

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704  
At 01-Men-101-R89.2**

**Identified by  
Project ID 0112000283**

## **PERMIT**

United States Army Corps of Engineers

Nationwide Permit 27 and General Conditions

## **WATER QUALITY**

California Regional Water Quality Control Board

North Coast Region 401 Certification dated September 10, 2015 and Amended 401  
Certification dated March 30, 2016.

## **AGREEMENT**

California Department of Fish and Wildlife

Streambed Alteration Agreement 1600-2015-0235-R1

## **MATERIALS INFORMATION**

As-Builts:

1. 1967 EA 01-039954
2. 1968 Monorail and Cab
3. 1977 EA 01-170504
4. 1985 EA 01-201714
5. 1996 EA 01-357205
6. 1999 EA 01-310304

Asbestos and Lead Containing Survey Report dated December 11, 2014

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## **PERMIT**

United States Army Corps of Engineers

Nationwide Permit 27 and General Conditions



DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET, 16<sup>TH</sup> FLOOR  
SAN FRANCISCO, CALIFORNIA 94103-1398

AUG 04 2015

Regulatory Division

Subject: File Number 2015-00252N

Gail Popham  
California Department of Transportation  
1656 Union Street  
Eureka, California 95501

Dear Ms. Popham:

This correspondence is in reference to your submittal of July 1, 2015, concerning Department of the Army (DA) authorization to remove barriers to fish passage and preserve the integrity of the culvert invert located along Cedar Creek, at U.S. Highway 101, approximately 2 miles south of the town of Leggett, Mendocino County, California (Mendocino County-US 101-Post Mile R89.24; Latitude 39.84665°N, Longitude -123.70199°W).

Work within U.S. Army Corps of Engineers' (Corps) jurisdiction will include dewatering of Cedar Creek for project implementation; removal of 24 existing weirs within the 763-foot culvert for Cedar Creek beneath U.S. Highway 101; installation of 23 new, v-shaped vortex weirs within the culvert; removal of existing concrete rock apron and Denil fish ladder at culvert outlet; installation of a new 160-foot long by 30-foot wide concrete fishway to improve fish passage for all life stages at culvert outlet, with a series of 13 vortex weirs; and installation of two rock weirs for grade control purposes placed downstream of the fishway to transition into the natural channel. Work will require permanent placement of approximately 400 cubic yards of fill within 0.55 acre of Cedar Creek. Work will also require temporary placement of 2 potable water storage tanks and approximately 3.3 cubic yards of fill for stream diversion within 0.015 acre of Cedar Creek. All work shall be completed in accordance with the plans and drawings titled "*Appendix A. Design Layout and Weir Details, Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370,*" in four sheets, undated, prepared by Caltrans, provided as Enclosure 1.

Section 404 of the Clean Water Act (CWA) generally regulates the discharge of dredged or fill material below the plane of ordinary high water in non-tidal waters of the United States, below the high tide line in tidal waters of the United States, and within the lateral extent of wetlands adjacent to these waters. Section 10 of the Rivers and Harbors Act generally regulates construction of structures and work, including excavation, dredging, and discharges of dredged or fill material, occurring below the plane of mean high water in tidal waters of the United States; in former diked baylands currently below mean high water; outside the limits of mean high water but affecting the navigable capacity of tidal waters; or below the plane of ordinary high water in non-tidal waters designated as navigable waters of the United States. Navigable waters of the United States generally include all waters subject to the ebb and flow of the tide;

and/or all waters presently used, or have been used in the past, or may be susceptible for future use to transport interstate or foreign commerce. A Preliminary Jurisdictional Determination (JD) has been completed for your site. Preliminary JDs are written indications that there may be waters of the U.S. on a parcel or indications of the approximate location(s) of waters of the U.S. on a parcel. Preliminary JDs are advisory in nature and may not be appealed.

Based on a review of the information in your submittal the project qualifies for authorization under Department of the Army Nationwide Permit (NWP) 27 for *Aquatic Habitat Restoration, Establishment and Enhancement Activities*, 77 Fed. Reg. 10,184 (Feb. 21, 2012) (enclosure 2), pursuant to Section 404 of the CWA of 1972, as amended (33 U.S.C. § 1344 *et seq.*). The project must be in compliance with the terms of the NWP, the general conditions of the Nationwide Permit Program, and the San Francisco District regional conditions cited in enclosure 3. You must also be in compliance with any special conditions specified in this letter for the NWP authorization to remain valid. Non-compliance with any term or condition could result in the revocation of the NWP authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification will remain valid until March 18, 2017, unless the NWP authorization is modified, suspended, or revoked. Activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon a NWP will remain authorized provided the activity is completed within 12 months of the date of a NWP's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 C.F.R. § 330.4(e) and 33 C.F.R. § 330.5 (c) or (d). This verification will remain valid if, during the time period between now and March 18, 2017, the activity complies with any subsequent modification of the NWP authorization. The Chief of Engineers will periodically review NWPs and their conditions and will decide to modify, reissue, or revoke the permits. If a NWP is not modified or reissued within five years of its effective date, it automatically expires and becomes null and void. It is incumbent upon you to remain informed of any changes to the NWPs. Changes to the NWPs would be announced by Public Notice posted on our website (<http://www.spn.usace.army.mil/Missions/RegulatoryPublicNotices.aspx>). Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, enclosure 4, verifying that you have complied with the terms and conditions of the permit.

This authorization will not be effective until you have obtained a Section 401 water quality certification from the North Coast Regional Water Quality Control Board (RWQCB). If the RWQCB fails to act on a valid request for certification within two months after receipt of a complete application, the Corps will presume a waiver of water quality certification has been

obtained. You shall submit a copy of the certification to the Corps prior to the commencement of work.

General Condition 18 stipulates that project authorization under a NWP does not allow for the incidental take of any federally-listed species in the absence of a biological opinion (BO) with incidental take provisions. As the principal federal lead agency for this project, California Department of Transportation initiated consultation with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to address project related impacts to listed species, pursuant to Section 7(a) of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*). By letter of April 9, 2014, USFWS issued a Programmatic Letter of Concurrence for routine maintenance and repair projects in Caltrans Districts 1 and 2 that may affect, but are not likely to adversely affect one or more of 6 federally listed species, "File No. AFWO-12B0001-12I0001," with specific avoidance and minimization measures for marbled murrelet and northern spotted owl, which you have in your possession. By letter of May 4, 2015, NMFS issued a Biological Opinion, "NMFS No. SWR-2012-3549," with an incidental take statement for SONCC coho salmon, CC Chinook salmon and NC steelhead, which you have in your possession. As the principal federal lead agency for this project, California Department of Transportation initiated consultation with the National Marine Fisheries Service (NMFS) to address project related impacts to Essential Fish Habitat (EFH) for various life stages of fish species managed with the Pacific Groundfish Fishery Management Plan, Coastal Pelagics Fishery Management Plan, and Pacific Coast Salmon Fishery Management Plan, pursuant to Magnuson-Stevens Fishery Conservation and Management Act of 1996, as amended (16 U.S.C. § 1801 *et seq.*). NMFS issued conservation recommendations by letter of May 4, 2015, which you have in your possession.

In order to ensure compliance with this NWP authorization, the following special conditions shall be implemented:

1. To remain exempt from the prohibitions of Section 9 of the Endangered Species Act, the non-discretionary Terms and Conditions for incidental take of federally-listed SONCC coho salmon, CC Chinook salmon and NC steelhead shall be fully implemented as stipulated in the Biological Opinion entitled, "Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Cedar Creek Arch Culvert Project, US 101 PM R89.25 in Mendocino County," (pages 55-60) dated May 4, 2015, which you have in your possession. Project authorization under the NWP is conditional upon compliance with the mandatory terms and conditions associated with incidental take. Failure to comply with the terms and conditions for incidental take, where a take of a federally-listed species occurs, would constitute an unauthorized take and non-compliance with the NWP authorization for your project. The NMFS is, however, the authoritative federal agency for determining compliance

with the incidental take statement and for initiating appropriate enforcement actions or penalties under the Endangered Species Act.

2. Incidents where any individuals of Pacific salmonid fish species listed by NOAA Fisheries under the Endangered Species Act appear to be injured or killed as a result of discharges of dredged or fill material into waters of the United States or structures or work in navigable waters of the United States authorized by this NWP shall be reported to NOAA Fisheries, Office of Protected Resources at (301) 713-1401 and the Regulatory Office of the San Francisco District of the U.S. Army Corps of Engineers at (415) 503-6795. The finder should leave the plant or animal alone, make note of any circumstances likely causing the death or injury, note the location and number of individuals involved and, if possible, take photographs. Adult animals should not be disturbed unless circumstances arise where they are obviously injured or killed by discharge exposure, or some unnatural cause. The finder may be asked to carry out instructions provided by NOAA Fisheries, Office of Protected Resources, to collect specimens or take other measures to ensure that evidence intrinsic to the specimen is preserved.
3. The USFWS concurred with the determination that the project was not likely to adversely affect northern spotted owl and marbled murrelet. This concurrence was premised, in part, on project work restrictions outlined in the Programmatic Letter of Concurrence for routine maintenance and repair projects in Caltrans Districts 1 and 2 that may affect, but are not likely to adversely affect one of more of 6 federally listed species, "File No. AFWO-12B0001-12I0001," which you have in your possession. These work restrictions are incorporated as special conditions to the NWP authorization for your project to ensure unauthorized incidental take of species and loss of critical habitat does not occur.
4. Caltrans initiated consultation with the National Marine Fisheries Service (NMFS) to address project related impacts to Essential Fish Habitat. The conservation recommendations outlined on pages 58-60 of the Biological Opinion entitled, "Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Cedar Creek Arch Culvert Project, US 101 PM R89.25 in Mendocino County," issued on May 4, 2015, shall be fully implemented as stipulated.

