

INFORMATION HANDOUT

WATER QUALITY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CERTIFICATION NO. 32709WQ01 dated August 20,2009

CERTIFICATION NO. 34009WQ11,Amendment to Certification dated August 20,2009

PERMITS

UNITED STATES ARMY CORPS OF ENGINEERS

NON-REPORTING NATIONWIDE 404 PERMIT

AGREEMENTS

CALIFORNIA DEPARTMENT OF FISH AND GAME

AGREEMENT NO.2009-0019-R4

MATERIALS INFORMATION

FOUNDATION REPORTS

RETAINING WALL No.1

RETAINING WALL No.2

BRIDGE No. 44-0124

UNDERGROUND CLASSIFICATION

INSTALLATION DETAILS FOR BATTERY BACKUP SYSTEM

(BBS Cabinet Mounting details and wiring details)



Linda S. Adams
Secretary for
Environmental Protection

California Regional Water Quality Control Board

Central Coast Region



Internet Address: <http://www.waterboards.ca.gov/centralcoast>
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

August 20, 2009

Karen Bewley
California Department of Transportation (Caltrans)
50 Higuera Street
San Luis Obispo, CA 93401

Dear Ms. Bewley:

WATER QUALITY CERTIFICATION NUMBER 32709WQ01 FOR AIRPORT BOULEVARD INTERCHANGE PROJECT, MONTEREY COUNTY

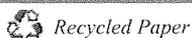
Thank you for the opportunity to review your February 3, 2009 application for water quality certification of the Airport Boulevard Interchange Project. The application was completed on March 4, 2009. Thank you for submitting the additional information and clarification regarding the project's measures to protect water quality as we discussed during our phone conversations and e-mail exchanges from June 22nd, 2009 to August 3rd, 2009. The project appears to protect beneficial uses of State waters. We are issuing the enclosed Standard Letter of Certification.

At this time, we do not anticipate issuing additional requirements based on your application. Should new information come to our attention that indicates a water quality problem, we may require additional monitoring and reporting, issue Waste Discharge Requirements, or take other action.

Your Section 401 Water Quality Certification application and CEQA documents indicate that project activities may affect beneficial uses and water quality. The Water Board issues this certification to protect water quality and associated beneficial uses from project activities. We need reports to determine compliance with this certification. All technical and monitoring reports requested in this certification, or anytime after, are required per Section 13267 of the California Water Code.

Your failure to submit reports required by this certification, or your failure to submit a report of technical quality acceptable to the Executive Officer, may subject you to enforcement action per Section 13268 of the California Water Code. The Water Board will base enforcement actions on the date of certification. Any person affected by this Water Board action may petition the State Water Resources Control Board (State Board) to review this action in accordance with California Water Code Section 13320; and Title 23, California Code of Regulations, Sections 2050 and 3867-3869. The State Board, Office of Chief Counsel, PO Box 100, Sacramento, CA 95812, must receive the

California Environmental Protection Agency



petition within 30 days of the date of this certification. We will provide upon request copies of the law and regulations applicable to filing petitions.

If you have questions please contact **Jennifer Epp** at (805) 594-6181 or via email at jepp@waterboards.ca.gov or Lisa McCann at (805) 549-3132. Please mention the above certification number in all future correspondence pertaining to this project.

Sincerely,



Roger W. Briggs
Executive Officer

Enclosure: Action on Request for CWA Section 401 Water Quality Certification

S:\Section 401 Certification\Certifications\Monterey\Airport Blvd\Airport Boulevard Interchange.doc

cc: Enclosures

U.S. Army Corps of Engineers
San Francisco District
Regulatory Section
1455 Market Street, Floor 17
San Francisco, CA. 94103-1368

401 Program Manager
State Water Resources Control Board
Division of Water Quality
Stateboard401@waterboards.ca.gov

California Department of Fish and Game
Lake and Streambed Alteration
1234 East Shaw Street
Fresno, CA 93710

Robert Leidy
Leidy.Robert@epamail.epa.gov

Action on Request for
Clean Water Act Section 401 Water Quality Certification
for Discharge of Dredged and/or Fill Materials

PROJECT: Airport Boulevard Interchange
APPLICANT: Karen Bewley
California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

ACTION:

1. Order for Standard Certification
2. Order for Technically-conditioned Certification
3. Order for Denial of Certification

STANDARD CONDITIONS:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment per section 13330 of the California Water Code and section 3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This certification action is not intended 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 per to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license was being sought.
3. The validity of any non-denial certification action (Actions 1 and 2) shall be conditioned upon total payment of the fee required under 23 CCR section 3833, unless otherwise stated in writing by the certifying agency.
4. In the event of a violation or threatened violation of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For 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.
5. In response to a suspected violation of any condition of this certification, the Water Board may require the holder of any permit or license subject to this certification to

furnish, under penalty of perjury, any technical or monitoring reports the Water Board deems appropriate, provided that the burden, including costs, of the reports shall have a reasonable relationship to the need for the reports and the benefits obtained from the reports.

6. The total fee for this project is \$4000 which includes the \$640 application fee.

REGIONAL WATER QUALITY CONTROL BOARD CONTACT PERSON:

Jennifer Epp

Central Coast Region, Region 3

(805) 594-6181

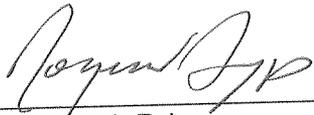
jepp@waterboards.ca.gov

Please refer to the above certification number when corresponding with the Water Board concerning this project.

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that any discharge from the Airport Boulevard Interchange shall comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act.

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the Regional Water Quality Control Board's Water Quality Control Plan (Basin Plan).



Roger W. Briggs
Executive Officer
Regional Water Quality Control Board

8-20-09

Date

Attachment 1

PROJECT INFORMATION

Application Date	Received: February 3, 2009 Completed: March 4, 2009
Applicant	Karen Bewley, Caltrans
Applicant Representatives	N/A
Project Name	Airport Boulevard
Water Board Application Number	32709WQ01
Type of Project	Reclamation ditch realignment, culvert replacement
Project Location	City of Salinas Longitude: 121.62° W Latitude: 36.66° N
County	Monterey
Receiving Water(s)	Salinas Reclamation Ditch 309.10 Salinas Hydrologic Unit
Water Body Type	Reclamation ditch
Designated Beneficial Uses	Water Contact Recreation (REC-1) Non-Contact Recreation (REC-2) Wildlife Habitat (WILD) Warm Fresh Water Habitat (WARM) Commercial and Sport Fishing (COMM)
Project Description (purpose/goal)	<p>The purpose of the project is to improve safety, operation and the movement of goods at the Airport Boulevard/ State Route 101 interchange.</p> <p><u>The Central Coast Regional Water Quality Control Board (Water Board) understands that the project includes the following:</u></p> <ul style="list-style-type: none"> • Realignment of the existing Salinas Reclamation Ditch. • Replacement of existing culverts. • Widening of Airport Boulevard intersection. • Reconstruction of the existing two-lane structure to provide a four-lane overcrossing with left turn lanes.
Preliminary Water Quality Issues	The Water Board finds the project has the potential to cause sedimentation, siltation, and pollutant release in the ditch and drainages. Erosion could be caused by the construction activities or by the new culvert installation project. Pollutants could be released from construction equipment or from the concrete work associated with installation of the new culverts.

	<p>The Water Board is also concerned about potential adverse impacts to burrowing owls and its habitat, and about the loss of functional wetlands due to filling and grading activities, and the ability of the wetlands to provide for the benefits of a naturally functioning wetland in capturing, storing, and filtering urban runoff while providing suitable habitat for wildlife.</p>
<p>Water Board Mitigation Requirements</p>	<p><u>Mitigations that are required to comply with 401 Water Quality Certification include:</u></p> <ul style="list-style-type: none"> • All construction activities must be completed in accordance with the Caltrans Statewide Storm Water Management Plan (SWMP). • Caltrans must use silt fences and/or straw wattles around construction areas to control and eliminate erosion and sedimentation. • Erosion control measures shall be applied to all disturbed earth surfaces. • Seeding of entire slope with an approved grass seed mixture and placement of erosion control blankets over seeded areas shall be implemented for slope stabilization. • Any material stockpiled during construction shall be covered with plastic. • All construction vehicles and equipment used on site must be well maintained and checked daily for fuel and hydraulic fluid leaks or other problems that could result in spills of toxic materials. • The contractor must be required to have oil absorbent pads onsite in case a spill occurs. • Caltrans must designate a staging area for equipment/vehicle fueling and storage at least 100 feet away from waterways, in a location where fluid will not flow into waterways. • All vehicle fueling must occur at least 100 feet away from waterways, and in the designated staging area. • Stream diversion dams shall be constructed of sand bags wrapped in heavy plastic sheeting. • Sand bags shall be filled with clean gravel. • Water Board staff must be notified if mitigations as described in the 401 Water Quality Certification application for this project are altered by the imposition of subsequent permit conditions by any local, state or federal regulatory authority. Caltrans must inform Water Board staff of any modifications that interfere with compliance with this certification.
<p>Area of Disturbance</p>	<p>Approximately 0.58 acres Streambed: 0.01 acres permanent, 0.56 acres temporary</p>

Fill/Excavation Area	Approximately 0.47 acres of permanent fill
Dredge Volume	N/A
U.S. Army Corps of Engineers Permit No	Nationwide Permit 13 – Bank Stabilization Nationwide Permit 14 – Linear Transportation Projects
Dept. of Fish and Game Streambed Alteration Agreement	Streambed Alteration Agreement is pending. Final, signed copy will be forwarded immediately upon execution.
Possible Listed Species	Burrowing owl, California red-legged frog
Status of CEQA Compliance	(Mitigated) Negative Declaration Lead Agency: Caltrans
Water Board Compensatory Mitigation Requirements	<u>The project will include the following:</u> <ul style="list-style-type: none"> Onsite mitigation shall be the first priority. Caltrans shall contact the Water Board if a suitable restoration site cannot be located onsite for habitat impacts.
Total Certification Fee	\$4000
Additional Conditions	<p>Contact Water Board staff when project begins to allow for a site visit.</p> <p>Submit a signed copy of the Department of Fish and Game's streambed alteration agreement to the Water Board immediately upon execution and prior to any discharge to waters of the State.</p> <p>Caltrans must conduct all construction activities in accordance with the Caltrans Statewide Storm Water Management Plan (SWMP).</p> <p>The Water Board requires visual monitoring and three reports for this project:</p> <ul style="list-style-type: none"> Visually inspect the site (at least one reach upstream and downstream of project) after completion of the project and for two subsequent rainy seasons to ensure that the new structures are not causing excessive erosion or other water quality problems. If the project does cause water quality problems, contact the Water Board staff member overseeing the project. You will be responsible for obtaining any additional permits necessary for implementing plans for restoration to prevent further water quality problems. First Report: Within 30 days of project completion, submit a

	<p>project completion report that contains a summary of daily activities, monitoring observations, and problems incurred and actions taken; include properly identified post-project photos.</p> <ul style="list-style-type: none">• Second and Third Report: Submit annual reports complete with photos of revegetation efforts by December 31 of each monitoring year. Annual reports must quantify growth and progress of restoration and determine to what extent performance criteria have been met. All areas of the revegetation site shall be assessed for percent cover, general health and stature, and signs of reproduction. The report shall also include photographs of revegetation progress over time.
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Linda Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board

Central Coast Region

Internet Address: <http://www.waterboards.ca.gov/centralcoast/>
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401
Phone (805) 549-3147 FAX (805) 543-0397



Arnold
Schwarzenegger
Governor

September 15, 2009

Ms. Karen Bewley
California Department of Transportation
(CalTrans, District 5)
50 Higuera Street
San Luis Obispo, CA 93401

Dear Ms. Bewley:

AMENDMENT TO WATER QUALITY CERTIFICATION DATED AUGUST 20, 2009;
FOR **AIRPORT** BLVD., SALINAS, MONTEREY COUNTY, CERTIFICATION
NO. 34009WQ11

We received the District's request for minor changes to the Mitigation Requirements for the above-named project on September 3, 2009. As you point out in the letter, two of the original mitigation requirements would not be practical for the project's environmental conditions.

In one instance, on page 2, the fourth condition required the District use erosion control blankets and hydroseeding for all slope stabilization. We recognize this is not practical along the Reclamation Ditch because of Monterey County's maintenance practices for control. Instead, the amended mitigation shall state:

- The slopes of the reclamation ditch will be hydroseeded with native seed. Any slopes that are not disturbed by the County Flood Control maintenance practices, however, shall receive erosion control blankets and hydroseed application with native seed as part of the District's post-construction Best Management Practices (BMPs).

Secondly, the fifth Mitigation Requirement on page 2, stated, "Any material stockpiled during construction shall be covered with plastic." You point out that some stock piles are created for later re-application because they will act as seed sources for native plants (e.g., tarplant). Covering these stockpiles with plastic may sterilize the seed bank. Instead, we amend the Certification Mitigation Requirements for stockpiles to state:

- During the rainy season, and non-rainy season when the National Weather Service predicts precipitation with a probability of least a 30 percent, active and inactive stockpiles must be protected from erosion and sedimentation with soil

California Environmental Protection Agency



stabilization measures. These measures must include plastic sheeting, jute mesh, geosynthetic material, or other effective BMPs. All stockpiles must be surrounded with a linear sediment barrier to prevent erosion and sedimentation in runoff. Stockpiles must also be protected from wind erosion to protect the beneficial uses of waters of the state.

This notice supplements the Standard Water Quality Certification issued on August 20, 2009, and you may proceed with your project.

If you have questions, please contact **Jennifer Epp at (805) 594-6181** or via email at **jepp@waterboards.ca.gov**.

Sincerely,



Roger W. Briggs
Executive Officer

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2709WQ8.doc

cc:

U.S. Army Corps of Engineers
San Francisco District
Regulatory Section
333 Market Street
San Francisco, CA 94105-2197

..

California Department of Fish and Game
Lake and Streambed Alteration
1234 East Shaw Street
Fresno, CA 93710

401 Program Manager
State Water Resources Control Board
Division of Water Quality
Water Quality Certification Unit
1001 "I" Street
Sacramento, CA 95812-0100



U S Army Corps Engineers
San Francisco District

33 CFR Part 330; Issuance of Nationwide Permits March 19, 2007 and regional conditions August 24, 2007

13. Bank Stabilization.

Bank stabilization activities necessary for erosion prevention, provided the activity meets all of the following criteria:

- (a) No material is placed in excess of the minimum needed for erosion protection;
- (b) The activity is no more than 500 feet in length along the bank, unless this criterion is waived in writing by the district engineer;
- (c) The activity will not exceed an average of one cubic yard per running foot placed along the bank below the plane of the ordinary high water mark or the high tide line, unless this criterion is waived in writing by the district engineer;
- (d) The activity does not involve discharges of dredged or fill material into special aquatic sites, unless this criterion is waived in writing by the district engineer;
- (e) No material is of the type, or is placed in any location, or in any manner, to impair surface water flow into or out of any water of the United States;
- (f) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas); and,
- (g) The activity is not a stream channelization activity.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the bank stabilization activity:

- (1) involves discharges into special aquatic sites;
- (2) is in excess of 500 feet in length; or
- (3) will involve the discharge of greater than an average of one cubic yard per running foot along the bank below the plane of the ordinary high water mark or the high tide line. (See general condition 27.) (Sections 10 and 404)

A. Nationwide Permit General Conditions

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. Culverts placed in streams must be installed to maintain low flow conditions.

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 NWP's 4 and 48.

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 preconstruction 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.

15. 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 in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. 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.

17. Endangered Species.

(a) No activity is authorized under any NWP which is likely to 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 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.

(c) Non-federal permittees shall notify 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 may be affected by the proposed work or that utilize the designated critical habitat that may 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 preconstruction 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.

(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, both lethal and nonlethal “takes” of protected species are in violation of the ESA. 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/> and <http://www.noaa.gov/fisheries.html> respectively.

18. 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.

(c) Non-federal permittees must submit a preconstruction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, 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 preconstruction 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)). 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 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.

(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, explaining 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.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public

comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

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

(b) For NWP's 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 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. 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) 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 some other form of mitigation would be more environmentally appropriate 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. 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.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, 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 NWP's. 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 NWP's.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the 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. 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 arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(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.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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.”

26. Compliance Certification. Each permittee who received a NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. 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, as a general rule, 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) Forty-five 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 17 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 18 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 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)) is 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 cannot 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; 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 result in a quicker decision.);
- (4) The PCN must include a delineation of special aquatic sites and other waters of the United States 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 of the United States, 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, where 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. 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: The 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 48 activities requiring preconstruction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the 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 then 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. 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, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each preconstruction 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 multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) 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. 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 work 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 conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. 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 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. 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: (1) 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; (2) 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 (3) 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. The authorization will include the necessary conceptual or specific 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.

28. 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.



U S Army Corps Engineers
San Francisco District

33 CFR Part 330; Issuance of Nationwide Permits March 19, 2007 and regional conditions August 24, 2007

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 preconstruction 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 27.) (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).

