to mitigate for storm water runoff pollutants associated with the Project's new and reworked impervious areas.

9. **Disturbed Soil Area**: Project implementation would result in greater than one acre of disturbed soil area. Caltrans shall apply for coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) and prepare a Stormwater Pollution Prevention Plan detailing best management practices (BMPs) to control pollution from the Project area during construction. All temporarily disturbed areas within the Project area shall be appropriately stabilized and/or replanted with appropriate native vegetation.

10. **Utility Relocations:** Utility relocations affecting jurisdictional waters are not proposed for this Project.

11. **Other Agency Actions:** Caltrans has applied for coverage under a non-reporting United States Army Corps of Engineers Nationwide Permit No. 14. Caltrans has also applied for a Section 1600 Notification of Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife.

12. **CEQA Compliance:** On November 26, 2014, Caltrans signed a Notice of Determination approving a Negative Declaration for the Project (State Clearinghouse No. 2014092019) in order to comply with the California Environmental Quality Act.

13. **Total Maximum Daily Load:** The Big Lagoon is not identified as impaired on the Clean Water Act Section 303(d) list. At present, total maximum daily loads (TMDLs) have not been established for this water body. If TMDLs are established and implementation plans are adopted for this watershed prior to the expiration date of this certification, the Regional Water Board may revise the provisions of this certification to address TMDL compliance.

14. **Antidegradation Policy:** The federal antidegradation policy requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. This certification is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater, and does not otherwise authorize degradation of the waters affected by this Project.

15. This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this certification. Order No. 2003-0017-DWQ can be found here: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf.

Receiving Water:	Big Lagoon	
Filled and/or Excavated Areas:	Permanent – jurisdictional waters Temporary – jurisdictional waters	10 linear feet (0.001 acres) 55 linear feet (0.011 acres)
Latitude/Longitude:	41.191097, -124.110092	
Certification Expiration:	March 24, 2021	

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the State Route 101 Big Lagoon Walls Storm Damage Repair Project (WDID No. 1B15134WNHU), as described in the application will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that Caltrans complies with the following terms and conditions:

All conditions of this certification apply to Caltrans (and their employees) and all contractors (and their employees), sub-contractors (and their employees), and any

other entity or agency that performs activities or work on the Project as related to this Water Quality Certification.

Project-Specific Conditions

1. Caltrans has removed 2000 feet of ac-dike and over-side drains to allow 1.9 acres of impervious pavement area to sheetflow onto an existing vegetated hillside in Del Norte County on State Route 101 PM 4.4 - 9.4 (Klamath Capital Maintenance Project). 0.35 acres of treatment credit from the Klamath Capital Maintenance Project shall be applied to mitigate for storm water runoff pollutants associated with the Project's new and reworked impervious areas.

2. To compensate for 0.28 acres of Disturbed Soil Area (DSA), Caltrans shall revegetate no less than 141 woody and 65 herbaceous plant species within the designated 0.48 acre planting areas, as seen in the *Big Lagoon Walls Project Revegetation Plan, Figure 3*.

Project-Specific Conditions Requiring Reports

3. The Regional Water Board shall be notified in writing (e-mail is acceptable) at least five working days prior to commencement of ground disturbing activities for each construction season.

4. Caltrans shall implement the proposed *Big Lagoon Walls Project Revegetation Plan,* dated November 2015 (Plan). Caltrans shall submit years 1, 3, and 5, monitoring reports, no later than January 31 following the respective monitoring year. The monitoring reports shall include photos, plant counts, and success criteria for survival counts.

Standard Conditions

5. Herbicides and other pesticides shall not be used within the Project limits. If Caltrans has a compelling case as to why pesticides should be used, then a request for pesticide use and a BMP plan may be submitted to the Regional Water Board staff for review and acceptance.

6. All Project activities and BMPs shall be implemented according to the submitted application package and the findings and conditions of this certification. Subsequent changes to the Project that could significantly impact water quality shall first be submitted to Regional Water Board staff for prior review, consideration, and written concurrence. If the Regional Water Board is not notified of an alteration to the Project that results in an impact to water quality, it will be considered a violation of this certification, and Caltrans may be subject to Regional Water Board enforcement actions.

Standard Conditions

7. All conditions required by this certification shall be included in the Contract Documents prepared by Caltrans for the contractor. In addition, Caltrans shall require compliance with all conditions included in this certification in the bid contract for this Project.

8. Caltrans is prohibited from discharging waste to waters of the State, unless explicitly authorized by this certification. For example, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, welding slag, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, shall be allowed to enter into State waters.

9. Except for temporary stockpiling of waste generated during demolition operations ("temporary" in this instance means generated and removed during the same working day,) waste materials shall not be placed in a manner where the materials may be transported into waters of the State. Waste materials shall not be placed within 100 linear feet of State waters. Exceptions to the 100-foot limit may be granted on a case-by-case basis provided Caltrans first submits a proposal in writing that is found acceptable by Regional Water Board staff.

10. Caltrans is liable and responsible for the proper disposal, reuse, and/or recycling of all Project-generated waste in compliance with applicable State and Federal laws and regulations, and as described in Caltrans 2010 Standard Specifications 13-4.03D, Waste Management. Additionally, when handling, transporting, disposing, reusing, and/or recycling Project-generated waste, Caltrans and their contractors shall:

    i) Provide the Regional Water Board with a copy of the Solid Waste Disposal and Recycling Report prepared for Caltrans by the contractor per Caltrans 2010 Standard Specification 14-10.02A(1), Submittals. These reports shall be provided not later than January 31 for each year work is performed during the previous calendar year. A copy of the final Solid Waste Disposal and Recycling Report shall be submitted to the Regional Water Board within 30 days after being received by Caltrans from the contractor.

    ii) For waste other than solid waste, obtain evidence that waste has been appropriately disposed, reused, and/or recycled. Evidence shall include type and quantity of waste and may include, but not be limited to, property owner agreements, permits, licenses, and environmental clearances. Evidence shall be provided to the Regional Water Board upon request; and

    iii) For waste other than solid waste, ensure the Resident Engineer has given written permission for disposal, reuse, and/or recycling, prior to the actual disposal, reuse, and/or recycling.

Standard Conditions

11. Asphalt-concrete grindings shall not be placed in any location where they may, at any time, be directly exposed to surface waters or seasonally high ground water, except asphalt-concrete grindings may be re-used and incorporated into hot mix asphalt products or encapsulated within the roadway structural section.

12. Caltrans and their contractors shall comply with the activity restrictions detailed in Caltrans 2010 Standard Specifications 13-4.03C(1). In addition, fueling, maintenance, storage and staging of vehicles and equipment shall be prohibited within waters of the State (e.g., gravel bars, seeps, ephemeral streams) and riparian areas.

13. Fueling, maintenance, and/or staging of individual equipment types within waters of the State or riparian areas may be authorized if Caltrans first prepares a plan for review and approval by Regional Water Board staff that:

    i) Identifies the specific piece of machinery that may require fueling, maintenance, and/or staging within waters of the State or riparian areas;

    ii) Provides justification for the need to refuel, maintain, or stage within State waters or riparian areas. The justification shall describe why conducting the activity outside of jurisdictional waters is infeasible; and

    iii) Includes a narrative of specific BMPs that shall be employed to prevent discharges to State waters and riparian areas;

14. Caltrans shall not use leaking vehicles or equipment within State waters or riparian areas.

15. Only 100-percent biodegradable erosion and sediment control products that will not entrap or harm wildlife shall be used. Photodegradable synthetic products are not considered biodegradable. If Caltrans finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. This condition does not prohibit the use of plastic sheeting used in water diversion or dewatering activities. Caltrans shall request approval from the Regional Water Board if an exception to this requirement is needed for a specific location.

16. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited.

17. Non-stormwater discharges are prohibited unless the discharge is first approved by the Regional Water Board and in compliance with the Basin Plan. If dewatering of groundwater is necessary, then Caltrans shall use a method of water disposal other

Standard Conditions

than disposal to ground or surface waters, such as land disposal. Groundwater disposed of to land shall not enter State waters. Alternatively, Caltrans may apply for coverage under the Low Threat Discharge Permit or an individual National Pollutant Discharge Elimination System (NPDES) Permit. If Caltrans applies for coverage under either of these permits, then discharge is prohibited until Caltrans has received notification of coverage under the respective permit.

18. Gravel bags used within State waters shall:

    i) Comply with Caltrans 2010 Standard Specifications sections 13-5.02G and 88-1.02F;

    ii) Be immediately removed and replaced if the bags have developed or are developing holes or tears; and

    iii) Be filled only with clean washed gravel.

    Exceptions to these criteria are subject to the review and acceptance of Regional Water Board staff.

19. This certification does not authorize drafting of surface waters.

20. Caltrans shall provide access to the Project construction site upon request by Regional Water Board staff.

21. Initial water pollution control training described in Caltrans 2010 Standard Specifications 13-1.01D(2), Training, shall apply to all Caltrans employees, contractors, and sub-contractors. Initial water pollution control training topics shall include Regional Water Board 401 certification and construction general permit requirements, identification of state waters and riparian areas, and violation avoidance and discharge reporting procedures.

22. Caltrans shall maintain logs of all Caltrans staff, contractors, and sub-contractors trained pursuant to the Caltrans 2010 Standard Specifications 13-1.01D(2). The logs shall include the names of trainees, training dates, and summary of the scope of training. Caltrans shall provide evidence of this documentation upon the request of the Regional Water Board.

23. If an unauthorized discharge to surface waters (including wetlands, rivers or streams) occurs, or any other threat to water quality arises as a result of Project implementation, the associated Project activities shall cease immediately until the threat to water quality is otherwise abated. If there is a discharge to State waters, the Regional Water Board shall be notified no more than 24 hours after the discharge occurs.

Standard Conditions

24. Uncured concrete shall not be exposed to State waters or surface waters that may discharge to State waters. Concrete sealants may be applied to the concrete surface where difficulty in excluding flow for a long period may occur. If concrete sealant is used, water shall be excluded from the site until the sealant is cured. If groundwater comes into contact with fresh concrete, it shall be prevented from flowing towards surface water.

25. Ground and surface water that has come into contact with fresh concrete, and all other wastewater, shall not be discharged to State waters or to a location where it may discharge to State waters; the wastewater shall be collected and re-used or disposed of in a manner approved by the Regional Water Board.

26. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill on-site shall be performed in accordance with all State and Federal policies and established guidelines and must be submitted to the Regional Water Board for review and consideration of acceptance.

27. Caltrans shall provide a copy of this certification and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ (web link referenced below) to the contractor and all subcontractors conducting the work, and require that copies remain in their possession at the work site. Caltrans shall be responsible for work conducted by its contractor and subcontractors.

28. The validity of this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833. The total application fee is $200. The Regional Water Board received $200 from Caltrans on October 5, 2015.

29. This certification will be subject to annual billing during the construction phase ("Annual Active Discharge Fee") and during the monitoring phase of the Project ("Annual Post Discharge Monitoring Fee"), per the current fee schedule, which can be found on our website: http://www.swrcb.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml. These fees will be automatically invoiced to Caltrans.

30. Caltrans shall notify the Regional Water Board upon Project construction completion to request termination of the Annual Active Discharge Fee and to receive a "Notice of Completion of Discharges Letter." If the Project is subject to the Annual Post Discharge Monitoring Fee, then Caltrans shall also notify the Regional Water Board at the end of the monitoring period to request termination of the fee and receive a "Notice of Project Complete Letter." Caltrans may be required to submit completion reports at the end of

Standard Conditions

each of these phases. Regional Water Board staff may request site visits at the end of each Project phase to confirm Project status and compliance with this certification.

31. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

32. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

33. This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

34. In the event of any change in control of ownership of land presently owned or controlled by Caltrans, Caltrans shall notify the successor-in-interest of the existence of this certification by letter and shall forward a copy of the letter to the following email address: NorthCoast@waterboards.ca.gov.

    The successor-in-interest shall e-mail the Regional Water Board Executive Officer at: NorthCoast@waterboards.ca.gov to request authorization to discharge dredged or fill material under this certification. The request must contain the following:

    i) Effective date of ownership change;

    ii) Requesting entity's full legal name;

Standard Conditions

iii) The state of incorporation, if a corporation;

iv) The address and phone number of contact person; and

v) A description of any changes to the project or confirmation that the successor-in-interest intends to implement the project as described in this certification.

35. Except as may be modified by any preceding conditions, all certification actions are contingent on:

    i) The discharge being limited to and all proposed mitigation being completed in strict compliance with Caltrans's Project description and CEQA documentation, as approved herein; and

    ii) Compliance with all applicable water quality requirements and water quality control plans including the requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan), and amendments thereto.

36. Any change in the design or implementation of the Project that would have a significant or material effect on the findings, conclusions, or conditions of this certification must be submitted to the Executive Officer of the Regional Water Board for prior review, consideration, and written concurrence. If the Regional Water Board is not notified of a significant alteration to the project, it will be considered a violation of this certification, and Caltrans may be subject to Regional Water Board enforcement actions.

37. The authorization of this certification for any dredge and fill activities expires on March 24, 2021. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

Condition 3 and 4 are requirements for information and reports. Any requirement for a report made as a condition to this certification is a formal requirement pursuant to California Water Code section 13267, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in California Water Code, Section 13268.

The Regional Water Board may add to or modify the conditions of this certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

Please contact our staff Environmental Scientist, Brandon Stevens at (707) 576-2377, or via e-mail, at Brandon.Stevens@waterboards.ca.gov, if you have any questions.

Fred Blatt
for Water Board

Fred Blatt
2016.03.24
15:22:59 -07'00'

Matthias St. John
Executive Officer

160324_BDS_dp_CDOT_HUM101_BigLagoon_401

Web link: State Water Resources Control Board Order No. 2003-0017 -DWQ, General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification can be found at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf

Original to: Mr. Kevin Church, Caltrans, District 1, 1656 Union Street, Eureka, CA 95501 Kevin.Church@dot.ca.gov

cc: Carol Heidsiek, U.S. Army Corps of Engineers Carol.A.Heidsiek@usace.army.mil
JoAnn Loehr, California Department of Fish and Wildlife JoAnn.Loehr@wildlife.ca.gov
State Water Resources Control Board Stateboard401@waterboards.ca.gov
Environmental Protection Agency, Region 9 R9-WTR8-Mailbox@epa.gov
Katie Thoreson, Caltrans Katie.Thoreson@dot.ca.gov

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

North Coast Regional Water Quality Control Board

May 4, 2016

California Department of Transportation
Attn: Mr. Kevin Church
1656 Union Street
Eureka, CA 95501

Dear Mr. Church:

Subject: Amendment to the Federal Clean Water Act, Section 401, Water Quality Certification for the Big Lagoon Walls Storm Damage Repair Project

Files: CDOT Highway 101 Big Lagoon Walls Storm Damage Repair Project
ECM PIN CW-818406, WDID No. 1B15134WNHU
Caltrans EA No. 01-0B430

On April, 22, 2016, we received your email requesting an amendment to the March, 24, 2016, Federal Clean Water Act, Section 401, Water Quality Certification (certification) for the Big Lagoon Walls Storm Damage Repair Project (Project).

In response to your request, this letter serves as an amendment to Project-Specific Condition 1 and Standard Conditions 29 and 30, of the certification. Condition 1 has been amended to adjust for mitigation completion and report submittal. Conditions 29 and 30 have been removed from the certification because these conditions do not apply to Project low impact discharges. The certification is hereby amended as described below. Additions and deletions to the original certification are represented by underlined and strikethrough text, respectively.

Condition 1: Caltrans ~~has~~will removed 2000 feet of ac-dike and over-side drains to allow 1.9 acres of impervious pavement area to sheetflow onto an existing vegetated hillside in Del Norte County on State Route 101 PM 4.4 - 9.4 (Klamath Capital Maintenance Project). 0.35 acres of treatment credit from the Klamath Capital Maintenance Project shall be applied to mitigate for storm water runoff pollutants associated with the Project's new and reworked impervious areas. The Klamath CAPM shall be completed by

October 2017. A Certificate of Environmental Compliance shall be submitted by October 2017, following the completion of the Klamath CAPM Project.

Condition 29: ~~This certification will be subject to annual billing during the construction phase ("Annual Active Discharge Fee") and during the monitoring phase of the Project ("Annual Post Discharge Monitoring Fee"), per the current fee schedule, which can be found on our website: http://www.swrcb.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml. These fees will be automatically invoiced to Caltrans.~~

Condition 30: ~~Caltrans has removed 2000 feet of ac-dike and over-side drains to allow 1.9 acres of impervious pavement area to sheetflow onto an existing vegetated hillside in Del Norte County on State Route 101 PM 4.4 - 9.4 (Klamath Capital Maintenance Project). 0.35 acres of treatment credit from the Klamath Capital Maintenance Project shall be applied to mitigate for storm water runoff pollutants associated with the Project's new and reworked impervious areas.~~

I hereby issue an amendment to the project description in Condition 1, Condition 29, and Condition 30 in the Conditions of the certification for the Big Lagoon Walls Storm Damage Repair Project (WDID No. 1B15134WNHU) certifying that the remainder of the Water Quality Certification sections of the March 24, 2016 Order are still valid.

If you have any questions or comments, please contact Brandon Stevens at (707) 576-2377 or at Brandon.Stevens@waterboards.ca.gov.

Sincerely,

Fred Blatt
for

Fred Blatt
2016.05.04
15:42:45 -07'00'

Water Boards

Matthias St. John
Executive Officer

160504_BDS_dp_CDOT_HUM101_BigLagoon_401Amend

INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

AGREEMENT

California Department of Fish and Wildlife

Notification No. 1600-2015-0406-R1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
REGION 1 - NORTHERN
619 SECOND STREET
EUREKA, CALIFORNIA, 95501

STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2015-0406-R1
BIG LAGOON

CALIFORNIA DEPARTMENT OF TRANSPORTATION
BIG LAGOON WALLS STORM DAMAGE REPAIR
EA 01-0B430; U.S. 101 PMS 111.3-111.7, HUMBOLDT COUNTY

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and the California Department of Transportation (Caltrans) (Permittee) as represented by Mr. Troy Arseneau.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) Section 1602, Permittee notified CDFW on October 1, 2015, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC Section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

PROJECT LOCATION

The project is situated adjacent to Big Lagoon, tributary to Pacific Ocean. The project is located in the County of Humboldt; State of California; Section 6, Township 9 North, Range 1 East, Humboldt Base and Meridian; Rodgers Peak U.S. Geological Survey 7.5-minute quadrangle.

PROJECT DESCRIPTION

Caltrans proposes to reconstruct the southbound lane, southbound shoulder and associated drainage elements, and widening at discrete sections of the southbound shoulder on Highway 101 between Post Mile (PM) 111.3 and 111.7 in Humboldt County.

Caltrans proposes to construct three structures to halt roadway and shoulder failure in the slide in this location: a timber lagging soldier pile tieback wall and two anchor pile systems. The roadway at the center of the slide is retained by an existing 200-foot-long micropile retaining structure. Movement on the flanks of the slide will be addressed by constructing two anchored pile structures, one on either end of the existing micropile buttress. An approximate 50-foot gap will be left between the existing micropile buttress and the proposed anchor pile system on each end.