You may refer any questions on this matter to Mr. Jim Mazza of my Regulatory staff by telephone at (415) 503-6775 or by e-mail at [James.C.Mazza@usace.army.mil](mailto:James.C.Mazza@usace.army.mil). All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner, while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: <http://www.spn.usace.army.mil/Missions/Regulatory.aspx>

Sincerely,



for Jane M. Hicks  
Chief, Regulatory Division

Enclosures

Copy Furnished (w/ encls):

Caltrans, c/o Mr. Steve Blair, 1656 Union Street, Eureka, CA 95501

Copy Furnished (w/ encl 1 only):

CA RWQCB, Santa Rosa, CA  
U.S. NMFS, Santa Rosa, CA  
U.S. FWS, Sacramento, CA

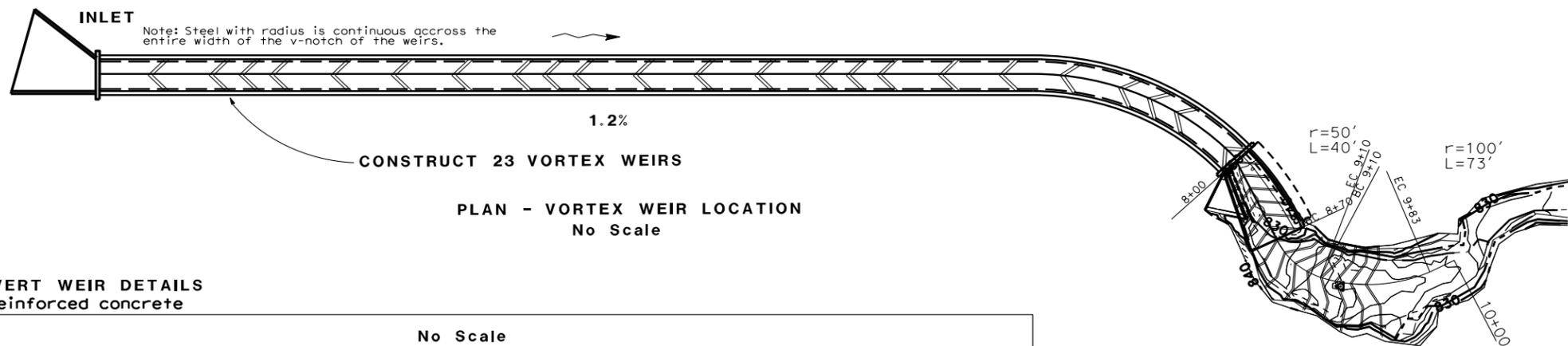
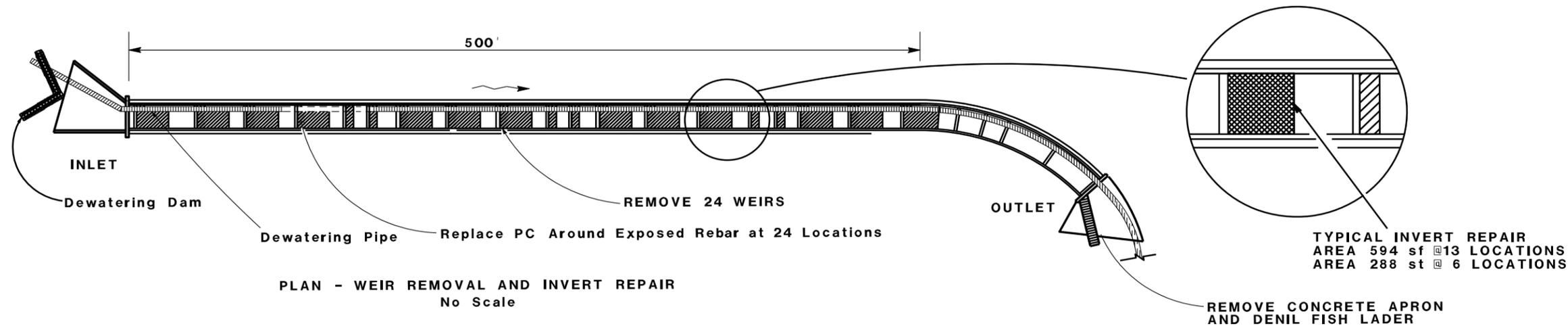
Enclosure 1. Project plans entitled "*Appendix A. Design Layout and Weir Details, Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370,*" in four sheets, undated, prepared by Caltrans.

copy for  
addressee

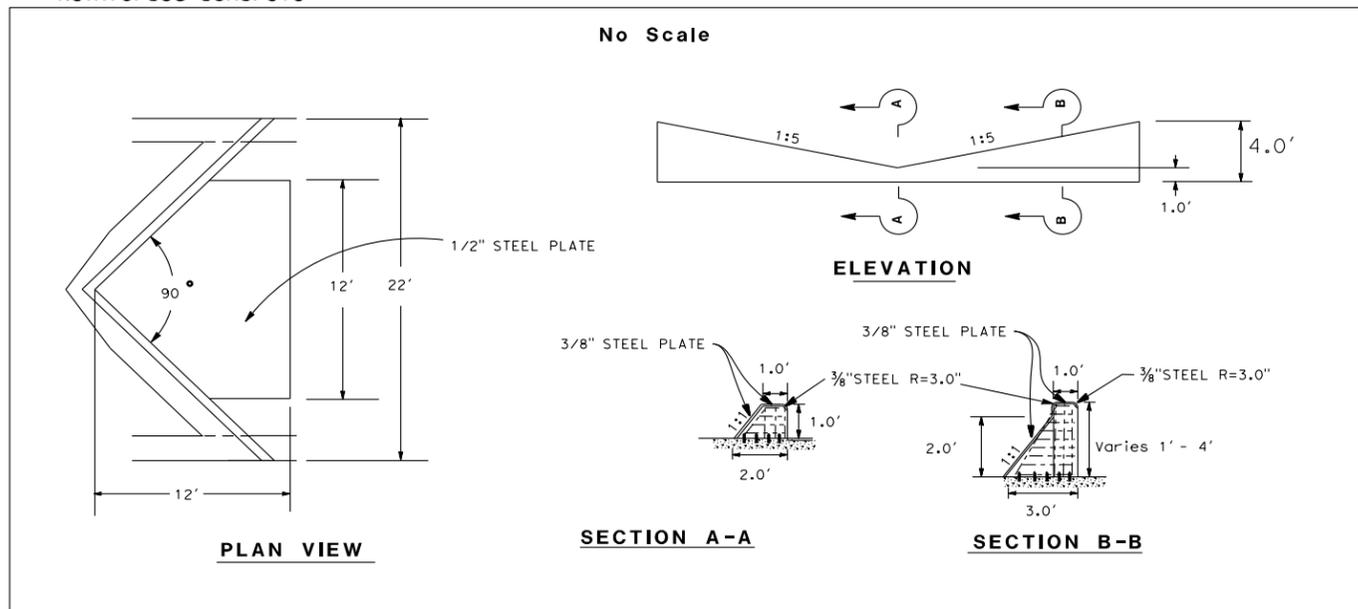
Appendix A. Design Layout and Weir Details Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370

PRELIMINARY DESIGN

CEDAR CREEK ARCH CULVERT REPAIR & FISH PASSAGE RESTORATION



CULVERT WEIR DETAILS  
Reinforced concrete



CEDAR CREEK  
WEIR PLAN  
EA 01-0C370

Appendix A. Design Layout , Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370



Appendix A. Design Layout , Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370



Appendix A. Design Layout , Cedar Creek Arch Culvert Project, MEN 101 PM 89.2, 01-0B370



Enclosure 2. Department of the Army Nationwide Permit (NWP) 27 for *Aquatic Habitat Restoration, Establishment and Enhancement Activities*, 77 Fed. Reg. 10,184 (Feb. 21, 2012)

## **Nationwide Permit 27 - Aquatic Habitat Restoration, Establishment, and Enhancement Activities**

Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to establish or re-establish wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services. Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments. Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

*Reversion.* For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

*Reporting:* For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

*Notification:* The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 31), except for the following activities: (1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the U.S. FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies; (2) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency. However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Sections 10 and 404)

**Note:** This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

Enclosure 3. Nationwide Permit Program General Conditions and the San Francisco District Regional Conditions.

## ***Nationwide Permit General Conditions***

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

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.
3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.
6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

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

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

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

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

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

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

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

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary. (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs. (e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills

or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. (f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.noaa.gov/fisheries.html> respectively.

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

20. Historic Properties. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied. (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary. (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed. (d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps. (e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

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

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment. (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

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

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

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

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332. (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment. (2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered. (3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). (4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided. (5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

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

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

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

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

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

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

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

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

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

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

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

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

\_\_\_\_\_  
(Transferee)

\_\_\_\_\_  
(Date)

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

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either: (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information: (1) Name, address and telephone numbers of the prospective permittee; (2) Location of the proposed project; (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans); (4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate; (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

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

consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5. (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act. (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

## San Francisco District Regional Conditions

### A. General Regional Conditions that apply to all NWP's in the Sacramento, San Francisco, and Los Angeles Districts:

1. When pre-construction notification (PCN) is required, the permittee shall notify the U.S. Army Corps of Engineers, San Francisco District (Corps) in accordance with General Condition 31 using either the South Pacific Division Preconstruction Notification (PCN) Checklist or a signed application form (ENG Form 4345) with an attachment providing information on compliance with all of the General and Regional Conditions. In addition, the PCN shall include:
  - a. A written statement describing how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;
  - b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity, as well as the location of delineated waters of the U.S. on the site. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and area (in acres) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the mean high water mark and high tide line, should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation. All drawings for activities located within the boundaries of the Los Angeles District shall comply with the September 15, 2010 Special Public Notice: *Map and Drawing Standards for the Los Angeles District Regulatory Division*, (available on the Los Angeles District Regulatory Division website at: [www.spl.usace.army.mil/regulatory/](http://www.spl.usace.army.mil/regulatory/)); and
  - c. Numbered and dated pre-project color photographs showing a representative sample of waters proposed to be impacted on the site, and all waters of the U.S. proposed to be avoided on and immediately adjacent to the activities site. The compass angle and position of each photograph shall be identified on the plan-view drawing(s) required in subpart b of this Regional Condition.
2. The permittee shall submit a PCN, in accordance with General Condition 31, For all activities located in areas designated as Essential Fish Habitat (EFH) by the Pacific Fishery Management Council (i.e., all tidally influenced areas - Federal Register dated March 12, 2007, 72 C.F.R. 11,092, in which case the PCN shall include an EFH assessment and extent of proposed impacts to EFH. Examples of EFH habitat assessments can be found at: <http://www.swr.noaa.gov/efh.htm>.
3. For activities in which the Corps designates another Federal agency as the lead for compliance with Section 7 of the Endangered Species Act (ESA) of 1973 as amended, 16 U.S.C. §§ 1531-1544, Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act (EFH), 16 U.S.C. § 1855(b)(4)(B) and/or Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, 16 U.S.C. §§ 470-470h, the lead Federal agency shall provide all relevant documentation to the appropriate Corps demonstrating any previous consultation efforts, as it pertains to the Corps Regulatory permit area (for Section 7 and EFH compliance) and the Corps Regulatory area of potential effect (APE) (for Section 106 compliance). For activities requiring a PCN, this information shall be submitted with the PCN. If the Corps does not designate another Federal agency as the lead for ESA, EFH and/or NHPA, the Corps will initiate consultation for compliance, as appropriate.

4. For all activities in waters of the U.S. that are suitable habitat for Federally-listed fish species, the permittee shall design all road crossings to ensure that the passage and/or spawning of fish is not hindered. In these areas, the permittee shall employ bridge designs that span the stream or river, including pier- or pile-supported spans, or designs that use a bottomless arch culvert with a natural stream bed unless determined to be impracticable by the Corps.
5. The permittee shall complete the construction of any compensatory mitigation required by special condition(s) of the NWP verification before or concurrent with commencement of construction of the authorized activity, except when specifically determined to be impracticable by the Corps. When mitigation involves use of a mitigation bank or in-lieu fee program, the permittee shall submit proof of payment to the Corps prior to commencement of construction of the authorized activity.
6. Any requests to waive the 300 linear foot limitation for intermittent and ephemeral streams for NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51 and 52, or to waive the 500 linear foot limitation along the bank for NWP 13, must include the following:
  - a. A narrative description of the stream. This should include known information on: volume and duration of flow; the approximate length, width, and depth of the waterbody and characteristics observed associated with an Ordinary High Water Mark (e.g. bed and bank, wrack line or scour marks); a description of the adjacent vegetation community and a statement regarding the wetland status of the adjacent areas (i.e. wetland, non-wetland); surrounding land use; water quality; issues related to cumulative impacts in the watershed, and; any other relevant information;
  - b. An analysis of the proposed impacts to the waterbody, in accordance with General Condition 31;
  - c. Measures taken to avoid and minimize losses to waters of the U.S., including other methods of constructing the proposed activity(s); and
  - d. A compensatory mitigation plan describing how the unavoidable losses are proposed to be offset, in accordance with 33 CFR 332.