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. Culverts placed in streams must be installed to maintain low flow conditions.

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.

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 preconstruction 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.

15. 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 in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

16. 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.

17. Endangered Species.

(a) No activity is authorized under any NWP which is likely to 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 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.

(c) Non-federal permittees shall notify 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 may be affected by the proposed work or that utilize the designated critical habitat that may 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 preconstruction 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.

(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 NWP.

(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, both lethal and nonlethal “takes” of protected species are in violation of the ESA. 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/> and <http://www.noaa.gov/fisheries.html> respectively.

18. 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.

(c) Non-federal permittees must submit a preconstruction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, 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 preconstruction 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)). 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 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.

(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, explaining 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.

19. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine

sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

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

(b) For NWP's 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 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWP's only after it is determined that the impacts to the critical resource waters will be no more than minimal.

20. 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) 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 some other form of mitigation would be more environmentally appropriate 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. 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.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, 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 NWP's. 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 NWP's.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the 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. 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 arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(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.

21. 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.

22. 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.

23. 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.

24. 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.

25. 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)

26. Compliance Certification. Each permittee who received a NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

27. 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, as a general rule, 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) Forty-five 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 17 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 18 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 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)) is 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 cannot 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; 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 result in a quicker decision.);
- (4) The PCN must include a delineation of special aquatic sites and other waters of the United States 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 of the United States, 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, where 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. 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: The 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 48 activities requiring preconstruction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of

waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the 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 then 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. 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, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each preconstruction 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 multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) 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. 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 work 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 conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. 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 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. 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: (1) 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; (2) 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 (3) 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. The authorization will include the necessary conceptual or specific 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.

28. 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.

AGREEMENT



**California Fish and Game Code Section 1602
Stream Alteration Agreement No. 2009-0019-R4
California Department of Transportation
Alisal Creek – Monterey County
05-MON-101 PM 85.0-85.8 EA 05-349501**

Parties:

California Department of Fish and Game
Central Region
1234 East Shaw Avenue
Fresno, California 93710

California Department of Transportation
Karen Bewley
50 Higuera Street
San Luis Obispo, California 93401

WHEREAS:

- 1
2
3 1. Ms. Karen Bewley, representing the California Department of Transportation
4 (referred to as "Caltrans") on February 10, 2009, notified ("Notification"
5 No. 2009-0019-R4) the Department of Fish and Game ("Department") of their intent to
6 divert or obstruct the natural flow of, or change the bed or banks of, or use materials
7 from Alisal Creek in Monterey County, waters over which the Department asserts
8 jurisdiction pursuant to Division 2, Chapter 6 of the California Fish and Game Code.
9
- 10 2. Caltrans may not commence any activity that is subject to Fish and Game Code
11 Sections 1600 et seq., until the Department has found that such Project shall not
12 substantially adversely affect an existing fish or wildlife resource or until the
13 Department's proposals, or the decisions of a panel of arbitrators, have been
14 incorporated into such projects.
15
- 16 3. Fish and Game Code Sections 1600 et seq., make provisions for the negotiation of
17 agreements regarding the delineation and definition of appropriate activities, Project
18 modifications and/or specific measures necessary to protect fish and wildlife resources.
19
- 20 4. The Department has determined that without the protective features identified in
21 this Agreement, the activities proposed in the Notification could substantially adversely
22 affect fish and wildlife.

Agreement No. 2009-0019-R4
Department of Transportation
Alisal Creek – Monterey County

1 **NOW THEREFORE, IT IS AGREED THAT:**

2
3 1. The receipt of this document ("Agreement"), by Caltrans, satisfies the
4 Department's requirement to notify Caltrans of the existence of an existing fish and
5 wildlife resource that may be substantially adversely affected by the Project that is
6 described in the Notification.

7
8 2. The contents of this Agreement constitute the Department's proposals as to
9 measures necessary to protect fish and wildlife resources, and satisfy the Department's
10 requirement to submit these proposals to Caltrans.

11
12 3. The signature of Caltrans' representative on this Agreement constitutes Caltrans'
13 commitment to incorporate the Department's proposals into the Project that is described
14 in the Notification.

15
16 4. This Agreement does not exempt Caltrans from complying with all other applicable
17 local, State and Federal law, or other legal obligations.

18
19 5. This Agreement, alone, does not constitute or imply the approval or endorsement
20 of a Project, or of specific Project features, by the Department of Fish and Game,
21 beyond the Department's limited scope of responsibility, established by Code
22 Sections 1600 et seq. This Agreement does not therefore assure concurrence, by the
23 Department, with the issuance of permits from this or any other agency. Independent
24 review and recommendations shall be provided by the Department as appropriate on
25 those projects where local, State or Federal permits or environmental reports are
26 required.

27
28 6. This Agreement does not authorize the "take" (defined in Fish and Game Code
29 Section 86 as hunt, pursue, catch, capture, kill; or attempt to hunt pursue, catch,
30 capture, or kill) of State-listed threatened or endangered species. If the Operator, in the
31 performance of the agreed work, discovers the presence of a listed species in the
32 Project work area, work shall stop immediately. Caltrans shall not resume activities
33 authorized by this Agreement until such time as valid "take" permits are obtained from
34 the Department pursuant to Fish and Game Code Sections 2081(a) and 2081(b) as
35 appropriate.

36
37 7. To the extent that the Provisions of this Agreement provide for the diversion of
38 water, they are agreed to with the understanding that Caltrans possesses the legal right
39 to so divert such water.

40
41 8. To the extent that the Provisions of this Agreement provide for activities that
42 require Caltrans to trespass on another owner's property, they are agreed to with the
43 understanding that Caltrans possesses the legal right to so trespass.

- 1 9. To the extent that the Provisions of this Agreement provide for activities that are
2 subject to the authority of other public agencies, said activities are agreed to with the
3 understanding that all appropriate permits and authorizations shall be obtained prior to
4 commencing agreed activities.
5
- 6 10. All Provisions of this Agreement remain in force throughout the term of the
7 Agreement. Any Provision of the Agreement may be amended at any time, provided
8 such amendment is agreed to in writing by both parties. Mutually approved
9 amendments become part of the original Agreement and are subject to all previously
10 negotiated Provisions. The Agreement may be terminated by either party, subject to
11 30 days written notification.
12
- 13 11. Caltrans shall provide a copy of the Agreement to the Project supervisors and all
14 contractors and subcontractors. Copies of the Agreement shall be available at work
15 sites during all periods of active work and shall be presented to Department personnel
16 upon demand.
17
- 18 12. Caltrans agrees to provide the Department access to the Project site at any time to
19 ensure compliance with the terms, conditions, and Provisions of this Agreement.
20
- 21 13. Caltrans and any contractor or subcontractor, working on activities covered by this
22 Agreement, are jointly and separately liable for compliance with the Provisions of this
23 Agreement. Any violation of the Provisions of this Agreement is cause to stop all work
24 immediately until the problem is reconciled. Failure to comply with the Provisions and
25 requirements of this Agreement may result in prosecution.
26
- 27 14. Caltrans assumes responsibility for the restoration of any fish and wildlife habitat
28 which may be impaired or damaged either directly or, incidental to the Project, as a
29 result of failure to properly implement or complete the mitigation features of this
30 Agreement, or from activities which were not included in the Caltrans' Notification.
31
- 32 15. It is understood that the Department enters into this Agreement for purposes of
33 establishing protective features for fish and wildlife, in the event that a Project is
34 implemented. The decision to proceed with the Project is the sole responsibility of
35 Caltrans, and is not required by this Agreement. It is agreed that all liability and/or
36 incurred costs, related to or arising out of Caltrans' Project and the fish and wildlife
37 protective conditions of this Agreement, remain the sole responsibility of Caltrans.
38 Caltrans agrees to hold harmless and defend the Department of Fish and Game
39 against any related claim made by any party or parties for personal injury or other
40 damage.
41
- 42 16. The terms, conditions, and Provisions contained herein constitute the limit of
43 activities agreed to and resolved by this Agreement. The signing of this Agreement
44 does not imply that Caltrans is precluded from doing other activities at the site.
45 However, activities not specifically agreed to and resolved by this Agreement are
46 subject to separate notification pursuant to Fish and Game Code Sections 1600 et seq.

1 **California Environmental Quality Act (CEQA) Compliance:** In approving this
2 Agreement, the Department is independently required to assess the applicability of
3 CEQA. The features of this Agreement shall be considered as part of the overall
4 Project description. Caltrans' concurrence signature on this Agreement serves as
5 confirmation to the Department that the activities that shall be conducted under the
6 terms of this Agreement are consistent with the Project described in Notification
7 No. 2009-0019-R4. Caltrans submitted a Mitigated Negative Declaration approved on
8 May 16, 2005, for this Project, State Clearinghouse No. 2005051146.

9
10 **Project Location:** The work authorized by this Agreement will occur adjacent to the
11 State Route (SR) 101 interchange with Airport Boulevard, where it crosses Alisal Creek
12 and along De La Torre Street. The waterway is channelized at the Project location and
13 is also known as the Salinas reclamation ditch. The Project is located in Natividad;
14 Landgrant: El Alisal (Bernal) in Monterey County (**Figure 1**).

15
16 **Project Description:** Caltrans' Notification includes Fish and Game Notification Form
17 FG2023 and supporting documents. The Notification comprises Caltrans' Project
18 description, and it is used as the basis for establishing the protective Provisions that are
19 included in this Agreement. Any changes or additions to the Project as described in the
20 Notification shall require additional consultation and protective Provisions. The
21 Department's concurrence with Caltrans' CEQA Determination is based upon Caltrans'
22 commitment to full implementation of the Provisions of this Agreement. Caltrans has
23 proposed the following scope of work. The bulleted items comprise the activities
24 authorized by this Agreement.

- 25
- 26 • Re-align the existing channel which currently flows parallel to De La Torre Street.
27 The channel needs to be moved to the east a variable distance ranging from 20 to
28 80 feet.
 - 29
 - 30 • The existing channel has approximately a 10-foot bottom with 1.5:1 side slopes.
31 The new channel would have a 12-foot bottom and also 1.5:1 side slopes.
 - 32
 - 33 • When the channel is re-aligned, the existing culvert under Airport Boulevard will be
34 replaced with a new 12-foot by 12-foot concrete box culvert.
 - 35
 - 36 • Rock slope protection (RSP) will be placed along the banks at the outlet of the
37 culvert to protect the channel from potential erosion due to the sharp turn.
 - 38
 - 39 • This particular location always has irrigation runoff water present year-round. A
40 diversion plan has been submitted as part of the Notification.

1 **Plant and Animal Species of Concern:** This Agreement is intended to minimize and
2 mitigate adverse impacts to the wildlife resources that may occupy this area of the
3 Alisal Creek and the immediate adjacent habitat. The following wildlife species and
4 sensitive plant were revealed to be within the vicinity of the Project site by a California
5 Natural Diversity Database query:

6			
7	California tiger salamander	<i>Ambystoma californiense</i>	Federally Threatened and State Candidate
8			
9	California red-legged frog	<i>Rana aurora draytonii</i>	Federally Threatened
10	Burrowing owl	<i>Athene cunicularia</i>	Species of Special Concern
11	Tricolored blackbird	<i>Agelaius tricolor</i>	Species of Special Concern
12			

13 Plant species listed by the California Native Plant Society:

14			
15	Congdon's tarplant	<i>Centromadia parryi ssp. Congdonii</i>	CNPS listed as 1B.2
16	Alkali milk-vetch	<i>Astragalus tener var. tener</i>	CNPS listed as 1B.2
17	Hutchinson's larkspur	<i>Delphinium hutchinsoniae</i>	CNPS listed as 1B.2
18	Robust spineflower	<i>Chorizanthe robusta var. robusta</i>	CNPS listed as 1B.1
19			

20 United States Fish and Wildlife Service protocol surveys were conducted in 2004
21 specifically for California red-legged frog (CRLF) due to the presence of marginal
22 habitat. No CRLF were found. Other surveys included burrowing owls, Congdon's
23 tarplant, swallows, bats, and wetland delineation. Protocol surveys were not conducted
24 specifically for California tiger salamander because Caltrans determined there is not
25 suitable habitat at the Project location.

26
27 These species as well as birds, mammals, fish, amphibians, reptiles, invertebrates and
28 plants that comprise the local ecosystem could be subject to potential Project-related
29 impacts if the following provisions are not followed.

30
31 **PROVISIONS:**

32
33 General

34
35 1. The Notification, together with all supporting documents, is hereby incorporated
36 into this Agreement to describe the location and features of the proposed Project.
37 Caltrans agrees that all work shall be done as described in the Notification and
38 supporting documents, incorporating all wildlife resource protection features, mitigation
39 measures, and provisions as described in this Agreement. Caltrans further agrees to
40 notify the Department of any modifications that need to be made to the Project plans
41 submitted to the Department. At the discretion of the Department, modifications may
42 be deemed minor, requiring an amendment to this Agreement, or substantial requiring
43 the submission of a new notification application. If the latter is the case, this Agreement
44 becomes null and void. Failure to notify the Department of changes to the original
45 plans or subsequent amendments to this Agreement may result in the Department
46 suspending or canceling this Agreement.

Agreement No. 2009-0019-R4
Department of Transportation
Alisal Creek – Monterey County

1 2. Before the start of construction/work activities covered under this Agreement, all
2 workers shall have received training from Caltrans' staff, or approved alternate trainer,
3 on the content of this Agreement, the resources at stake, and the legal consequences
4 of non-compliance.

5
6 3. When known, prior to beginning work, Caltrans shall provide a construction/work
7 schedule to the Department (fax to Laura Peterson-Diaz, Environmental Scientist, at
8 (559) 243-4020). Please reference the Agreement number. Caltrans shall also notify
9 the Department upon the completion of the activities covered by this Agreement.

10
11 4. Agreed activities within the bed, bank, or channel of Alisal Creek may commence
12 any time after the Department has signed this Agreement. This Agreement shall
13 remain in effect for five (5) years beginning on the date signed by the Department. If
14 the Project is not completed prior to the expiration date defined above, Caltrans shall
15 contact the Department to negotiate a new expiration date and any new requirements.

16
17 Flagging/Fencing

18
19 5. Within the riparian corridor, Caltrans shall identify the upstream and downstream
20 limits of the minimum work area required, access routes, the Project footprint, plus all
21 Environmentally Sensitive Areas (ESA). These boundaries shall be defined by the
22 Caltrans' Project engineer and biologist, and flagged/fenced prior to the beginning of
23 construction. These limits shall not extend beyond Caltrans' right-of-way and/or the
24 construction easement, and shall be confined to the minimal area needed to
25 accomplish the proposed work. Flagging/fencing shall be maintained in good repair for
26 the duration of construction in the area under 1602 jurisdiction.

27
28 Wildlife

29
30 6. An approved biologist shall perform general wildlife surveys of the Project area
31 (including access routes and storage areas) prior to Project construction start with
32 special attention being paid to the sensitive species noted above and shall report any
33 possible adverse affect to fish and wildlife resources not originally reported. If the
34 survey shows presence of any wildlife species which could be impacted, Caltrans shall
35 contact the Department and mitigation, specific to each incident, shall be developed. If
36 any State- or Federal-listed threatened or endangered species are found within the
37 proposed work area or could be impacted by the work proposed, a new Agreement
38 and/or a 2081(b) State Incidental Take Permit may be necessary and a new CEQA
39 analysis may need to be conducted, before work can begin.

40
41 7. If work is done between March 1 and September 1, then in order to protect nesting
42 birds, an approved biologist shall make a survey for nesting activity in and adjacent to
43 the defined "work area", before construction begins. If any nesting activity is observed,
44 which could be disturbed by the proposed scope of work, Caltrans shall contact the
45 Department and mitigation, specific to each incident, shall be developed.

1 8. Burrowing owls: While no Burrowing owls were seen during the 2004 surveys, if
2 any ground disturbing activities will occur during the burrowing owl nesting season
3 (approximately February 1 through August 31), implementation of avoidance measures
4 is required. The Department recommends that a pre-construction site survey be
5 conducted by a qualified biologist no more than 30 days before the onset of any ground
6 disturbing activities. If burrowing owls occupy the site, during the non-breeding
7 season, a passive relocation effort may be instituted.

8
9 9. If any wildlife is encountered during the course of construction, said wildlife shall
10 be allowed to leave the construction area unharmed.

11
12 Vegetation

13
14 10. For this Project no trees will be removed or impacted as a result of planned
15 construction activities.

16
17 11. Congdon's tarplant: There is a population of Congdon's tarplant growing where
18 the channel needs to be relocated to which can not be avoided. As stipulated in the
19 Mitigated Negative Declaration, Caltrans shall collect soil duff with Congdon's tarplants
20 seed bank from suitable habitat at the appropriate time and spread this duff at the
21 mitigation site which shall be prepared by creating shallow depressions to hold water.
22 The Congdon's tarplant favors wet conditions because other plants not adapted in this
23 manor are excluded. The area of the created habitat would equal or exceed the area of
24 suitable habitat affected.

25
26 12. Precautions shall be taken to avoid any damage to vegetation by people or
27 equipment for the duration of the Project.