Each anchor pile system will have Cast-In-Drilled Hole (CIDH) W-piles placed at 5' intervals, and ground anchors will be horizontally drilled into the ground. A reinforced concrete beam that encases the ground anchor and the exposed W-beams will be buried under fill along the entire length of the anchor pile system. A 15-foot wide access road will be constructed below each anchored pile system for construction access. Each anchor pile system will have Cast-In-Drilled Hole (CIDH) W-piles placed at 5' intervals, and ground anchors will be horizontally drilled into the ground. A reinforced concrete beam that encases the ground anchor and the exposed W-beams will be buried under fill along the entire length of the anchor pile system. On the southern end, the anchor pile system is approximately 330 feet long with approximately 65 proposed CIDH piles; on the northern end the anchor pile system is approximately 205 feet long with approximately 40 proposed CIDH piles.

South of the existing micropile buttress is the third slipout location (PM 111.42 to 111.45), where Caltrans proposes to install a soldier pile ground anchor wall with timber laggings. The proposed wall is 140 feet long and approximately 25 feet high, and will be constructed using approximately 20 CIDH H-piles installed at approximately 7-foot intervals along the southbound shoulder. A 15-foot wide temporary access road will be constructed along the face of the wall for horizontal drilling and other construction activities. Additionally, two walers will be constructed with approximately 17 ground anchors at the top and eight at the bottom. The existing 24-inch diameter welded steel pipe (WSP) culvert that would intersect the proposed wall will extend through the wall and be cut off within 5 feet of the face of the wall. At the culvert outlet, a channel will be re-established. A proposed wall underdrain will also connect with this channel. The face of the wall will be backfilled a minimum of 4 feet with a portion of the wall exposed for the reestablishment of an open channel below the 24-inch culvert.

At PM 111.42 the 18-inch diameter corrugated steel pipe (CSP) culvert located just south of the proposed southern wall will be removed and replaced with a 24-inch diameter culvert and downdrain.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: **Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), steelhead (*O. mykiss*), coastal cutthroat trout (*O. clarki clarki*)**, other non-game and game fishes, amphibians, reptiles, aquatic invertebrates, mammals, nesting resident and migratory birds, and other aquatic and riparian species.

The adverse effects the project could have on the fish or wildlife resources identified above include:

- direct and/or indirect mortality of fish, amphibians and other aquatic species;
- injury to downstream fish and benthic invertebrates and spawning and/or rearing habitats through sediment transport and deposition and/or spills of deleterious materials;
- changes in channel form and contour of bed, bank, or channel;
- temporary increase of sediment and turbidity;
- temporary loss of riparian habitat;
- potential mortality of nesting birds, eggs or young through vegetation removal and construction disturbance; and
- colonization by non-native and/or invasive plants.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons in responsible positions who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with the Agreement.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and other aquatic species, Permittee shall implement each measure listed below.

2.1 Except where otherwise stipulated in this Agreement, all work shall be in accordance with Permittee's notification, including all maps, plans, photographs, drawings, and all other supporting documents submitted as part of the notification and received as of February 2, 2016. The Permittee shall use the mitigative features described in the notification and supporting documents, unless such features are modified by the provisions of this Agreement, in which case the activities shall be conducted as described in this Agreement.

2.2 All work within the bed, bank or channel shall be confined to the period June 1 to October 15 of any year in which this Agreement is valid, unless consultation with CDFW provides for a site-specific seasonal work period variance. Any variance approved shall also require the Permittee comply with Measures 2.5a) – 2.5e).

2.3 Permittee shall perform pre-construction amphibian surveys immediately prior to initiating construction activities that may disturb amphibian habitat. Native amphibian species found within the work area shall be relocated to a suitable habitat area outside of the construction limits. Suitable exclusion measures shall be in place prior to construction to minimize injury or mortality to wildlife.

2.4 Prior to construction work, Permittee shall conduct a tree assessment within at least 165 feet of project activities to determine if suitable habitat structural elements for roosting bats are present. Results of tree assessments, including any proposed follow-up surveys, shall be provided to CDFW prior to commencement of work.

2.5 As feasible, vegetation removal from the work area shall take place between September 15 and February 28 to avoid impacts to nesting birds. Fall and winter vegetation removal during the non-nesting season, and any other work proposed outside of a June 1 – October 15 work window, shall adhere to all measures in this Agreement and a) – e) below.

a) Prior to any work at a site outside June 1 – October 15, the Permittee shall stock-pile erosion control materials at the site. Erosion control materials shall be applied in sufficient quantity immediately upon completion of work and prior to the onset of precipitation capable of generating runoff with re-application as needed to avoid any visible increase in surface erosion or turbidity in any receiving streams.

b) Vegetation limbing and felling shall minimize soil disturbance using effective Best Management Practices (BMPs) such as hand-cutting. Ground-disturbing work shall only be performed when soils are sufficiently dry so that sediment is not discharged into streams.

c) The Permittee shall install erosion control measures within 24 hours of CDFW directing the Permittee to do so.

d) When a 7-day National Weather Service forecast of rain for Big Lagoon at http://www.weather.gov includes a minimum of 5 consecutive days with any chance of precipitation, 3 consecutive days with a 30% or greater chance of precipitation, or 2 consecutive days of 50% or greater chance of precipitation, the Permittee shall refrain from undertaking further vegetation removal work prior to the rain event. Permittee shall not resume vegetation removal work until the soil surface is dry, defined as a surface which is no wetter than that found during normal dust abatement watering treatments, and treatment of vegetation does not cause deformation of the soil surface.

e) Once vegetation is trimmed or removed in compliance with Measure 2.5, repeated hand-cutting of re-growth during the nesting season is permitted as needed to avoid re-growth that may attract nesting birds.

2.6 Removal of existing vegetation shall not exceed the minimum necessary to complete operations. If vegetation must be removed during the nesting season (March 1 to September 14) nest surveys shall be conducted prior to vegetation clearing.

2.7 The Permittee shall protect migratory birds, their occupied nests, and their eggs as specified by the Federal Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Title 50 Code of Federal Regulations part 10, and California Fish and Game Code (FGC) sections 3503 and 3513. Nesting or attempted nesting by migratory birds within the project area is anticipated to occur between, but not limited to, March 1 and August 15.

2.8 If project work is proposed between March 1 and September 1, the Permittee shall conduct a database and ground-based nest search for existing and new osprey nests to check the status of viable historic and active osprey nests within 0.5 miles of U.S. 101 PM markers 111.3-111.7 prior to operations each year. If osprey are found nesting in or within 0.5 miles of the project area at the time of construction, the Permittee shall consult with CDFW to determine if additional avoidance or minimization measures may be needed.

2.9 If sightings or den sites of ring-tailed cat (*Bassariscus astutus*), Pacific fisher (*Martes pennanti*), or marten (*Martes americana*) are encountered in the course of activities at project sites, the Permittee shall immediately notify and consult with

CDFW to identify any measures that may be needed to avoid take or minimize adverse impacts to these species.

2.10 No fill material shall be placed within a stream except as specified in this Agreement. No work shall be conducted below the ordinary high water mark of Big Lagoon.

2.11 Adequate and effective erosion and siltation control measures shall be used at all times to prevent sediment or turbid or silt-laden water from entering streams. Where needed, the Permittee shall use native vegetation or other treatments including native slash, jute netting, straw wattles, and geotextiles to protect and stabilize soils. Geotextiles, fiber rolls, and other erosion control treatments shall not contain plastic mesh netting that can entrap or harm wildlife. Photodegradable synthetic products are not considered biodegradable.

2.12 All bare mineral soil exposed in conjunction with construction, deconstruction, maintenance or repair shall be treated for effective erosion prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first. Erosion control measures shall include the proper installation and maintenance of approved BMPs and may include applications of seed, weed-free straw, compost, fiber, commercial fertilizer, stabilizing emulsion and mulch, or combinations thereof. Non-vegetative methods such as jute mat, coir mat, wood chip mat, straw mat or wattle, straw mulch, native duff (leaves, needles, fine twigs, etc.), or lopped native slash may be used as erosion control to protect and stabilize soils. Straw mulching shall utilize at least 2 to 4 inches of clean straw (such as rice, barley, wheat) or weed-free straw. Seeding shall use regional native seed or non-native seed that is known not to persist or spread [e.g., barley (*Hordeum vulgare*), or wheat (*Triticum aestivum*)]. No known invasive grass seed such as annual or perennial ryegrass (*Lolium multiflorum or L. perenne*, which are now referred to as *Festuca perennis*), shall be used in erosion control or revegetation seed mixes.

2.13 Encroachments and associated structures, fills, and other exposed soils shall be armored as needed to protect fill, abutments, and the stream channel and banks from erosion.

2.14 The Permittee shall provide site maintenance during the life of the Agreement and the life of the structure, including, but not limited to, re-applying erosion control to minimize surface erosion and ensuring stream banks remain sufficiently functional, armored and/or stable. Modifications, repairs, and improvements to erosion control measures shall be made as needed following storm events to prevent sediment from entering Big Lagoon.

2.15 Refueling of machinery or heavy equipment, or adding or draining oil, lubricants, coolants, or hydraulic fluids shall not take place within stream bed, channel, and bank. All such fluids and containers shall be disposed of properly off-site. Heavy

equipment used or stored within stream bed, channel, and bank shall use drip pans or other devices (i.e., absorbent blankets, sheet barriers or other materials) as needed to prevent soil and water contamination.

2.16 Any equipment or vehicles driven and/or operated adjacent to the stream channel shall be checked and maintained daily to prevent leaks of materials that could be deleterious to aquatic and terrestrial life or riparian habitat.

2.17 Stationary equipment such as motors, pumps, generators, and welders that contain deleterious materials, located adjacent to the stream channel shall be positioned over drip pans.

2.18 To prevent the release of materials that may be toxic to fish and other aquatic species, poured concrete shall be isolated from stream flow and allowed to dry/cure for a minimum of 30 days. All water that has come in contact with poured concrete shall be isolated and not allowed to flow downslope or otherwise come in contact with fish and other aquatic resources.

2.19 The Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of the structures or into Big Lagoon. The Permittee shall install a secondary containment structure between the primary containment structure and the stream channel as necessary to prevent wet concrete from entering water upon failure or leak of the primary structure. When Permittee is pouring or working with wet concrete, there shall be a designated monitor to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of the structures.

2.20 All construction activities performed in or near the stream shall have absorbent materials designated for spill containment and clean-up activities on-site for use in an accidental spill. In the event of a discharge, the Permittee shall immediately notify the California Emergency Management Agency State Warning Center at 1-800-852-7550 and immediately initiate clean-up activities. CDFW shall be notified by the Permittee within 24 hours and consulted regarding clean-up procedures.

2.21 Except as otherwise stipulated in this Agreement, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, asphalt, paint or other coating material, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

3. Reporting Measures

3.1 Permittee shall notify CDFW within the 7-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date. Subsequently, the Permittee shall notify CDFW no later than 7 days after the project is fully completed. Notification may be faxed to CDFW at (707) 441-2021, Attn: JoAnn Loehr, Senior Environmental Scientist (Specialist), or via e-mail at joann.loehr@wildlife.ca.gov.

3.2 Revegetation monitoring results shall be summarized in a report that includes site photos. Revegetation monitoring reports for years 1, 3 and 5 shall be submitted to CDFW by the end of January following the year of monitoring. The fifth and final report shall document whether the revegetation success criterion was met, or if remedial actions are needed. If remedial revegetation actions are needed, Permittee shall submit a plan with the year 5 monitoring report that describes revegetation remedial efforts that shall be undertaken to achieve success.

CONTACT INFORMATION

Written communication that Permittee or CDFW submits to the other shall be delivered to the address below unless Permittee or CDFW specifies otherwise:

To Permittee:

Mr. Troy Arseneau
Caltrans
1656 Union St.
Eureka, CA 95501
Email: troy.arseneau@dot.ca.gov

To CDFW:

California Department of Fish and Wildlife
Northern Region
619 Second Street
Eureka, California 95501
Attn: Lake or Streambed Alteration Program
Notification #1600-2015-0406-R1
Fax: (707) 441-2021

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Calif. Code Regs., Title 14, Section 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Calif. Code Regs., Title 14, Section 699.5).

EXTENSIONS

In accordance with FGC Section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Calif. Code Regs., Title 14, Section 699.5). CDFW shall process the extension request in accordance with FGC Section 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (FGC Section 1605(f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC Section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire **five years** from the effective date, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC Section 1605(a)(2) requires.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC Section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

FOR CALIFORNIA DEPT. OF TRANSPORTATION

Troy Arseneau
Project Manager

3/28/16
Date

FOR CALIFORNIA DEPT. OF FISH AND WILDLIFE

for

Gordon Leppig
Senior Environmental Scientist Supervisor

3/30/2016
Date

Prepared by: JoAnn Loehr, Sr. Environmental Scientist (Specialist), February 10, 2016; rev. 2/29/16

INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

MATERIALS INFORMATION

Foundation Report (Wall 04E0035 and Wall 04E0036) dated November 6, 2014

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY

DEPARMENT OF TRANSPORTATION

Memorandum

To: JEFF SIMS
Division of Structure Design
Branch 1
Office of Bridge Design, West

Attention: Mr. Eric Watson

Date: November 6, 2014
File: 01-HUM-101-PM-111.4
EA: 01-0B4301
EFIS ID: 0112000127
Retaining Wall Nos. XXXXXX
040035
040036

From: **DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES
OFFICE OF GEOTECHNICAL DESIGN NORTH – BRANCH B

Subject: Foundation Report for Anchored Pile Slope Stabilization

INTRODUCTION

This Foundation Report summarizes the results of the foundation investigation and provides geotechnical recommendations for the proposed anchored pile structures intended to stabilize the roadway prism at Big Lagoon on Route 101 from approximate post mile (PM) 111.4 to 111.6 in Humboldt County, CA (Figure 1). The proposed structures are adjacent to a 200 foot long micropile stabilization structure along the northbound edge of the highway that was constructed in 2008/2009.

PROJECT DESCRIPTION AND BACKGROUND

The active slide at this location has been a chronic maintenance problem for the last 25 years. A Project Study Report (PSR) to bypass this section of Route 101 was prepared in 1987. Opposition by the California Department of Parks and Recreation and the Save the Redwoods League resulted in the adoption of a 'no-build' alternative consisting of continued maintenance and safety improvements as needed.

An HB1 (Safety) project was initiated for this location in 2001. Through the Value Analysis process, most of the build alternatives for this project were also eliminated and the 'dynamic signing' alternative consisting of changeable message sign (CMS) installation and some minor curve widening with an open grade asphalt concrete (OGAC) overlay was constructed in 2005.

Following this safety project, a number of years of consistently high Maintenance efforts at this location occurred. The Bracut Maintenance Supervisor reported that FY 2008 was the most active year since the 1950's. From July 1 2007 to June 20 2008, Maintenance reported they worked 43 days, and placed 2029 tons of AC in this location.

An emergency project (01-488303) was initiated to address the active slide in 2008. A micropile slope stabilization structure (Wall No. 04E0017) was designed and constructed during the winter of 2008/2009. This project also included some minor realignment, construction of a 20-foot deep underdrain, minor retaining structures on the roadway cut slope to help control slope raveling and some earthwork (unloading).

Due to fiscal constraints, the size of the repair was limited to the portion of the active slide that was affecting the travelled way. The northern and southern flanks of the slide were expected to continue to move beyond the shoulders of the newly constructed roadway. In order to monitor the performance of the micropile structure and of the portions of the roadway not stabilized by its construction, 8 additional slope inclinometers (SI's) were installed during the emergency project. 4 SI's were installed in the vertical micropiles of the structure (SI-1 through SI-4). The remaining 4 SI's were drilled and installed above, below and on the northern and southern flanks of the structure. These holes (SI-5 through SI-8) were not logged. In addition, a surface monitoring network was designed and installed by the North Region Office of Surveys to monitor movement of the roadway and of the minor retaining structures. The SI's installed in the micropile structure show minor deflection that appears to have occurred in the first year after construction. This is consistent with expected landslide loading behavior on the passive micropile system. SI data are provided in Appendix A.

The limits of the landslide are located along the paved and unpaved shoulders from approx STA 14+70 to 17+80 and approx STA 20+95 to 22+85. They are discernable by the visible head scarps on the paved and unpaved shoulders, extending into the travelled way in a few locations. Additional scarps can be seen on the slopes extending down to the Lagoon. The landslide is characterized as an earth flow that toes out adjacent to Big Lagoon. The roadway at the center (deepest portion) of the slide is retained by the micropile retaining structure.

At this location, District 1 plans to construct two anchored pile stabilization structures to maintain shoulders and support the roadway. The proposed stabilization consists of buried soldier piles and a single row of ground anchors tied together at the top with a reinforced concrete grade beam. A vicinity map showing the project location (Figure 1) and a Site Plan (Figure 2) are attached.

The restored alignment will consist of two 12 foot lanes with 4 foot paved shoulders. The proposed anchored pile structure lay out lines are shown on the Site Plan (Figure 2).

EXCEPTIONS

The recommendations contained in this report are based on a review of geotechnical/geologic literature, a subsurface investigation, laboratory testing of soil samples, geotechnical calculations and field observations.

Subsurface conditions were evaluated only at the boring locations and may deviate elsewhere within the Project Limits. The elevations reported in this memorandum are with respect to Mean Sea Level (MSL).

REFERENCES

The following documents were used in preparing this report:

Western Regional Climate Data Center http://www.wrcc.dri.edu/

Cashman, P.H., Cashman, S.M. and Kelsey, H.M., December 1981, DMG Open-File Report 82-14, *Geology of the Rogers Peak 15 Minute Quadrangle, Humboldt County, California*

Saucedo, G.J. et. al. "*GIS data for the Geologic Map of California*", USGS, 2000
Digitized from the 1977 Geologic Map of California by C.W. Jennings.

US Department of Transportation, Federal Highway Administration – California Division, Damage Assessment Form (DAF) Title 23, Inspection date October 14, 2009.

Caltrans Reports

Caltrans As-Built Plans and District 1 Materials Laboratory Records (Various)

Big Lagoon Project Report-OGAC and ITS Signing, Approved 3-28-05, Caltrans Design E-3

Foundation Report, 01-488303 Micropile Slope Stabilization, dated June 26, 2008.

01-MEN-101-PM 111.4/111.6 FHWA Damage Assessment Form (DAF)
CEP-CT01-027-0, signed 08/02/2011

Preliminary Caltrans Design Plans dated 07/2012

California Seismic Hazard Map 1996, Caltrans, Lalliana Mualchin

Caltrans Corrosion Guidelines Version 2.0, 11/2014

Caltrans Soil and Rock Logging, Classification, and Presentation Manual, 2010 Edition.

FIELD INVESTIGATION AND TESTING PROGRAM

Geotechnical information was initially gathered from the 8 slope inclinometers and the surface monitoring network installed after the micropile structure (04E0017) was constructed in early 2009 to monitor the repair strategy's performance (see Figure 2).

An additional 4 borings were completed between December 2011 and May 2012. The boring locations are shown on Figure 2 and in Table 1. The borings were advanced using a truck mounted Acker MPCA drill rigs using a 94-mm HXB casing equipped with a steel finger bit or diamond impregnated core bit.

Samples of the soil and bedrock from the borings were obtained by punch core, coring and a 1.4-inch (inside diameter) Standard Penetration Test (SPT) sampler driven with an automatic 140-pound hammer dropped 30 inches. The blows required to drive the samplers were recorded for each 6 inches of penetration or fraction thereof (ASTM D1586-11 Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils). A few samples were also obtained by push sampling with a Shelby tube sampler to obtain undisturbed samples in very soft material.

Visual classifications were made in accordance to the Caltrans Soil and Rock Logging, Classification, and Presentation Manual 2010 Edition which is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).