**B. General Regional Conditions that apply to all NWPs in the San Francisco District:**

1. Notification to the Corps (in accordance with General Condition No. 31) is required for any activity permitted by NWP if it will take place in waters or wetlands of the U.S. that are within the **San Francisco Bay diked baylands** (see figure 1) (undeveloped areas currently behind levees that are within the historic margin of the Bay. Diked historic baylands are those areas on the Nichols and Wright map below the 5-foot contour line, National Geodetic Vertical Datum (NGVD) (see Nichols, D.R., and N. A. Wright. 1971. Preliminary map of historic margins of marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map)). The notification shall explain how avoidance and minimization of losses of waters or wetlands are taken into consideration to the maximum extent practicable (see General Condition 23).
2. Notification to the Corps (in accordance with General Condition No. 31) is required for any activity permitted by NWP if it will take place in waters or wetlands of the U.S. that are within the **Santa Rosa Plain** (see figure 2). The notification will explain how avoidance and minimization of losses of waters or wetlands are taken into consideration to the maximum extent practicable in accordance with General Condition No. 23.
3. Notification to the Corps (in accordance with General Condition No. 31), including a compensatory mitigation plan, habitat assessment, and extent of proposed-project impacts

to Eelgrass Beds are required for any activity permitted by NWP if it will take place within or adjacent to **Eelgrass Beds**.

**C. Regional Conditions that apply to specific NWPs in the San Francisco District:**

**3. MAINTENANCE:**

1. To the extent practicable, excavation equipment shall work from an upland site (e.g., from the top of the bank, the road bed of the bridge, or culverted road crossing) to minimize adding fill into waters of the U.S. If it is not practicable to work from an upland site, or if working from the upland site would cause more environmental damage than working in the stream channel, the excavation equipment can be located within the stream channel but it must minimize disturbance to the channel (other than the removal of accumulated sediments or debris). As part of the notification to the Corps (in accordance with General Condition No. 31), an explanation as to the need to place excavation equipment in waters of the U.S. is required, as well as a statement of any additional necessary fill (e.g., cofferdams, access road, fill below the OHW mark for a staging area, etc.).
2. If the activity is proposed in a special aquatic site, the notification to the Corps (in accordance with General Condition No. 31) shall include an explanation of why the special aquatic site cannot be avoided, and the measures to be taken to minimize impacts to the special aquatic site.

**11. TEMPORARY RECREATIONAL STRUCTURES:**

1. Notification to the Corps (in accordance with General Condition No. 31) is required if any temporary structures are proposed in wetlands or vegetated shallow water areas (e.g. in eelgrass beds). The notification shall include the type of habitat and areal extent affected by the structures.

**12. UTILITY LINE ACTIVITIES:**

1. Excess material removed from a trench, associated with utility line construction, shall be disposed of at an upland site away from any wetlands or other waters of the U.S. so as to prevent this material from being washed into aquatic areas.
2. This NWP permit does not authorize the construction of substation facilities. Utility line substations can usually be constructed in uplands.

**13. BANK STABILIZATION:**

1. Notification to the Corps (in accordance with General Condition No. 31) is required for all activities stabilizing greater than 300 linear feet of channel. Where the removal of wetland vegetation (including riparian wetland trees, shrubs and other plants) or submerged, rooted, aquatic plants over a cumulative area greater than 1/10 acre or 300 linear feet is proposed, the Corps shall be notified (in accordance with General Condition No. 31). The notification shall include the type of vegetation and extent (e.g., areal dimension or number of trees) of the proposed removal. The notification shall also address the effect of the bank stabilization on the stability of the opposite side of the streambank (if it is not part of the stabilization activity), and on adjacent property upstream and downstream of the activity.
2. This permit allows excavating a toe trench in waters of the U.S., and, if necessary, to use the material for backfill behind the stabilizing structure. Excess material is to be disposed of in a manner that will have only minimal impacts to the aquatic environment. The notification to the Corps (in accordance with General Condition No. 31) shall include location of the disposal site.
3. For man-made banks, roads, or levees damaged by storms or high flows, the one cubic yard per running foot limit is counted only for that additional fill which encroaches (extends) beyond the pre-flood or pre-storm shoreline condition of the waterway. It is not counted for

the fill that would be placed to reconstruct the original dimensions of the eroded, man-made shoreline.

4. For natural berms and banks, the one cubic yard per running foot limit applies to any added armoring.
5. To the maximum extent practicable, any new or additional bank stabilization must incorporate structures or modifications beneficial to fish and wildlife (e.g., soil bioengineering or biotechnical design, root wads, large woody debris, etc.). Where these structures or modifications are not used, the applicant shall demonstrate why they were not considered practicable.

**14. LINEAR TRANSPORTATION PROJECTS:**

1. Notification to the Corps (in accordance with General Condition No. 31) is required for all projects filling greater than 300 linear feet of channel. For projects involving greater than 300 linear feet of bank stabilization, the project proponent shall address the effect of the bank stabilization on the stability of the opposite side of the streambank (if it is not part of the stabilization activity), and on adjacent property upstream and downstream of the activity.
2. This permit does not authorize construction of new airport runways and taxiways.
3. If this NWP has been used to authorize previous project segments within the same linear transportation project, justification must be provided demonstrating that the cumulative impacts of the proposed and previously authorized project segments do not result in more than minimal impacts to the aquatic system.
4. To the maximum extent practicable, any new or additional bank stabilization required for the crossing must incorporate structures or modifications beneficial to fish and wildlife (e.g., soil bioengineering or biotechnical design, root wads, large woody debris, etc.). Where these structures or modifications are not used, the applicant shall demonstrate why they were not considered practicable. Bottomless and embedded culverts are encouraged over traditional culvert stream crossings.

**23. APPROVED CATEGORICAL EXCLUSIONS:**

1. Use of this NWP requires notification to the Corps (in accordance with General Condition No. 31). The notification shall include the following:
  - a. A copy of the Federal Categorical Exclusion (Cat/Ex) document signed by the appropriate federal agency. If the Cat/Ex is signed by a state or local agency representative instead of by a federal agency representative, then copies of all documentation authorizing alternative agency signature shall be provided.
  - b. Written description of Corps authority (e.g., Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act.);
  - c. a list of conditions described in the Cat/Ex and/or attachments outlining measures that must be taken prior to, during, or after project construction to minimize impacts to the aquatic environment;
  - d. a copy of the jurisdictional delineation performed by qualified specialists showing the project limits and the location (delineated boundaries) of Corps jurisdiction within the overall project limits;
  - e. map(s) showing the locations of potentially permanent and temporary project impacts to areas within Corps jurisdiction;

- f. a clear and concise description of all project impacts including, but not necessarily limited to:
    1. quantification and description of permanent project impacts to areas within Corps jurisdiction,
    2. quantification and description of temporary impacts to areas within Corps jurisdiction, and
    3. linear extent of Corps jurisdiction affected by the project;
  - g. a general description of activities covered by the Cat/Ex that do not require Corps authorization but are connected or related to the activities in Corps jurisdiction;
  - h. a complete description of any proposed mitigation and/or restoration including, but not necessarily limited to, locations of any proposed planting, short- and long-term maintenance, proposed monitoring, success criteria and contingency plans;
  - i. written justification of how the project complies with the Nationwide Permit Program including less than minimal impact to the aquatic environment and compliance with the General Conditions.
  - j. For Federal Highway Administration (FHWA) Cat/Ex projects, the notification should describe how activities described in the Cat/Ex meet the description of the Cat/Ex project published in the August 28, 1987 Federal Register part 771.117 (a)(b)(c) and (d) (Volume 52, No. 167) or any updated version published in the Federal Register.
2. Only activities specifically described in the Cat/Ex project description will be covered by the NWP 23 authorization. If other activities not described in the Cat/Ex project description will be performed (e.g., dewatering, slope protection, etc.), these activities must receive separate NWP authorizations.
  3. Notification to the Corps (in accordance with General Condition 31) must include a copy of the signed Cat/Ex document and final agency determinations regarding compliance with Section 7 of the Endangered Species Act (ESA), Essential Fish Habitat (EFH) under the Magnusen-Stevens Act, and Section 106 of the National Historic Preservation Act.

**27. Aquatic Habitat Restoration, Establishment, and Enhancement Activities**

1. Notification to the Corps (in accordance with General Condition 31) must include documentation of a review of project impacts to demonstrate that at the conclusion of the work that the project would result in a net increase in aquatic function. Additionally, the documentation must include a review of project impacts on adjacent properties or structures and must also discuss cumulative impacts associated with the project.

**29. Residential Developments:**

1. When discharge of fill results in the replacement of wetlands or waters of the U.S. with impervious surfaces, to ensure that the authorized activity does not result in more than minimal degradation of water quality (in accordance with General Condition 25), the residential development shall incorporate low impact development concepts (e.g. native landscaping, bioretention and infiltration techniques, and constructed green spaces) to the extent practicable. A description of the low impact development concepts proposed in the project shall be included with the permit application. More information including low impact development concepts and definitions is available at the following website:  
<http://www.epa.gov/owow/NPS/lid/>.
2. Use of this NWP is prohibited within the San Francisco Bay diked baylands (undeveloped areas currently behind levees that are within the historic margin of the Bay. Diked historic baylands are those areas on the Nichols and Wright map (see figure 1) below the 5-foot

contour line, National Geodetic Vertical Datum (NGVD) (see Nichols, D.R., and N. A. Wright. 1971. Preliminary map of historic margins of marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map)).

**33. TEMPORARY CONSTRUCTION, ACCESS, AND DEWATERING:**

1. Access roads shall be designed to be the minimum width necessary and shall be designed to minimize changes to the hydraulic flow characteristics of the stream and degradation of water quality (in accordance with General Conditions 9 and 25). The following Best Management Practices (BMPs) shall be followed to the maximum extent practicable to ensure that flow and circulation patterns of waters are not impaired and adverse effects on the aquatic environment will be kept to a minimum:
  - a. The road shall be properly stabilized and maintained during and following construction to prevent erosion.
  - b. Construction of the road fill shall occur in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within waters of the United States (including adjacent wetlands) that lie outside the lateral boundaries of the fill itself.
2. Vegetative disturbance in the waters of the U.S. shall be kept to a minimum.
3. Borrow material shall be taken from upland sources whenever feasible.
4. Stream channelization is not authorized by this NWP.