28
29 Diversion

30
31 13. When work in a flowing stream is unavoidable, the entire stream-flow shall be
32 diverted around the work area. Location of the upstream and downstream diversion
33 points shall be approved by the Department. Flow at the upstream end shall be
34 diverted only when construction of the entire diversion including the downstream end is
35 completed. The culvert shall be removed when the work is completed and the original
36 low-flow channel shall be restored to pre-existing elevations, gradients, and contours.

37
38 Vehicles

39
40 14. Construction vehicles and equipment will not need access to the channel during
41 the course of the Project. Work in the bed will only be done when the channel is dry or
42 after the Department approved diversion is in place. All other areas adjacent to the
43 work site shall be considered an ESA and shall remain off-limits to construction
44 equipment.

1 Pollution

2
3 15. Caltrans and all contractors and subcontractors shall be subject to the pollution
4 protective and other features of Department of Transportation Standard Specifications
5 Section 7-1.01G and Fish and Game Code Sections 5650 and 12015. In addition, all
6 Project-generated debris, building materials, and rubbish shall be removed from the
7 river and from areas where such materials could be washed into it.

8
9 16. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents
10 shall be located outside of the stream channel and banks. Any equipment or vehicles
11 driven and/or operated within or adjacent to the stream shall be checked and
12 maintained daily to prevent leaks of materials that, if introduced to water, could be
13 deleterious to aquatic life. If a spill should occur, cleanup shall begin immediately. The
14 Department shall be notified as soon as possible by Caltrans and shall be consulted
15 regarding further cleanup procedures.

16
17 17. Raw cement, concrete or washings thereof, asphalt, paint or other coating
18 material, oil or other petroleum products, or any other substances which could be
19 hazardous to fish or wildlife resulting from Project-related activities, shall be prevented
20 from entering the "Waters of the State" and/or contaminating the soil. Use of sacked
21 concrete, asphalt pieces or asphalt containing pavement grindings on the
22 embankments is prohibited.

23
24 Erosion

25
26 18. All disturbed soils shall be stabilized to reduce erosion potential, both during and
27 following construction. Erosion control Best Management Practices (BMP's) shall be
28 applied to all disturbed areas.

29
30 Fill/Spoil

31
32 19. Rock, gravel, and/or other materials shall not be imported into or moved within the
33 stream, except as otherwise addressed in this Agreement. Only on-site materials and
34 clean imported fill shall be used to complete the Project.

35
36 20. Fill shall be limited to the minimal amount necessary to accomplish the agreed
37 activities. Excess fill material shall be moved off-site at Project completion.

38
39 Restoration

40
41 21. Excess material must be removed from the Project site pursuant to Department of
42 Transportation Standard Specifications Section 7-1.13.

43
44 22. Caltrans shall make the final contour of the site match the adjacent slope of the
45 land and provide the appropriate surface water drainage. All areas subject to

1 temporary ground disturbance, including storage and staging areas, temporary roads,
2 pipeline corridors, etc., shall be recontoured, if necessary, and revegetated to promote
3 restoration of the area.

4
5 23. All areas subject to ground disturbance on the bank shall be stabilized. Planting,
6 seeding with native species, and mulching is conditionally acceptable. Where suitable
7 vegetation cannot reasonably be expected to become established, non-erodible
8 material shall be used for such stabilization. Any installation of non-erodible material,
9 not included in the original Project description, shall be coordinated with the
10 Department. Coordination may include the negotiation of additional Agreement
11 provisions for this activity.

12 **MONITORING AND REPORTING PROGRAM (MRP):**

13 PURPOSE

14
15
16
17 The purpose of the MRP is to ensure that the protective measures required by the
18 Department are properly implemented, and to monitor the effectiveness of those
19 measures.

20 OBLIGATIONS OF THE OPERATOR

21
22 Caltrans shall have primary responsibility for monitoring compliance with all protective
23 measures included as "Provisions" in this Agreement. Protective measures must be
24 implemented within the time periods indicated in the Agreement and the program
25 described below.
26

27
28 Caltrans shall submit the following Reports to the Department:

- 29
30 • Verification of employee training (Provision 2).
- 31
32 • Construction/work schedule (Provision 3).
- 33
34 • Wildlife survey results (Provisions 6, 7 and 8).
- 35
36 • Diversion Plan (if a diversion is required) (Provision 13).
- 37
38 • A Final Project Report submitted within 30 days after the Project is completed.
39 The final report shall summarize the Project construction, including any problems
40 relating to the protective measures of this Agreement. "Before and After" photo
41 documentation of the Project site shall be required.

42
43 In addition to the above monitoring and reporting requirements, the Department
44 requires as part of this MRP that Caltrans:

- 45
46 • Immediately notify the Department in writing if monitoring reveals that any of the
47 protective measures were not implemented during the period indicated in this

1 program, or if it anticipates that measures will not be implemented within the time
2 period specified.

- 3
- 4 • Immediately notify the Department if any of the protective measures are not
5 providing the level of protection that is appropriate for the impact that is occurring,
6 and recommendations, if any, for alternative protective measures.

7

8 **VERIFICATION OF COMPLIANCE:**

9

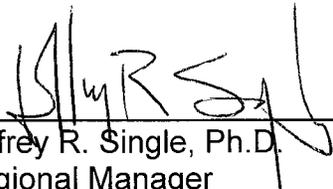
10 The Department shall verify compliance with protective measures to ensure the
11 accuracy of Caltrans' monitoring and reporting efforts. The Department may, at its sole
12 discretion, review relevant Project documents maintained by Caltrans, interview
13 Caltrans' employees and agents, inspect the Project area, and take other actions to
14 assess compliance with or effectiveness of protective measures for the Project.

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CONCURRENCE:

APPROVED BY THE CALIFORNIA DEPARTMENT OF FISH AND GAME

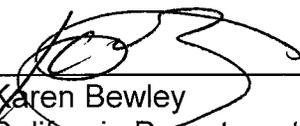
on 4/20, 2009.



Jeffrey R. Single, Ph.D.
Regional Manager
Central Region

ACKNOWLEDGMENT

The undersigned acknowledges receipt of this Agreement and, by signing, accepts and agrees to comply with all terms and conditions contained herein. The undersigned also acknowledges that adequate funding shall be made available to implement the measures required by this Agreement.

By: 

Karen Bewley
California Department of Transportation

Date: 4/7/2009

FOUNDATION REVIEW

DIVISION OF ENGINEERING SERVICES GEOTECHNICAL SERVICES

- To: **Structure Design**
1. Preliminary Report
 2. R.E. Pending File
 3. Specifications & Estimates
 4. File

Date: 1/30/09

Airport Blvd OC
Structure Name

Geotechnical Services

1. GS (Sacramento)
2. GS

05-Mon - 101 - 85.62
District County Route Post Km
mi.

District Project Development
District Project Engineer

05-349501 44-0124
E.A. Number Structure Number

Foundation Report By: R. Richman

Dated: 11/12/08

Reviewed By: V. Dang (OSD)

R. Price (GS)

General Plan Dated: 12/12/08

Foundation Plan Dated: 1/27/09

No changes. The following changes are necessary.

FOUNDATION CHECKLIST

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Pile Types and Design Loads <input checked="" type="checkbox"/> Pile Lengths <input checked="" type="checkbox"/> Predrilling <input checked="" type="checkbox"/> Pile Load Test Substitution of H Piles For <input checked="" type="checkbox"/> Concrete Piles <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Footing Elevations, Design Loads, and Locations <input checked="" type="checkbox"/> Seismic Data <input checked="" type="checkbox"/> Location of Adjacent Structures and Utilities <input checked="" type="checkbox"/> Stability of Cuts or Fills <input checked="" type="checkbox"/> Fill Time Delay <input checked="" type="checkbox"/> Effect of Fills on Abutments and Bents | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> LOTB's <input checked="" type="checkbox"/> Fill Surcharge <input checked="" type="checkbox"/> Approach Paving Slabs <input checked="" type="checkbox"/> Scour <input checked="" type="checkbox"/> Ground Water <input checked="" type="checkbox"/> Tremie Seals/Type D Excavation |
|---|---|--|

V. Van Dang
Office of Structure Design

6
Branch No.

R. Price
Geotechnical Services

Memorandum

*Flex your power!
Be energy efficient!*

To: FRITZ HOFFMAN
Branch Chief
Bridge Design Branch 6
Office of Bridge Design Services

Attn: Vivian Dang

Date: July 25, 2008

File: 05-Mon-101-PM 84.6/86.6
05-349501
Airport Blvd. OC
Retaining Wall No. 1

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES

Subject: Foundation Report

Scope of Work

A Foundation Report (FR) is provided for the above referenced project per your request dated April 15, 2008. Proposed improvements are part of the project to widen the existing Airport Road Overcrossing (Bridge No. 44-0124) to the south. Retaining Wall No. 1 will be constructed south of the widening at the approach embankment on the west side of the bridge. Refer to the attached layout for the location of the new retaining wall relative to existing facilities and features. One mud rotary boring (R-08-001) was drilled near the retaining wall layout line on May 13, 2008 to provide information for this report.

Project Description

Route 101 within the project region is the major north-south arterial through the Central Coast area of California, and is the principal inter-city connection between Los Angeles and San Francisco. Large amounts of commercial and recreational traffic utilize Route 101 daily. Within the project extents Route 101 is a four-lane freeway with access control. The roadway is currently comprised of four 12-foot lanes with 8-foot outside and 5-foot inside shoulders.

The project proposes to improve the level of service and safety of the Airport Boulevard Intersection by increasing the traffic capacity of the overcrossing. Predicted commercial and industrial growth in the area will place increased demand on the intersection, which provides the primary access point to Route 101 for the area.

Construction of a Standard Plan Type 1 Retaining Wall is recommended from approximately 27 feet right of Airport Blvd. "A-Line" Station 17+28.7, extending to approximately 27 feet right of "A-Line" Station 17+68.6. The length of the wall as measured along the layout line will be

FOUNDATION REPORT

July 25, 2008

Page 2

approximately 42 feet. The maximum design height of the wall will be 24 feet from approximately "RWLOL" Station 10+62 to Station 10+71.6.

Pertinent Reports and Investigations

The following publications were used to assist in the assessment of site conditions:

1. *California Seismic Hazard Map 1996*, Caltrans, Lalliana Mualchin, 1996.
2. *Preliminary Seismic and Structure Foundation Recommendations*, Airport OC, EA 05-349501, Caltrans, Ron Richman, July 2006.
3. *Geologic Map of California, Olaf P. Jenkins Edition, Santa Cruz Sheet*, 1958, State of California Department of Natural Resources, Division of Mines.

Site Geology and Subsurface Conditions

Topography and Geology

The project is located in the northern end the Salinas Valley in the Coast Ranges geomorphic province. Terrain consists of flat plains with poor surface drainage. The primary land uses in the project region are agriculture and industry.

Geologic maps of the area and previous subsurface investigations indicate that Quaternary aged alluvial and recent alluvial deposits consisting of interbedded layers of sand, clay, and silt underlie the project site.

Soil Conditions and Geologic Hazards

Subsurface investigations encountered silty sands, clayey sands, poorly-graded and well-graded sands underlying the project site. Strata comprised of layers of variable thickness and lateral extents are indicative of the alluvial environment in which they were deposited. Particle size distribution, layer thickness, and lateral extent of deposition changed as the velocity of water depositing the materials varied.

Ground Water

Groundwater was encountered in Boring R-08-003 at the proposed Bent No. 2 location for the widened overcrossing approximately 54 feet from Boring R-08-001. A monitoring well was installed in the nearby Boring R-08-003 by placing 1½” slotted PVC pipe in sand backfill and sealing with bentonite chips to prevent surface water intrusion. Groundwater was observed at an elevation of 2.5 feet, or approximately 53 feet below the ground surface at the proposed Retaining Wall No. 1 location. Groundwater is not expected to be encountered during construction.

Corrosion

Soil samples were taken during drilling and sent to the District 5 Laboratory for corrosion analysis. Test results show that the soils have a pH greater than 5.5 and resistivity greater than 1000 ohm-cm. Based upon the test results, the soils are considered to be non-corrosive. Refer to the attached results of the corrosion analysis in the Materials Properties Summary.

Seismic Study

The project area lies within one of the most seismically active regions of the United States. Table 1 lists the active and potentially active faults in the project vicinity as described by the *California Seismic Hazard Map 1996* (Caltrans, 1996). Corresponding Moment Magnitudes, distances to the project site and maximum bedrock accelerations are also provided.

Table 1: Active and Potentially Active Faults

<i>Fault Name</i>	<i>Moment Magnitude of Maximum Credible Earthquake</i>	<i>Distance to Fault from Project Area (miles)</i>	<i>Maximum Credible Horizontal Bedrock Acceleration</i>
King City Reliz	7.00	3.8	0.47g
Zayante-Vergales	7.25	10.5	0.25g
San Andreas/North	8.00	12.5	0.25g

Liquefaction is a near-total loss of soil strength due to an increase in pore water pressure during cyclic loading, such as occurs during an earthquake. Loose cohesionless soils that may become saturated due to a high water table may liquefy during an earthquake. Embankments founded on liquefiable soils may be subject to slope instability and settlement during an earthquake event. Similarly, earth-retaining structures may settle or overturn should the soils beneath them liquefy.

FOUNDATION REPORT

July 25, 2008

Page 4

Due to the lack of loose or saturated soils at or near the elevation of the proposed structure foundation, the potential for liquefaction is considered to be low for Retaining Wall No. 1.

Foundation Recommendations

Construction of a Standard Plan Type 1 Retaining is recommended. The maximum retained height of the wall will be approximately 24 feet under loading condition Case III (refer to Caltrans Standard Plans). Allowable bearing pressures for cohesionless soils were calculated using friction angle correlations to SPT tests from the boring drilled along the retaining wall layout line. Footing dimensions and loading data are presented in the following table. Bearing capacity was calculated using Hansen's method.

Table 2: Spread Footing Data Table

Station Extents (feet)	Minimum Footing Width (feet)	Minimum Bottom of Footing Elevation (feet)	Allowable Stress Design (ASD)
			Gross Allowable Bearing Pressure (q_{all})
Station 10+30.00 to Station 10+46.00	8'-0"	62.058	6.9 ksf
Station 10+46.00 to Station 10+62.00	11'-0"	58.058	8.2 ksf
Station 10+62.00 to Station 10+71.62	13'-3"	53.725	7.4 ksf

The maximum settlement estimated by Hough's method was calculated to be a maximum of 1.4 inches. All of the settlement is expected to occur immediately in the cohesionless materials encountered in the test borings. Differential settlement is not expected to be a concern for the retaining wall.

Project LOTB's have not been finalized. They will be sent electronically from the Graphics Section when they are complete. For information regarding the status and delivery of the LOTB's, contact Irma Garmarra-Remmen at (916) 227-7203.

Slope Stability

Global slope stability is not considered to be an issue for Retaining Wall No 1.

Construction Considerations

All temporary cut slopes shall conform to OSHA guidelines and shall not exceed 1:1 slope angles. Permanent cut and fill slopes shall not exceed 1.5:1 slope angles.

FOUNDATION REPORT

July 25, 2008

Page 6

Standard Special Provision S5-280, "Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening. The following is an excerpt from SSP S5-280 disclosing information originating from Geotechnical Services. Items listed to be included in the Information Handout will be provided in Acrobat (.pdf) format to the Addressee of this report via electronic mail.

Data and information attached with the project plans are:

A. Log of Test Borings for Retaining Wall No. 1.

Data and information included in the Information Handout provided to the Bidders and Contractors are:

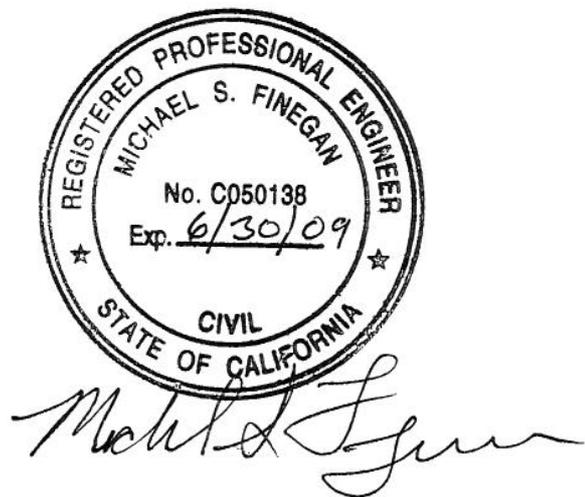
A. Foundation Report for Retaining Wall No. 1 dated July 25, 2008.

FOUNDATION REPORT

July 25, 2008

Page 7

If you have any questions or comments, please contact Ryan Turner at (805) 549-3750 or Michael Finegan at (805) 549-3194.