Slope inclinometer (SI) casings were installed in each boring. The annular space around the casing of RC-11-010 was backfilled with grout. The remaining three borings (RC-12-011, RC-12-013 and RC-12-014) were completed by perforating the bottom 20 feet of the SI casing. The annular space was backfilled with # 8 sand to allow ground water measurements as well as SI readings in these 3 borings. All borings were completed at the surface with traffic-rated access boxes. Inclinometer readings were obtained between December 2011 and October 2012. A summary of the borings and inclinometer monitoring results are found in Table 1. The SI data are included in Appendix A which also includes data from the SI's installed in the 2008/2009 emergency project (01-488303).

TABLE 1

SUMMARY OF BORING AND INCLINOMETER DATA

BOREHOLE I.D.	STATION/ OFFSET[1] (ALN2)	DEPTH OF BORING (ft, bgs)	SURFACE ELEVATION (ft, MSL)	DATE COMPLETED	DEPTH TO KJfm ROCK (ft, bgs)	DEPTH TO FAILURE SURFACE (ft, bgs)
RC-11-010	22+33.93 LT 28.40'	50	57.1	12/21/2011	45	20
RC-12-011	15+67.71 LT 27.81'	60	102.0	01/04/2012	20	16
RC-12-013	22+35.19 RT 6.61'	40	55.6	01/11/2012	28	No SI deflection
***RC-12-014**	*15+20.78 *LT 31.77'	60	*103	05/08/2012	27	18
SI-5 [2]	17+03.79 LT 33.33'	59	89.1	2009	N/A	18
SI-6 [2]	19+37.69 LT 63.79'	82	63.7	2009	N/A	8
SI-7 [2]	21+72.36 LT 28.67'	85	60.4	2009	N/A	18
SI-8 [2]	19+81.01 RT 30.97'	37	74.5	2009	N/A	N/A

BOREHOLE I.D.	STATION/ OFFSET[1] (ALN2)	DEPTH OF BORING (ft, bgs)	SURFACE ELEVATION (ft, MSL)	DATE COMPLETED	DEPTH TO KJfm ROCK (ft, bgs)	DEPTH TO FAILURE SURFACE (ft, bgs)
SI-1 through SI-4 [2]	Installed in Wall No.04E0017	44	N/A	2009	N/A	N/A

[1] Stations and Offsets from centerline of design alignment (ALN2)
[2] Installed on Contract 01-488303
* location and elevation are approximate

LABORATORY TESTING

Laboratory testing of soil samples obtained from borings RC-11-010, RC-12-011, R-08-002 and R-09-003 were performed at Caltrans' Geotechnical and Materials Laboratory in Sacramento, the District 1 Materials Laboratory in Eureka, and at Cooper Testing Laboratory in Palo Alto, CA. The testing was used to verify field descriptions and identifications and to obtain engineering properties. The following tests were performed:

- Standard Test Method for Particle-Size Analysis of Soils (California Test Method No. 203 and ASTM D422)
- Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (California Test Method No. 204 and ASTM D4318)
- Standard Test Method for Direct Shear Test (ASTM D3080)
- Standard Test Method for Drained, Residual Torsional Ring Shear Test (ASTM D6467)
- Corrosivity test (pH and Resistivity) (CA Test Method No. 643)

In place density was determined from punch core samples and brass tube push samples.

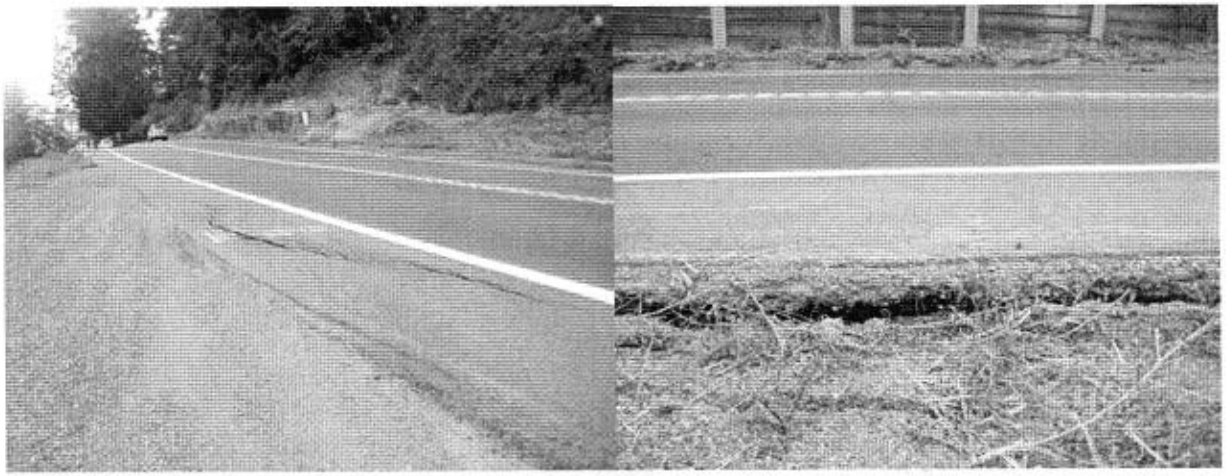
The laboratory test results are provided in Appendix B.

SITE GEOLOGY AND SUBSURFACE CONDITIONS

Site Description

Currently the roadway consists of two 12 foot wide lanes with minimum 4 foot wide paved shoulders. The existing unpaved shoulders on the west side of the highway (where the anchored pile slope stabilization will be located) vary from 10 to 25 feet wide. The limits of the landslide are located along the paved and unpaved shoulder s from approx STA 14+70 to 17+80 and approx STA 20+95 to 22+85. It is discernable by the visible head scarps on the paved and unpaved shoulders, extending into the travelled way in a few locations. Additional scarps can be seen on the slopes extending down to the Lagoon. The landslide is characterized as an earth flow that toes out adjacent to Big Lagoon. The roadway at the center (deepest portion) of the slide is retained by the micropile retaining structure.

The wall layout line is approximately 8 to 10 feet beyond the ETW of the existing northbound lane (Figure 2).



Photos taken at Big Lagoon AUGUST 12 2010

Maintenance has periodically regraded the unpaved shoulders for safety. The project will retain the current roadway alignment and provide minimum 4 foot paved and 8 foot unpaved shoulder width.

Site Geology

A geologic map of the area is provided in Figure 3. Bedrock within the project limits is mapped as Cretatous aged Franciscan Mélange (KJfm). A mélange unit can be generally characterized as a chaotic mixture of fragmented rock mass of all sizes, both exotic and native, embedded in a pervasively sheared, shaley matix exhibiting clayey characteristics.

The bedrock is overlain by Holocene age alluvium (Qal) and/or Pleistocene age marine terrace deposits (Qm).

Subsurface Conditions

The borings encountered 0 to 1 foot of asphalt concrete (AC) and/or AC grindings/cold mix. Below this is a layer of fill up to 20 feet thick comprised of SILTY SAND with GRAVEL (SM) and SILTY GRAVEL with SAND (GM), and composed of both local and imported material. This is underlain by a layer up to 30 feet thick of Lean CLAY with GRAVEL (CL). Decomposed mélange consisting of SILTY GRAVEL (GM) with various sized fragments of sandstone and shale was encountered beneath the clay. Depth to KJfm bedrock ranges from 20 to 45 feet below ground surface.

Logs of Test Borings (LOTBs) will be provided at a future date to be included in the plans.

Groundwater Conditions

Groundwater levels were checked in the perforated slope inclinometer casings installed in borings RC-12-011, RC-12-013 and RC-12-014 after their installation. The following measurements were recorded:

TABLE 2

WATER LEVEL MEASUREMENTS

Date Measured	RC-12-011 (ft, bgs[1])	RC-12-013 (ft, bgs[1])	RC-12-014 (ft, bgs[1])
12/28/2011	6.0		
01/12/2012	18.5		
04/05/2012	19.7		
05/09/2012		4.5	17.5
08/20/2012	24.7		25.8
10/11/2012		9.0	
01/23/2013	23.5		

Note: All water levels measured from the top of casing.

CORROSION EVALUATION

Chemical analyses were performed on one sample collected from boring RC-12-011 to evaluate corrosion potential of the on-site soils. Testing was performed by the Caltrans Geotechnical Laboratory in Sacramento, CA and at the District1 Materials Laboratory in Eureka, CA. Table 3 presents the test results.

TABLE 3

SOIL CORROSION TEST RESULTS

BOREHOLE I.D.	DEPTH (ft, bgs)	pH	MINIMUM RESISTIVITY (ohm-cm)
RC-12-011	19.5 - 20	6.5	3600

The complete results of the corrosion tests are provided in Appendix B.

Based on the Caltrans Corrosion Guidelines (2012 version 2.0) and the laboratory test results, the site soils may be considered non-corrosive to steel and concrete.

As per Section 6.2 of the Guidelines (Survey of Site Conditions), we note that the location is within 250 feet of Big Lagoon which contains brackish water. The Pacific Ocean is approximately 4000 feet west of the lagoon shore beyond the sand spit.

It would be prudent to assume that all exposed facilities will be subject to typical coastal conditions of salt spray and fog.

GEOTECHNICAL AND FOUNDATION RECOMMENDATIONS

Wall Location and Height

We recommend anchored pile structures be constructed on both sides of the existing micropile structure to retain the roadway prism and the underlying soil and mélange. The wall layout lines are shown on the attached Site Plan sheet (Figure 2).

Stations and offsets for begin and end wall for WALL 12 and 11 are presented in Table 4

TABLE 4

STATIONS and OFFSETS FOR ANCHORED PILE SLOPE STABILIZATION STRUCTURES

WALL No.	ALIGNMENT	Begin STA/OFFSET		End STA/OFFSET		LENGTH
12 (South)	ALN2	14+64.53	28.00 ft LT	17+86.95	36.49 ft LT	N/A
	Wall12	214+57.37	0.0	217+86.95	0.0	332.1 ft
11 (North)	ALN2	20+89.60	52.62 ft LT	22+81.51	29.31 ft LT	N/A
	Wall11	320+80.89	0.0	322+86.61	0.0	205.7 ft

The maximum design wall height is 20 feet to finish grade. As this is a buried structure, the actual top height of the pile cap is anticipated to be within a few feet (+/-) of the existing surface elevation.

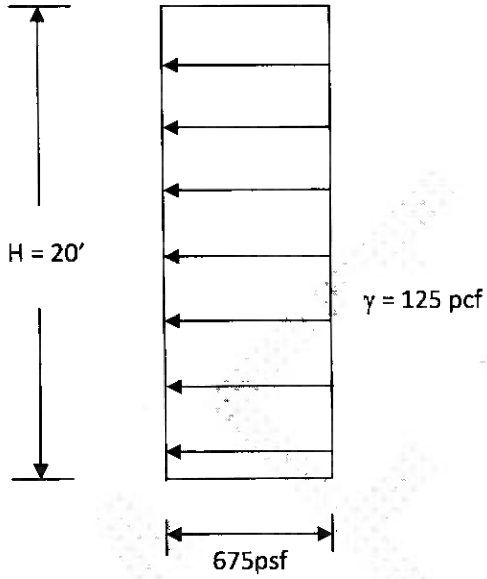
Design Methodology

The anchored pile stabilization structure we recommend is a passive system with a minimum anchor lock-off load; therefore our recommendations are based on Allowable Stress Design (ASD).

Design Parameters

Wall 11 and Wall 12 were analyzed independently. Because the results of the back analyses and stability analyses were similar for both structures, we recommend using the same design parameters for both structures to simplify design and construction. Soil strength parameters for design were determined by using the standard penetration test (SPT) N values obtained from the vertical boreholes, published correlations and laboratory data. These initial values were used in the slope stability program SLOPE/W 2007 on the critical cross section at STA 22+33.93 (Figure 4). A factor of safety of 1.0 was assumed for the existing slope. Observed tension cracks, other topographic features and depths to the landslide failure plane (from inclinometer data) were used to fix the entry and exit points of the failure plane. The soil strength parameters were adjusted until the failure plane matched the field observations for the design groundwater surface. The Spencer Method of limit equilibrium that satisfies both force and moment equilibrium was used to compute the factor of safety (Figure 5). Adjusted parameters were then applied in a stability model of the retaining structure to determine the required lateral resistance for the anchored pile structure for a factor of safety FS = 1.3 (Figure 6).

A rectangular lateral earth pressure distribution is recommended for design.



Recommended Lateral Earth Pressure Distribution

TABLE 5

SOIL AND ROCK DESIGN PROPERTIES

LAYER	APPROXIMATE THICKNESS (at LOL)	TOTAL UNIT WEIGHT (pcf)	ANGLE OF INTERNAL FRICTION (degrees)	COHESION (c, psf)
SILTY SAND with GRAVEL (SM) (Fill)	20	125	34	0
CLAY (CL)	30	125	21	110
Decomposed Mélange (bedrock unit)	40	140	38	500

We recommend a design pile length of 50 feet. See the attached Design Cross Section sheet (Figure 4) for subsurface material representation.

Ground Anchors

We recommend that ground anchors be installed at the pile cap elevation, and that the ground anchors be pretentioned to a lock-off load of 20 kips. This is intended to minimize distortion of the roadway and shoulder as the passive system tensions due to post construction landslide loading. To assure that the bonded portion of the ground anchors is located in the bedrock unit, we recommend a minimum unbounded length of 55 feet. The recommended bond stress for the decomposed mélange is 3000 psf.

Hydrostatic Forces

We recommend a groundwater surface elevation 8 feet below ground surface on the active side of the proposed structures and 20 feet below ground surface (wall height) on the passive side for design.

Design pressures should be based on moist unit weights of the soil above the groundwater surface and saturated unit weights should be applied below the groundwater surface.

RIPPABILITY

Based on the boring logs and field observations, we expect the material within the anticipated limits of excavation to be rippable.

CONSTRUCTION CONSIDERATIONS

Excavation and Drilling Difficulties

Caving conditions may be encountered during drilling holes for piles and drilling for ground anchor installation due to the granular soils and the very intensely fractured rock.

Groundwater may be encountered in the drilled holes for piles and ground anchors.

Temporary casing or tremie seals shall be furnished and placed where necessary to control water or to prevent caving of the hole in conformance with the Standard Specifications.

Hazardous Materials

The Cretatous aged Franciscan Mélange (KJfm) bedrock, Holocene age alluvium (Qal) as well as Pleistocene age marine terrace deposits (Qm) within the Project Limits do not contain NOA.

PROJECT INFORMATION

Standard Specifications (SP) 2-1.06B, "Supplemental Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening.

The Information Handouts available for the Bidders are the:

Foundation Report for Anchored Pile Slope Stabilization, dated November 6, 2014

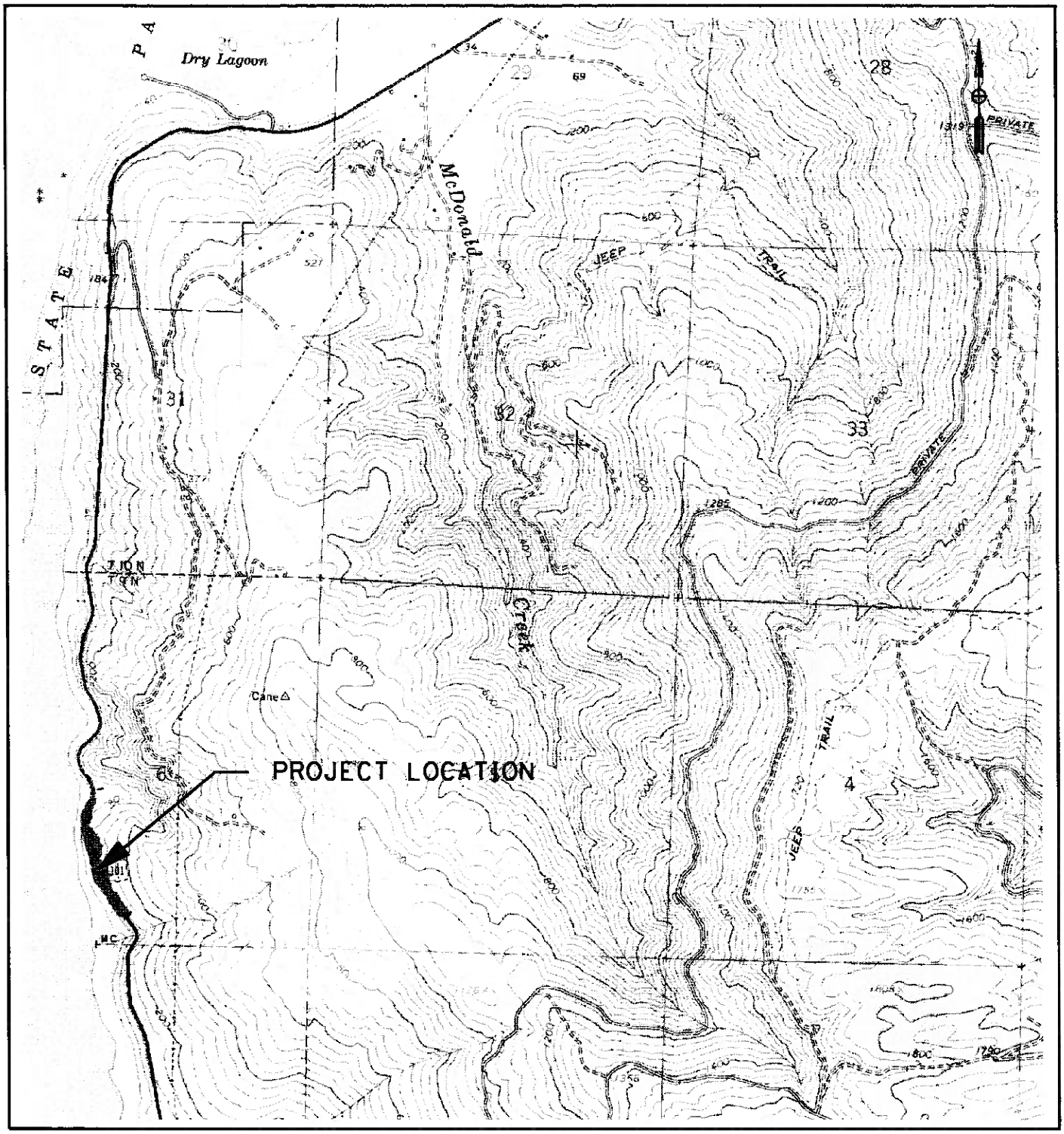
This may be viewed at the Bidders Exchange Web site.

Rock cores may be viewed by sending a request to Coreroom@dot.ca.gov.

If you have any questions or need more information, please contact Kathy Gallagher at (707) 441-2024 or Charlie Narwold at (707) 445-6036.