**35. MAINTENANCE DREDGING OF EXISTING BASINS:**

1. Use of this NWP will require notification to the Corps (in accordance with General Condition No. 31). The notification information should be provided on the Consolidated Dredging-Dredged Material Reuse/Disposal Application. This application and instructions for its completion can be found on our web site at: <http://www.spn.usace.army.mil/conops/applications.html>. The information must include the location of the proposed upland disposal site. A jurisdictional delineation of the proposed upland disposal site prepared in accordance with the current method required by the Corps may also be required.
2. The U.S. Coast Guard will be notified by the permittee at least 14 days before dredging commences if the activity occurs in navigable waters of the U.S. (Section 10 waters).
3. The permittee will be required to provide the following information to the Corps:
  - a. Dredge Operation Plan: Submit, for approval by this office, no earlier than 60 calendar days and no later than 20 calendar days before the proposed commencement of dredging, a plan which includes the following: **Corps file number**, a copy of the dredging contract or description of the work under which the contractor will do the permitted work; name and telephone numbers of the dredging contractor's representative on site; proposed dredging start and completion dates; quantity of material to be removed; dredging design depth and typical cross section including overdepth; and date of last dredging episode and design depth. The Dredge Operational Plan shall also provide the following information: The controls being established to insure that dredging operations occur within the limits defined by the basin or channel dimensions and typical channel section.
  - b. Pre-Dredge Survey: Submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of dredging, a survey with accuracy to one-tenth foot that delineates and labels the following: areas to be dredged with overdepth allowances; existing depths; estimated quantities to be dredged to the design depth; and

estimated quantities for overdepth dredging. **All surveys shall be signed by the permittee to certify their accuracy. Please include the Corps file number.**

- c. Solid Debris Management Plan: Submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of work, a plan which describes measures to ensure that solid debris generated during any dredging operation is retained and properly disposed in areas not under Corps jurisdiction. **At a minimum, the plan shall include the following: source and expected type of debris; debris retrieval method; Corps file number; disposal method and site; schedule of disposal operations; and debris containment method to be used, if floatable debris is involved. (Please note that failure to provide all of the information requested in a, b, and c above may result in delays to your project. When your Dredge Operation Plan has been approved, you will receive a written authorization to commence with your project.)**
- d. Post-Dredge Survey: Submit, **within 30 days of the last disposal activity** ("last" is defined as that activity after which no further activity occurs for 15 calendar days), a survey with accuracy to one-tenth foot that delineates and labels the areas dredged and provides the dredged depths. **Also, include the Corps file number, actual dates of dredging commencement and completion, actual quantities dredged for the project to the design depth, and actual quantities of overdepth.** The permittee shall substantiate the total quantity dredged by including calculations used to determine the volume difference (in cubic yards) between the Pre- and Post-Dredge Surveys and **explain any variation in quantities greater than 15% beyond estimated quantities or dredging deeper than is permitted (design plus overdepth allowance).** **All surveys shall be accomplished by a licensed surveyor and signed by the permittee to certify their accuracy.** A copy of the post dredge survey should be sent to the National Ocean Service for chart updating:  
NOAA/National Ocean Service,  
Nautical Data Branch  
N/CS26, SSMC3, Room 7230  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282.
- e. **The permittee or dredge contractor shall inform this office when: 1) a dredge episode actually commences, 2) when dredging is suspended (suspension is when the dredge contractor leaves the dredge site for more than 48 hours for reasons other than equipment maintenance), 3) when dredging is restarted, and 4) when dredging is complete. Each notification should include the Corps file number.** Details for submitting these notifications will be provided in the verification letter (to whom and how).

### **39. Commercial and Institutional Developments:**

1. When discharge of fill results in the replacement of wetlands or waters of the U.S. with impervious surfaces, to ensure that the authorized activity does not result in more than minimal degradation of water quality (in accordance with General Condition 25), the commercial and institutional development shall incorporate low impact development concepts (e.g. native landscaping, bioretention and infiltration techniques, and constructed green spaces) to the extent practicable. A description of the low impact development concepts proposed in the project shall be included with the permit application. More information including low impact development concepts and definitions is available at the following website: <http://www.epa.gov/owow/NPS/lid/>.
2. Use of this NWP is prohibited within the San Francisco Bay diked baylands (undeveloped areas currently behind levees that are within the historic margin of the Bay. Diked historic baylands are those areas on the Nichols and Wright map (see figure 1) below the 5-foot

contour line, National Geodetic Vertical Datum (NGVD) (see Nichols, D.R., and N. A. Wright, 1971. Preliminary map of historic margins of marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map)).

**40. AGRICULTURAL ACTIVITIES:**

1. This NWP does not authorize discharge of fill into the channel of a perennial or intermittent watercourse that could impede high flows. This limitation does not apply to watercourses that flow only when there is an irregular, extraordinary flood event.

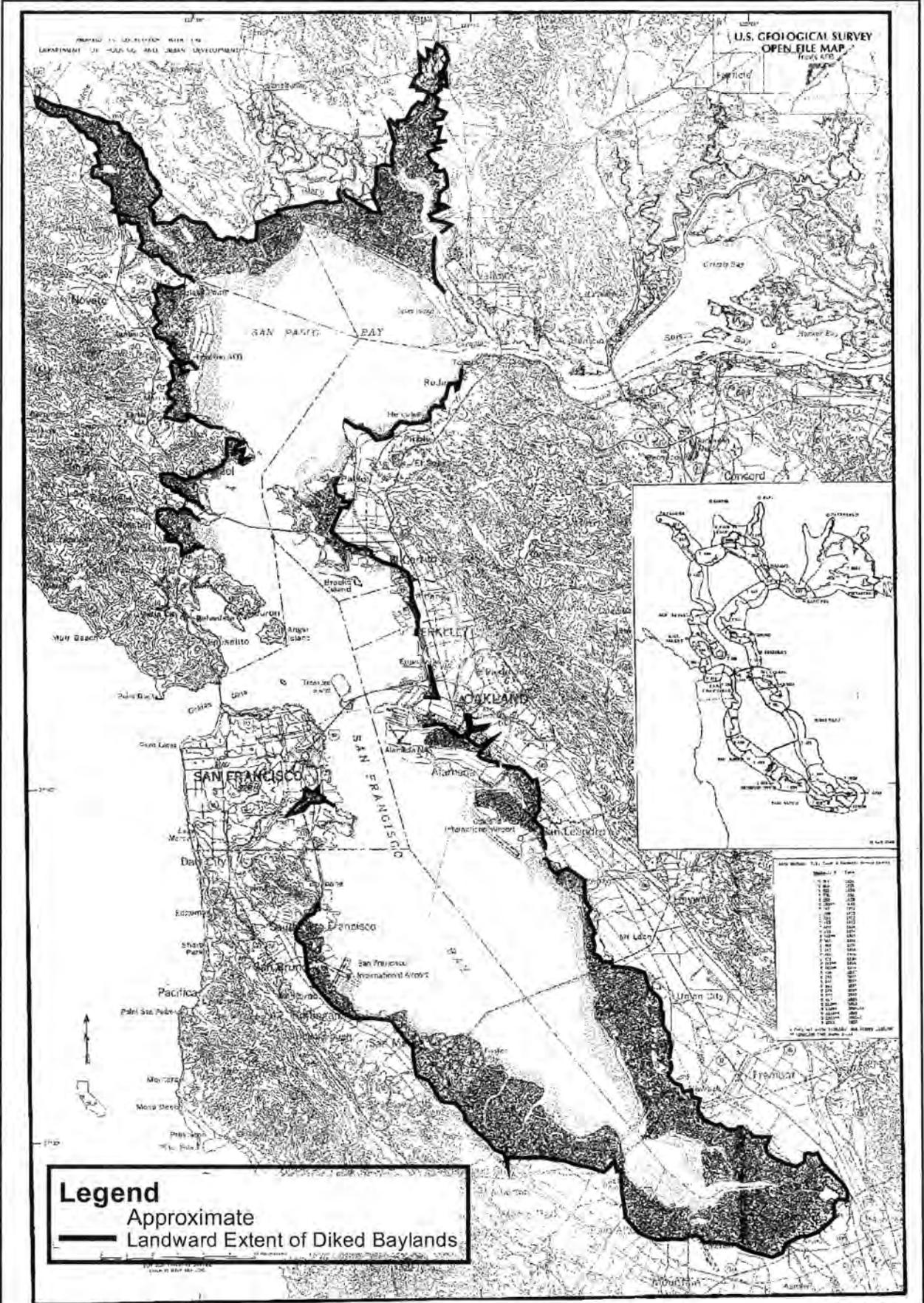
**41. RESHAPING EXISTING DRAINAGE DITCHES:**

1. Compensatory mitigation may be required if the Corps determines there will be a detrimental impact to aquatic habitat.
2. Notification to the Corps (in accordance with General Condition 31) is required if the applicant proposes to re-grade, discharge, install channel lining, or redeposit fill material.
3. The notification to the Corps (in accordance with General Condition 31) shall include an explanation of the project's benefit to water quality and a statement demonstrating the need for the project.

**42. RECREATIONAL FACILITIES:**

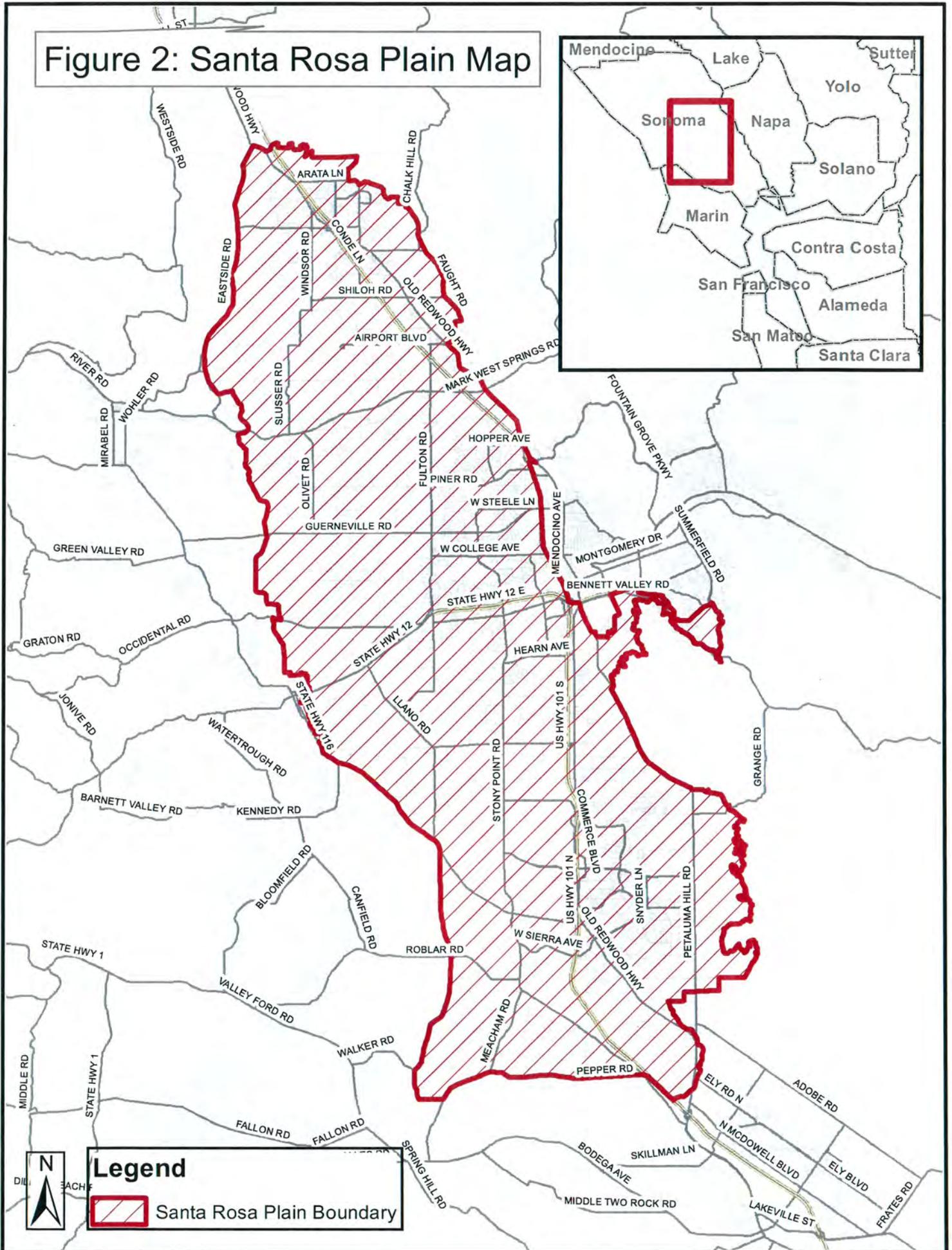
1. If buildings are proposed to be built in waters of the United States, including wetlands, the applicant must demonstrate that there is no on-site practicable alternative that is less environmentally damaging as defined by the Section 404(b)(1) guidelines.