RYAN TURNER
Transportation Engineer
Geotechnical Design – North
Branch D

MICHAEL S. FINEGAN, PE
Chief
Geotechnical Design – North
Branch D

c: GDN Records
Branch D Records
GS Records
Michael Day, Project Engineer

LIST OF ATTACHMENTS

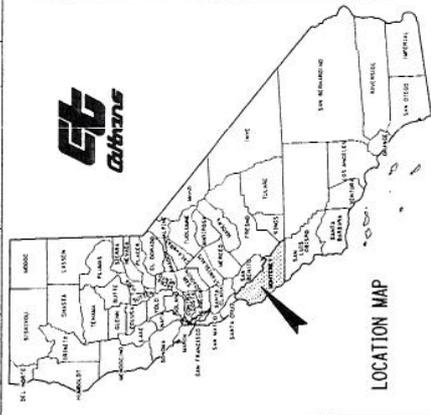
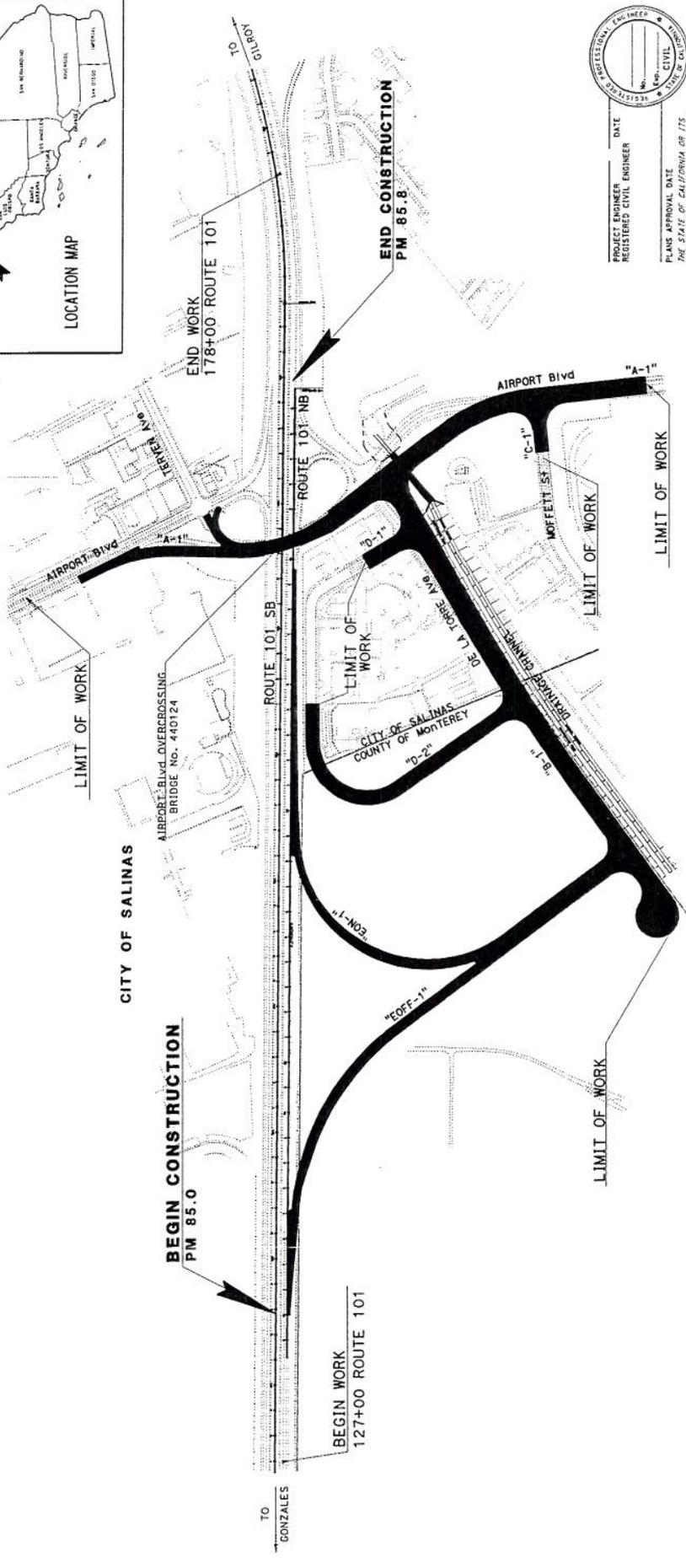
Vicinity Map	Attachment 1
Geologic Map and Legend	Attachment 2
Layout and General Plan	Attachment 3
Material Properties Summary	Attachment 4

INDEX OF PLANS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY
 IN MONTEREY COUNTY IN AND NEAR SALINAS
 FROM 0.6 MILE SOUTH TO 0.2 MILE
 NORTH OF AIRPORT BOULEVARD
 OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	Mon	101	85.0/85.8		

DESIGN ENGINEER
 MICHAEL DAY

PROJECT MANAGER



PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS
 COUNTY ENGINEER HAS REVIEWED THESE
 PLANS AND ACCEPTS THEM FOR THE
 COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF
 LICENSE AS SPECIFIED IN THE NOTICE TO CONTRACTORS.

BORDER LAST REVISED 3/1/2007

CONTRACT NO. **05-349504**

CU 06225

EA 349501

RELATIVE BORDER SCALE IS IN INCHES

0 1 2 3

USERNAME: 4135265 DON FILE: 514950:ba001.dgn

CALTRANS WEB SITE IS: [HTTP://WWW.DOT.CA.GOV/](http://www.dot.ca.gov/)

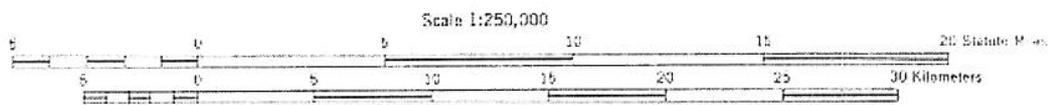
BORDER LAST REVISED 3/1/2007

DATE PLOTTED: 15-JUL-2008 11:29

GEOLOGIC MAP

05-MON-101-84.6/86.6

05-349501



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

GEOLOGIC LEGEND

05-MON-101-84.6/86.6

05-349501

	Sand dunes		
	Alluvium		
	Stream channel deposits	CREEK VALLEY	
	Fan deposits		
	Barren deposits		
	Salt deposits		
	Quaternary lake deposits		
	Glacial deposits		
	River terrace deposits		
	Pleistocene marine and marine terrace deposits		
	Pleistocene nonmarine Aromas Sand		
	Plio-Pleistocene nonmarine		
	Undivided Pliocene nonmarine		
	Upper Pliocene nonmarine		
	Upper Pliocene marine		
	Middle and/or lower Pliocene nonmarine		
	Middle and/or lower Pliocene marine		
	Undivided Miocene nonmarine		
	Upper Miocene nonmarine		
	Upper Miocene marine		
	Middle Miocene nonmarine		
	Middle Miocene marine		
	Lower Miocene marine		
	Oligocene nonmarine		
	Oligocene marine		
	Eocene nonmarine		
	Eocene marine		
	Paleocene nonmarine		
	Paleocene marine		
			Franciscan group
			Franciscan volcanic and meta-volcanic rocks
			Mesozoic granitic rocks
			Mesozoic basic intrusive rocks
			Mesozoic ultrabasic intrusive rocks
			Jura-Trias meta-volcanic rocks
			Pre-Cretaceous meta-volcanic rocks
			Pre-Cretaceous granitic and metamorphic rocks
			Paleozoic meta-volcanic rocks
			Permian meta-volcanic rocks
			Carboniferous meta-volcanic rocks
			Devonian meta-volcanic rocks
			Undivided pre-Devonian meta-volcanic rocks

POST MILES TOTAL PROJECT NO. 101 SHEET TOTAL NO. 101

DIST. COUNTY ROUTE

REGISTERED CIVIL ENGINEER DATE: 10/15/2008
 VITAL DIMS. CIVIL
 The State of California or its officers or agents, including the State Board of Civil Engineers, is not responsible for the accuracy or completeness of the information on this plan sheet.

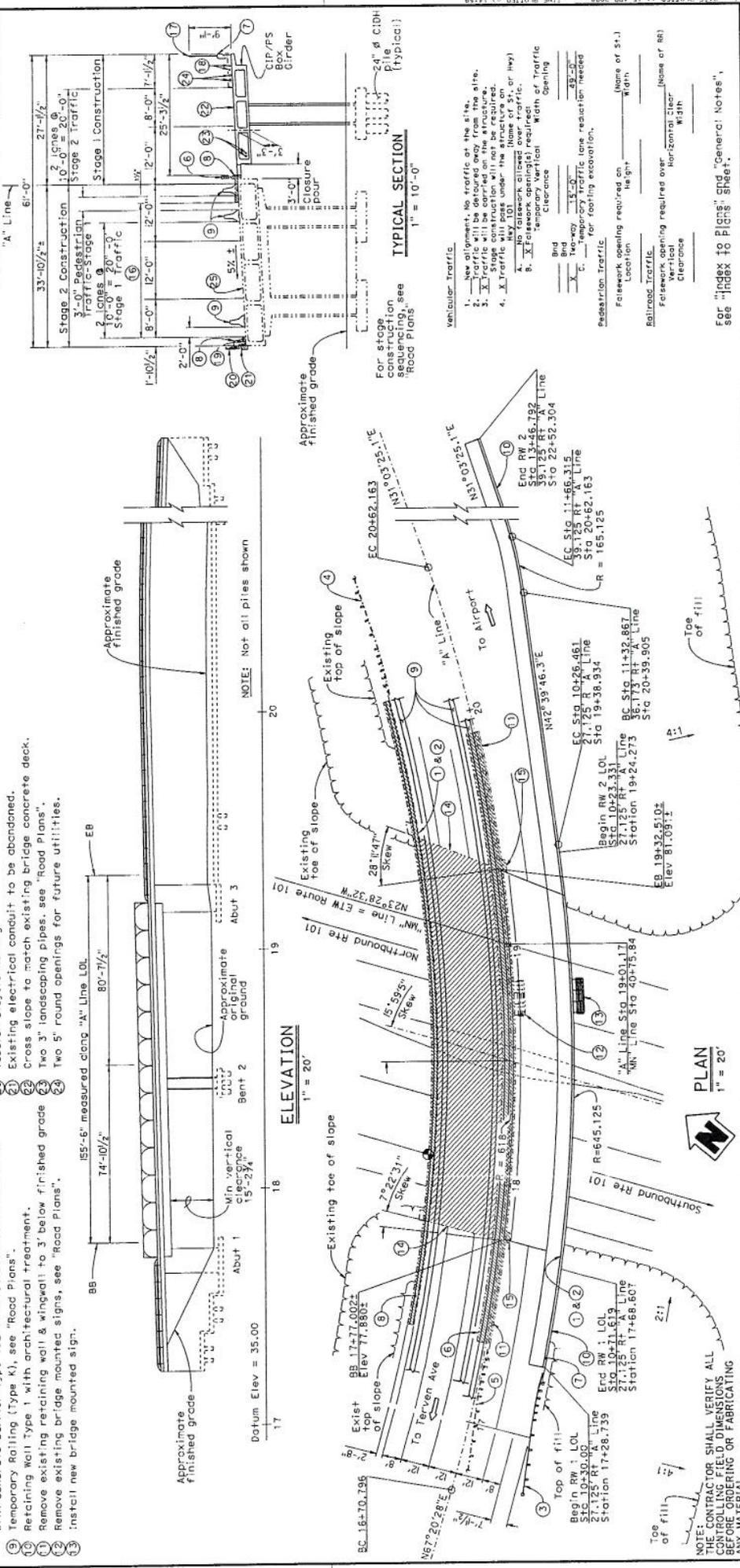
APPROVAL DATE: 10/15/2008
 License No. 45308
 License Expires 10/15/2013

LEGEND:

- Indicates existing structure
- Indicates new construction
- Indicates bridge removal
- Indicates limits of clean and treat bridge deck with membrane/epoxy
- ⊙ Minimum vertical clearance

NOTES:

1. Paint "B"-idge No. 44-124".
2. Paint "Airport Blvd OC".
3. MBGR, see "Road Plans".
4. Remove and replace existing MBGR, see "Road Plans".
5. Remove existing MBGR, see "Road Plans".
6. Remove existing Concrete Balustrade Type 3 with sidewalk.
7. Concrete Barrier Type 26 with "Balustrade Treatment".
8. Remove existing Concrete Balustrade Type 3 and replace with Concrete Barrier Type T32 with "Balustrade Treatment".
9. Temporary Rolling (Type K), see "Road Plans".
10. Retaining Wall Type 1 with architectural treatment.
11. Remove existing retaining wall & wingwall to 3' below finished grade
12. Remove existing bridge mounted signs, see "Road Plans".
13. Install new bridge mounted sign.
14. Remove existing joint seals (water stop to remain). Clean expansion joint and install new joint seals after bridge widening.
15. Remove existing shear key of abutment.
16. Existing 2 1/2 AC to be removed.
17. Chain Link Fence Type 6 (Mod) with arc (including black vinyl cladding).
18. Two 3" electrical conduits, see "Road Plans".
19. One 3" electrical conduit, see "Road Plans".
20. Tubular Bicycle Rolling.
21. Existing electrical conduit to be abandoned.
22. Cross slope to match existing bridge concrete deck.
23. Two 3" landscaping pipes, see "Road Plans".
24. Two 5" round openings for future utilities.



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DESIGN BRANCH 6

GENERAL PLAN

AIRPORT BLVD OC (WIDEN)

DESIGN: V. Dong
 CHECKED: H. A. Clid
 DATE: 10/15/2008

PROJECT NO. 44-0124
 POST MILE 84.6786-6
 SHEET NO. 101

DATE: 10/15/2008

FILE NO. 44-0124-00-001-001

CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

05-Mon-101-84.6/86.6
 05-349501
 Airport Blvd. OC

MATERIAL PROPERTIES SUMMARY

DESCRIPTION	BORING OR SAMPLE No.	R-08-001	R-08-001
DATE SAMPLED		5/13/2008	5/13/2008
STATION			
LINE			
DISTANCE FROM LINE (Rt. OR Lt.)			
DEPTH OR ELEVATION (FEET)		2.0 to 9.5	9.5 to 15.5
USCS CLASSIFICATION		SM	SM
	3		
	2 1/2		
	2		
	1 1/2		
	1		
	3/4		
	1/2		
	3/8		
	4		
	8		
	16		
	30		
	50		
	100		
	200		
	5 µm		
	1 µm		
IN-PLACE DENSITY (DRY WT. lb/cu ft)			
IN-PLACE MOISTURE (PERCENT)			
SPECIFIC GRAVITY			
LIQUID LIMIT			
PLASTICITY INDEX			
SAND EQUIVALENT			
EFFECTIVE STRESS			
FRICITION ANGLE (DEGREES)			
COHESION (psf)			
TOTAL STRESS			
FRICITION ANGLE (DEGREES)			
COHESION (psf)			
RESISTIVITY (ohm-cm)		4620	2390
pH		8.2	7.7
SULFATES (ppm)			
CHLORIDES (ppm)			

Memorandum

*Flex your power!
Be energy efficient!*

To: FRITZ HOFFMAN
Branch Chief
Bridge Design Branch 6
Office of Bridge Design Services

Attn: Vivian Dang

Date: November 3, 2008

File: 05-Mon-101-PM 84.6/86.6
05-349501
Airport Blvd. OC
Retaining Wall No. 2

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES

Subject: Foundation Report

Scope of Work

A Foundation Report (FR) is provided for the above referenced project per your request dated April 15, 2008. Proposed improvements are part of the project to widen the existing Airport Road Overcrossing (Bridge No. 44-0124) to the south. Retaining Wall No. 2 will be constructed south side of the widening at the approach embankment on the east side of the bridge to allow for widening without encroaching on nearby private properties outside of the right of way. Refer to the attached layout for the location of the new retaining wall relative to existing facilities and features. Two mud rotary borings were drilled near the retaining wall layout line in 2008 to provide information for this report.

Project Description

Route 101 within the project region is the major north-south arterial through the Central Coast area of California, and is the principal inter-city connection between Los Angeles and San Francisco. Large amounts of commercial and recreational traffic utilize Route 101 daily. Within the project extents Route 101 is a four-lane freeway with access control. The roadway is currently comprised of four 12-foot lanes with 8-foot outside and 5-foot inside shoulders.

The project proposes to improve the level of service and safety of the Airport Boulevard Intersection by increasing the traffic capacity of the overcrossing. Predicted commercial and industrial growth in the area will place increased demand on the intersection, which provides the primary access point to Route 101 for the area.

Construction of a Standard Plan Type 1 Retaining Wall is recommended from approximately 27 feet right of Airport Blvd. "A-Line" Station 19+24.3, extending to approximately 39 feet right of

FOUNDATION REPORT

November 3, 2008

Page 2

“A-Line” Station 22+62.3. The length of the wall as measured along the layout line will be approximately 324 feet. The maximum design height of the wall will be 26 feet from approximately “RWLOL” Station 10+23 to Station 12+07.