KATHY GALLAGHER
Transportation Engineer
Office of Geotechnical Design North
Branch B

CHARLIE NARWOLD
Senior Engineering Geologist
Office of Geotechnical Design North
Branch B



REFERENCE: USGS "Rodger's Peak Quadrangle, California" 1:24,000

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

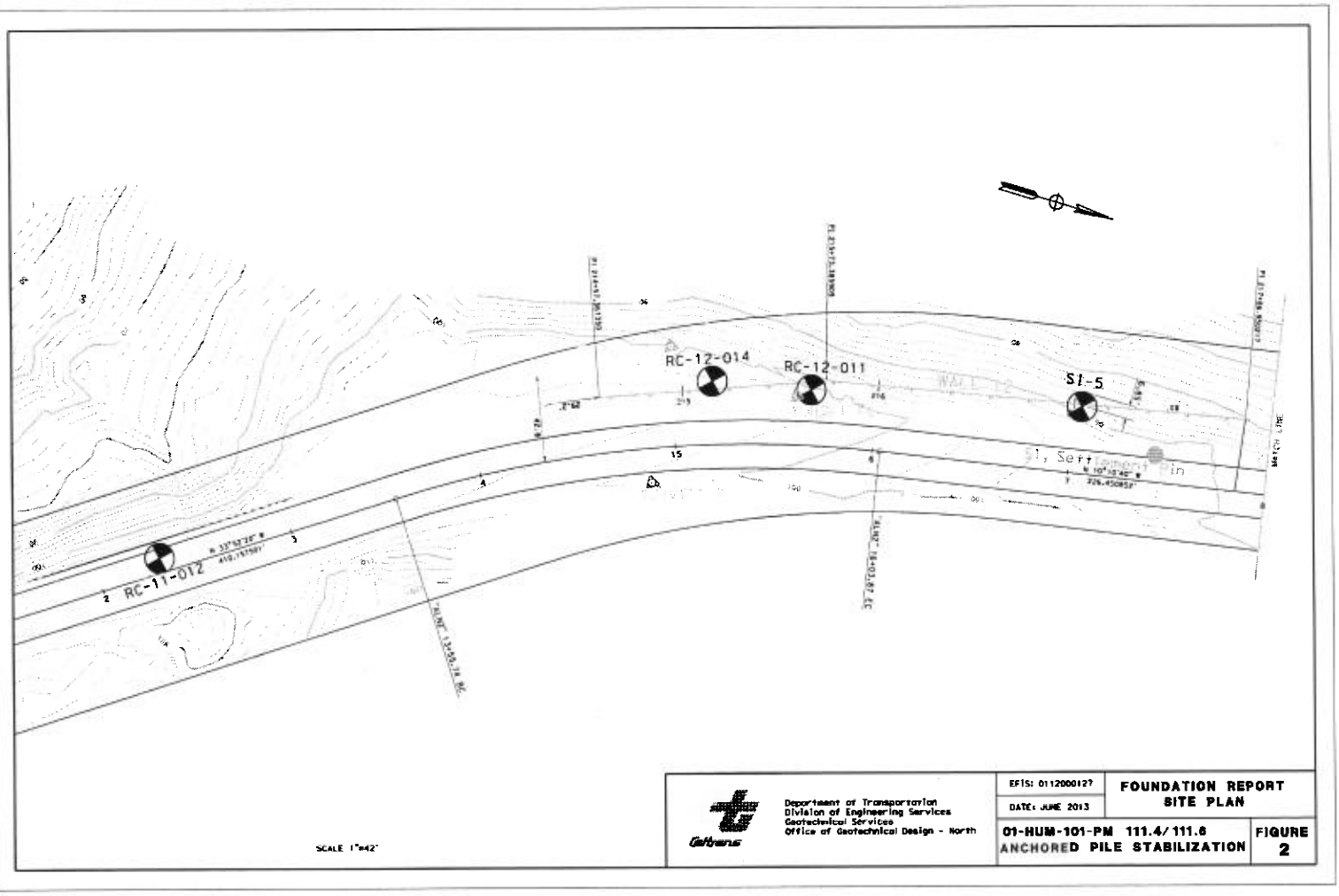
EA: 01- 0B4301
EFIS: 0112000127
01-HUM-101-PM 111.4/111/6

DATE: JUNE 2013

BIG LAGOON VICINITY MAP

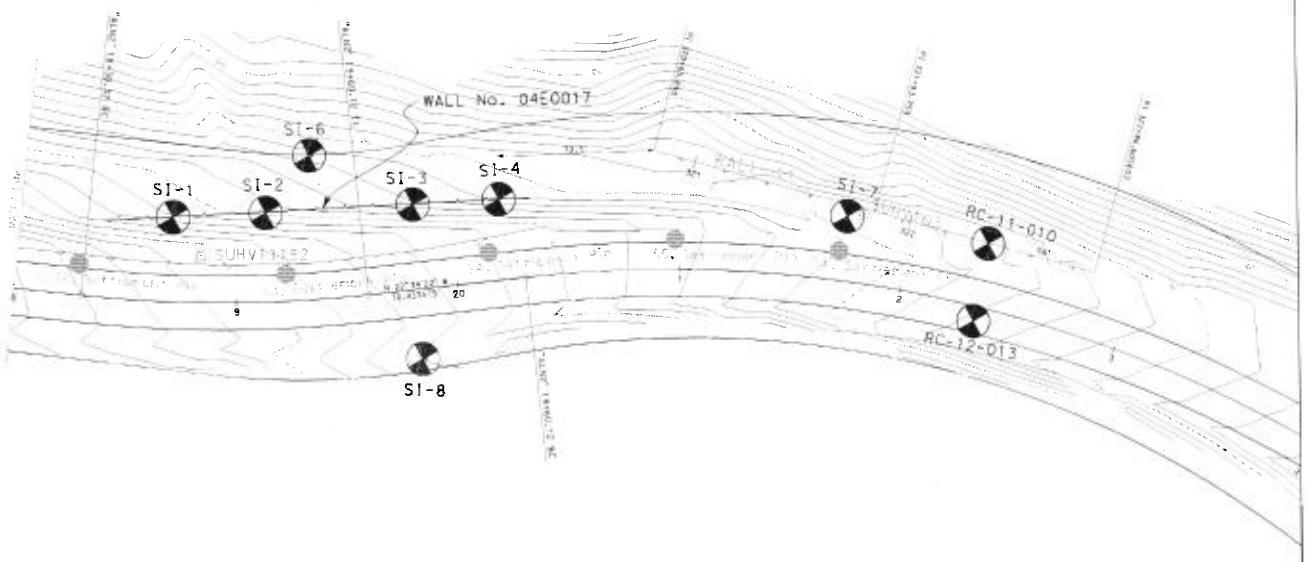
ANCHORED PILE STABILIZATION

FIGURE 1



Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

EFIS: 0112000127	FOUNDATION REPORT SITE PLAN
DATE: JUNE 2013	
01-HUM-101-PM 111.4/111.6 ANCHORED PILE STABILIZATION	FIGURE 2



SCALE 1"=42'

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

EFIS: 0112000127

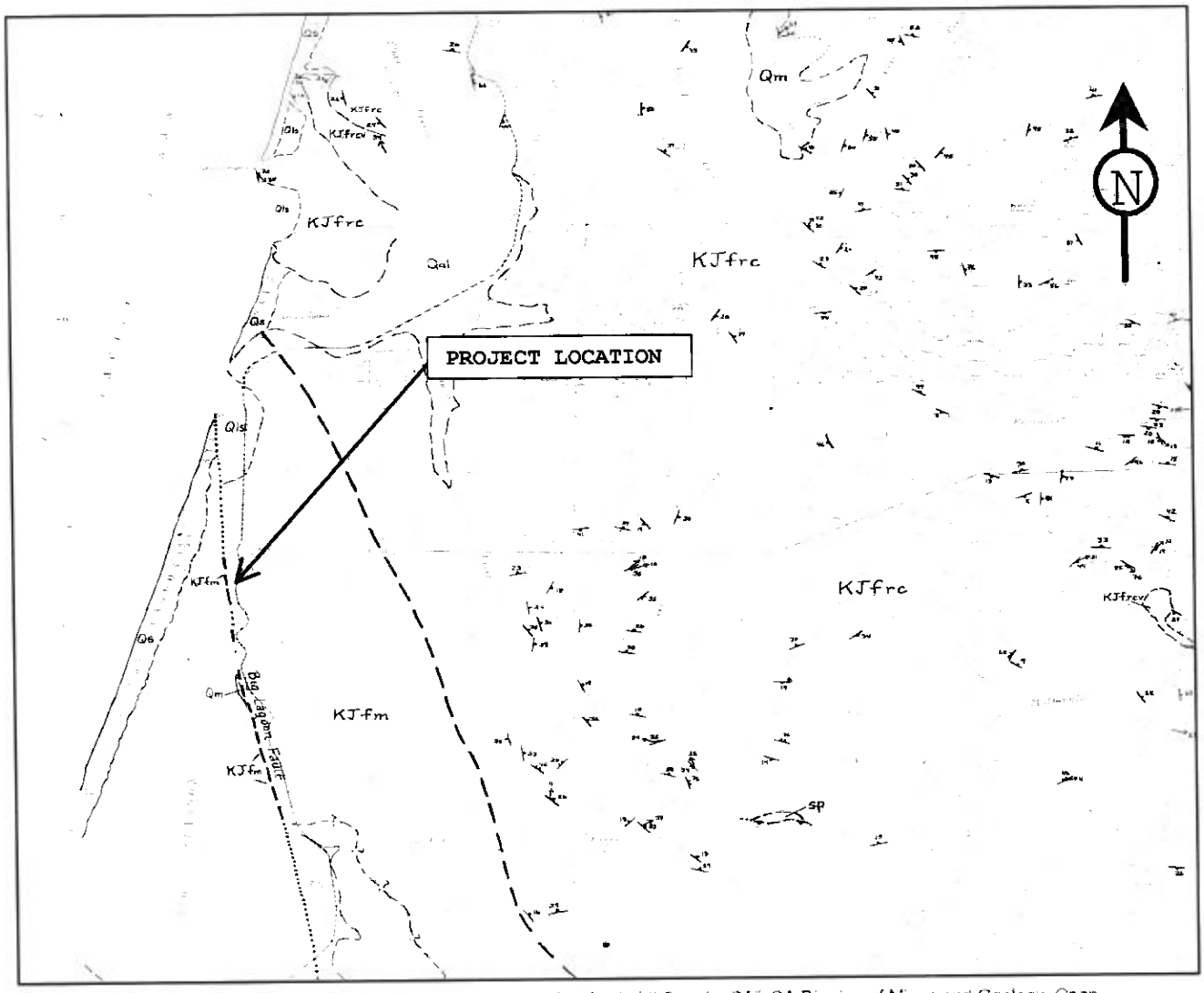
DATE: June 2013

FOUNDATION REPORT
SITE PLAN

01-HUM-101-PM 111.4/111.6
ANCHORED PILE STABILIZATION

FIGURE 2

BIG_LAGOON_BASEMAP_2 (2).dgn 7/25/2013 10:49:24 AM



Reference: "Geology of the Rogers Peak 15 Minute Quadrangle, Humboldt County, CA", CA Division of Mines and Geology, Open File Report 82-14SF, December 1981, Cashman, P.H., Cashman, S.M., and Kelsey, H.M.

LEGEND

Bald Mountain Fault

Big Lagoon Fault

Pleistocene marine terrace deposits	**(Qm)**
Recent Alluvium	**(Qal)**
Franciscan mélange	**(KJfm)**
Schist of Redwood Creek	**(KJfrc)**

Caltrans

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

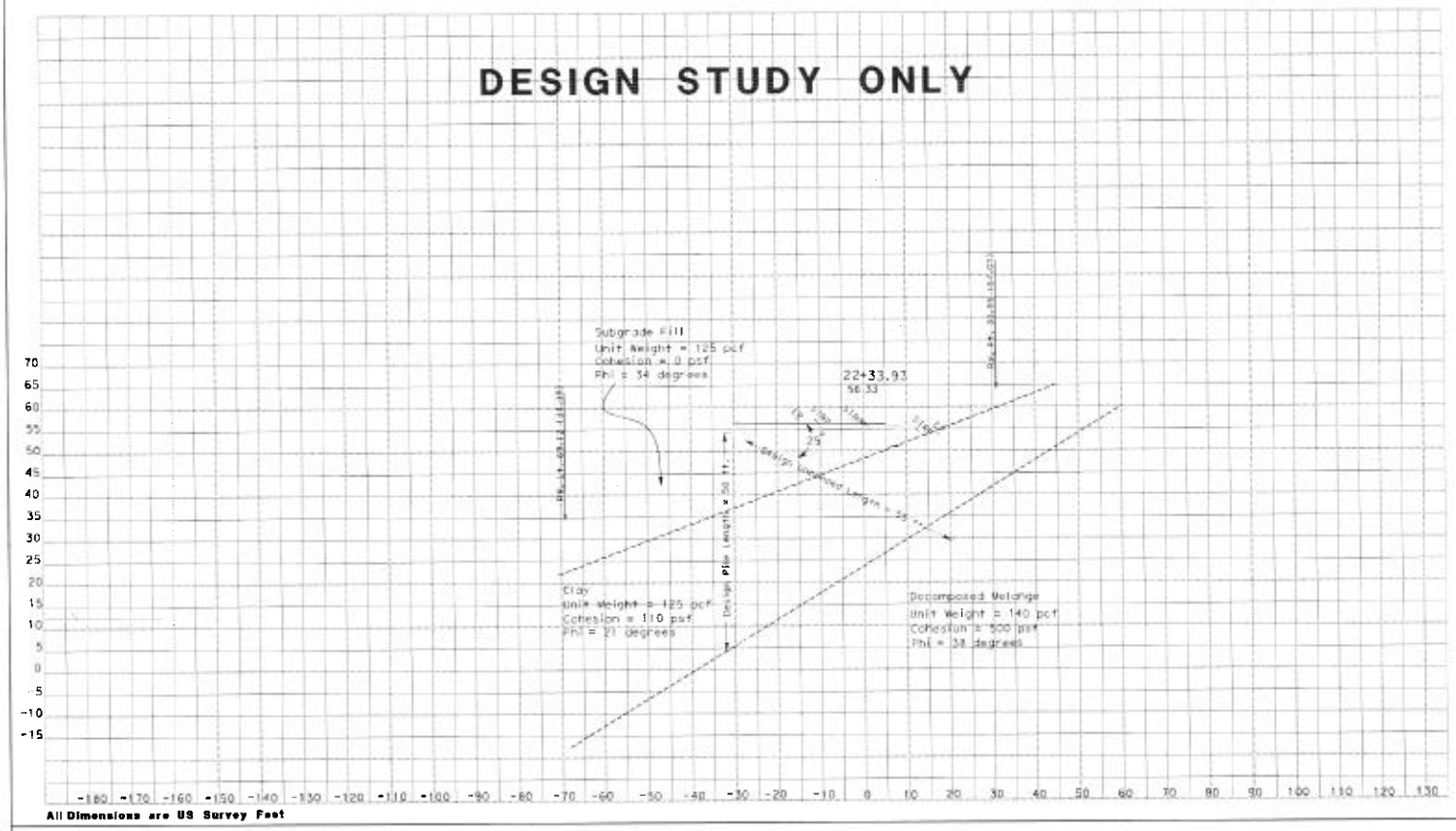
EFIS 0112000127

Date: June 2013

GEOLOGY OF PROJECT AREA

01-HUM-101-PM 111.4/111.6
ANCHORED PILE STABILIZATION

Figure 3

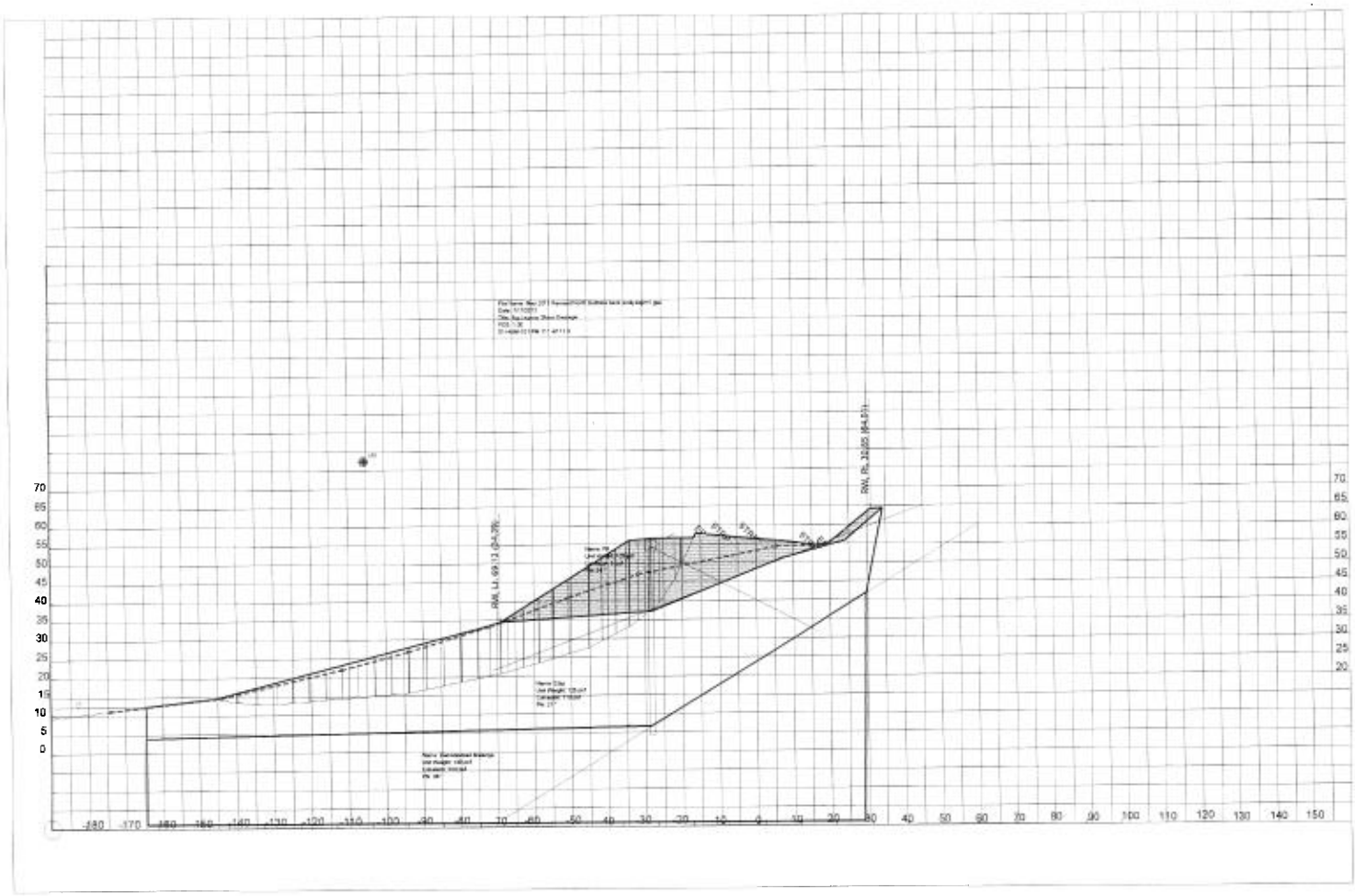


CREATED BY: KG
DATE: 7/17/2013
EFIS: 0112000127

CONTRACT: 01-094301
DIST/CO/RTE/PM: Hum-101-PM 111.4/111.6
PROJECT ID: Big Lagoon Storm Damage 2011