Figure 1: Map of Diked Baylands



**Legend**  
 ——— Approximate Landward Extent of Diked Baylands

Figure 2: Santa Rosa Plain Map



**Legend**

 Santa Rosa Plain Boundary



Enclosure 4

Permittee: Gail Popham, Caltrans

File Number: **2015-00252N**

**Certification of Compliance  
for  
Nationwide Permit**

"I hereby certify that the work authorized by the above referenced File Number and all required mitigation have been completed in accordance with the terms and conditions of this Nationwide Permit authorization."

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(Permittee)

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(Date)

Return to:

Mr. Jim Mazza  
U.S. Army, Corps of Engineers  
San Francisco District  
Regulatory Division, CESP-N-R-N  
1455 Market Street  
San Francisco, CA 94103-1398

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **WATER QUALITY**

California Regional Water Quality Control Board

North Coast Region 401 Certification dated September 10, 2015 and Amended 401  
Certification dated March 30, 2016.

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## North Coast Regional Water Quality Control Board

September 10, 2015

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### In the Matter of Water Quality Certification

for the

**State Route 101 Cedar Creek Arch Culvert Repair Project  
39.8467, -123.702<sup>1</sup>  
WDID No. 1B15082WNME, ECM PIN CW-816328  
Caltrans EA No. 01-0C370, EFIS No. 01-1200-0283**

APPLICANT: California Department of Transportation  
RECEIVING WATER: Cedar Creek  
HYDROLOGIC AREA: Benbow Hydrologic Sub Area No. 111.32.  
COUNTY: Mendocino  
FILE NAME: CDOT Cedar Creek Arch Culvert 01-Men-101 PM R 89.25

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#### FINDINGS BY THE EXECUTIVE OFFICER:

1. On July 2, 2015, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application from the California Department of Transportation (Caltrans), requesting Federal Clean Water Act (CWA), section 401, Water Quality Certification (certification) for activities related to the proposed State Route 101 Cedar Creek Arch Culvert Repair Project (Project).
2. **Receiving Waters:** The proposed Project would cause disturbances to Cedar Creek, which is tributary to the South Fork Eel River in the Benbow Hydrologic Sub Area No.

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<sup>1</sup> WGS84 datum

111.32. Cedar Creek is a perennial stream that supports federally threatened Southern Oregon/Northern California Coast (SONCC) Evolutionary Significant Unit (ESU) coho salmon, federally threatened California Coastal (CC) Chinook Salmon ESU, and federally threatened Northern California (NC) ESU steelhead trout.

3. **Public Notice:** The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on August 6, 2015, and posted information describing the Project on the Regional Water Board's website. No comments were received.
4. **Project Description:** The purpose of the Project is to preserve the integrity of the culvert bottom and to improve fish passage and remove fish passage barriers from the culvert system.

Cedar Creek crosses beneath State Route 101 at approximately post-mile 89 through an approximately 21-foot-high by 22.8-foot-wide, 763-foot-long single barrel, cast-in-place reinforced concrete arch culvert. The reinforced concrete culvert bottom has deteriorated and exposed the structural rebar. The outlet of the culvert includes a Denil fish ladder and reinforced concrete apron that terminates approximately 10 feet above the natural stream elevation below.

The culvert includes 24 reinforced concrete weirs that will be replaced with v-shaped vortex weirs to improve fish passage. At the culvert outlet, the existing concrete rock apron and Denil fish ladder will be removed and replaced with a concrete fishway to improve fish passage for all life stages. The fishway would be approximately 160 feet-long and 30 feet wide and would fix the abrupt change in grade at the culvert outlet. Thirteen (13) vortex grade control weirs would also be constructed downstream of the culvert with 10-foot spacing and an 8-inch drop between weirs. Two rock weirs spaced 25 feet apart with a 1-foot drop would be installed downstream of the vortex weirs to transition to the natural channel.

Caltrans would also construct an approximately 800-foot-long by 12-foot-wide paved construction access road downhill to the upstream left bank of Cedar Creek, resulting in approximately 9,600 square feet of added impervious area. The road would be accessed via a private development adjacent State Route 271 on the south side of the Cedar Creek bridge. An unmaintained and partially vegetated dirt access road currently exists in the roadway footprint area, which would require clearing and grading to accommodate the wider footprint of the new access road. The upper portion of the paved access road would incorporate a dike to direct surface runoff downslope to a rock-slope-protection (RSP) pad prior to discharge to an existing drainage. The lower portion of the access road would also include a dike and direct surface runoff directly to an RSP pad and Cedar Creek. The road would remain for maintenance use after Project completion.

5. **Construction Timing:** The Project is expected to require 220 days of construction. The Project is proposed to begin June 2016, and be completed by October 15, 2017.
6. **Project Impacts:** The proposed Project would result in approximately 925 linear feet (0.55 acres) of permanent impacts to Cedar Creek as a result of weir replacement and fishway construction. The proposed Project would also result in approximately 1,195 linear feet (0.81 acres) of temporary impacts to Cedar Creek as a result of stream diversion and grading for construction access upstream of the culvert. The 925 linear feet of permanent impacts would occur within the footprint of the 1,195-linear-foot temporary impact area.

Project implementation would require stream diversion in order to provide work access. Caltrans is proposing to use an approximately 30-inch-diameter pipe that would start diverting flows approximately 300 feet upstream of the culvert inlet and discharge approximately 250 feet downstream of the culvert outlet.

The proposed work would not result in the removal of live trees but would require removal of saplings, shrubs, and herbaceous vegetation.

7. **Mitigation for Project Impacts:** Compensatory mitigation for permanent impacts to jurisdictional waters is not required because the Project incorporates fish passage improvements.
8. **Disturbed Soil Area:** Project implementation would result in greater than one acre of disturbed soil area. Caltrans shall apply for coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) and prepare a Stormwater Pollution Prevention Plan detailing best management practices (BMPs) to control pollution from the Project area during construction. All temporarily disturbed areas within the Project area shall be appropriately stabilized and/or replanted with appropriate native vegetation.
9. **Utility Relocations:** Utility relocations affecting jurisdictional waters are not proposed for this Project.
10. **Other Agency Actions:** Caltrans has applied for coverage under a non-reporting United States Army Corps of Engineers Nationwide Permit No. 27, *Aquatic Habitat Restoration, Establishment, and Enhancement Activities*, pursuant to CWA, section 404. Caltrans has applied for a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Wildlife. Caltrans has also received a Biological Opinion, Essential Fish Habitat consultation, and incidental take statement from the National Marine Fisheries Service (NMFS) dated May 4, 2015, to address potential

adverse effects to SONCC ESU coho salmon, CC ESU Chinook salmon, and NC ESU steelhead trout (SWR-2012-3549).

11. **CEQA Compliance:** On May 14, 2015, Caltrans signed a Notice of Determination approving a Mitigated Negative Declaration for the Project (State Clearinghouse No. 2014122007) to comply with the California Environmental Quality Act.
12. **Total Maximum Daily Load:** Cedar Creek is a tributary of the Eel River. The Eel River is identified as impaired for sediment and temperature under CWA section 303(d). Erosion is identified as a contributing source to sediment impairment. Caltrans would utilize appropriate erosion control, sediment control, and site management BMPs to control pollutants during construction, and drainage improvements would result in a net reduction in sediment contributions. Project implementation would not result in loss of effective shade along Cedar Creek. Accordingly, this certification does not certify any activities that would contribute to Eel River sediment or temperature impairment.
13. **Antidegradation Policy:** The federal antidegradation policy requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. This certification is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater, and does not otherwise authorize degradation of the waters affected by this Project.
14. This discharge is also regulated under State Water Resources Control Board [Order No. 2003-0017-DWQ](#), "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this certification. A weblink to this Order is included at the end of this certification.

Receiving Water:	South Fork Eel River (Benbow Hydrologic Sub Area No. 111.32)	
Filled and/or Excavated Areas:	Permanent – jurisdictional waters	925 linear feet (0.55 acres)
	Temporary – jurisdictional waters	1,195 linear feet (0.81 acres)
Dredge Volume:	none	
Latitude/Longitude:	39.8467, -123.702	

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the State Route 101 Cedar Creek Arch Culvert Repair Project (WDID No. 1B15082WNME), as described in the application will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that Caltrans complies with the following terms and conditions:

**All conditions of this certification apply to Caltrans (and all its employees) and all contractors (and their employees), sub-contractors (and their employees), and any other entity or agency that performs activities or work on the Project as related to this Water Quality Certification.**

### **Project-Specific Conditions Requiring Reports**

1. Caltrans shall provide a dewatering and diversion plan, subject to the review and acceptance of Regional Water Board staff prior to commencement of diversion and dewatering. The plan shall be consistent with NMFS SWR-2012-3549, Section 1.3.2.4, *Temporary stream diversion (2 seasons)*. The plan shall include the area to be dewatered, timing of dewatering, and method of dewatering to be implemented. Natural flow shall be maintained upstream and downstream of the Project area. Any temporary dams or diversions shall be installed such that the intake, diversion, and discharge do not cause sedimentation, siltation, or erosion.
2. To compensate for the addition of approximately 9,600 square feet of impervious area associated with the new access road, Caltrans shall remove no less than 21,000 square feet of impervious surface from the privately-owned parcel above the access road (Assessor's Parcel No. 0534001800). Caltrans shall remove the impervious area prior to or immediately upon Project completion and provide before and after photo-documentation to the Regional Water Board no later than 60 days after impervious surface removal. Should the impervious surface be replaced at any time by the landowner, Caltrans shall submit a proposal, subject to the acceptance of Regional Water Board staff, to mitigate for the added impervious area.

### **Standard Conditions**

3. Herbicides and other pesticides shall not be used within the Project limits. If Caltrans has a compelling case as to why pesticides should be used, then a request for pesticide use and a BMP plan may be submitted to the Regional Water Board staff for review and acceptance.
4. All Project activities and BMPs shall be implemented according to the submitted application package and the findings and conditions of this certification. Subsequent changes to the Project that could significantly impact water quality shall first be submitted to Regional Water Board staff for prior review, consideration, and written concurrence. If the Regional Water Board is not notified of an alteration to the Project that results in an impact to water quality, it will be considered a violation of this certification, and Caltrans

### **Standard Conditions (continued)**

may be subject to Regional Water Board enforcement actions.