Pertinent Reports and Investigations

The following publications were used to assist in the assessment of site conditions:

1. *California Seismic Hazard Map 1996*, Caltrans, Lalliana Mualchin, 1996.
2. *Preliminary Seismic and Structure Foundation Recommendations*, Airport OC, EA 05-349501, Caltrans, Ron Richman, July 2006.
3. *Geologic Map of California, Olaf P. Jenkins Edition, Santa Cruz Sheet*, 1958, State of California Department of Natural Resources, Division of Mines.

Site Geology and Subsurface Conditions

Topography and Geology

The project is located in the northern end the Salinas Valley in the Coast Ranges geomorphic province. Terrain consists of flat plains with poor surface drainage. The primary land uses in the project region are agriculture and industry.

Geologic maps of the area and previous subsurface investigations indicate that Quaternary aged alluvial and recent alluvial deposits consisting of interbedded layers of sand, clay, and silt underlie the project site.

Soil Conditions and Geologic Hazards

Subsurface investigations encountered silty sands, clayey sands, poorly-graded and well-graded sands underlying the project site. Strata comprised of layers of variable thickness and lateral extents are indicative of the alluvial environment in which they were deposited. Particle size distribution, layer thickness, and lateral extent of deposition changed as the velocity of water depositing the materials varied.

FOUNDATION REPORT

November 3, 2008

Page 3

Ground Water

Groundwater was encountered in Boring R-08-003 at the proposed Bent No. 2 location for the widened overcrossing approximately 72 feet from Boring R-08-002. A monitoring well was installed in the nearby Boring R-08-003 by placing 1½" slotted PVC pipe in sand backfill and sealing with bentonite chips to prevent surface water intrusion. Groundwater was observed at an elevation of 2.5 feet, or approximately 51 feet below the ground surface at the west end of the proposed Retaining Wall No. 2 location. Groundwater is not expected to be encountered during construction.

Corrosion

Soil samples were taken during drilling and sent to the District 5 Laboratory for corrosion analysis. Test results show that the soils have a pH greater than 5.5 and resistivity greater than 1000 ohm-cm. Based upon the test results, the soils are considered to be non-corrosive. Refer to the attached results of the corrosion analysis in the Material Properties Summary.

Seismic Study

The project area lies within one of the most seismically active regions of the United States. Table 1 lists the active and potentially active faults in the project vicinity as described on the *California Seismic Hazard Map 1996* (Caltrans, 1996). Corresponding Moment Magnitudes, distances to the project site and maximum bedrock accelerations are also given. For the purpose of calculating distances to the earthquake faults, the project area was narrowed down to the location of the structure that is the focus of this report.

Table 1: Active and Potentially Active Faults

<i>Fault Name</i>	<i>Moment Magnitude of Maximum Credible Earthquake</i>	<i>Distance to Fault from Project Area (miles)</i>	<i>Maximum Credible Horizontal Bedrock Acceleration</i>
King City Reliz	7.00	3.8	0.47g
Zayante-Vergales	7.25	10.5	0.25g
San Andreas/North	8.00	12.5	0.25g

Liquefaction is a near-total loss of soil strength due to an increase in pore water pressure during cyclic loading, such as occurs during an earthquake. Loose cohesionless soils that may become saturated due to a high water table may liquefy during an earthquake. Embankments founded on

FOUNDATION REPORT

November 3, 2008

Page 4

liquefiable soils may be subject to slope instability and settlement during an earthquake event. Similarly, earth-retaining structures may settle or overturn should the soils beneath them liquefy.

Due to the lack of loose or saturated soils at or near the elevation of the proposed structure foundation, the potential for liquefaction is considered to be low for Retaining Wall No. 2.

Foundation Recommendations

Construction of a Standard Plan Type 1 Retaining Wall is recommended. The maximum retained height of the wall will be approximately 26 feet under loading condition Case III (refer to Caltrans Standard Plans). Allowable bearing pressures for cohesionless soils were calculated using friction angle correlations to SPT tests from borings drilled along the retaining wall layout line. Footing dimensions and loading data are presented in the following table. Bearing capacity was calculated using Hansen's method. Refer to Caltrans Standard Plans for details of construction.

Table 2: Spread Footing Data Table

Station Extents (feet)	Minimum Footing Width (feet)	Minimum Bottom of Footing Elevation (feet)	Allowable Stress Design (ASD)	
			Gross Allowable Bearing Pressure (q_{all})	Maximum Specified Toe Pressure
Station 10+23.331 to Station 12+06.792	14'-3"	54.808	11.8 ksf	6.5 ksf
Station 12+06.792 to Station 12+54.792	13'-3"	55.145	10.6 ksf	5.8 ksf
Station 12+54.792 to Station 12+94.792	12'-1"	55.311	9.7 ksf	5.4 ksf
Station 12+94.792 to Station 13+26.792	11'-0"	55.478	8.9 ksf	4.8 ksf
Station 13+26.792 to Station 13+46.792	9'-0"	57.99	7.5 ksf	3.8 ksf

The maximum settlement estimated by Hough's method was calculated to be 2.2 inches. The settlement was calculated using the maximum specified toe pressure from the Caltrans Standard Plans and assuming conservative values of soil strength. Due to the conservative nature of the assumptions and tendency of prediction methods to overestimate settlement, the actual settlement

FOUNDATION REPORT

November 3, 2008

Page 5

observed in the field will likely be less than the predicted value. Calculations performed for the adjacent bridge abutment estimate settlement of approximately 1 inch; the observed settlement of Retaining Wall No.2 is expected to be about the same. All of the settlement is expected to occur immediately in the cohesionless materials encountered in the test borings. Differential settlement is not expected to be a concern for the retaining wall.

Project LOTB's have not been finalized. They will be sent electronically from the Graphics Section when they are complete. For information regarding the status and delivery of the LOTB's, contact Irma Garmarra-Remmen at (916) 227-7203.

Slope Stability

Global slope stability is not considered to be an issue for Retaining Wall No 2.

Construction Considerations

All temporary cut slopes shall conform to OSHA guidelines and shall not exceed 1:1 slope angles. Permanent cut and fill slopes shall not exceed 2:1 slope angles.

FOUNDATION REPORT

November 3, 2008

Page 6

Standard Special Provision S5-280, "Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening. The following is an excerpt from SSP S5-280 disclosing information originating from Geotechnical Services. Items listed to be included in the Information Handout will be provided in Acrobat (.pdf) format to the Addressee of this report via electronic mail.

Data and information attached with the project plans are:

A. Log of Test Borings for Retaining Wall No. 2.

Data and information included in the Information Handout provided to the Bidders and Contractors are:

A. Foundation Report for Retaining Wall No. 2 dated October 22, 2008.

FOUNDATION REPORT

November 3, 2008

Page 7

If you have any questions or comments, please contact Ryan Turner at (805) 549-3750 or Michael Finegan at (805) 549-3194.



RYAN TURNER
Transportation Engineer
Geotechnical Design – North
Branch D



MICHAEL S. FINEGAN, PE
Chief
Geotechnical Design – North
Branch D

c: GDN Records
Branch D Records
GS Records

LIST OF ATTACHMENTS

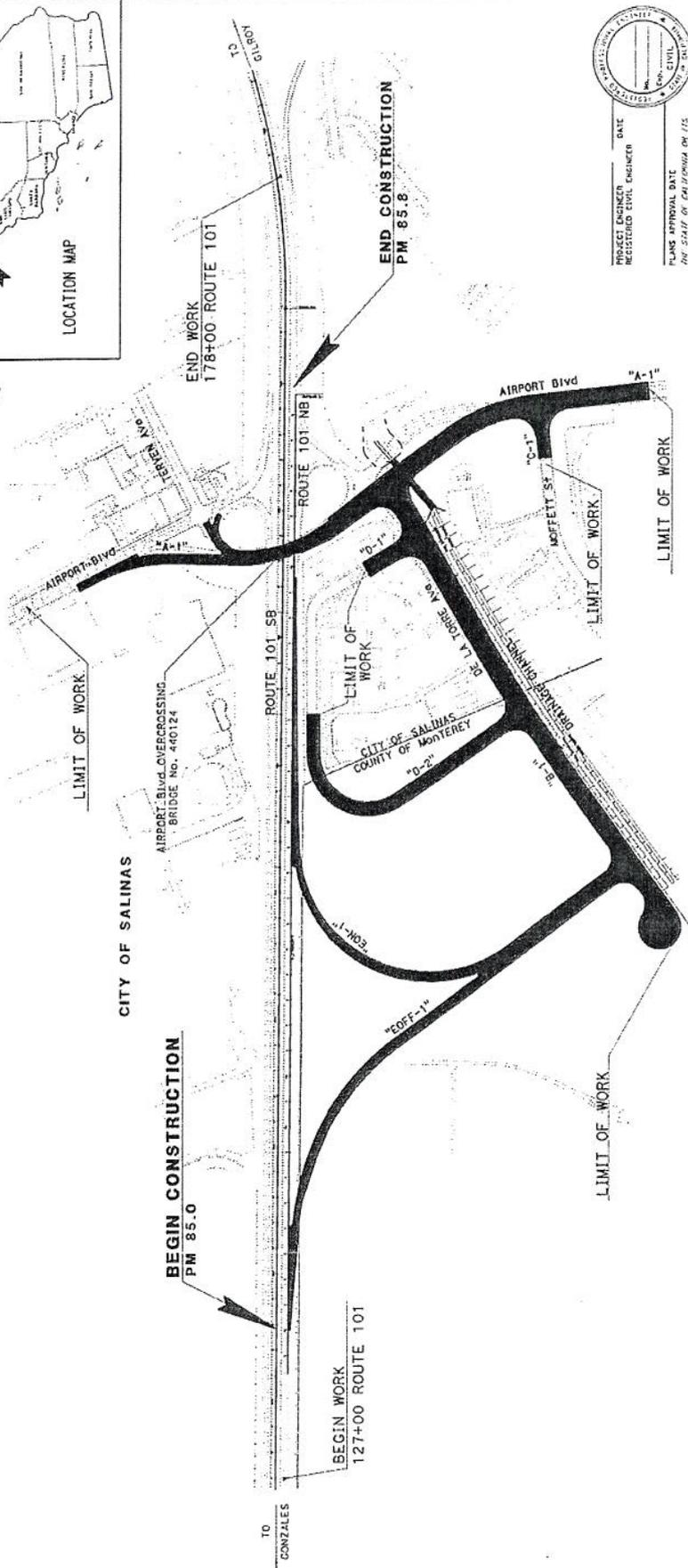
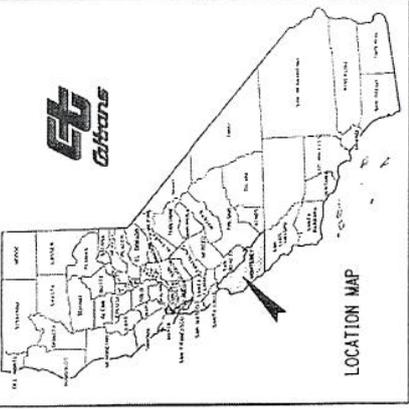
Vicinity Map	Attachment 1
Geologic Map and Legend	Attachment 2
Layout and General Plan	Attachment 3
Material Properties Summary	Attachment 4

INDEX OF PLANS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**
 IN MONTEREY COUNTY IN AND NEAR SALINAS
 FROM 0.6 MILE SOUTH TO 0.2 MILE
 NORTH OF AIRPORT BOULEVARD
 OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

CITY	COUNTY	ROUTE	TOTAL PROJECT	DATE
05	Mon	101	85.0/85.8	05-11-08



PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA ON THIS DATE APPROVES THE ACCURACY OF THE INFORMATION CONTAINED HEREIN FOR THE PURPOSES OF THIS PROJECT.

CONTRACT No. **05-349504**
 CU 06225
 EA 349501

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS."

BORDER LAST REVISED 3/1/2007

CALTRANS WEB SITE IS: [HTTP://WWW.DOT.CA.GOV/](http://WWW.DOT.CA.GOV/)

RELATIVE HORIZONTAL SCALE 1" = 100'

SCALE 1" = 100'

DATE PLOTTED: 05-11-08
 FILE: 05-349504-01.dwg

MICHAEL DAY
 PROJECT ENGINEER

GEOLOGIC MAP

05-MON-101-84.6/86.6

05-349501



CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

DIST COUNTY ROUTE TOTAL MILES
05 Mon 101

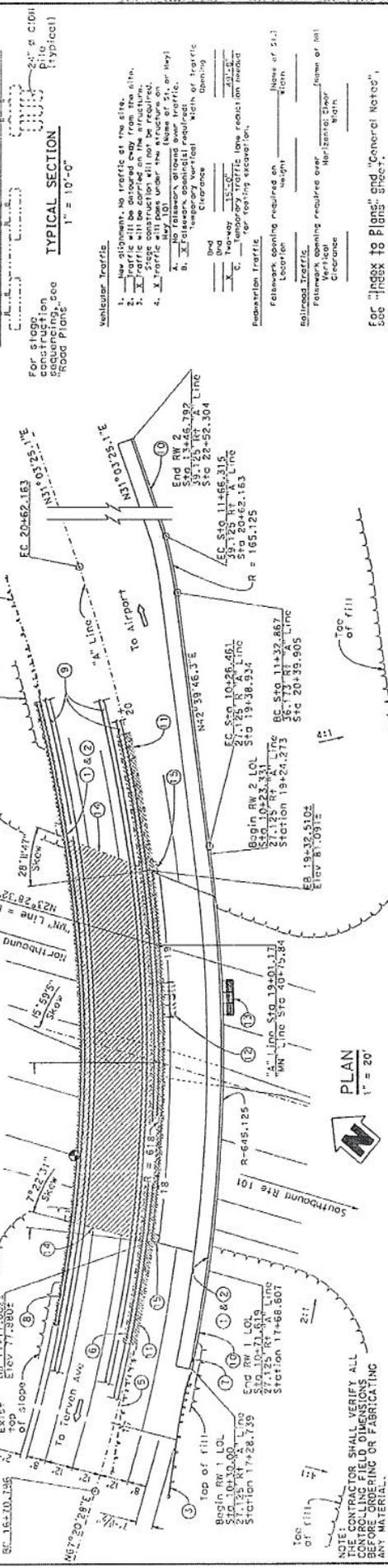
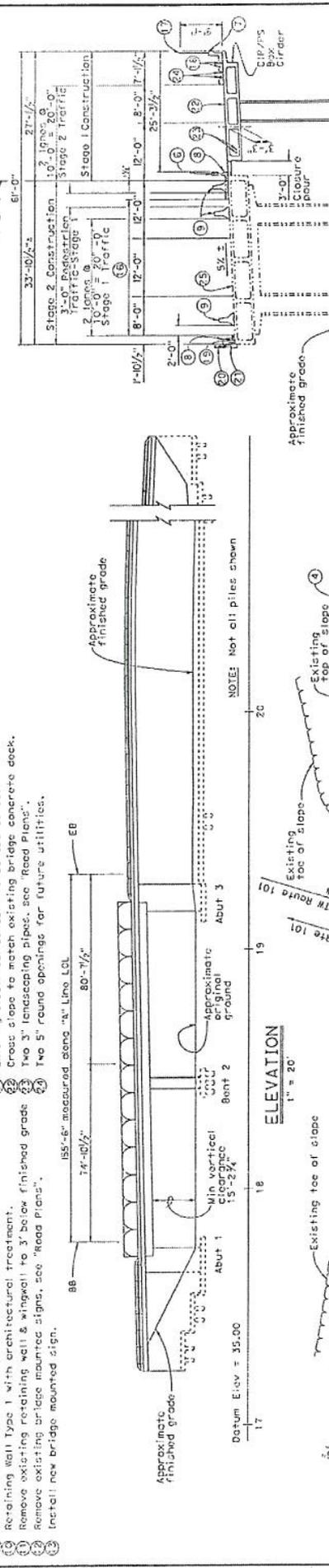
REGISTERED CIVIL ENGINEER DATE: [Signature] X
 PLEASE APPROVAL DATE: [Signature] X
 I am the State of California or its officers or agent. I will not be responsible for the accuracy of any information or statements made herein which are not based on a personal inspection of the site and records.

To get the full details see file # 84-16/95-0

LEGEND:

--- Indicates existing structure
 - - - - - Indicates new construction
 // // // // // Indicates bridge removal
 // // // // // Indicates limits of clean and root bridge deck with methacrylate
 () Minimum vertical clearance

- NOTES:**
1. Paint "Bridge No. 44-124".
 2. Paint "Airport Blvd OC".
 3. WBR, see "Road Plans".
 4. Remove and replace existing WBR, see "Road Plans".
 5. Remove existing WBR, see "Road Plans".
 6. Remove existing Concrete Baluster Type 3 with sidewalk.
 7. Concrete Barrier Type 26 with "Balustrade Treatment".
 8. Remove existing Concrete Baluster Type 3 and replace with Concrete Barrier Type 26 with "Balustrade Treatment".
 9. Temporary Railing (Type K), see "Road Plans".
 10. Retaining wall Type 1 with architectural treatment.
 11. Remove existing retaining wall & wingwall to 3" below finished grade.
 12. Remove existing bridge mounted signs, see "Road Plans".
 13. Install new bridge mounted sign.
 14. Remove existing joint seals (water stop to remain.) clean expansion joint and install new joint seals after bridge widening.
 15. Remove existing abutment key at abutment.
 16. Existing 2" AC to be removed.
 17. Chain Link Fence Type 6 (Wood) with arc (including black vinyl cladding).
 18. Two 3" electrical conduits, see "Road Plans".
 19. One 3" electrical conduit, see "Road Plans".
 20. Tubular Bicycle Railing.
 21. Existing electrical conduit to be abandoned.
 22. Cross slope to match existing bridge concrete deck.
 23. Two 3" landscaping pipes, see "Road Plans".
 24. Two 5" round openings for future utilities.