FIGURE 4
ANCHORED PILE STABILIZATION
DESIGN CROSS SECTION

FIGURE X-Section.dgn 7/25/2013 1:28:54 PM

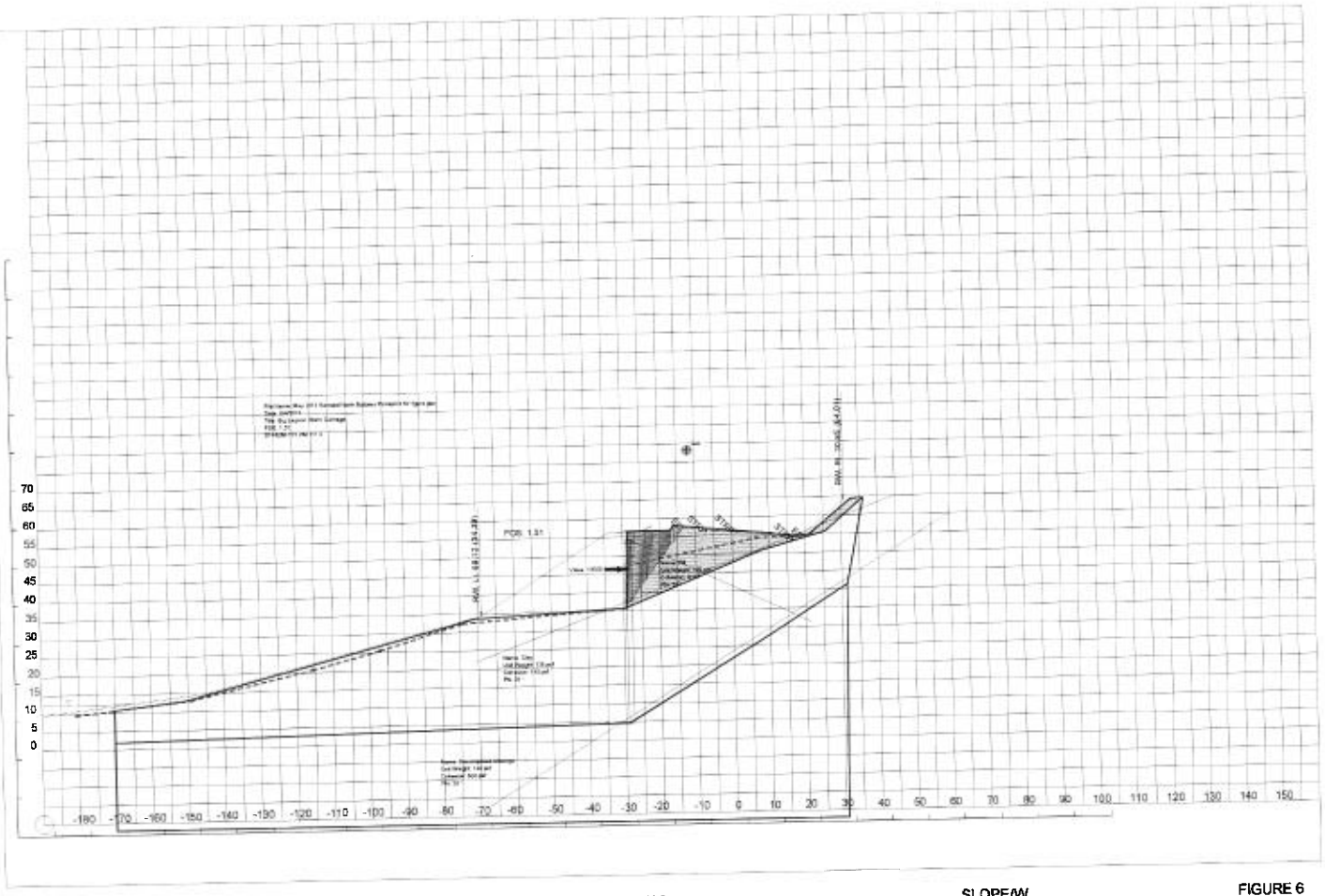


DATE: May 2013
Project EA: 01-084301
EFIS ID: 0112000127

DIST/CO/RTE/PM: Hum-101-PM 111.4/111.6
CONTRACT: 01-084301
PROJECT ID: Big Lagoon Anchored Pile Stabilization

SLOPE/W
Version 7.21

FIGURE 5
EXISTING CONDITION
STABILITY ANALYSIS



DATE: 5/14/2013
CREATED BY: KG
EFIS ID: 0112000127

DIST/CO/RTE/PM: Hum-101-PM 111.4/111.6
CONTRACT: 01-0B4301
PROJECT ID: Big LAgoon Anchored Pile Stabilization

SLOPE/W
Version 7.21

FIGURE 6
TOTAL P
STABILITY ANALYSIS

INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

MATERIALS INFORMATION

Foundation Report (Wall 04E0037) dated November 4, 2014.

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY

DEPARMENT OF TRANSPORTATION

Memorandum

To: JEFF SIMS
Division of Structure Design
Branch 1
Office of Bridge Design, West

Date: November 4, 2014
File:01-HUM-101-PM-111.4/111.6
EA: 01-0B4301
EFIS ID: 0112000127
Retaining Wall No.XXXXXX
04E0037

Atttention: Mr. Eric Watson

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES
OFFICE OF GEOTECHNICAL DESIGN NORTH – BRANCH B

Subject: Foundation Report for Soldier Pile Ground Anchor Wall

INTRODUCTION

This Foundation Report summarizes the results of the foundation investigation and provides geotechnical recommendations for the proposed soldier pile ground anchor wall intended to stabilize the roadway prism on Route 101 from approximate post mile (PM) 111.4 to 111.6 in Humboldt County, CA (Figure 1). The fill failure that occurred at this location in March 2011 is reported on FHWA Damage Assessment Form (DAF) CEP-CT01-027-0 (signed August 2, 2011).

PROJECT DESCRIPTION AND BACKGROUND

The following recommendations are provided to repair a section of Highway 101 in Humboldt County at Post Mile (PM) 111.4 identified as a storm damage site in 2011. This Memo presents results of the foundation investigation and provides geotechnical recommendations for the proposed soldier pile ground anchor wall (SPGA) with timber lagging. The wall is required to stabilize the outboard edge of the roadway (Figure 2). The proposed structure is

located approximately 600 feet south of a 200 foot long micropile stabilization structure (Wall No. 04E0017) designed and constructed as an emergency project during the winter of 2008/2009 (EA 01-488303).

The limits of the fill failure are shown on Figure 2.

The restored alignment will consist of two 12 foot lanes with 4 foot paved shoulders. The proposed wall layout line (WLOL) is shown on the Site Plan (Figure 2).

EXCEPTIONS

The recommendations contained in this report are based on a review of geotechnical/geologic literature, a subsurface investigation, laboratory testing of soil samples, geotechnical calculations and field observations.

Subsurface conditions were evaluated only at the boring locations and may deviate elsewhere within the Project Limits. The elevations reported in this memorandum are with respect to Mean Sea Level (MSL).

REFERENCES

The following documents were used in preparing this report:

Western Regional Climate Data Center http://www.wrcc.dri.edu/

Cashman, P.H., Cashman, S.M. and Kelsey, H.M., December 1981, DMG Open-File Report 82-14, *Geology of the Rogers Peak 15 Minute Quadrangle, Humboldt County, California*

Saucedo, G.J. et. al. "*GIS data for the Geologic Map of California*", USGS, 2000
Digitized from the 1977 Geologic Map of California by C.W. Jennings.

US Department of Transportation, Federal Highway Administration – California Division, Damage Assessment Form (DAF) Title 23, dated August 2, 2011.

Wyllie, Duncan C., 1999, E&FN SPON, London & New York, *Foundations on Rock- 2nd Edition*

Caltrans Reports

Caltrans As-Built Plans and District 1 Materials Laboratory Records (Various)

Foundation Report, 01-488303 Micropile Slope Stabilization, dated June 26, 2008.

01-HUM-101-PM 111.4 FHWA Damage Assessment Form (DAF)
CEP-CT01-027-0, signed 08/02/2011

Preliminary Caltrans Design Plans dated 03/20/2014

California Seismic Hazard Map 1996, Caltrans, Lalliana Mualchin

Caltrans Corrosion Guidelines Version 2.0, 9/2012

Caltrans Soil and Rock Logging, Classification, and Presentation Manual, 2010 Edition.

FIELD INVESTIGATION AND TESTING PROGRAM

An exploratory boring was completed on January 9, 2012. The boring location is shown on Figure 2. The boring was advanced using a truck mounted Acker MPCA drill rig using a 94-mm HXB casing equipped with a steel finger bit or diamond impregnated core bit.

Samples of the soil and bedrock from the boring were obtained by punch core, coring and a 1.4-inch (inside diameter) Standard Penetration Test (SPT) sampler driven with an automatic 140-pound hammer dropped 30 inches. The blows required to drive the samplers were recorded for each 6 inches of penetration or fraction thereof (ASTM D1586-11 Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils).

Visual classifications were made in accordance to the Caltrans Soil and Rock Logging, Classification, and Presentation Manual 2010 Edition which is based on ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).

A Slope inclinometer (SI) casing was installed in the boring. The bottom 20 feet of the SI casing was perforated. The annular space around the casing was backfilled with #8 sand to allow ground water measurements as well as SI readings. The boring was completed at the surface with a traffic-rated access box.

Inclinometer readings were obtained between January 2012 and October 2012. A summary of the boring and inclinometer monitoring results are provided in Table 1. The SI data are included in Appendix A.

TABLE 1

SUMMARY OF BORING AND INCLINOMETER DATA

BOREHOLE I.D.	STATION/ OFFSET[1] (ALN2)	DEPTH OF BORING (ft, bgs)	SURFACE ELEVATION (ft, MSL)	DATE COMPLETED	DEPTH TO KJfm ROCK (ft, bgs)	DEPTH TO FAILURE SURFACE (ft, bgs)
RC-12-012	12+32.07 LT 7.37'	50	104.9	01/09/2012	25	16

[1] Station and Offset from centerline of design alignment (ALN2)

LABORATORY TESTING

Laboratory testing of soil samples was performed at Caltrans' Geotechnical and Materials Laboratory in Sacramento and the District 1 Materials Laboratory in Eureka. The test results were used to verify field descriptions and identifications and to obtain engineering properties. The following tests were performed:

- Standard Test Method for Particle-Size Analysis of Soils (California Test Method No. 203 and ASTM D422)
- Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (California Test Method No. 204 and ASTM D4318)
- Corrosivity test (pH and Resistivity) (CA Test Method No. 643)

The laboratory test results are provided in Appendix B.

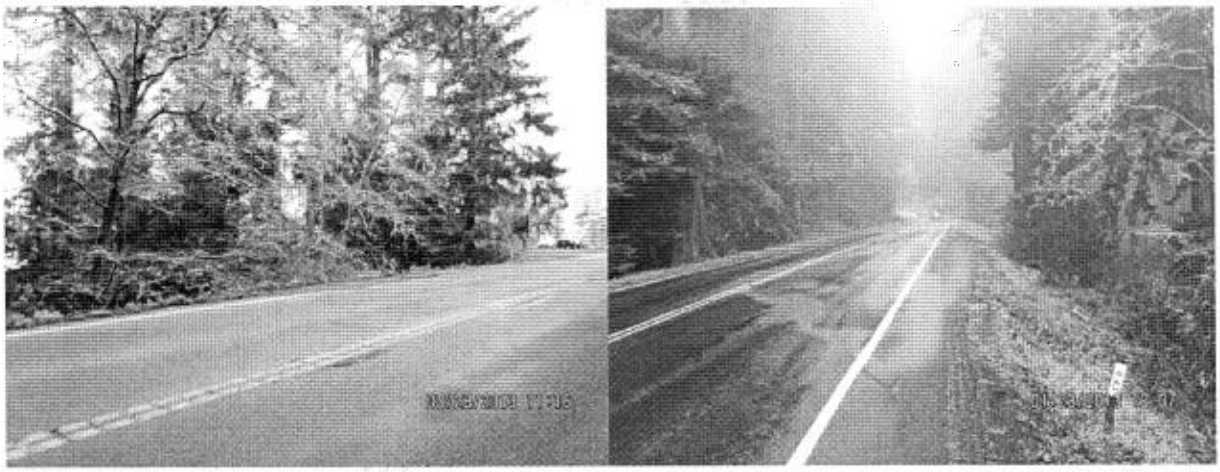
SITE GEOLOGY AND SUBSURFACE CONDITIONS

Site Description

Currently the roadway consists of two 12 foot wide lanes with 0 to 4 foot wide paved shoulders. The existing unpaved shoulders are 0-2 feet wide. The limits of the fill failure are located along the roadway from approximate roadway alignment (ALN2) Station 11+75 to Station 12+60. They are discernible by the visible headscarp extending through the paved and unpaved shoulders into the SB travelled way to the approximate roadway centerline. The fill failure appears to toe out below the bottom of the fill prism. The wall layout line is approximately 4 feet beyond the ETW of the existing SB lane.

Maintenance has periodically patched and repaved the roadway at this location. The project will retain the current roadway alignment and provide minimum12 foot wide lanes with minimum 4 foot shoulder widths.

Photos of the site follow. The patched area of the roadway visible in the photos corresponds to the limits of the fill failure.



Photos of slipout from March and January 2013

Site Geology

A geologic map of the area is provided in Figure 3. Bedrock within the project limits is mapped as Cretatous aged Franciscan Mélange (KJfm). A mélange unit can be generally characterized as a chaotic mixture of fragmented rock mass of all sizes, both exotic and native, embedded in a pervasively sheared, shaley matix exhibiting clayey characteristics.

The bedrock is overlain by Holocene age alluvium (Qal) and/or Pleistocene age marine terrace deposits (Qm).

Subsurface Conditions

The boring encountered approximately10 feet of asphalt concrete (AC) and/or AC grindings/cold mix. Below this is a layer of soil approximately 15 feet thick comprised of SILTY GRAVEL with SAND (GM) and SANDY lean CLAY with GRAVEL (CL) composed of both local and imported material. This is underlain by bedrock (Kjfm) comprised of Sandstone with some Shale interbeds. Depth to bedrock in the boring is approximately 25 feet below ground surface.

A Log of Test Boring (LOTB) will be provided at a future date to be included in the plans.

Groundwater Conditions

Groundwater levels were checked in the perforated slope inclinometer casing installed in the boring. The following measurements were recorded:

TABLE 2

WATER LEVEL MEASUREMENTS

Date Measured	RC-12-012 (ft, bgs)
01/12/2012	16.0
04/05/2012	15.9
10/11/2012	18.9

Note: All water levels water levels measured from the top of casing.

CORROSION EVALUATION

Chemical analyses were performed on two sample collected from boring RC-12-012 to evaluate corrosion potential of the on-site soils. Testing was performed by the Caltrans Geotechnical Laboratory in Sacramento, CA and at the District 1 Materials Laboratory in Eureka, CA. Table 3 summarizes the test results.

TABLE 3

SUMMARY OF SOIL CORROSION TEST RESULTS

Test Date	DEPTH (ft, bgs)	pH (minimum)	Resistivity (minimum ohms-cm)
11-22-2013	20 ft	5.99	1368
10-14-2014	20-25 ft	7.3	3171

The results of the corrosion tests are attached in Appendix B.

Based on the Caltrans Corrosion Guidelines (2012 version 2.0) and the laboratory test results, the site soils may be considered non-corrosive to steel and concrete.

As per Section 6.2 of the Guidelines (Survey of Site Conditions), we note that the location is within 250 feet of Big Lagoon which contains brackish water. The Pacific Ocean is approximately 4000 feet west of the proposed SPGA wall.

It would be prudent to assume that all exposed facilities will be subject to typical coastal conditions of salt spray and fog.

SEISMIC RECOMMENDATIONS

The shear wave velocity of 242 m/s was determined from soil types and corrected SPT numbers. Utilizing the Caltrans ARS online tool (V2.3.06), we recommend using the USGS

5% in 50 years hazard (2008) curve, which yields a spectral acceleration of **0.63g** at period T = 0 seconds. The horizontal seismic coefficient (Kh) is typically taken as 0.33 to 0.50 of the Pga; we recommend using Kh = 0.21 for LRFD Extreme Event analysis. We recommend a value for vertical seismic coefficient Kv = 0.

The ARS online data sheet utilized is attached to this report as Appendix C.

GEOTECHNICAL AND FOUNDATION RECOMMENDATIONS

Wall Location and Height

We recommend a soldier pile and lagging wall with ground anchors be constructed to stabilize and retain the roadway prism. The wall layout line is shown on the attached Site Plan sheet (Figure 2). The proposed wall extends from "ALN2" STA 11+65.00 to STA 13+05.50.

The maximum design wall height is 27 feet from top of wall to bottom of lagging.

Design Parameters

Soil strength parameters for design were determined by using the standard penetration test (SPT) N values obtained from the vertical boreholes, published correlations and laboratory data. These initial values were used in the slope stability program SLOPE/W 2007 on the critical cross section at STA 100+67.07 (Figure 4). A factor of safety of 1.0 was assumed for the existing slope. The Spencer Method of limit equilibrium that satisfies both force and moment equilibrium was used to compute the factor of safety. Observed tension cracks, other topographic features and depths to the failure plane (from inclinometer data) were used to fix the entry and exit points of the failure plane. The soil strength parameters were adjusted until the failure plane matched the field observations.

We recommend that the active pressures be modeled as a cohesionless backfill with a friction angle of 26 degrees and a unit weight of 125 pcf. Based on the design cross sections dated 3/20/2014, we recommend extending lagging to 27 feet below the top of wall at the critical cross section (see Design Cross Section - Figure 4).

The bedrock parameters for design are unit weight of 140 pcf, friction angle of 38 degrees, and cohesion of 500 psf.

The wall should be designed for traffic and barrier slab surcharges.

TABLE 4

SOIL DESIGN PARAMETERS

Layer	Depth (ft.)	Unit Weight (pcf)	Angle of Internal Friction ϕ (degrees)	Cohesion c (psf)
Soil	0-27	125	26	0
Bedrock	27-50	140	38	500

We recommend a minimum pile length of 40 feet. See the attached Design Cross Section (Figure 4) for subsurface material representation.

Ground Anchors

To assure that the bonded portion of the ground anchors is located in the bedrock unit, we recommend a minimum unbonded length of 50 feet assuming an inclination of 15°. The recommended bond stress for the Sandstone and Shale bedrock unit is 3000 psf.

Hydrostatic Forces

From the slope inclinometer and groundwater monitoring data, we infer that the groundwater surface is coincident with the failure surface. We recommend a design groundwater surface elevation at the base of the proposed structure. Shims should be placed between the timber lagging to prevent hydrostatic pressure behind the wall. We recommend a chimney drain of

permeable material be constructed in front of the wall below the finished grade. This drain should include a filter fabric separator between the permeable material and the backfill. This underdrain should be outlet at a low point along the face of the wall to be determined by Design.

An outlet pipe from an existing underdrain system may be encountered during construction inside an abandoned cross drain at PM 111.43. From the as-built, it appears that the abandoned cross drain follows the same alignment as the existing cross drain, and that it is at approximate elevation 85 ft at the WLOL. We recommend perpetuating the 8 inch PVC underdrain outlet drainage to the wall face. A copy of the as-built (01-200741) for this drainage system is included in Figure 5.

RIPPABILITY

Based on the boring logs and field observations, we expect the material within the anticipated limits of excavation to be rippable.

CONSTRUCTION CONSIDERATIONS

Excavation and Drilling Difficulties

A layer of AC up to 10 feet thick may be encountered in the roadway prism at the fill failure location due to Maintenance repair activities.

Caving conditions may be encountered during drilling holes for piles and drilling for ground anchor installation due to the granular soils and the very intensely fractured rock.

Groundwater may be encountered in the drilled holes for piles and ground anchors.

Temporary casing or tremie seals shall be furnished and placed where necessary to control water or to prevent caving of the hole in conformance with the Standard Specifications.

An abandoned 18-inch diameter CSP cross drain may be encountered beneath the existing cross drain at PM 111.43. An 8-inch diameter PVC pipe within this cross drain provides an

outlet for an existing underdrain system. This outlet should be perpetuated to the wall face or beyond.

Hazardous Materials

The Cretatous aged Franciscan Mélange (KJfm) bedrock, Holocene age alluvium (Qal) as well as Pleistocene age marine terrace deposits (Qm) within the Project Limits do not contain NOA.