5. All conditions required by this certification shall be included in the Contract Documents prepared by Caltrans for the contractor. In addition, Caltrans shall require compliance with all conditions included in this certification in the bid contract for this Project.
6. Caltrans is prohibited from discharging waste to waters of the State, unless explicitly authorized by this certification. For example, no debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, welding slag, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, shall be allowed to enter into State waters.
7. Except for temporary stockpiling of waste generated during demolition operations ("temporary" in this instance means generated and removed during the same working day), waste materials shall not be placed in a manner where the materials may be transported into waters of the State. Waste materials shall not be placed within 100 linear feet of State waters. Exceptions to the 100-foot limit may be granted on a case-by-case basis provided Caltrans first submits a proposal in writing that is found acceptable by Regional Water Board staff.
8. Caltrans is liable and responsible for the proper disposal, reuse, and/or recycling of all Project-generated waste in compliance with applicable State and Federal laws and regulations, and as described in Caltrans 2010 Standard Specifications 13-4.03D, Waste Management. Additionally, when handling, transporting, disposing, reusing, and/or recycling Project-generated waste, Caltrans and their contractors shall:
  - i) Provide the Regional Water Board with a copy of the Solid Waste Disposal and Recycling Report prepared for Caltrans by the contractor per Caltrans 2010 Standard Specification 14-10.02A(1), Submittals. These reports shall be provided not later than January 31 for each year work is performed during the previous calendar year. A copy of the final Solid Waste Disposal and Recycling Report shall be submitted to the Regional Water Board within 30 days after being received by Caltrans from the contractor.
  - ii) For waste other than solid waste, obtain evidence that waste has been appropriately disposed, reused, and/or recycled. Evidence shall include type and quantity of waste and may include, but not be limited to, property owner agreements, permits, licenses, and environmental clearances. Evidence shall be provided to the Regional Water Board upon request; and
  - iii) For waste other than solid waste, ensure the Resident Engineer has given written permission for disposal, reuse, and/or recycling, prior to the actual disposal, reuse, and/or recycling.

### **Standard Conditions (continued)**

9. Asphalt-concrete grindings shall not be placed in any location where they may, at any time, be directly exposed to surface waters or seasonally high ground water, except asphalt-concrete grindings may be re-used and incorporated into hot mix asphalt products or encapsulated within the roadway structural section.
10. Caltrans and their contractors shall comply with the activity restrictions detailed in Caltrans 2010 Standard Specifications 13-4.03C(1). In addition, fueling, maintenance, storage and staging of vehicles and equipment shall be prohibited within waters of the State (e.g., gravel bars, seeps, ephemeral streams) and riparian areas.
11. Fueling, maintenance, and/or staging of individual equipment types within waters of the State or riparian areas may be authorized if Caltrans first prepares a plan for review and approval by Regional Water Board staff that:
  - i) Identifies the specific piece of machinery that may require fueling, maintenance, and/or staging within waters of the State or riparian areas;
  - ii) Provides justification for the need to refuel, maintain, or stage within State waters or riparian areas. The justification shall describe why conducting the activity outside of jurisdictional waters is infeasible; and
  - iii) Includes a narrative of specific BMPs that shall be employed to prevent discharges to State waters and riparian areas;
12. Caltrans shall not use leaking vehicles or equipment within State waters or riparian areas.
13. Only 100-percent biodegradable erosion and sediment control products that will not entrap or harm wildlife shall be used. Photodegradable synthetic products are not considered biodegradable. If Caltrans finds that erosion control netting or products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. This condition does not prohibit the use of plastic sheeting used in water diversion or dewatering activities. Caltrans shall request approval from the Regional Water Board if an exception to this requirement is needed for a specific location.
14. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited.
15. Non-stormwater discharges are prohibited unless the discharge is first approved by the Regional Water Board and in compliance with the Basin Plan. If dewatering of groundwater is necessary, then Caltrans shall use a method of water disposal other

### **Standard Conditions (continued)**

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

16. Gravel bags used within State waters shall:

- i) Comply with Caltrans 2010 Standard Specifications sections 13-5.02G and 88-1.02F;
- ii) Be immediately removed and replaced if the bags have developed or are developing holes or tears; and
- iii) Be filled only with clean washed gravel.

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

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

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

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

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

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

### **Standard Conditions (continued)**

22. Uncured concrete shall not be exposed to State waters or surface waters that may discharge to State waters. Concrete sealants may be applied to the concrete surface where difficulty in excluding flow for a long period may occur. If concrete sealant is used, water shall be excluded from the site until the sealant is cured. If groundwater comes into contact with fresh concrete, it shall be prevented from flowing towards surface water.
23. Ground and surface water that has come into contact with fresh concrete, and all other wastewater, shall not be discharged to State waters or to a location where it may discharge to State waters; the wastewater shall be collected and re-used or disposed of in a manner approved by the Regional Water Board.
24. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill on-site shall be performed in accordance with all State and Federal policies and established guidelines and must be submitted to the Regional Water Board for review and consideration of acceptance.
25. Caltrans shall provide a copy of this certification and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ (web link referenced below) to the contractor and all subcontractors conducting the work, and require that copies remain in their possession at the work site. Caltrans shall be responsible for work conducted by its contractor and subcontractors.
26. The validity of this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833. The total application fee is \$16,133. The Regional Water Board received \$17,233 from Caltrans on July 2, 2015. Caltrans is due a refund of \$1,100.
27. This certification will be subject to annual billing during the construction phase ("Annual Active Discharge Fee") and during the monitoring phase of the Project ("Annual Post Discharge Monitoring Fee"), per the current fee schedule, which can be found on our website:  
[http://www.swrcb.ca.gov/northcoast/water\\_issues/programs/water\\_quality\\_certification.shtml](http://www.swrcb.ca.gov/northcoast/water_issues/programs/water_quality_certification.shtml). These fees will be automatically invoiced to Caltrans.
28. Caltrans shall notify the Regional Water Board upon Project construction completion to request termination of the Annual Active Discharge Fee and to receive a "Notice of Completion of Discharges Letter." If the Project is subject to the Annual Post Discharge Monitoring Fee, then Caltrans shall also notify the Regional Water Board at the end of the monitoring period to request termination of the fee and receive a "Notice of Project

### **Standard Conditions (continued)**

Complete Letter.” Caltrans may be required to submit completion reports at the end of each of these phases. Regional Water Board staff may request site visits at the end of each Project phase to confirm Project status and compliance with this certification.

29. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
30. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
31. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.
32. This certification is not transferable. In the event of any change in control of ownership of land presently owned or controlled by Caltrans, Caltrans shall notify the successor-in-interest of the existence of this certification by letter and shall forward a copy of the letter to the Regional Water Board. The successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of this certification to discharge dredged or fill material under this certification. The request must contain the following:
  - i) Requesting entity’s full legal name;
  - ii) The state of incorporation, if a corporation;

**Standard Conditions (continued)**

- iii) The address and phone number of contact person; and
  - iv) A description of any changes to the project or confirmation that the successor-in-interest intends to implement the project as described in this certification.
33. Except as may be modified by any preceding conditions, all certification actions are contingent on:
- i) The discharge being limited, and all proposed revegetation, avoidance, minimization, and mitigation measures being completed, in strict compliance with Caltrans's project description and CEQA documentation, as approved herein;
  - ii) Caltrans shall construct the Project in accordance with the project described in the application and the findings above; and
  - iii) Compliance with all applicable water quality requirements and water quality control plans including the requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan), and amendments thereto.

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

34. The authorization of this certification for any dredge and fill activities expires five years from the date of this certification. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

**Conditions 1 and 2 are requirements for information and reports.** Any requirement for a report made as a condition to this certification is a formal requirement pursuant to California Water Code section 13267, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in California Water Code, Section 13268.

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

Please contact our staff Environmental Scientist, Brendan Thompson at (707) 576-2699, or via e-mail, at [Brendan.Thompson@waterboards.ca.gov](mailto:Brendan.Thompson@waterboards.ca.gov), if you have any questions.

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Matthias St. John  
Executive Officer

150910\_BJT\_dp\_CDOT\_MEN101\_CedarCreekArchCulvert\_401

Original to: Mr. Steve Blair, Caltrans, District 1, 1656 Union Street, Eureka, CA 95501  
[Steven.Blair@dot.ca.gov](mailto:Steven.Blair@dot.ca.gov)

cc: Holly Costa, U.S. Army Corps of Engineers [Holly.N.Costa@usace.army.mil](mailto:Holly.N.Costa@usace.army.mil)  
JoAnn Dunn, California Department of Fish and Wildlife [JoAnn.Dunn@wildlife.ca.gov](mailto:JoAnn.Dunn@wildlife.ca.gov)  
State Water Resources Control Board [Stateboard401@waterboards.ca.gov](mailto:Stateboard401@waterboards.ca.gov)  
Environmental Protection Agency, Region 9 [R9-WTR8-Mailbox@epa.gov](mailto:R9-WTR8-Mailbox@epa.gov)  
Gail Popham, Caltrans [Gail.Popham@dot.ca.gov](mailto:Gail.Popham@dot.ca.gov)  
Rebecca Bernard, NMFS [Rebecca.Bernard@noaa.gov](mailto:Rebecca.Bernard@noaa.gov)



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## North Coast Regional Water Quality Control Board

March 30, 2016

California Department of Transportation  
Attn: Mr. Steve Blair  
1656 Union Street  
Eureka, CA 95501

Dear Mr. Blair:

**Subject:** Amendment to the Federal Clean Water Act, Section 401, Water Quality Certification for the Cedar Creek Arch Culvert Repair Project

**Files:** CDOT Highway 101 Cedar Creek Arch Culvert Repair Project  
ECM PIN CW-816328, WDID No. 1B15082WNME  
Caltrans EA No. 01-0C370

On November, 24, 2015, we received your email requesting an amendment to the September, 10, 2015, Federal Clean Water Act, Section 401, Water Quality Certification (certification) for the Cedar Creek Arch Culvert Repair Project (Project).

In response to your request, this letter serves as an amendment to Finding 8 and Condition 2 in the Project-Specific Conditions of the certification, modifying the project description, as outlined below:

**Finding 8:** Project implementation would not result in greater than one acre of disturbed soil area. Caltrans shall apply for coverage under the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) and prepare a Water Pollution Control Plan detailing best management practices (BMPs) to control pollution from the Project area during construction. All temporarily disturbed areas within the Project area shall be appropriately stabilized and/or replanted with appropriate native vegetation.

**Condition 2:** To compensate for the addition of approximately 9,600 square feet of impervious area associated with the new access road, Caltrans shall remove no less than 9,600 square feet of impervious surface from the privately-owned parcel above the access road (Assessor's Parcel No. 0534001800). Caltrans shall remove the impervious area prior to or immediately upon Project completion and provide before and after photo documentation to the Regional Water Board no later than 60 days after impervious surface removal.

I hereby issue an amendment to the project description in Finding 8 and Condition 2 in the Project-Specific Conditions of the certification for the Cedar Creek Arch Culvert Repair Project (WDID No. 1B15082WNME) certifying that the remainder of the Water Quality Certification sections of the September 10, 2015, Order are still valid.