GENERAL PLAN

For "Index to Plans" and "General Notes", see "Index to Plans" sheet.

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN		PROJECT NO. 44-0124
DESIGN BRANCH 6		DESIGN BRANCH 6		DATE 84-16/95-0
PROJECT NAME AIRPORT BLVD OC (WIDEN)		PROJECT NO. 44-0124		DATE 84-16/95-0
DESIGNER [Signature]		CHECKER [Signature]		DATE 84-16/95-0
DESIGN ENGINEER		DESIGNER		DATE 84-16/95-0

NOTE: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE SITE BEFORE ORDERING OR FABRICATING ANY MATERIAL.

FOR STOPS CONSTRUCTION SEQUENCING, SEE ROAD PLANS

NONVEHICULAR TRAFFIC:
 1. New alignment. No traffic at the site.
 2. Traffic will be stopped east from the site.
 3. Traffic will be stopped west from the site.
 4. Traffic will pass under the structure on []

VEHICULAR TRAFFIC:
 A. No falsework, span/portal requirement.
 B. [] falsework, span/portal requirement.
 C. [] falsework, span/portal requirement.

FALSEWORK: []
 FALSEWORK: []
 FALSEWORK: []

FALSEWORK: []
 FALSEWORK: []
 FALSEWORK: []

FALSEWORK: []
 FALSEWORK: []
 FALSEWORK: []

05-Mon-101-84.6/86.6
 05-349501
 Airport Blvd. OC

MATERIAL PROPERTIES SUMMARY

DESCRIPTION	R-08-002 5/14/2008						
BORING OR SAMPLE No.	R-08-002						
DATE SAMPLED	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008
STATION							
LINE							
DISTANCE FROM LINE (Rt. OR Lt.)							
DEPTH OR ELEVATION (FEET)	1.0 to 2.5	4.3 to 5.8	5.8 to 7.3	7.3 to 8.0	8.0 to 10.3	25.0 to 40.0	SW-SM
USCS CLASSIFICATION	SW	SW	SW	SW-SM	SM		
SIEVE ANALYSIS							
	3						
	2 1/2						
	2						
	1 1/2						
	1						
	3/4						
	1/2						
	3/8						
	4						
	8						
	16						
	30						
	50						
	100						
	200						
	5 µm						
	1 µm						
CLASSIFICATION							
IN-PLACE DENSITY (DRY WT. lb/cu ft)							
IN-PLACE MOISTURE (PERCENT)							
SPECIFIC GRAVITY							
LIQUID LIMIT							
PLASTICITY INDEX							
SAND EQUIVALENT							
EFFECTIVE STRESS							
FRICITION ANGLE (DEGREES)							
COHESION (psf)							
TOTAL STRESS							
FRICITION ANGLE (DEGREES)							
COHESION (psf)							
RESISTIVITY (ohm-cm)	8720	7460	3880	3550	5640	9180	
pH	8.7	7.8	7.7	7.4	8.1	8.1	
SULFATES (ppm)							
CHLORIDES (ppm)							
CORROSION							

Memorandum

To: FRITZ HOFFMAN
Branch Chief
Division of Engineering Services, Structure Design
Office of Bridge Design – Central, Branch 6

Date: November 12, 2008

File: 05-349501
05-Mon-101-85.6
Airport Blvd. O.C.
Bridge No. 44-0124

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES – MS 5

Subject: Foundation Report

A Foundation Report (FR) is provided for the above referenced project per your request. This report is based on the subsurface data collected for this bridge.

Proposed Improvements

The proposed improvements include widening of the existing structure at the location shown on the General Plan dated May 14th 2008. The proposed widening is approximately 25.3 feet wide. The existing foundations at all support locations are founded on spread footings.

Physical Setting

The project is located within the Coast Ranges Geomorphic Province. It lies at the northern end of the Salinas River Valley. The terrain is flat with poorly developed surface drainage. The land in the project vicinity is utilized for industry and farming. The surface elevation in the vicinity of the intersection is between approximately 18.3 meters (60 feet) and 21.3 meters (70 feet).

Geology and Soil Conditions

The surficial deposits within the project area are Quaternary Aged older alluvium and recent alluvium.

The 1954 field investigation for the design and construction of the existing bridge included four dynamic cone penetrometer tests and two rotary borings. The deepest point reached by the rotary borings was approximately elevation 6.7 meters (22 feet). In general, the alluvial soils in the vicinity of the existing overcrossing are soft silty and sandy clay, and loose silty sand from the ground surface to approximately elevation 16.2 meters (53 feet). Below

elevation 16.2 meters to the deepest extent of the investigation, medium dense to very dense silt, sand and gravel soils were encountered.

Caltrans personnel performed three rotary wash boreholes for design of the bridge widening in 2008: R-08-001 in the vicinity of Abutment 1, R-08-003 in the vicinity of Bent 2, and R-08-002 in the vicinity of Abutment 3. The deepest point reached by the 2008 boreholes was approximately elevation -24.9 feet. The observed subsurface materials include clayey sand, fat clay, silty sand, well graded sand and poorly graded sand.

Laboratory Data

The results of the corrosion tests on selected specimens are attached to this report.

Groundwater

Groundwater observations were not made in the 1954 investigation. Soil moisture descriptors are not reported on the 1954 Log of Test Borings.

Groundwater was observed in borehole R-08-003 at 54.9 feet below the ground surface, elevation 2.5 feet. Additional information regarding groundwater observations may be found on the Log-of-Test Borings. In addition to this phreatic surface, saturated soils were observed in the boreholes. The saturated soils are shown as "wet" on the Log-of-Test Borings.

Seismic Data and Liquefaction Potential

The "Final Seismic Design Recommendations" was provided to you by Reza Mahallati, Office of Geotechnical Design North.

Corrosion Testing

Representative soil samples taken during the foundation investigation were tested for corrosion potential. The results of the corrosion tests are included in the Table attached to this memorandum. The Department considers a site corrosive to foundation elements if one or more of the following conditions exist for the representative soil and/or water samples taken at the site:

- Chloride concentration is greater than or equal to 500 ppm
- Sulfate concentration is greater than or equal to 2000 ppm
- The pH is 5.5 or less

Based on corrosion test results on samples obtained during the field investigation, and because the project area is not within 300 meters (1000 feet) of salt or brackish water, the

site is considered non-corrosive.

Foundation Recommendations

Spread footings are recommended for support at the abutments and 16 inch CIDH piles are recommended at Bent 2. Design tip elevations for lateral loads have not been provided in the following tables.

Removal and replacement of some of the near surface foundation soils at Abutment 1 is required. The soil should be excavated to elevation 50.0 feet according to the limits described in Section 19-5.03 of the Standard Specifications. The excavation should be backfilled with Class 2 Aggregate Base that meets Caltrans Standard Specifications. The Aggregate Base should be compacted to 95% Relative Compaction.

Foundation Design Recommendations for Spread Footings										
Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Total Permissible Support Settlement (inches)	WSD (LRFD Service-I Limit State Load)		LRFD		
	B	L				Gross Permissible Contact Stress (ksf)	Gross Allowable Bearing Capacity (ksf)	Service	Strength $\phi_b = 0.45$	Extreme Event $\phi_b = 1.00$
	Net Permissible Contact Stress (ksf)							Factored Gross Nominal Bearing Resistance (ksf)	Factored Gross Nominal Bearing Resistance (ksf)	
Abut 1	31.25	13.5	53.8	4.0	1	6.0	15.3	N/A	N/A	N/A
Abut 3	31.20	13.5	53.8	6.2	1	8.3	18.3	N/A	N/A	N/A

- Notes:
- 1) Recommendations are based on the foundation geometry and the load provided by Structure Design in the Foundation Design Data Sheet. The footing contact area is taken as equal to the effective footing area, where applicable.
 - 2) See MTD 4-1 for definitions and applications of the recommended design parameters

Bent Foundation Design Recommendations										
Support Location	Pile Type	Cut-off Elevation (ft)	Service I Limit State Load per Support (kips)	Total Permissible Support Settlement (inch)	Required Factored Nominal Resistance (kips)				Design Tip Elevations (ft)	Specified Tip Elevation (ft)
					Strength Limit		Extreme Event			
					Comp. ($\phi=0.7$)	Tension ($\phi=0.7$)	Comp. ($\phi=1$)	Tension ($\phi=1$)		
Bent 2	16 inch CIDH	54.05	1475	1	190	0	220	65	18.0 (a-I) 22.0 (a-II) 35.0 (b-II)	18.0

Notes:

- 1) Design tip elevations are controlled by: (a-I) Compression (Strength Limit), (a-II) Compression (Extreme Event) and, (b-II) Tension (Extreme Event), respectively. There is no applicable tip elevation for settlement at Bent 2.
- 2) The specified tip elevation shall not be raised.

Spread Footing Data Table					
Support Location	Working Stress Design (WSD)		Load and Resistance Factor Design (LRFD)		
	Gross Permissible Contact Stress (Settlement) (ksf)	Gross Allowable Bearing Capacity (ksf)	Service Net Permissible Contact Stress (Settlement) (ksf)	Strength Factored Gross Nominal Bearing Resistance $\phi_b = X$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance $\phi_b = 1.00$ (ksf)
Abut 1	6.0	15.3	N/A	N/A	N/A
Abut 3	8.3	18.3	N/A	N/A	N/A

Pile Data Table					
Location	Pile Type	Nominal Resistance (kips)		Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension		
Bent 2	16 inch CIDH	280	65	18.0 (a), 35.0 (b)	18.0

Notes:

- 1) Design tip elevation for the Bent is controlled by: (a) Compression and (b) tension. There is no applicable tip elevation for settlement at Bent 2.
- 2) The specified tip elevation shall not be raised.

Project Information

Standard Special Provision S5-280, "Project Information", discloses to bidders and contractors a list of pertinent information available for their inspection prior to bid opening. The following is an excerpt from SSP S5-280 disclosing information originating from Geotechnical Services. Items listed to be included in the Information Handout will be provided in "pdf" format to the addressee of this report via electronic mail.

Data and information attached with the project plans are:

- A. Log of Test Borings for the Airport Blvd. O.C.

Data and Information included in the Information Handout provided to the bidders and Contractors are:

- A. Foundation Report for the Airport Blvd. O.C., August 7, 2008, Caltrans.

Data and information available for inspection at the District 5 Office:

- A. None

Data and information available for inspection at the Transportation Laboratory:

- A. None

Construction Considerations

The newly placed embankments shall undergo a settlement period of 10 days at abutments 1 and 3. The spread footing foundations may be constructed after the completion of the settlement periods.

Geotechnical Services should be contacted when the footing foundations have been excavated. An inspection of the foundation soils below the limits of the compacted backfill is required.

Closure

A request for production of a Log-of-Test Boring sheet has been made to the Engineering Graphics Branch of the Office of Geotechnical Services. When complete, the Log-of-Test Borings will be provided to you for attachment to the contract plans.

If you have any questions or comments, please call me at (805) 549-3385 (CalNet 629-3385).



Ronald L. Richman
RON RICHMAN, P.E., C.E.G.
Office of Geotechnical Design – North

- c: RE Pending
- Structure OE (E-copy)
- PCE (E-copy)
- DME (E-copy)
- Branch D File
- GDN File
- GS File Room

MATERIAL PROPERTIES SUMMARY

DESCRIPTION	R-08-002 5/14/2008	R-08-001 5/13/2008	R-08-001 5/13/2008	R-08-003 5/13/2008	R-08-003 5/13/2008	R-08-003 5/13/2008						
BORING OR SAMPLE No.	R-08-002	R-08-001	R-08-001	R-08-003	R-08-003	R-08-003						
DATE SAMPLED	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/14/2008	5/13/2008	5/13/2008	5/13/2008	5/13/2008	5/13/2008
STATION												
LINE												
DISTANCE FROM LINE (Rt. OR Lt.)												
DEPTH OR ELEVATION (FEET)	1.0 to 2.5	4.3 to 5.8	5.8 to 7.3	7.3 to 8.0	8.0 to 10.3	25.0 to 40.0	2.0 to 9.5	9.5 to 15.5	60.8 to 65.8	5.8 to 15.8	40.8 to 45.8	
USCS CLASSIFICATION	SW	SW	SW	SW-SM	SM	SW-SM	SM	SM	SW	SW-SM	SC	
3												
2 1/2												
2												
1 1/2												
1												
3/4												
1/2												
3/8												
4												
8												
16												
30												
50												
100												
200												
5 µm												
1 µm												
IN-PLACE DENSITY (DRY WT. lb/cu ft)												
IN-PLACE MOISTURE (PERCENT)												
SPECIFIC GRAVITY												
LIQUID LIMIT												
PLASTICITY INDEX												
SAND EQUIVALENT												
EFFECTIVE STRESS												
FRICTION ANGLE (DEGREES)												
COHESION (psf)												
TOTAL STRESS												
FRICTION ANGLE (DEGREES)												
COHESION (psf)												
RESISTIVITY (ohm-cm)	8720	7460	3880	3550	5640	9180	4620	2390	4430	5920	6060	
pH	8.7	7.8	7.7	7.4	8.1	8.1	8.2	7.7	7.6	7.4	7.3	
SULFATES (ppm)												
CHLORIDES (ppm)												



State of California

Department of Industrial Relations

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT

Underground Classification

C202-053-09T

DEPARTMENT OF TRANSPORTATION

(NAME OF TUNNEL OR MINE AND COMPANY NAME)

of 2015 East Shields Avenue, Suite A-100, Fresno, California 93726
(MAILING ADDRESS)

at AIRPORT BOULEVARD OVERCROSSING IMPROVEMENTS
(LOCATION)

has been classified as *** POTENTIALLY GASSY with Special Conditions***
(CLASSIFICATION)

as required by the California Labor Code Section 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 30-inch diameter by 169 feet long bored tunnel project located along the west shoulder of Route 101 approximately 20 feet south of the intersection of Route 101 and Airport Boulevard Overcrossing, Salinas, Monterey County.