PROJECT INFORMATION

Standard Specifications (SP) 2-1.06B, "Supplemental Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening.

The Information Handouts available for the Bidders are the:

Foundation Report for Soldier Pile Ground Anchor Wall, dated November 4, 2014.

This may be viewed at the Bidders Exchange Web site.

Rock cores may be viewed by sending a request to Coreroom@dot.ca.gov.

If you have any questions or need more information, please contact Kathy Gallagher at (707) 441-2024 or Charlie Narwold at (707) 445-6036.

KATHY GALLAGHER
Transportation Engineer
Office of Geotechnical Design North
Branch B

CHARLIE NARWOLD
Senior Engineering Geologist
Office of Geotechnical Design North
Branch B

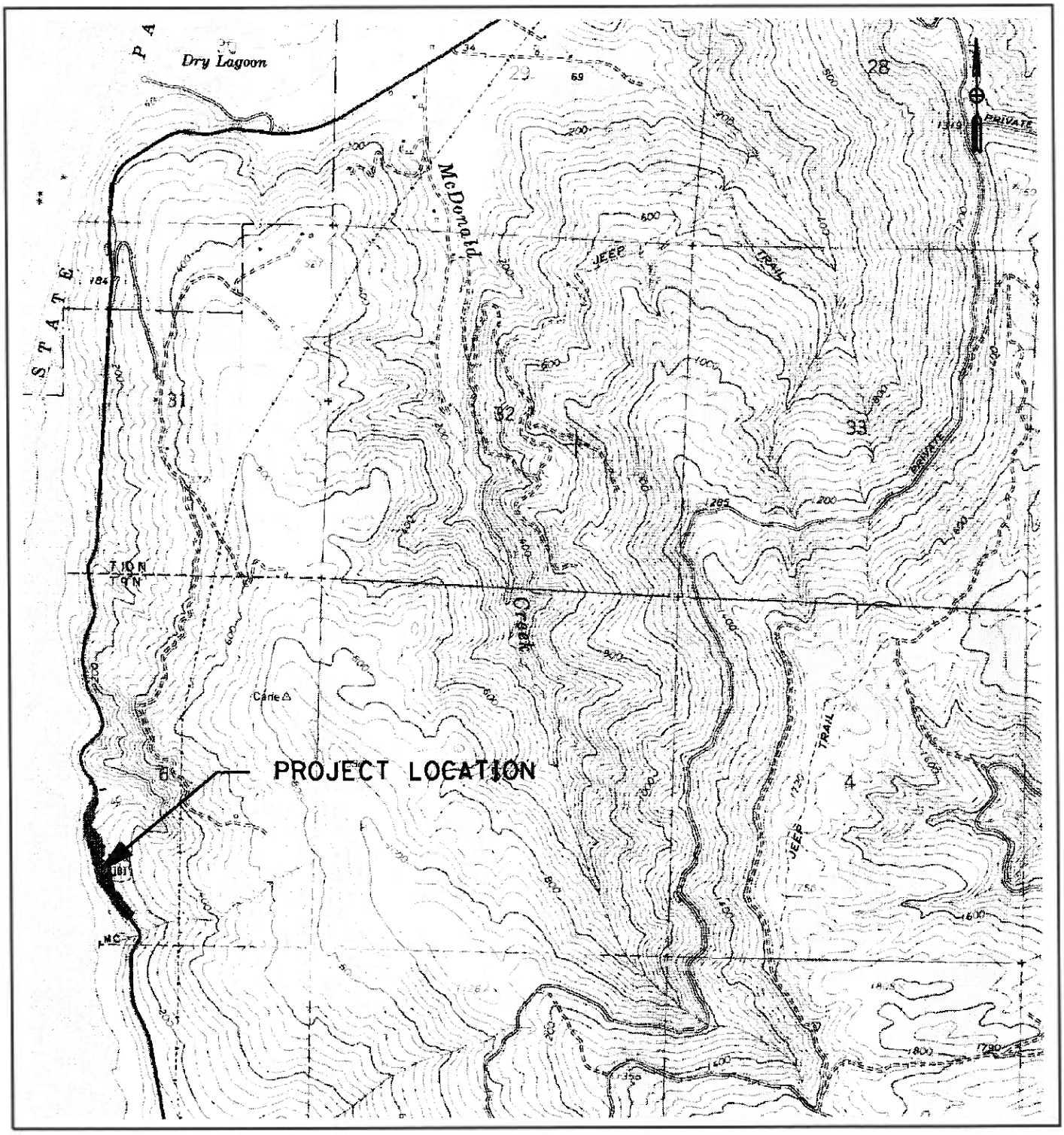
List of Figures

Figure 1 - Vicinity Map
Figure 2 - Site Plan
Figure 3 - Project Geologic Map
Figure 4- Design Cross Section
Figure 5 - 01-200741 Drainage Plan and Profile

Appendices

Appendix A: Slope Inclinometer Monitoring Results
Appendix B: Laboratory Test Summary and Data Sheets
Appendix C: ARS Online Data Sheet

C: RBibbens (E-copy)
GS File Room (email gs_file_room@dot.ca.gov)
Structure Construction RE Pending File (email RE_pending_file@dot.ca.gov)
Project Manager



REFERENCE: USGS "Rodger's Peak Quadrangle, California" 1:24,000

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

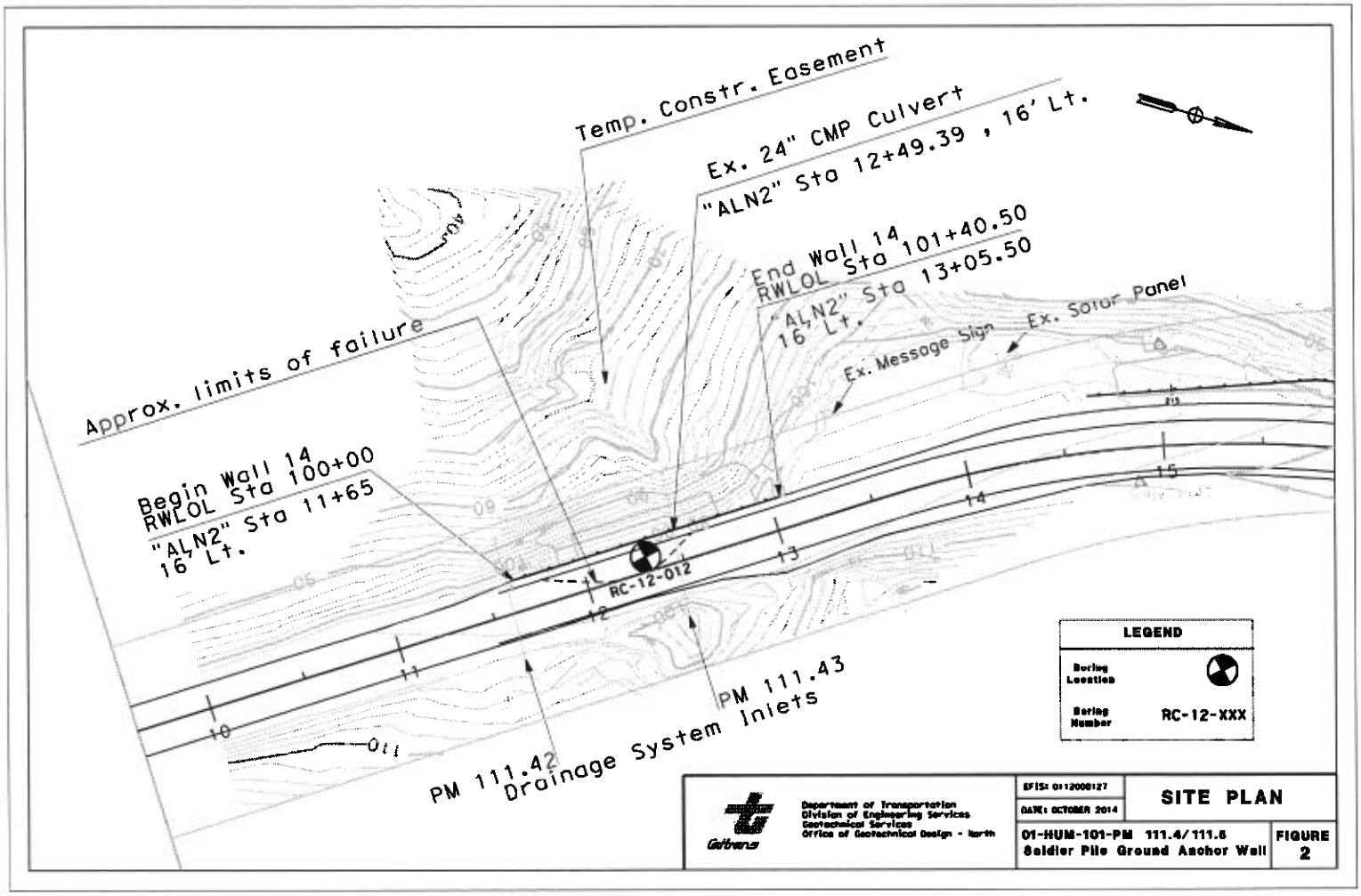
EA: 01- 0B4301
EFIS: 0112000127
01-HUM-101-PM 111.4/111/6

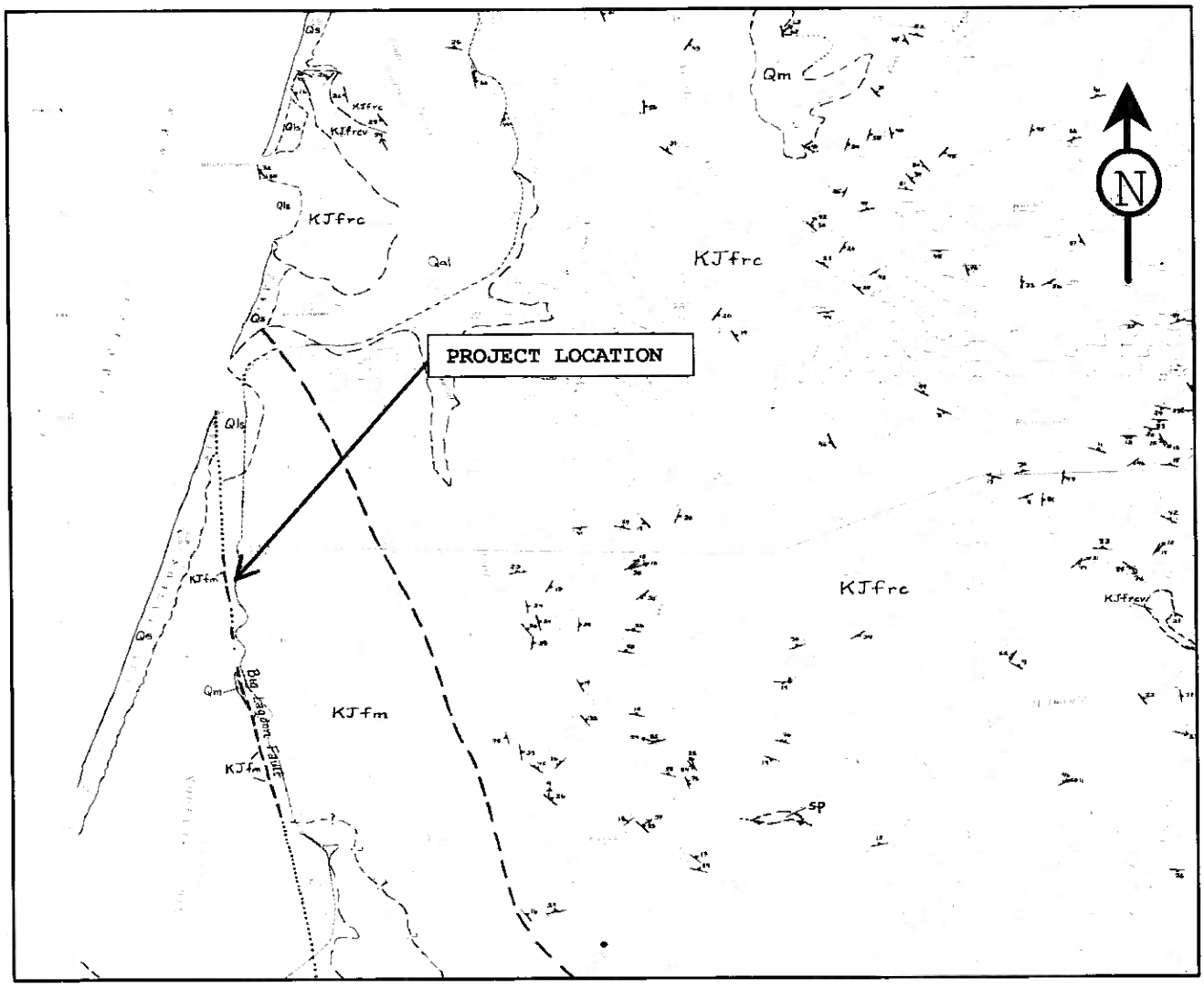
DATE: OCTOBER 2014

BIG LAGOON VICINITY MAP

SOLDIER PILE GROUND ANCHOR WALL

FIGURE 1


Temp. Constr. Easement
Ex. 24" CMP Culvert
"ALN2" Sta 12+49.39 , 16' Lt.
End Wall 14
RWLOL Sta 101+40.50
"ALN2" Sta 13+05.50
16' Lt.
Approx. limits of failure
Ex. Message Sign
Ex. Solar Panel
Begin Wall 14
RWLOL Sta 100+00
"ALN2" Sta 11+65
16' Lt.
RC-12-012
PM 111.43
Drainage System Inlets
PM 111.42
LEGEND
Boring Location
Boring Number
RC-12-XXX
Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North
EFIS: 0112000127
DATE: OCTOBER 2014
SITE PLAN
01-HUM-101-PM 111.4/111.6
Soldier Pile Ground Anchor Wall
FIGURE
2



Reference: "Geology of the Rogers Peak 15 Minute Quadrangle, Humboldt County, CA", CA Division of Mines and Geology, Open File Report 82-14SF, December 1981, Cashman, P.H., Cashman, S.M., and Kelsey, H.M.

LEGEND

Bald Mountain Fault — — — — —

Big Lagoon Fault — — ·····

Pleistocene marine terrace deposits	**(Qm)**
Recent Alluvium	**(Qal)**
Franciscan mélange	**(KJfm)**
Schist of Redwood Creek	**(KJfrc)**

Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

Caltrans

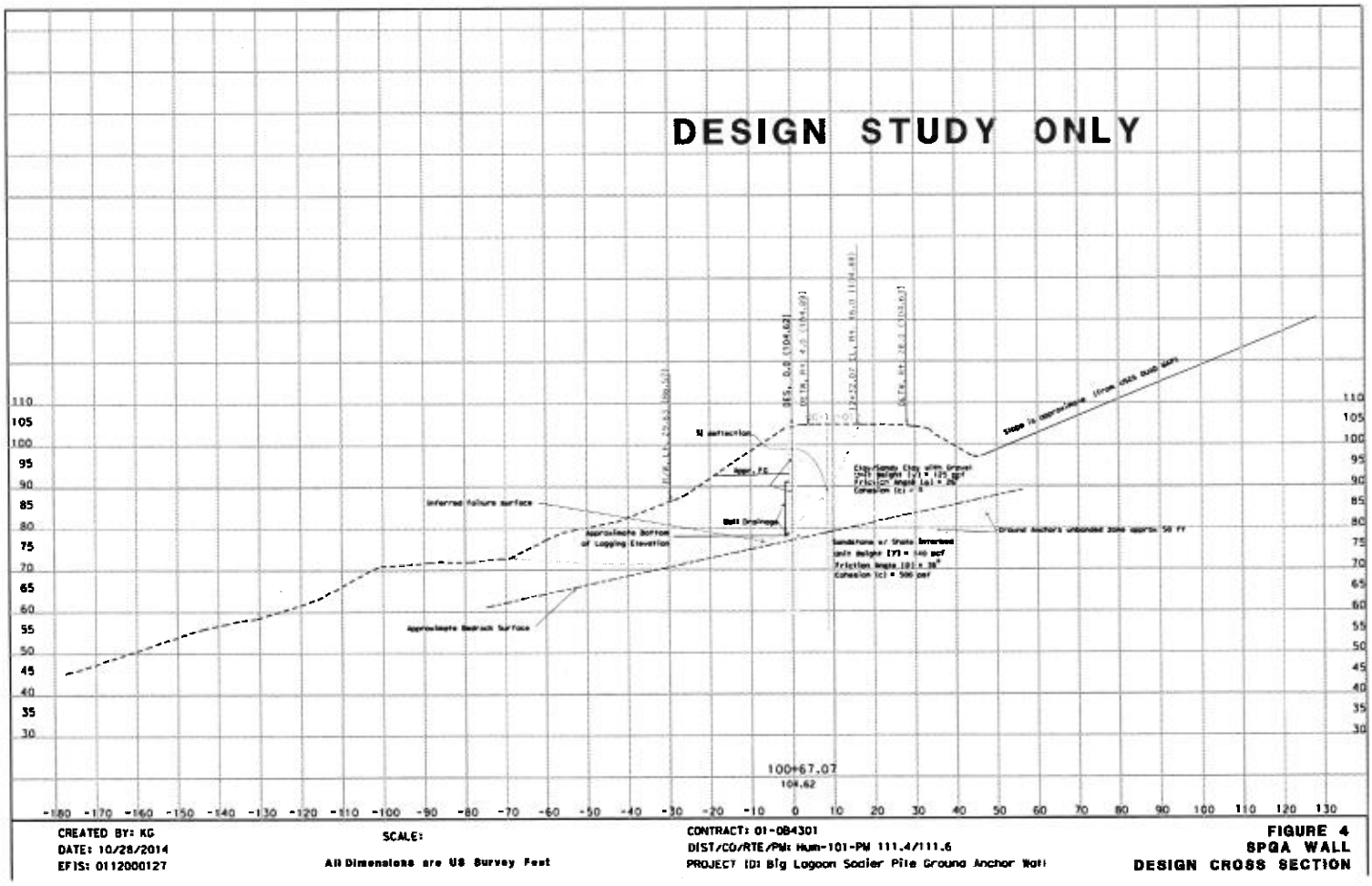
EFIS 0112000127

Date: October 2014

PROJECT GEOLOGIC MAP

01-HUM-101-PM 111.4/111.6
SOLDIER PILE GROUND ANCHOR WALL

Figure 3

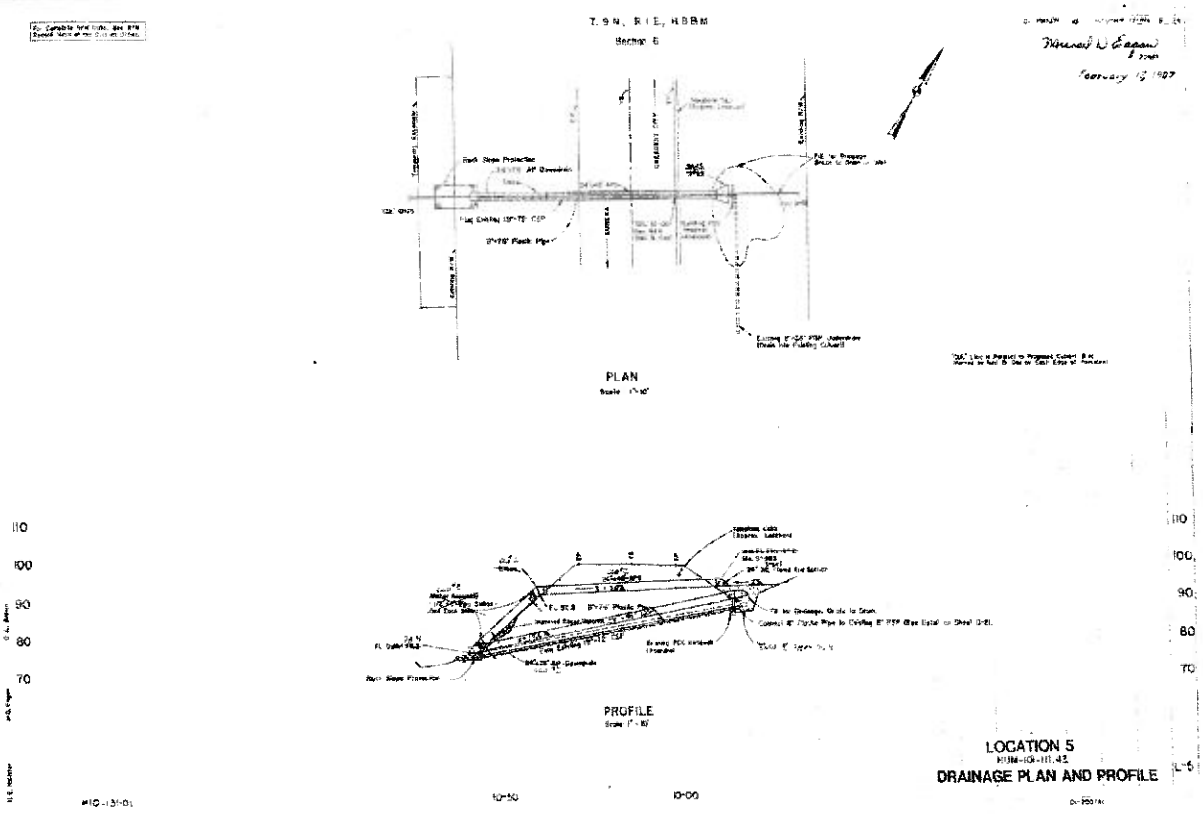


CREATED BY: KG
DATE: 10/28/2014
EFIS: 0112000127

SCALE:
All Dimensions are US Survey Feet

CONTRACT: 01-084301
DIST/CO/RTE/PM: Hum-101-PM 111.4/111.6
PROJECT ID: Big Lagoon Socier Pile Ground Anchor Wall