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

Sincerely,

 Fred Blatt  
2016.03.30  
11:00:44 -07'00'  
Water Boards

Matthias St. John  
Executive Officer

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **AGREEMENT**

California Department of Fish and Wildlife

Streambed Alteration Agreement 1600-2015-0235-R1

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



RECEIVED

SEP 25 2015

**STREAMBED ALTERATION AGREEMENT**  
NOTIFICATION No. 1600-2015-0235-R1  
CEDAR CREEK

CDFW - EUREKA

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
MEN 101 CEDAR CREEK ARCH CULVERT  
EA 0C370; S.R. 101 PM 89.25, MENDOCINO COUNTY

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

#### RECITALS

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

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

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

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

#### PROJECT LOCATION

The Project is located on Cedar Creek, tributary to South Fork Eel River, tributary to Eel River, tributary to Pacific Ocean. The Project is located along State Route (S.R.) 101 at Post Mile (PM) 89.25 approximately 2 miles south of Leggett in the County of Mendocino; State of California; Section 14, Township 23 North, Range 17 West, Mt. Diablo Base and Meridian; Leggett U.S. Geological Survey 7.5-minute quadrangle.

#### PROJECT DESCRIPTION

The Project proposes to make fish passable a 21-foot high, 22.8-foot wide, 763-foot long single barrel, cast-in-place, reinforced concrete (RC) arch culvert with 24 weirs at Cedar Creek in Mendocino County. The existing weirs will be removed and new v-shaped reinforced concrete vortex weirs with rounded steel armoring on the tops will be

installed. At the outlet of the culvert the existing concrete rock apron and Denil fish ladder will be removed and replaced with a concrete fishway approximately 160 feet long and 30 feet wide. The fishway consists of a series of 13 cast-in-place vortex weirs that will be constructed downstream of the culvert, with 10-foot spacing and an 8-inch water elevation change between each weir. Downstream, where the fishway transitions back into a natural channel, two additional boulder weirs for grade control will be placed 25 feet apart and with a maximum 1-foot water surface elevation change.

Water diversion will be needed to divert Cedar Creek around the work site during construction. The diversion will start approximately 300 feet upstream of the culvert and continue through the culvert to beyond the work site, approximately 250 ft. downstream of the existing culvert outlet. The creek will be diverted into and conveyed through one or more 30-inch diameter pipes. No removal of live trees is proposed.

## PROJECT IMPACTS

Existing fish or wildlife resources the Project could substantially adversely affect include: **California coastal Chinook salmon (*Oncorhynchus tshawytscha*), Southern Oregon-Northern California Coast (SONCC) coho salmon (*O. kisutch*), northern California steelhead (*O. mykiss irideus*)**, nesting or migrating riparian-dependent bird species; amphibians, reptiles, aquatic invertebrates, mammals, and other aquatic and riparian species.

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

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

## MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

### 1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification

materials, readily available at the Project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.

- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons in responsible positions who will be working on the Project at the Project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the Project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the Project site at any time to verify compliance with the Agreement.

## **2. Avoidance and Minimization Measures**

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

- 2.1 Except where otherwise stipulated in this Agreement, all work shall be in accordance with Permittee's notification, including all maps, plans, photographs, drawings, and all other supporting documents submitted as part of the notification and received as of July 20, 2015.
- 2.2 The Permittee shall instruct all persons who will be completing any ground disturbing activity at the work site to comply with the conditions set forth in this Agreement.
- 2.3 If sightings of ring-tailed cat (*Bassariscus astutus*), Pacific fisher (*Martes pennanti*), marten (*Martes americana*) or any other Species of Special Concern are encountered in the course of activities at Project sites, the Permittee shall immediately notify and consult with CDFW to identify any measures that may be needed to avoid take or minimize adverse impacts to these species.
- 2.4 Permittee shall perform pre-construction amphibian surveys immediately prior to initiating construction activities. Native amphibian species found within the work area shall be relocated to a suitable habitat area outside of the construction limits. Suitable exclusion measures shall be in place prior to construction to minimize injury or mortality to wildlife.

- 2.5 CDFW shall be provided with a plan (DFRP) to dewater the work site and remove and relocate fish for review and approval at least 10 working days prior to proposed activities. No instream work shall begin prior to receiving plan approval from CDFW.

#### TIMING

- 2.6 All work within the bed, bank or channel shall be confined to the period June 15 to October 15 of any year in which this Agreement is valid, and in accordance with other provisions in this Agreement.
- 2.7 If weather conditions permit and the stream is dry or at minimum flow, the Permittee may perform work outside of the above referenced work window, provided a written request is made to CDFW at least five (5) working days before the proposed work period variance. Written approval from CDFW for the proposed work period variance must be received by the Permittee prior to starting or continuing work outside of the above referenced work window.
- 2.8 If work is performed within the stream channel or on the banks outside of the above referenced work window, the Permittee shall do all of the following:
- a. Stage erosion and sediment control materials at the work site.
  - b. Monitor the seventy-two (72) hour forecast from the National Weather Service.
  - c. When the 72-hour forecast indicates a probability of precipitation of 60% or greater, or prior to the onset of any precipitation, ground disturbing activities shall cease and erosion control measures shall be implemented to stabilize exposed soils and prevent the mobilization of sediment into the stream channel or adjacent riparian areas.

#### RIPARIAN HABITAT PROTECTION

- 2.9 Vehicles and equipment shall not be driven or operated in water or where riparian vegetation or aquatic organisms may be destroyed, except as otherwise provided for in this Agreement to complete authorized work.
- 2.10 Project-related personnel and equipment shall access the Project site using existing designated routes, and shall not drive through water except to initially install a stream diversion. Project-related vehicle traffic shall be restricted to established roads, staging, and parking areas.
- 2.11 Except where provided for within this Agreement, the removal of riparian vegetation from the streambed or banks is prohibited without prior written approval from CDFW.

- 2.12 Whenever possible, root systems shall be left intact when cutting or trimming woody vegetation to facilitate more rapid recovery following construction impacts. No ground disturbance shall occur during any removal of vegetation between October 15 and June 1.
- 2.13 Removal of existing shrubs and herbaceous vegetation shall not exceed the minimum necessary to complete operations.
- 2.14 Permittee shall clearly delineate right-of-way and/or property boundaries of the Project site with fencing, stakes or flags and shall similarly delineate the limits of Project activities. Permittee shall restrict all Project activities to within the fenced, staked or flagged Project boundaries. Permittee shall maintain all fencing, stakes and flags until the completion of Project activities, at which time, Permittee shall remove all flagging and fencing from the site and dispose of it properly.
- 2.15 Environmentally Sensitive Area (ESA) fencing shall be clearly shown on the Project plans and drawings, and shall be installed prior to any ground or vegetation disturbance. ESA fencing shall consist of temporary orange construction fence or other highly visible material that clearly delineates the limits of the work area. The Permittee shall ensure that the contractor, their subcontractors, and all personnel working on the Project are instructed on the purpose of the ESA fencing and understand the limits of the work area.

#### DEWATERING and ISOLATING WORK SITE

- 2.16 All construction work within the stream channel, bed or bank shall be performed in isolation from surface or subsurface flow.
- 2.17 Where water is present in the work area, a temporary stream diversion shall be constructed to isolate the work area from water. Temporary diversions may be constructed using small excavated in-channel sumps, gravel berms, clean washed spawning gravels, sand bags, K-rail, plastic sheeting, or a combination of these.
- 2.18 Temporary diversion techniques shall effectively isolate the work site and prevent or minimize water entering the construction site. Diverted stream flows shall be cleanly bypassed around the work site via pumping or gravity flow using temporary culverts, pipes, or conduits, and cleanly released downstream of the work area. Temporary diversion pipes shall be of sufficient size and number to accommodate the entire stream flow while the diversion is in place without overtopping or diverting.
- 2.19 Dewatering shall be done in a manner that prevents the discharge of material that could be deleterious to fish, plants or other aquatic life and maintains adequate flows to downstream reaches during all times natural flow would have supported aquatic life.

- 2.20 Pumps and pipes or conduits used to dewater stream reaches shall be screened as follows:
- a. Perforated plate: screen openings shall not exceed 3/32 inches (2.38 mm) in diameter.
  - b. Woven wire: screen openings shall not exceed 3/32 inches (2.38 mm) measured diagonally.
  - c. Screen material shall provide a minimum of 27% open area.
  - d. Approach velocity shall not exceed 0.33 feet per second.
- 2.21 If clean washed spawning gravel (0.5" – 4") is used for diversion berms, it may be left in the channel following construction provided it is spread to a depth less than 6 inches and does not impede the movement of fish or redirect stream flows. All other temporary diversion materials shall be removed from the stream channel upon completion of work.
- 2.22 The Permittee shall remove any turbid water and sediment present in the work area prior to restoring water flow through the Project Site. Turbid water and sediment removed from the isolated work area may be used for construction purposes (compaction, dust abatement, etc.) or shall be properly disposed of in an upland area where it will not drain to surface waters.
- 2.23 Drafting of water from Cedar Creek is not authorized by this Agreement. Water for construction purposes shall be obtained from legal commercial municipal or industrial sources.

#### INSTREAM STRUCTURES

- 2.24 No fill material shall be placed within a stream except as specified in this Agreement. Any rock that is used for work site access and diversion purposes shall consist of clean, screened gravel. Fill excavated from Project work shall be placed in stable areas where it cannot enter or erode into a stream.
- 2.25 Except for graveled instream driving surfaces, temporary structures that will remain in the channel after October 15 shall be designed to pass the 100-year flood event. Structures and materials not designed to withstand high flows shall be removed from the floodplain prior to October 15.
- 2.26 Installation of permanent culverts, weirs, and other instream channel modifications shall not impede the passage of fish up or down stream.

### EROSION, SEDIMENT CONTROL and REVEGETATION

- 2.27 Following commencement of Project activities, adequate erosion and sediment control devices to prevent sediment or turbid or silt-laden water from entering Cedar Creek shall be in place, operative, and effective at all times.
- 2.28 Where needed, the Permittee shall use native vegetation or other treatments to protect and stabilize soils. All bare mineral soil exposed in conjunction with construction, deconstruction, maintenance or repair shall be treated for effective erosion control prior to the onset of precipitation capable of generating run-off or the end of the yearly work period, whichever comes first.
- 2.29 Erosion control measures shall include the proper installation and maintenance of approved Best Management Practices (BMPs), and may include applications of lopped native slash, native duff (leaves, needles, fine twigs, etc.), jute netting, straw wattles, coir, wood chip or straw mats, geotextiles, regionally-native seed, weed-free straw, compost and mulch, or combinations thereof. Geotextiles, fiber rolls, and other erosion control treatments shall not contain plastic mesh netting that can entrap or harm wildlife. Photodegradable synthetic products are not considered biodegradable.
- 2.30 No known invasive grass seed such as annual or perennial ryegrass (*Lolium multiflorum* or *L. perenne*, which are now referred to as *Festuca perennis*), shall be used in erosion control or revegetation seed mixes.
- 2.31 Encroachments and associated roads, fills, and other exposed soils shall be armored as needed to protect the stream channel and banks from erosion. The Permittee shall provide site maintenance during the life of the structure, including, but not limited to, maintaining the access road and its drainage, re-applying erosion control to minimize surface erosion, and ensuring stream banks remain sufficiently functional, armored and/or stable, and crossings remain fish-passable.
- 2.32 Erosion control measures shall be monitored and maintained during and after storm events. Modifications, repairs, and improvements to erosion control measures shall be made following storm events to halt any erosion and prevent sediment from moving off-site or entering surface waters.
- 2.33 Invasive weed removal on disturbed and/or revegetated areas shall be undertaken yearly during the life of this Agreement to facilitate establishment of native plants.