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

March 19, 2009

Date _____

(SENIOR ENGINEER)
John R. Leahy

FOR CONTRACT NO.: 05-349504

INFORMATION HANDOUT

MATERIALS INFORMATION

**INSTALLATION DETAILS FOR
BATTERY BACKUP SYSTEM
(BBS Cabinet mounting details and wiring details)**

ROUTE: 05-Mon-101-PM 85.0/85.8

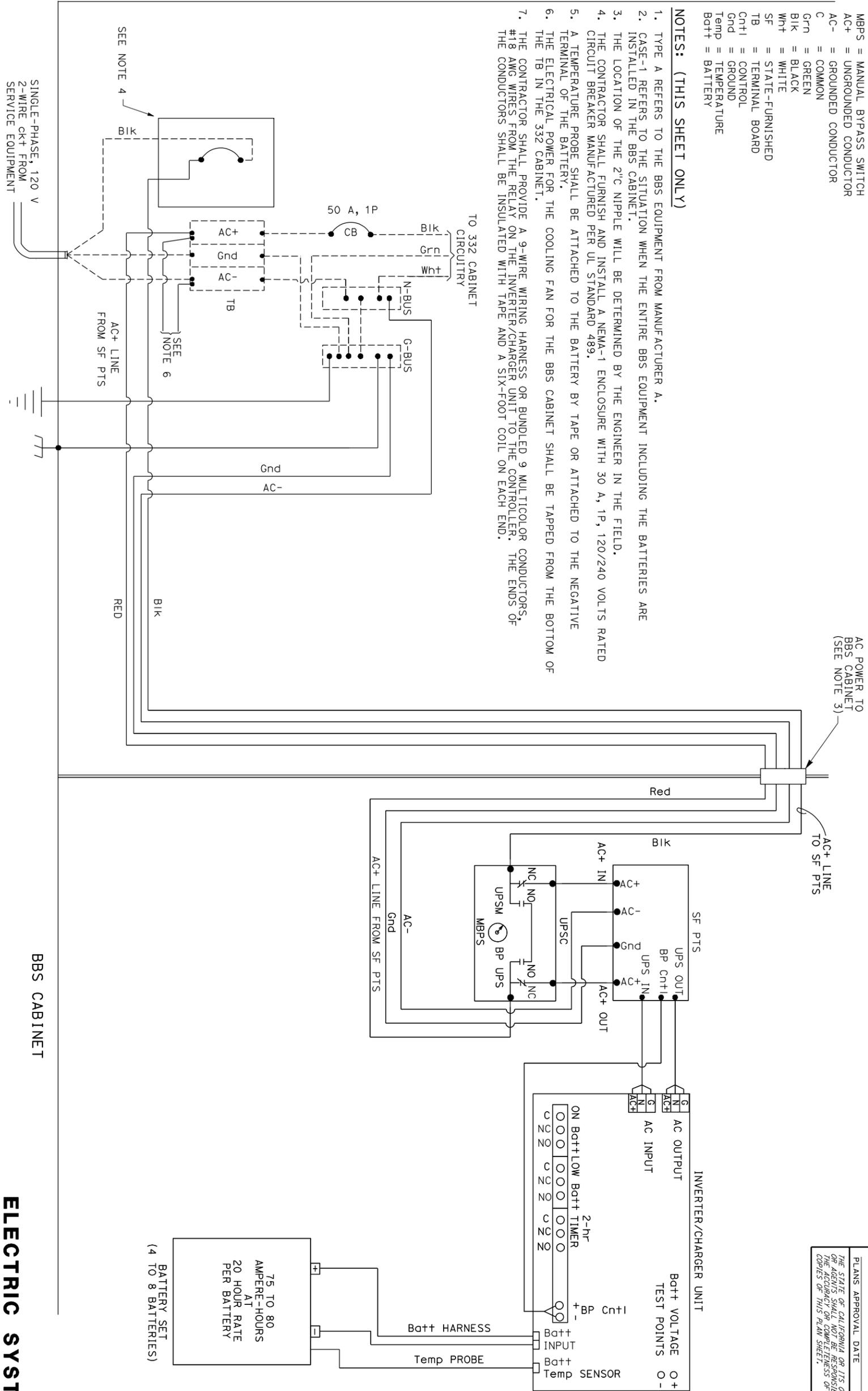
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
		CHECKED BY	DATE REVISED

LEGEND: (THIS SHEET ONLY)

- PTS = POWER TRANSFER SWITCH
- UPS = UNINTERRUPTIBLE POWER SUPPLY
- UPSC = UNINTERRUPTIBLE POWER SUPPLY CONTROLLER
- UPSM = UPS MODE
- BP = BYPASS
- MBPS = MANUAL BYPASS SWITCH
- AC+ = UNGROUNDED CONDUCTOR
- AC- = GROUNDED CONDUCTOR
- C = COMMON
- Gfn = GREEN
- Blk = BLACK
- Wh+ = WHITE
- SF = STATE-FURNISHED
- TB = TERMINAL BOARD
- Cnt+ = CONTROL
- Gnd = GROUND
- Temp = TEMPERATURE
- Bd++ = BATTERY

NOTES: (THIS SHEET ONLY)

1. TYPE A REFERS TO THE BBS EQUIPMENT FROM MANUFACTURER A.
2. CASE-1 REFERS TO THE SITUATION WHEN THE ENTIRE BBS EQUIPMENT INCLUDING THE BATTERIES ARE INSTALLED IN THE BBS CABINET.
3. THE LOCATION OF THE 2" C NIPPLE WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEMA-1 ENCLOSURE WITH 30 A, 1P, 120/240 VOLTS RATED CIRCUIT BREAKER MANUFACTURED PER UL STANDARD 489.
5. A TEMPERATURE PROBE SHALL BE ATTACHED TO THE BATTERY BY TAPE OR ATTACHED TO THE NEGATIVE TERMINAL OF THE BATTERY.
6. THE ELECTRICAL POWER FOR THE COOLING FAN FOR THE BBS CABINET SHALL BE TAPPED FROM THE BOTTOM OF THE TB IN THE 332 CABINET.
7. THE CONTRACTOR SHALL PROVIDE A 9-WIRE WIRING HARNESS OR BUNDLED 9 MULTICOLOR CONDUCTORS, #18 AWG WIRES FROM THE RELAY ON THE INVERTER/CHARGER UNIT TO THE CONTROLLER. THE ENDS OF THE CONDUCTORS SHALL BE INSULATED WITH TAPE AND A SIX-FOOT COIL ON EACH END.

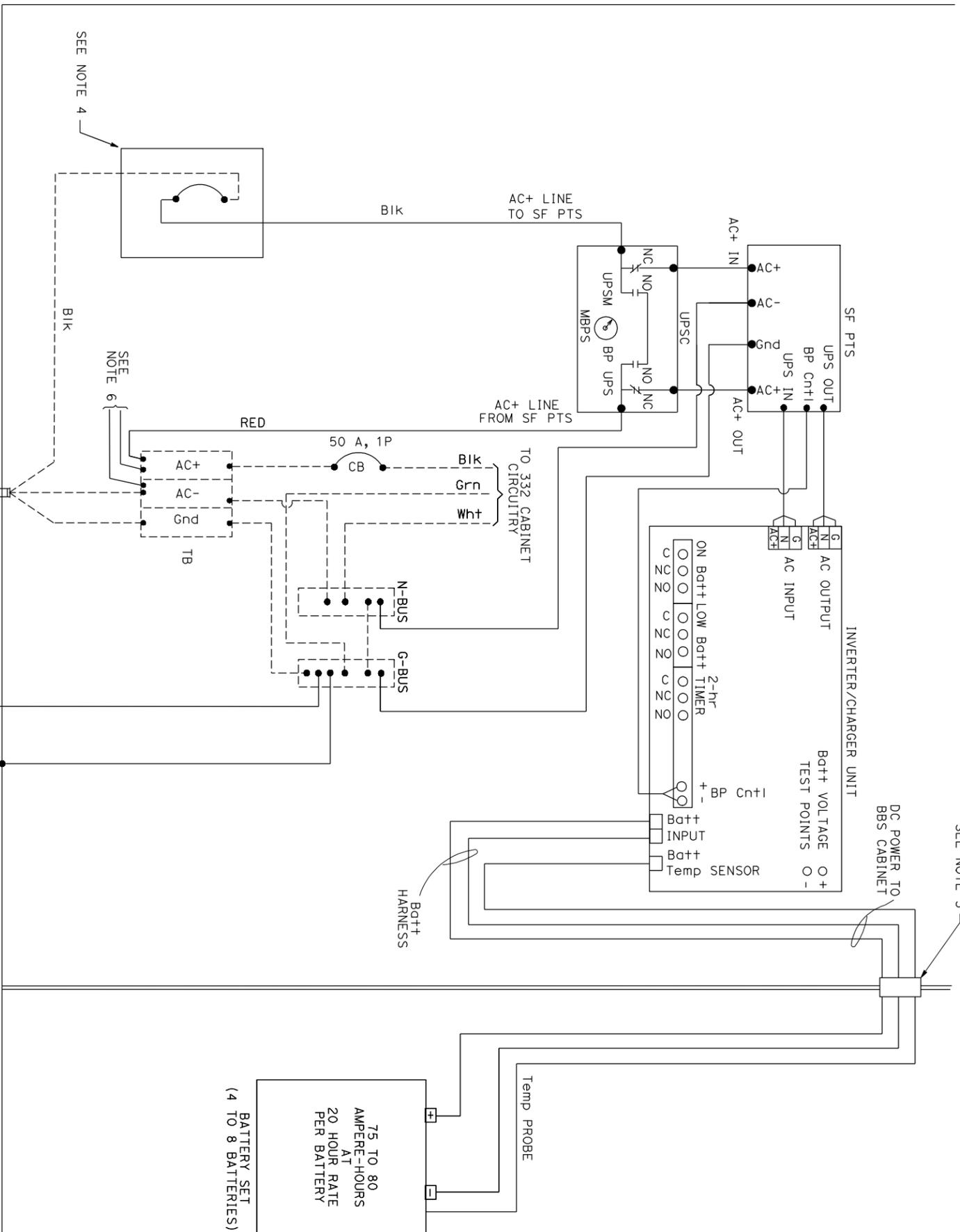


Dist	COUNTRY	LOCATION CODE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

PLANS APPROVAL DATE: 12-20-07
 REGISTERED CIVIL ENGINEER DATE: 12-20-07
 THERESA A. GODDARD
 REGISTERED PROFESSIONAL ENGINEER
 No. E15129
 Exp 6-30-10
 STATE OF CALIFORNIA
 ELECT

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENCIES SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**ELECTRIC SYSTEM
 (BBS POWER CONNECTION DIAGRAM,
 TYPE A, CASE-1)**



Dist	COUNTY	LOCATION CODE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

REGISTERED PROFESSIONAL ENGINEER
 Theresa A. Gorbtlei
 No. E15129
 Exp 6-30-10
 STATE OF CALIFORNIA

PLANS APPROVAL DATE: 12-20-09
 REGISTERED CIVIL ENGINEER DATE: 12-20-09
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND: (THIS SHEET ONLY)

- PTS = POWER TRANSFER SWITCH
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- UPSC = UNINTERRUPTIBLE POWER SUPPLY CONTROLLER
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- Blk = BLACK
- Wh+ = WHITE
- SF = STATE-FURNISHED
- Batt+ = BATTERY
- Temp = TEMPERATURE
- TB = TERMINAL BOARD
- Cntl = CONTROL
- Gnd = GROUND

NOTES: (THIS SHEET ONLY)

1. TYPE B REFERS TO THE BBS EQUIPMENT FROM MANUFACTURER B.
2. CASE-2 REFERS TO THE SITUATION WHEN ONLY THE BATTERIES ARE INSTALLED IN THE BBS CABINET. THE REMAINING EQUIPMENT IS PLACED IN THE 332 CONTROLLER CABINET.
3. THE LOCATION OF THE 2" C NIPPLE WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEMA-1 ENCLOSURE WITH 30 A, 1P, 120/240 VOLTS RATED CIRCUIT BREAKER MANUFACTURED PER UL STANDARD 489.
5. A TEMPERATURE PROBE SHALL BE ATTACHED TO THE BATTERY BY TAPE OR ATTACHED TO THE NEGATIVE TERMINAL OF THE BATTERY.
6. THE ELECTRICAL POWER FOR THE COOLING FAN FOR THE BBS CABINET SHALL BE TAPPED FROM THE BOTTOM OF THE TB IN THE 332 CABINET.
7. THE CONTRACTOR SHALL PROVIDE A 9-WIRE WIRING HARNESS OR BUNDLED 9 MULTICOLOR CONDUCTORS, #18 AWG WIRES FROM THE RELAY ON THE INVERTER/CHARGER UNIT TO THE CONTROLLER. THE ENDS OF THE CONDUCTORS SHALL BE INSULATED WITH TAPE AND A SIX-FOOT COIL ON EACH END.

**ELECTRICAL SYSTEMS
(BBS POWER CONNECTION DIAGRAM,
TYPE A, CASE-2)**

NO SCALE

BBS CABINET

332 CONTROLLER CABINET

SINGLE-PHASE, 120 V
2-WIRE CKT FROM
SERVICE EQUIPMENT

RELATIVE BORDER SCALE
1/8 IN INCHES



USERNAME => ttrcdrol
DGN FILE => BBS 1250f5p.dgn

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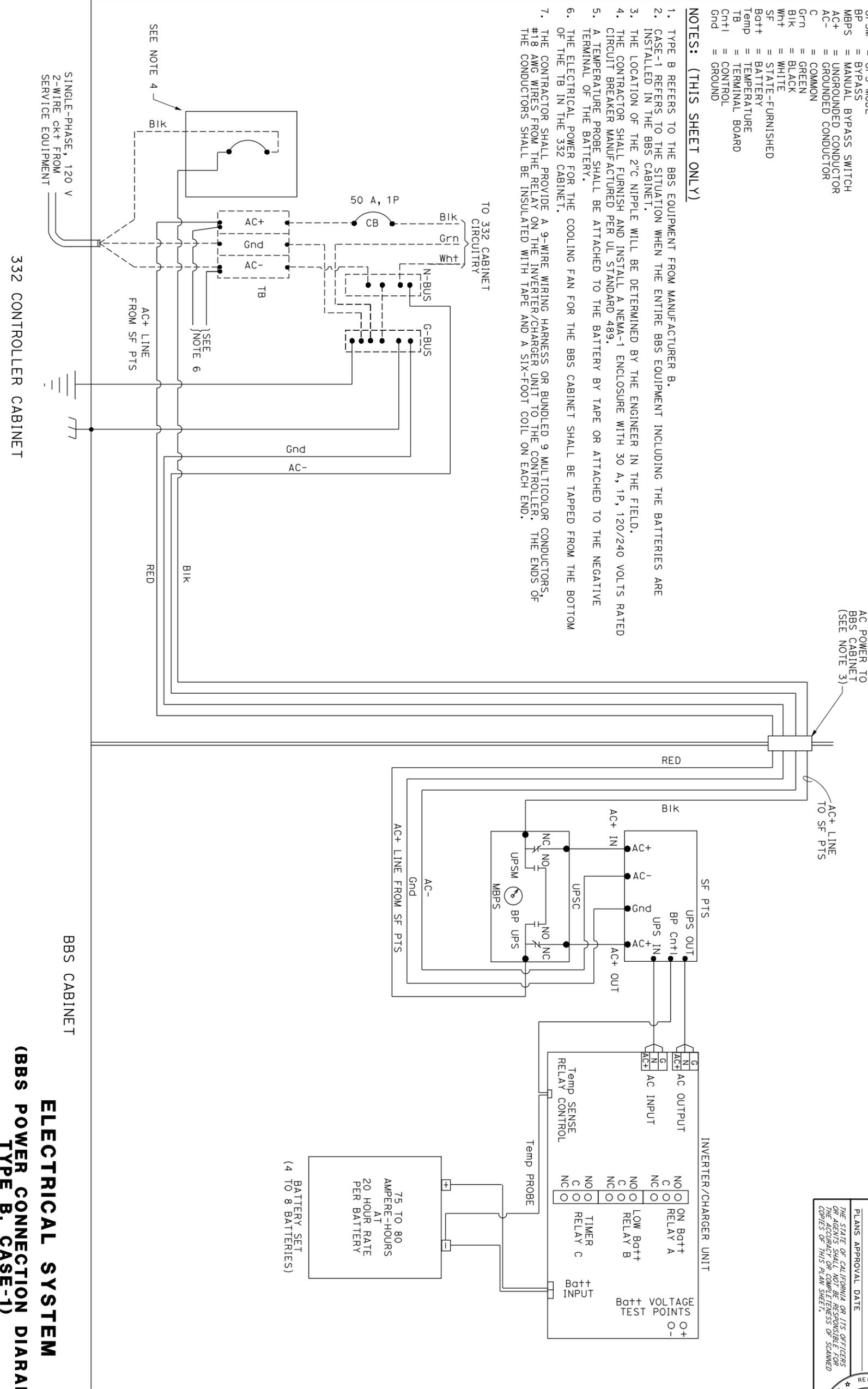
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LEGEND: (THIS SHEET ONLY)

- PTS = POWER TRANSFER SWITCH
- UPS = UNINTERRUPTIBLE POWER SUPPLY
- UPSC = UNINTERRUPTIBLE POWER SUPPLY CONTROLLER
- UPSM = UPS MODE
- BP = BYPASS
- MBPS = MANUAL BYPASS SWITCH
- AC+ = UNGROUNDED CONDUCTOR
- AC- = GROUNDED CONDUCTOR
- C = COMMON
- Grn = GREEN
- Blk = BLACK
- Whit = WHITE
- SF = STATE-FURNISHED
- Batt+ = BATTERY
- Temp = TEMPERATURE
- TB = TERMINAL BOARD
- Cnt+ = CONTROL
- Gnd = GROUND

NOTES: (THIS SHEET ONLY)

1. TYPE B REFERS TO THE BBS EQUIPMENT FROM MANUFACTURER B.
2. CASE-1 REFERS TO THE SITUATION WHEN THE ENTIRE BBS EQUIPMENT INCLUDING THE BATTERIES ARE INSTALLED IN THE BBS CABINET.
3. THE LOCATION OF THE 2" C NIPPLE WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEMA-1 ENCLOSURE WITH 30 A, 1P, 120/240 VOLTS RATED CIRCUIT BREAKER MANUFACTURED PER UL STANDARD 489.
5. A TEMPERATURE PROBE SHALL BE ATTACHED TO THE BATTERY BY TAPE OR ATTACHED TO THE NEGATIVE TERMINAL OF THE BATTERY.
6. THE ELECTRICAL POWER FOR THE COOLING FAN FOR THE BBS CABINET SHALL BE TAPPED FROM THE BOTTOM OF THE TB IN THE 332 CABINET.
7. THE CONTRACTOR SHALL PROVIDE A 9-WIRE WIRING HARNESS OR BUNDLED 9 MULTICOLOR CONDUCTORS, #18 AWG WIRES FROM THE RELAY ON THE INVERTER/CHARGER UNIT TO THE CONTROLLER. THE ENDS OF THE CONDUCTORS SHALL BE INSULATED WITH TAPE AND A SIX-FOOT COIL ON EACH END.