FIGURE 4
SPQA WALL
DESIGN CROSS SECTION



Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

EFIS: 0112000127
Date: OCTOBER 2014

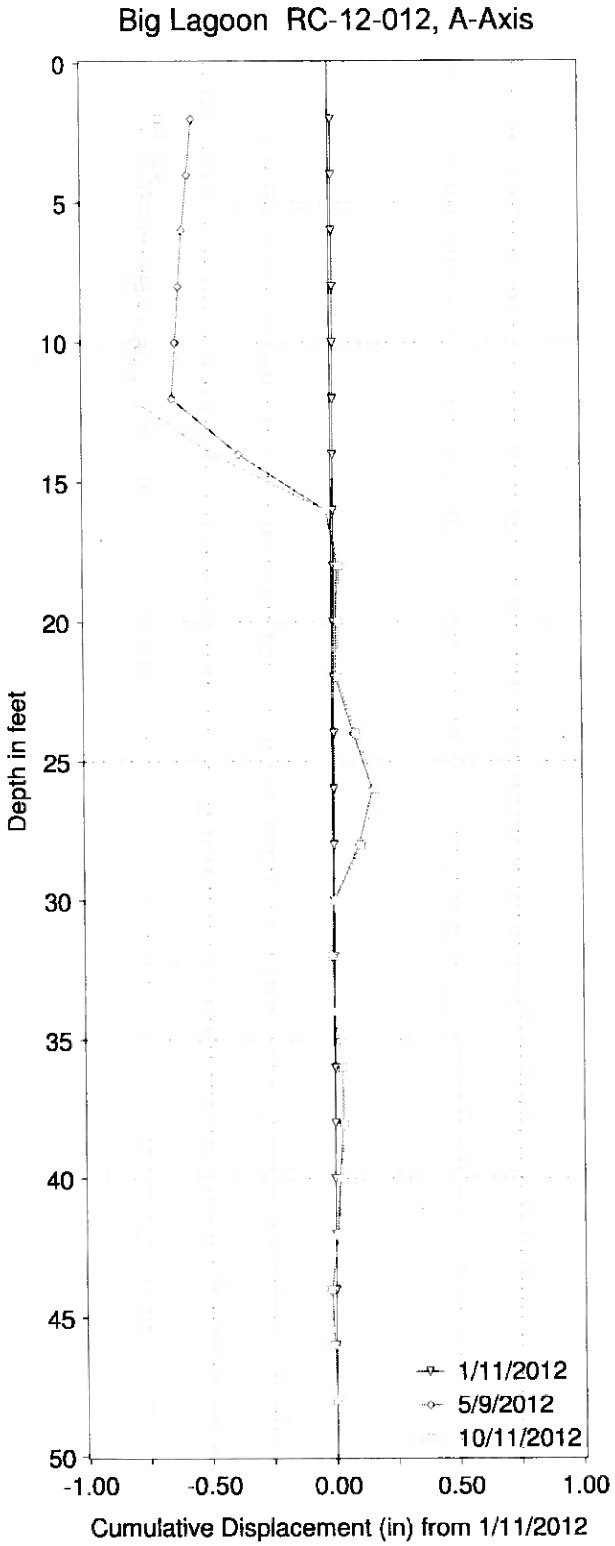
DRAINAGE PLAN AND PROFILE

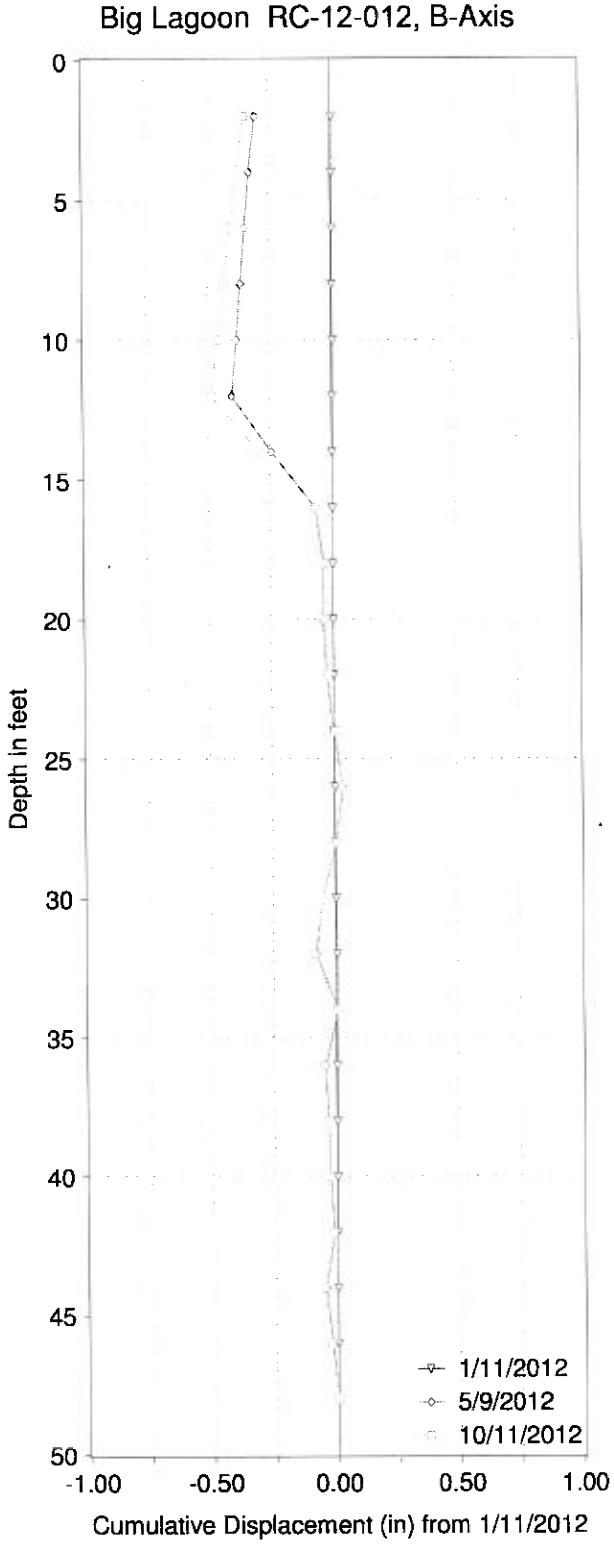
01-HUM-101 PM 111.4/111.6
Drainage System PM 111.43 As-Built

FIGURE 5

APPENDIX A

SLOPE INCLINOMETER MONITORING RESULTS





INCLINOMTER RESULTS

01-HUM-HWY 101 P.M. 111.4
Big Lagoon
EFIS No. 0112000127

Depth of Inclinometer Casing: 58.5 feet
Ao Direction: (Magnetic North)
Location: 01-HUM HWY 101 P.M 111.4

APPENDIX B

LABORATORY TEST SUMMARY AND DATA SHEETS

OFFICE OF GEOTECHNICAL SUPPORT
GEOTECHNICAL LABORATORY TRACKING FORM

GL Tracking No. 13-082

Project Information

Project Name: Big Lagoon SPGA Wall
Structure No.:
District: 01 County: HUM Route: 101 PM: 111.4-

Project Charging

District: 01 EA: 0B4301 FA: Activity Code: 240 MSA Code: 80
Sub Job: Special Designation:

Client Information

Last Name: Gallagher First Name: Kathy
Office: GDN Phone: 707-441-2024

Dates

Dates Sampled: 2012-01-09 Samples Received: 2013-11-13 Samples to Grade Bench: 2013-11-14
Client's Due: 2013-12-20 GL Staff Due: 2013-12-27 Estimated Delivery: 2014-01-02

TL-101 Numbers

C249362-64

Comments

Project: 0112000127
Phase: 1

	Number Tests Requested	Number Tests Completed	Date Testing Started	Date Testing Completed
Unit Weight				
Moisture Content	3			
Specific Gravity				
Mechnical Analysis	3			
Atterberg Limits	3			
Consolidation				
Triaxial UU				
Triaxial CU				
Unconfined Comp				
Point Load				
Direct Shear				
Permeability				
Compaction Curve				
Swell Potential				
Collapse Potential				
Expansion Index				
Shrinkage Limit				
Corrosion	3			
Sand Equivalent				
R-Value				
Organic Content				
pH				
Cation Exchange				

BORING SAMPLE RECORD

GL TRACKING NO. 13-082
TESTING DUE:

PROJECT NAME: Big Lagoon SPGA Wall
DIST-CO-RTE-PM: 01-HUM-101-111.4-
DIST-EA: 01-0B4301 FA: ACT. CODE: 240
SUB JOB: SPECIAL DESG:
CLIENT: Kathy Gallagher

BR. NO:
MSA CODE: 80

PHONE: 707-441-2024

Boring ID	Sample No.	Tube No.	Depth	Test Type															Remarks
				Unit Weight	Moisture Content	Specific Gravity	Mechanical Analysis	Atterberg	Consolidation	Triaxial UU	Triaxial CU	Unconfined Compression	Point Load	Direct Shear	Permeability	Compaction	Corrosion	Other	
RC-12-012	1		20		X		X	X									X		
RC-12-012	2		25		X		X	X									X		
RC-12-012	3		45-50		X		X	X									X		

CA Department of Transportation 5900 Folsom Blvd., Sacramento CA 95819 Phone: (916) 227-7204

11/20/2013

Sample ID No.	Sampled	Received	Approved	Sample of	E.A.	District	TL-101
AG130376	1/9/2012	11/14/2013	EP	SOIL	01-284201	01	C249362

Sample From	SMARA#	Location	Depth
RC-12-012		SAMPLE #1	2.0 ft

Grading Analysis
Test Method CT 202

Aggregate Size	% Passing	Combined	Rubber Size	% Passing
3 in	100		No. 8	
21/2 in	100		No. 10	
2 in	100		No. 16	
11/2 in	100		No. 30	
1 in	95		No. 50	
3/4 in	85		No. 100	
1/2 in	80		No. 200	
3/8 in	77			
No. 4	67			
No. 8				
No. 16				
No. 30				
No. 50				
No. 100				
No. 200				
5um				
1um				

Plasticity Index
Test Method CT 204

LL
PL
PI

Sand Equivalent
Test Method CT 217

SE

Specific Gravity
Test Method CT 206, 207, 208

Retained No.4	Passing No.4
SSD Sp Gr	SSD Sp Gr
Apparent	Apparent
Bulk OD	
% Absorption	% Absorption

Los Angeles Rattler
Test Method CT 211

Grade
100 Revs
500 Revs

Relative Mortar Strength
Test Method CT 515

Ratio

Organic Impurities
Test Method CT 213

Quality
Debris?

Cleanness Value
Test Method CT 227

21/2 x 11/2
11/2 x 3/4
1 x No.4
1/2 max
Pit Run
Combined

Durability Index
Test Method CT 229

Coarse Durability

Fine Durability

Sodium Sulfate Soundness
Test Method CT 214

Type

Sieve Size	Individual % Loss
21/2 x 2 in	
2 x 11/2 in	
11/2 x 1 in	
1 x 3/4 in	
3/4 x 1/2 in	
1/2 x 3/8 in	
3/8 in x No. 4	
Weighted Average Loss of Sample	
Fine Aggregate Loss	

Percent Crushed Particles
Test Method CT 205

Weighted Average

Remarks: Sample sent to Corrosion Lab for additional testing.

CA Department of Transportation 5900 Folsom Blvd., Sacramento CA 95819 Phone: (916) 227-7204

11/20/2013

Sample ID No.	Sampled	Received	Approved	Sample of	E.A.	District	TL-101
AG130377	1/9/2012	11/14/2013	EP	SOIL	0[illegible]0430	01	C249363

Sample From	SMARA#	Location	Depth
RC-12-012		SAMPLE #2	2.5 ft

Grading Analysis
Test Method CT 202

Aggregate Size	% Passing	Combined	Rubber Size	% Passing
3 in	100		No. 8	
21/2 in	100		No. 10	
2 in	100		No. 16	
11/2 in	100		No. 30	
1 in	89		No. 50	
3/4 in	82		No. 100	
1/2 in	80		No. 200	
3/8 in	78			
No. 4	71			
No. 8	88	62		
No. 16				
No. 30				
No. 50				
No. 100				
No. 200				
5um				
1um				

Plasticity Index
Test Method CT 204

LL
PL
PI

Sand Equivalent
Test Method CT 217

SE

Specific Gravity
Test Method CT 206, 207, 208

Retained No.4	Passing No.4
SSD Sp Gr	SSD Sp Gr
Apparent	Apparent
Bulk OD	
% Absorption	% Absorption

Los Angeles Rattler
Test Method CT 211

Grade
100 Revs
500 Revs

Relative Mortar Strength
Test Method CT 515

Ratio

Organic Impurities
Test Method CT 213

Quality
Debris?

Cleanness Value
Test Method CT 227

21/2 x 11/2
11/2 x 3/4
1 x No.4
1/2 max
Pit Run
Combined

Durability Index
Test Method CT 229

Coarse Durability

Fine Durability

Sodium Sulfate Soundness
Test Method CT 214

Type

Sieve Size	Individual % Loss
21/2 x 2 in	
2 x 11/2 in	
11/2 x 1 in	
1 x 3/4 in	
3/4 x 1/2 in	
1/2 x 3/8 in	
3/8 in x No. 4	
Weighted Average Loss of Sample	
Fine Aggregate Loss	

Percent Crushed Particles
Test Method CT 205

Weighted Average

Remarks: Not enough material for MA & PI, corrosion priority as per illybeth.

Note: If corrosion testing was requested, the sample has been processed and sent to Corrosion for CT 417, 422 and 643.

CA Department of Transportation 5900 Folsom Blvd., Sacramento CA 95819 Phone: (916) 227-7204

11/20/2013

Sample ID No.	Sampled	Received	Approved	Sample of	E.A.	District	TL-101
AG130378	1/9/2012	11/14/2013	EP	SOIL	01-0B430	01	C249364

Sample From	SMARA#	Location	Depth
RC-12-012		SAMPLE #3	45 to 60

Grading Analysis
Test Method CT 202

Aggregate Size	% Passing	Combined	Rubber Size	% Passing
3 in	100		No. 8	
21/2 in	100		No. 10	
2 in	100		No. 16	
11/2 in	100		No. 30	
1 in	100		No. 50	
3/4 in	95		No. 100	
1/2 in	88		No. 200	
3/8 in	86			
No. 4	80			
No. 8	91	73		
No. 16				
No. 30				
No. 50				
No. 100				
No. 200				
5um				
1um				

Plasticity Index
Test Method CT 204

LL
PL
PI

Sand Equivalent
Test Method CT 217

SE

Specific Gravity
Test Method CT 206, 207, 208

Retained No.4	Passing No.4
SSD Sp Gr	SSD Sp Gr
Apparent	Apparent
Bulk OD	
% Absorption	% Absorption

Los Angeles Rattler
Test Method CT 211

Grade
100 Revs
500 Revs

Relative Mortar Strength
Test Method CT 515

Ratio

Organic Impurities
Test Method CT 213

Quality
Debris?

Cleanness Value
Test Method CT 227

21/2 x 11/2
11/2 x 3/4
1 x No.4
1/2 max
Pit Run
Combined

Durability Index
Test Method CT 229

Coarse Durability

Fine Durability

Sodium Sulfate Soundness
Test Method CT 214

Type

Sieve Size	Individual % Loss
21/2 x 2 in	
2 x 11/2 in	
11/2 x 1 in	
1 x 3/4 in	
3/4 x 1/2 in	
1/2 x 3/8 in	
3/8 in x No. 4	
Weighted Average Loss of Sample	

Fine Aggregate Loss

Percent Crushed Particles
Test Method CT 205

Weighted Average

Remarks: Not enough material for MA & PI, corrosion priority as per lilybeth

Note: If corrosion testing was requested, the sample has been processed and sent to Corrosion for CT 417, 422 and 643.

TEST NO. 60767 Resubmitted

Grade	S. E.	L.A.R.T.
Sample Prep	Cleanness	% Crushed
Durability	Sp. Gr.	

LABORATORY RECORD OF TESTS ON

Soil

☐ Preliminary ☐ Process ☐ Acceptance ☐ Ind. Assur.

Date Rec'd: 10-9-14
Calc By: Dana Gilchrist
Completed: 10-15-14
Reported: 10-15-14

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
SAMPLE IDENTIFICATION CARD
TL-0101 (REV. 10/97) 7541-6002-4

CARD NUMBER C 898796

☒ PRELIMINARY TESTS
☐ PROCESS TESTS
☐ ACCEPTANCE TESTS

INDEPENDENT ASSURANCE TESTS
☐ DIST. LAB
☐ TRANS. LAB

☐ SPECIAL TESTS

SAMPLE SENT TO:
☐ HDQTRS. LAB
☐ BRANCH LAB
☒ DIST. LAB

FIELD NO.
DIST. LAB NO. 60767
LOT NO.
SHIPMENT NO.
P.O. OR REQ. NO.
AUTHORIZATION NO.

SAMPLE OF Soil Test Compaction Test
FOR USE IN Embankment & Compaction

SAMPLE FROM Bowl

DEPTH 20-25 ft

LOCATION OF SOURCE Reg Lagoon 12-12-012

THIS SAMPLE IS SHIPPED IN (NO. CONTAINERS)	AND IS ONE OF A GROUP OF	SAMPLES REPRESENTING (TONS, GALS, BDLS ETC. ETC.)
1	1	

OWNER OR MANUFACTURER

TOTAL QUANTITY AVAILABLE	TEST RESULTS DESIRED ☐ NORMAL ☐ PRIORITY	DATE NEEDED

REMARKS
Please run Compaction & Expansion

COVER ADDITIONAL INFORMATION WITH LETTER
DATE SAMPLED 9 Sept 2014
BY R. Gallardo TITLE Foreman
DIST., CO., RTE., PM
LIMITS
CONT. NO. 0112000127
FED. NO.
RES. ENGR. OR SUPT. Larry Gallardo
ADDRESS 441 "20th
CONTRACTOR

MAIL TO SAME DESTINATION AS SAMPLE

GRADING ANALYSIS

Sieve Size	A	Specs.	B	Specs.	C	Specs.	D	Specs	E	Specs.
3"										
2 1/2										
2										
1 1/2	100									
1	89									
3/4	79									
1/2	58									
3/8	34									
3	—									
4	64									
8	40									
16	53									
30	43									
50	40									
100	33									
200	30									
S. E.										
Sp. Gr. - C										
Sp. Gr. - F										
% Abs.										
Dur. - C										
Dur. - F										
L.A.R.T.-1										
L.A.R.T.-5										
% Crsh'd.										
Color.										
Clean.										

Comments:

Combined Grading Represents

% by Wt.	% by Vol.	Test No.	Description
		A	
		B	
		C	
		D	
		E	Combined

☐ Dist Engr ☐ Constr. Dept.
☐ Dist. Mtls Engr ☐ Accounting
☐ Res Engr., or Maint. Supt.
☐ H.Q. Const., Bridge or Maint.
☐ H.Q. Lab. ☐

SOURCE	CHARGE	EXPENDITURE AUTHORIZATION	SPECIAL DESIGNATION (USE WHEN APPLICABLE)	OBJECT	MSA

Data Reporting Form - California Test 643

Attach Sample Indentification Card (TL-0101)

Corrosion Test No. 60767 | EA: 01120D0127

Tested By: D Ghidinelli | Date: 10-14-14

Total Water Added (milliliters)	Soil Sample Resistance (Ohms)
15	1K x 5.2 = 5200
25	1K + 3.9 = 2900
35	1K + 2.8 = 2800
40	1K x 3.0 = 3000
45	1K x 3.0 = 3000
50	1K + 3.0 = 3000
55	1K + 3.0 = 3000
60	1K x 3.0 = 3000
65	1K + 3.2 = 3200

Minimum Soil Resistance, R_{min-T}

R_{min-T} = 2800 (Ohms)

Sample Temperature, T

T = 20.5 °C

Resistance of Water, R_T

R_T = ✓ (Ohms)

Minimum Resistance of soil sample corrected to 15.5° C, $R_{min-15.5}$

$R_{min-15.5} = \frac{R_{min-T}(24.5+T)}{40}$ $\frac{2800(24.5+20.5)}{40}$

$R_{min-15.5}$ = 3171 (Ohms)

Minimum Soil Resistivity, $\rho_{min-15.5}$

$\rho_{min-15.5} = R_{min-15.5}$ x (Soil Box Constant)*

$\rho_{min-15.5}$ = 3171 (Ohm-cm)

Resistance of water sample corrected to 15.5° C, $R_{15.5}$

$R_{15.5} = \frac{R_T(24.5+T)}{40}$

$R_{15.5}$ = ✓ (Ohms)

Resistivity of Water Sample, $\rho_{15.5}$

$\rho_{15.5} = R_{15.5}$ x (Soil Box Constant)*

$\rho_{15.5}$ = ✓ (Ohm-cm)

pH Value

Soil pH = 7.30

Water pH = ✓

California Department of Transportation (March 2007)

*Where: Soil Box Constant for Small Box=1 cm and for Large Box=6.76 cm

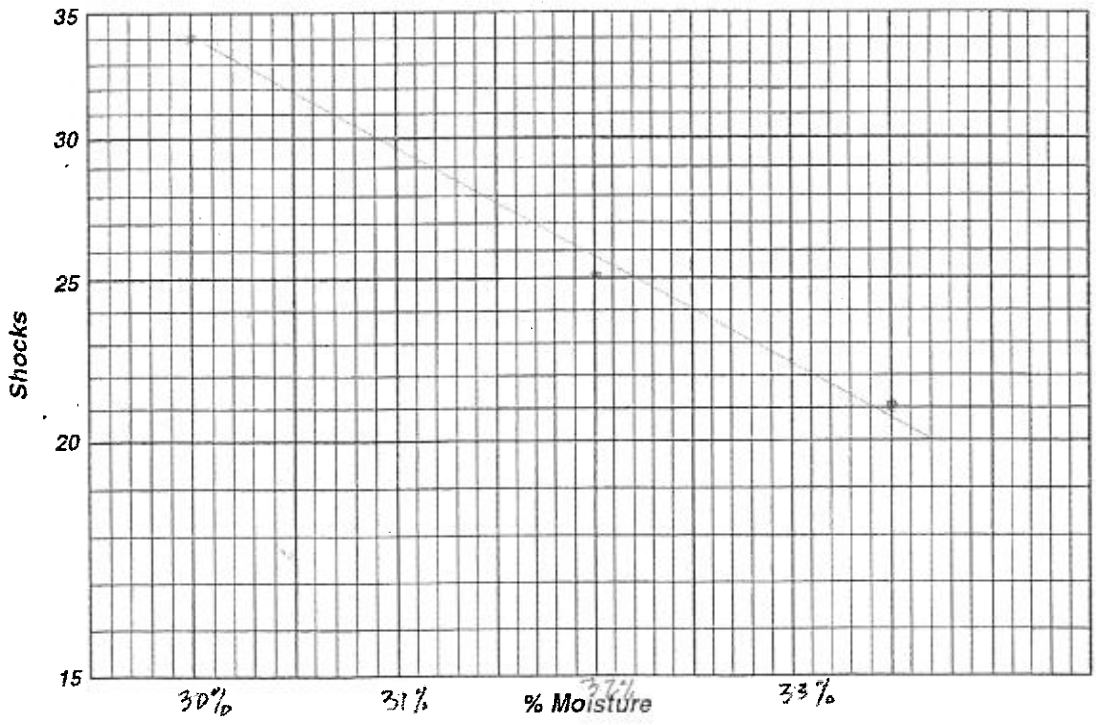
STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ATTERBERG LIMITS

MR-0233 (REV. 5/93)

JOB NUMBER	40767
SAMPLE NUMBER	
LIQUID LIMIT	32
PLASTIC LIMIT	18
PLASTICITY INDEX	14

	LIQUID LIMIT (Referee Method)			PLASTIC LIMIT		
Trial Number	I	II	III	I	II	Avg.
Watch glass number	4	5	6	11-A	12-A	
Number of shocks	21	25	34	—	—	
Weight of glass & wet soil	37.16	38.55	41.54	22.61	22.34	
Weight of glass & dry soil	34.16	35.25	37.81	21.50	21.27	
Weight of glass	25.20	24.94	25.37	15.34	15.24	
Weight of dry soil	8.96	10.31	12.44	6.16	6.03	
Weight of water	3.00	3.30	3.73	1.11	1.07	
Moisture (percent)	33.5	32.0	30.0	18.0	17.7	17.9



REMARKS:

DATE	TEST BY	CHECKED BY
10-21-14	M. CATHEY	D. Ghidinelli

FM 93 1812 M

Results sent to: KATHY GALLAGHER

Division of Engineering Services
Materials Engineering and Testing Services
Corrosion and Structural Concrete Field Investigation Branch

Report Date: 11/22/2013
Reported by Michael Mifkovic

CORROSION TEST SUMMARY REPORT - SOIL

EA

EFIS: **0112000121**

Dist/Co/Rte/PM **01 / HUM /101/ / 111.4 PM**

CORROSION LAB #	TL101 #	BORE #	FIELD SAMPLE #	DEPTH (FT) START	DEPTH (FT) END	MINIMUM RESISTIVITY[1] (ohm-cm)	pH[1]	CHLORIDE CONTENT[2] (ppm)	SULFATE CONTENT[3] (ppm)	IS SAMPLE CORROSIVE?
SOIL SAMPLE FROM:										
CR20130415	C249362	RC-12-012	01	20	20	4799	5.99			NO
CR20130416	C249363	RC-12-012	02	25	25	1568	7.07			NO
CR20130417	C249364	RC-12-012	01	20	20	1368	7.32			NO

This site is not corrosive to foundation elements (see note below).

Note: For Structural Elements, the Department considers a site corrosive if one or more of the following conditions exist: pH is 5.5 or less, chloride concentration is 500 ppm or greater, sulfate concentration is 2000 ppm or greater. Resistivity is not considered for Structural Elements. MSE backfill shall conform to the requirements of section 47-2.02C Structure Backfill in the 2010 Standard Specifications.

[1]CT 643, [2]CT 422, [3]CT 417

11/22/2013

APPENDIX C

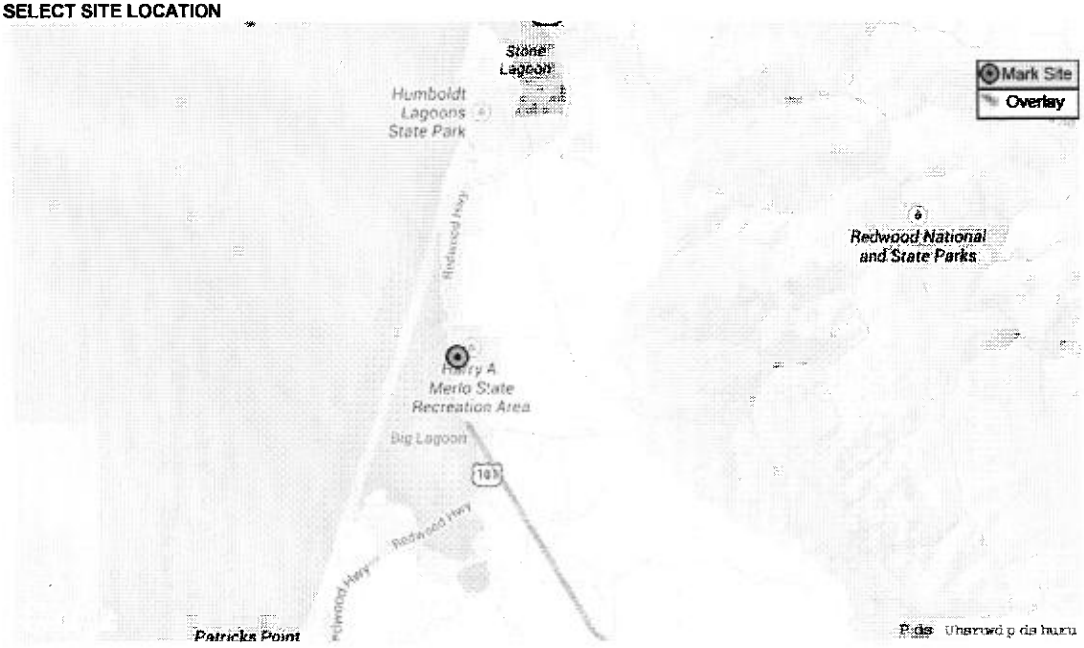
ARS DATA SHEET

CALIFORNIA DEPARTMENT OF
TRANSPORTATION

Caltrans ARS Online (v2.3.06)

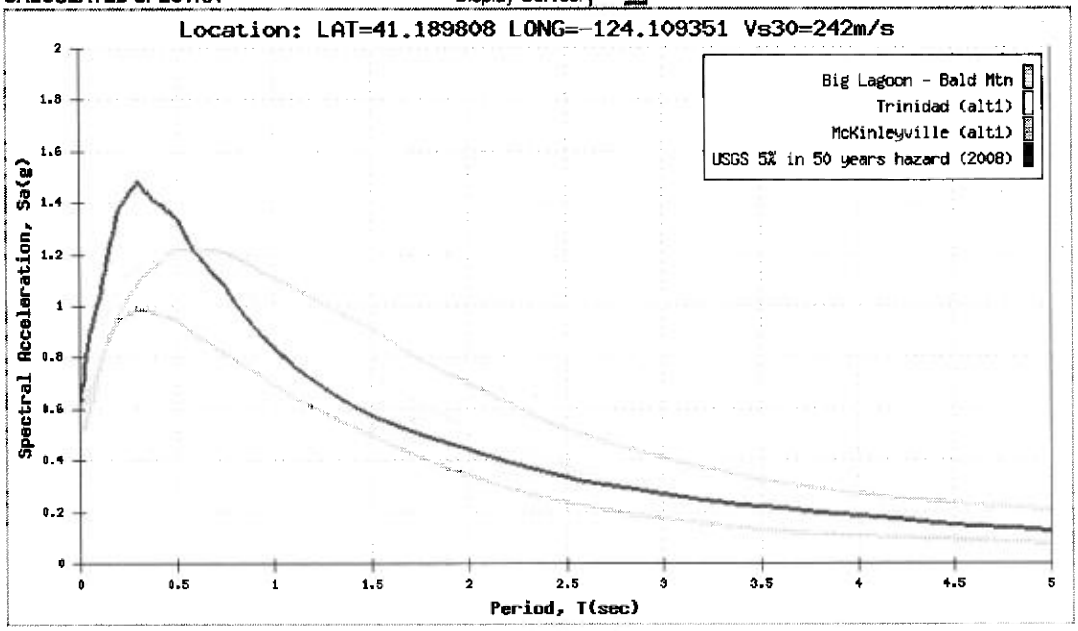
This web-based tool calculates both deterministic and probabilistic acceleration response spectra for any location in California based on criteria provided in *Appendix B of Caltrans Seismic Design Criteria*. More...

SELECT SITE LOCATION



Latitude: 41.189808 **Longitude:** -124.109351 **Vs30:** 242 m/s Calculate

CALCULATED SPECTRA Display Curves: 3



INFORMATION HANDOUT

For Contract No. 01-0B4304
At 01-Hum-101-111.3/111.7

Identified by
Project ID 0112000127

MATERIALS INFORMATION

Division of Occupational Safety and Health Mining and Tunneling Underground Classification Highway 101 Soldier Pile Wall NO. 14

DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT
2424 Arden Way, Suite 125
Sacramento, California 95825
doshM&Tsac@dir.ca.gov

Telephone (916) 574-2540
FAX (916) 574-2542

September 17, 2015

Calif. Dept. of Transportation
District 1
PO Box 3700
Eureka, CA 95502

Attention: Marie Brady, Project Engineer

Subject: Project: 16009 – Highway 101 Soldier Pile Wall No. 14, Humboldt County
Classification: Potentially Gassy With Special Conditions
Number Attached: 1 (A)

The information provided to this office relative to the above project has been reviewed. On the basis of this analysis, an Underground Classification of "Potentially Gassy With Special Conditions" has been assigned to the tunnel identified on your submittal. Please retain the original Classification for your records and deliver a true and correct copy of the Classification to the tunnel contractor for posting at the job site.

When the contractor who will be performing the work is selected, please advise them to notify this office to schedule the mandated Pre-Job Conference with the Division prior to commencing any activity associated with boring of the tunnel. A Pre-Job Request Form is enclosed.

Should you have another bore under construction that is not required to have an Underground Classification (i.e.: less than 30 inches in diameter), please contact the Mining and Tunneling Unit prior to any employee entry of such a space.

If you have any questions on this subject, please contact this office at your earliest convenience.

Sincerely,

Douglas Patterson
Senior Engineer

enc: Classification
Pre-Job Request Form

State of California

Department of Industrial Relations

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT

Underground Classification

16009A023CT — STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

of DISTRICT 1, PO BOX 3700; EUREKA, CA 95502-3700

at HIGHWAY 101 SOLDIER PILE WALL NO. 14

has been classified as *** POTENTIALLY GASSY WITH SPECIAL CONDITIONS ***

as required by the California Labor Code § 7955.

The Division shall be notified if sufficient quantities of flammable gas or vapors have been encountered underground. Classifications are based on the California Labor Code Part 9, Tunnel Safety Orders and Mine Safety Orders.

SPECIAL CONDITIONS

1. A Certified Gas Tester shall perform pre-entry and continuous monitoring of the underground environment to measure Oxygen and detect explosive, flammable, and toxic gasses whenever an employee is working in the underground environment.
2. Mechanical ventilation shall provide for continuous exhaust of fumes and air at any time an employee is working in the underground environment. The primary ventilation fans must be located outside of the underground environment and shall be reversible by a single switch near the fan location.
3. The Division shall be notified immediately if any **Flammable Gas** or **Petroleum Vapor** exceeds 5% of the Lower Explosive Limit.
4. All utilities that may be in conflict with the project shall be identified and physically located (potholed) prior to the start of project operations.

The one hundred twenty-five 30-inch-diameter 20-to-50-foot-deep vertically drilled shafts along Highway 101 located south of the Highway 101 & Kane Road intersection in Orick, Humboldt County

This classification shall be conspicuously posted at the place of employment.

Douglas Patterson, Senior Engineer

September 17, 2015

State of California
Department of Industrial Relations
Division of Occupational Safety & Health

REQUEST FOR PRE-JOB (TUNNEL)

ATTACH COPY OF CLASSIFICATION AND DIESEL PERMIT

Company Name:_____

Phone_____FAX:_____

DATE FAXED: _____

PLEASE NOTE: THE BORING CONTRACTOR SHOULD SCHEDULE THE PREJOB AS FAR IN ADVANCE AS POSSIBLE – AT LEAST 3-4 DAYS IN ADVANCE. THE DIVISION REQUIRES THE JOB TO BE SET UP WHEN THE FIELD ENGINEER ARRIVES FOR THE PREJOB. THIS MEANS THAT THE BORE PIT HAS BEEN DUG AND PROPERLY GUARDED, THE CRANE IS IN PLACE AND READY TO LIFT, THE BORING MACHINE IS IN THE PIT AND READY TO GO, AND THE CREW IS READY TO BEGIN BORING THE TUNNEL. IF THERE IS A DELAY IN SETTING UP THE JOB, THE BORING CONTRACTOR SHOULD CONTACT THE DIVISION IMMEDIATELY.

PRE-JOB REQUEST DATE & TIME: _____

ON-SITE SUPERVISOR & CELL NO.: _____

CLASSIFICATION #: _____ **DIESEL PERMIT #:** _____

BORE DIAMETER AND LENGTH: _____ _____
(Diameter) (Length)

IS BORE ENTRY ANTICIPATED? YES NO
(Circle One)

You MUST contact the Division if entry is planned, REGARDLESS of the bore diameter.

MANNER OF EXCAVATION: _____

_____

JOB-SITE LOCATION AND DIRECTIONS: _____

_____

_____

GENERAL CONTRACTOR: _____

SUBMITTED BY: _____

REVIEWED BY: _____ **DATE:** _____

☐ *Mining & Tunneling Unit, District 1*
2424 Arden Way, Suite 125
Sacramento, California 95825-2400
(916) 574-2540; ***FAX: (916) 574-2542***

☐ *Mining & Tunneling Unit, District 2*
6150 Van Nuys Blvd., Suite 310
Van Nuys, California 91401-3333
(818) 901-5420; ***FAX: (818) 901-5579***

☐ *Mining & Tunneling Unit, District 3*
464 West Fourth Street, Suite 354
San Bernardino, California 92401-1442
(909) 383-6782; ***FAX: (909) 388-7132***