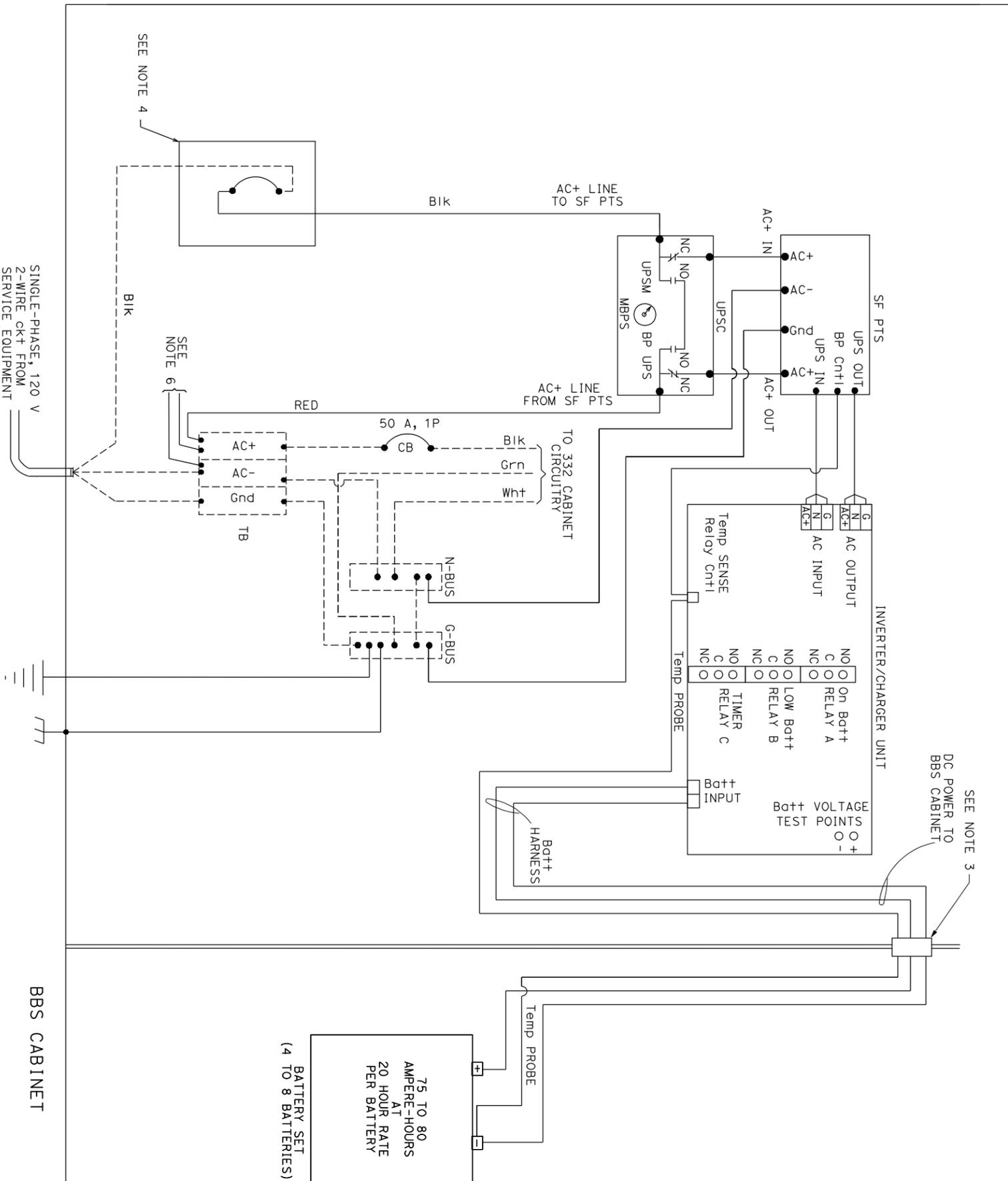


Dist#	COUNTRY	LOCATION CODE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

REGISTERED PROFESSIONAL ENGINEER
 Theresa A. Gadd-1ei
 No. E15129
 Exp. 6-30-10
 STATE OF CALIFORNIA
 ELECT

PLANS APPROVAL DATE: 12-20-07
 REGISTERED CIVIL ENGINEER DATE: 12-20-07
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**ELECTRICAL SYSTEM
 (BBS POWER CONNECTION DIAGRAM.
 TYPE B, CASE-1)**



LEGEND: (THIS SHEET ONLY)

- PTS = POWER TRANSFER SWITCH SUPPLY
- UPS = UNINTERRUPTIBLE POWER SUPPLY
- UPSC = UNINTERRUPTIBLE POWER SUPPLY CONTROLLER
- UPSM = UPS MODE
- BP = BYPASS
- MBPS = MANUAL BYPASS SWITCH
- AC+ = UNGROUNDED CONDUCTOR
- AC- = GROUNDED CONDUCTOR
- C = COMMON
- Grn = GREEN
- Blk = BLACK
- Wht = WHITE
- SF = STATE-FURNISHED
- Bg++ = BATTERY
- Temp = TEMPERATURE
- TB = TERMINAL BOARD
- Cntl = CONTROL
- Gnd = GROUND

NOTES: (THIS SHEET ONLY)

1. TYPE B REFERS TO THE BBS EQUIPMENT FROM MANUFACTURER B.
2. CASE-2 REFERS TO THE SITUATION WHEN ONLY THE BATTERIES ARE INSTALLED IN THE BBS CABINET. THE REMAINING EQUIPMENT IS PLACED IN THE 332 CONTROLLER CABINET.
3. THE LOCATION OF THE 2" C NIPPLE WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL A NEMA-1 ENCLOSURE WITH 30 A, 1P, 120/240 VOLTS RATED CIRCUIT BREAKER MANUFACTURED PER UL STANDARD 489.
5. A TEMPERATURE PROBE SHALL BE ATTACHED TO THE BATTERY BY TAPE OR ATTACHED TO THE NEGATIVE TERMINAL OF THE BATTERY.
6. THE ELECTRICAL POWER FOR THE COOLING FAN FOR THE BBS CABINET SHALL BE TAPPED FROM THE BOTTOM OF THE TB IN THE 332 CABINET.
7. THE CONTRACTOR SHALL PROVIDE A 9-WIRE WIRING HARNESS OR BUNDLED 9 MULTICOLOR CONDUCTORS, #18 AWG WIRES FROM THE RELAY ON THE INVERTER/CHARGER UNIT TO THE CONTROLLER. THE ENDS OF THE CONDUCTORS SHALL BE INSULATED WITH TAPE AND A SIX-FOOT COIL ON EACH END.

Dist	COUNTY	LOCATION CODE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

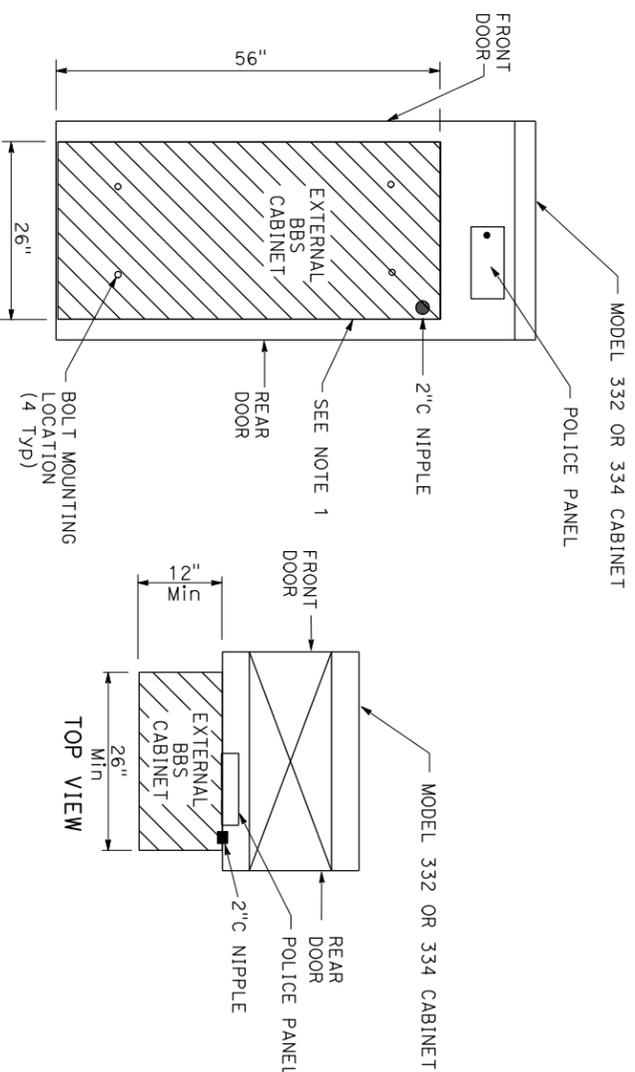
REGISTERED PROFESSIONAL ENGINEER
 Theresa A. Godriehl
 No. E15129
 Exp 6-30-10
 STATE OF CALIFORNIA

REGISTERED CHASE ENGINEER
 DATE 12-20-01
 12-20-01
 PLANS APPROVAL DATE

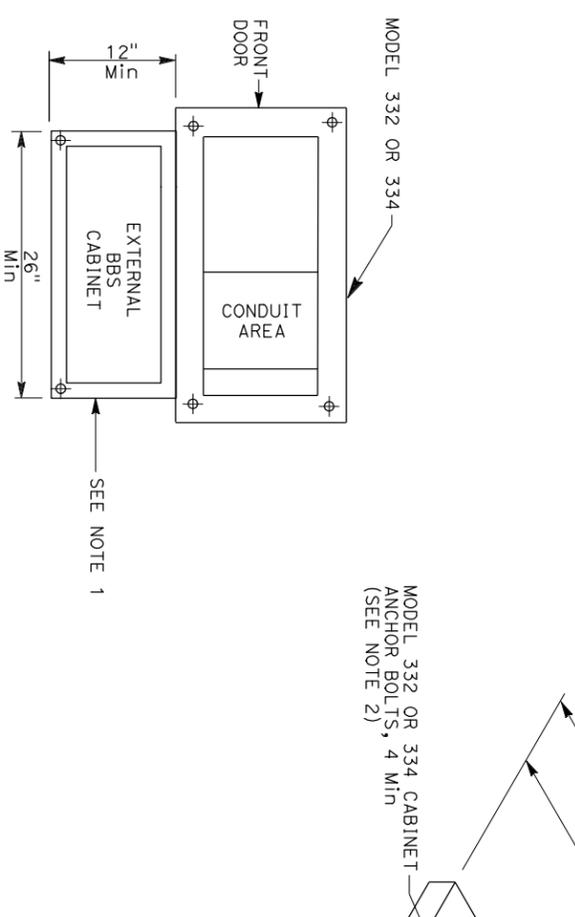
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**ELECTRICAL SYSTEM
BBS POWER CONNECTION DIAGRAM,
TYPE B, CASE-2)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	
		CHECKED BY	DATE REVISED	

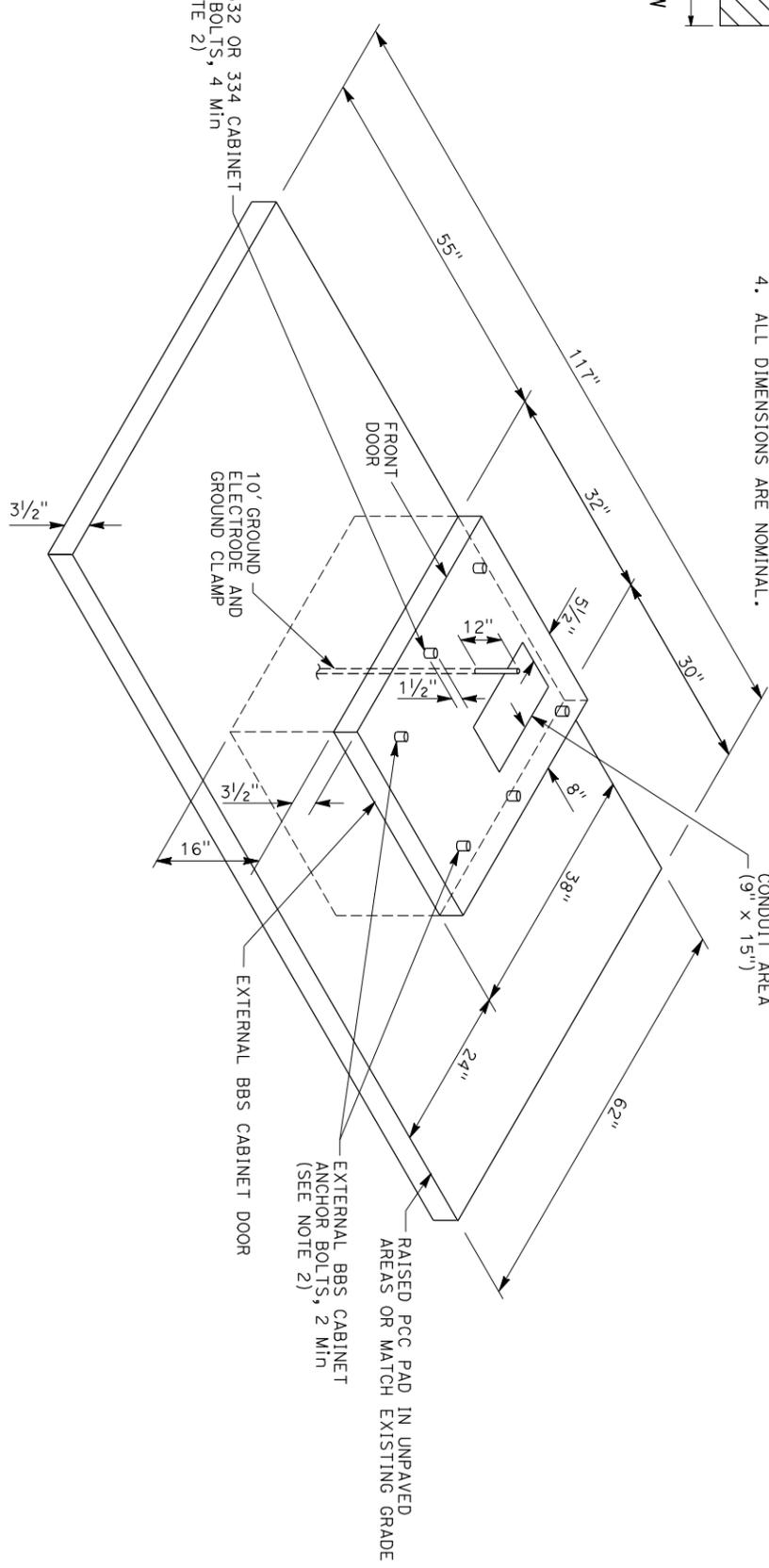


EXTERNAL BBS CABINET MOUNTED TO THE MODEL 332 OR 334 CABINET



BASE PLAN FOR BBS MOUNTED TO THE MODEL 332 OR 334 CABINET
(FOR DIMENSIONS AND DETAILS NOT SHOWN, SEE SHEET A6-1 TO A6-4, CABINET HOUSING DETAILS OF THE TRANSPORTATION ELECTRICAL EQUIPMENT SPECIFICATION (TEES))

- NOTE: (THIS SHEET ONLY)**
1. THE EXTERNAL BBS CABINET SHALL BE MOUNTED TO THE MODEL 332 OR 334 CABINET WITH FOUR 18-8 STAINLESS STEEL HEX HEAD, FULLY-THREADED, 3/8"-16 X 1" BOLTS; TWO WASHERS PER BOLT, DESIGNED FOR 3/8" BOLTS AND ARE 18-8 STAINLESS STEEL, THE ENGINEER WILL HAVE TO APPROVE THE BOLT MOUNTING LOCATION PRIOR TO INSTALLATION.
 2. THE ANCHOR BOLTS SHALL BE 3/4" DIA X 15" WITH A 2"-90° BEND. THE CABINET MANUFACTURER'S SPECIFICATION SHALL DETERMINE THE LOCATION OF THE ANCHOR BOLTS IN THE FOUNDATION. THE ENGINEER WILL HAVE TO APPROVE THE ANCHOR BOLTS AND ITS LOCATION IN THE FOUNDATION PRIOR TO CONSTRUCTION.
 3. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS OF THE BBS CABINET PRIOR TO CONSTRUCTING THE FOUNDATION OF THE MODIFIED PORTION OF THE STD MODEL 332 AND 334 CABINET FOUNDATION. THE ENGINEER WILL HAVE TO APPROVE ANY NECESSARY DEVIATIONS PRIOR TO CONSTRUCTION.
 4. ALL DIMENSIONS ARE NOMINAL.



MODIFIED MODEL 332 AND 334 CABINET FOUNDATION DETAIL FOR BATTERY BACKUP SYSTEM (BBS)
(FOR DIMENSIONS AND DETAILS NOT SHOWN AND ADDITIONAL NOTES, SEE SHEET ES-3C OF THE STANDARD PLANS FOR MODEL 332 AND 334 CABINETS)

ELECTRICAL SYSTEMS (BBS FOUNDATION DETAILS)

NO SCALE

DIST	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

TAYLOR COLBY
 REGISTERED ELECTRICAL ENGINEER
 DATE 12-20-07
 No. E15129
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 Exp 6-30-10
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