### PETROLEUM, CHEMICAL AND OTHER POLLUTANTS

- 2.34 Where surface or subsurface water may be present during operations that include concrete pouring, Permittee shall:

- a) Install a cofferdam above the concrete pour site to catch and divert stream flow and isolate and dewater the work site, and below the concrete pour site to catch and remove any water that may contact wet concrete to prevent its movement downstream. Cofferdams shall be constructed of non-polluting materials including sand bags, rock, and/or plastic tarps. Mineral soil shall not be used in the construction of cofferdams.
  - b) Allow poured concrete to dry/cure for a minimum of 30 days in isolation from surface and subsurface stream flow to prevent the release of materials that may be toxic to fish and other aquatic species.
  - c) As an alternative to b) above, the Permittee may allow the concrete to dry/cure for 72 hours, continually pumping out to a lined off-channel basin any water that may come into contact with the poured concrete during this 72 hour period. Permittee shall then monitor the pH of any water that comes into contact with the poured concrete. If this water has a pH of 9.0 or greater, the water shall continue to be pumped to a lined off-channel basin and allowed to evaporate or be transported to an appropriate facility for disposal. All water that has come in contact with poured concrete shall be removed and not allowed to flow downstream or otherwise come in contact with fish and other aquatic resources until the pH values are below 9.0. The water shall be retested until pH values become less than 9.0. Once this has been determined, the area no longer needs to be isolated and water may be allowed to flow downstream. Results of pH monitoring shall be provided daily to CDFW if this alternative is used.
- 2.35 The Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering into the channel outside of the structures. The Permittee shall install a secondary containment structure between the primary containment structure and the stream channel as necessary to prevent wet concrete from entering water upon failure or leak of the primary structure. When Permittee is pouring or working with wet concrete, there shall be a designated monitor on-site at all times to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of the structures.
- 2.36 Any equipment or vehicles driven and/or operated within or adjacent to the stream channel shall be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life, wildlife, or riparian habitat.
- 2.37 All equipment used during construction of this Project shall be cleaned (i.e. free of dirt and debris that may harbor noxious weed seeds and plant parts) prior to its arrival on site.

- 2.38 Stationary equipment including, but not limited to, motors, pumps, generators and compressors, which contain deleterious materials and are located within or adjacent to a stream shall be positioned over drip pans, be bermed to contain spilled materials, or have other suitable containment systems installed to handle a catastrophic spill/leak and prevent contaminants from entering water.
- 2.39 All activities performed in or near a stream shall have absorbent materials designated for spill containment and clean-up activities on-site for use in an accidental spill. Clean up of all spills shall begin immediately. The Permittee shall immediately notify the State Office of Emergency Services at 1-800-852-7550 for all types of hazardous materials spills and incidents. CDFW shall be notified by the Permittee and consulted regarding clean-up procedures.
- 2.40 Refueling of machinery or heavy equipment, or adding or draining oil, lubricants, coolants, or hydraulic fluids shall not take place within or adjacent to any stream. All such fluids and containers shall be disposed of properly off-site. Heavy equipment used or stored within stream bed, channel, and bank shall use drip pans or other devices (i.e., absorbent blankets, sheet barriers or other materials) as needed to prevent soil and water contamination.
- 2.41 No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, asphalt, paint or other coating material, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

### **3. Reporting Measures**

- 3.1 Permittee shall notify CDFW within the seven-day period preceding the beginning of work permitted by this Agreement. Information to be disclosed shall include Agreement number, and the anticipated start date. Subsequently, the Permittee shall notify CDFW no later than seven days after the Project is fully completed.
- 3.2 At least 10 working days prior to proposed work, Permittee shall submit a dewatering and fish relocation plan to CDFW for review and approval prior to beginning any instream work.
- 3.3 If alternative c) of Measure 2.34 is used, Permittee shall provide daily to CDFW the results of pH monitoring.
- 3.4 Following Project completion, the Permittee shall measure jump heights in the boulder weirs and at the base of the fishway, and photographically document the presence or absence of a standing wave that would indicate harmonic resonance

within the fishway. Permittee shall provide to CDFW jump heights measurements, photographs and harmonic resonance determination, "as built" plans, and a report prior to April 30 following Project completion. The report shall include pre-existing and post-construction hydraulic calculations, how they relate to fish passage in the Fish X-ing model, and if the harmonic resonance issue has been resolved.

## **CONTACT INFORMATION**

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

### To Permittee:

Mr. Steven Blair  
Caltrans  
1656 Union Street  
Eureka, CA 95501  
Email: steven.blair@dot.ca.gov

### To CDFW:

California Department of Fish and Wildlife  
Northern Region  
619 Second Street  
Eureka, California 95501  
Attn: Lake or Streambed Alteration Program  
Notification #1600-2015-0235-R1  
Fax: (707) 441-2021

## **LIABILITY**

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

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

## **SUSPENSION AND REVOCATION**

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

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

## **ENFORCEMENT**

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

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

## **OTHER LEGAL OBLIGATIONS**

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

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

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

## **AMENDMENT**

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

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the

corresponding amendment fee identified in CDFW's current fee schedule (see Calif. Code Regs., Title 14, Section 699.5).

## **TRANSFER AND ASSIGNMENT**

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

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

## **EXTENSIONS**

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

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

## **EFFECTIVE DATE**

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

## **TERM**

This Agreement shall expire **5 years** from the effective date, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC Section 1605(a)(2) requires.

**AUTHORITY**

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

**AUTHORIZATION**

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

**CONCURRENCE**

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

**FOR CALIFORNIA DEPT. OF TRANSPORTATION**



\_\_\_\_\_  
Steven Blair  
Project Manager

9-25-15

\_\_\_\_\_  
Date

**FOR CALIFORNIA DEPT. OF FISH AND WILDLIFE**



\_\_\_\_\_  
Gordon Leppig  
Senior Environmental Scientist (Supervisor)

9-25-15

\_\_\_\_\_  
Date

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **MATERIALS INFORMATION**

As-Builts:

1. 1967 EA 01-039954

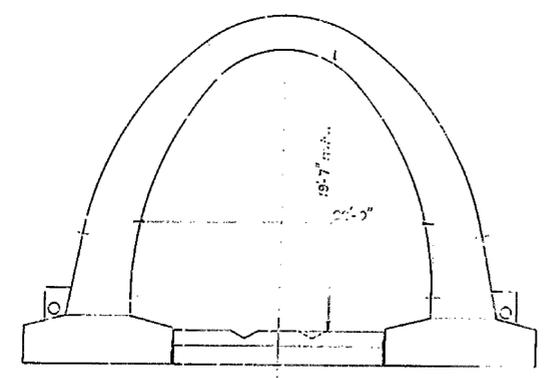
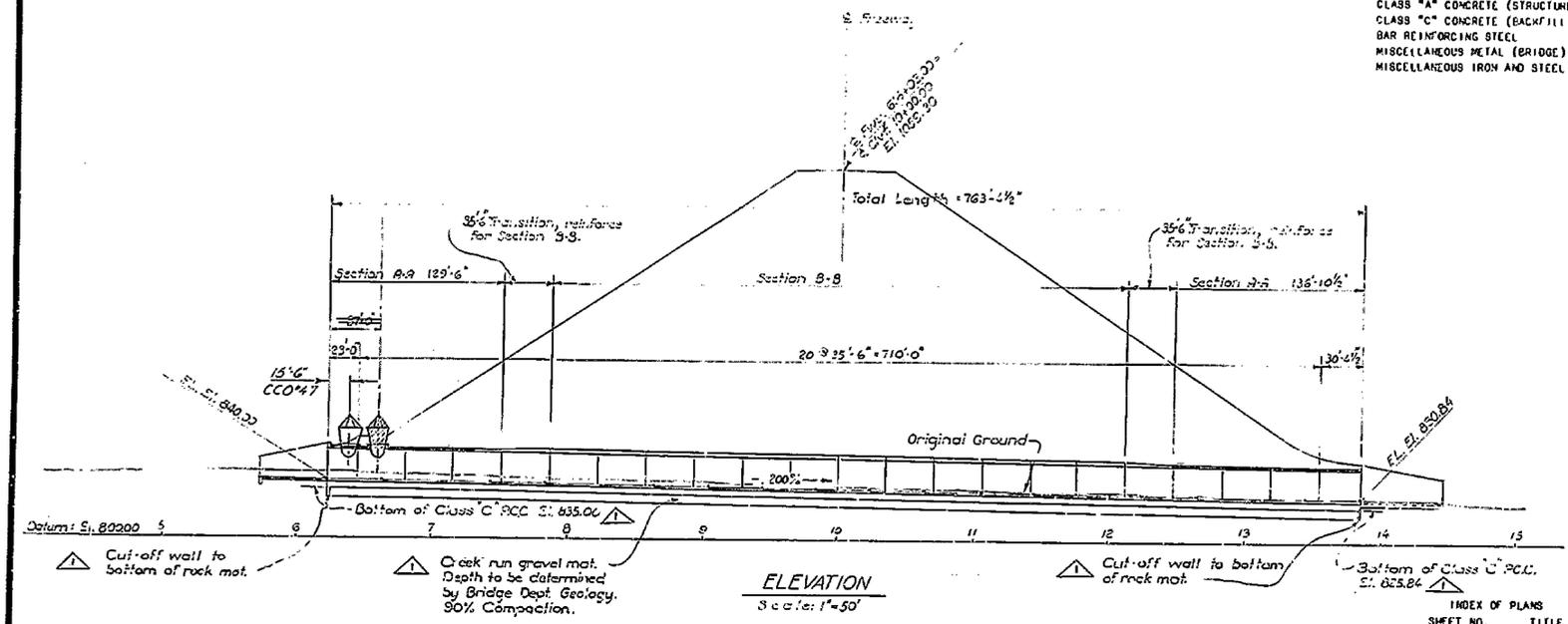
F-001-2(3)

APPROXIMATE QUANTITIES

STRUCTURE EXCAVATION	10,600 C.Y.
STRUCTURE BACKFILL	11,200 C.Y.
STRAW BACKFILL	250 TONS
CLASS "A" CONCRETE (STRUCTURE)	6,800 C.Y.
CLASS "C" CONCRETE (BACKFILL)	5,000 C.Y.
BAR REINFORCING STEEL	1,229,000 LBS.
MISCELLANEOUS METAL (BRIDGE)	2,100 LBS.
MISCELLANEOUS IRON AND STEEL	12,300 LBS.

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	POST MILES	SHEET NO.
01	Men	101	R85.57190.0	7.2	90

DATE: March 27, 1967



- INDEX OF PLANS
- | SHEET NO. | TITLE                     |
|-----------|---------------------------|
| 1.        | GENERAL PLAN              |
| 2.        | SECTIONS                  |
| 3.        | BACKFILL DETAILS          |
| 4.        | WIER DETAILS              |
| 5.        | RELIEF RISER DETAILS      |
| 6.        | INLET AND OUTLET DETAILS  |
| 7.        | RETAINING WALL - TYPE 1   |
| 8.        | LOG OF TEST BORINGS NO. 1 |
| 9.        | LOG OF TEST BORINGS NO. 2 |
- STANDARD PLANS DATED NOVEMBER 1966  
B3-8 RETAINING WALL DETAILS NO. 1

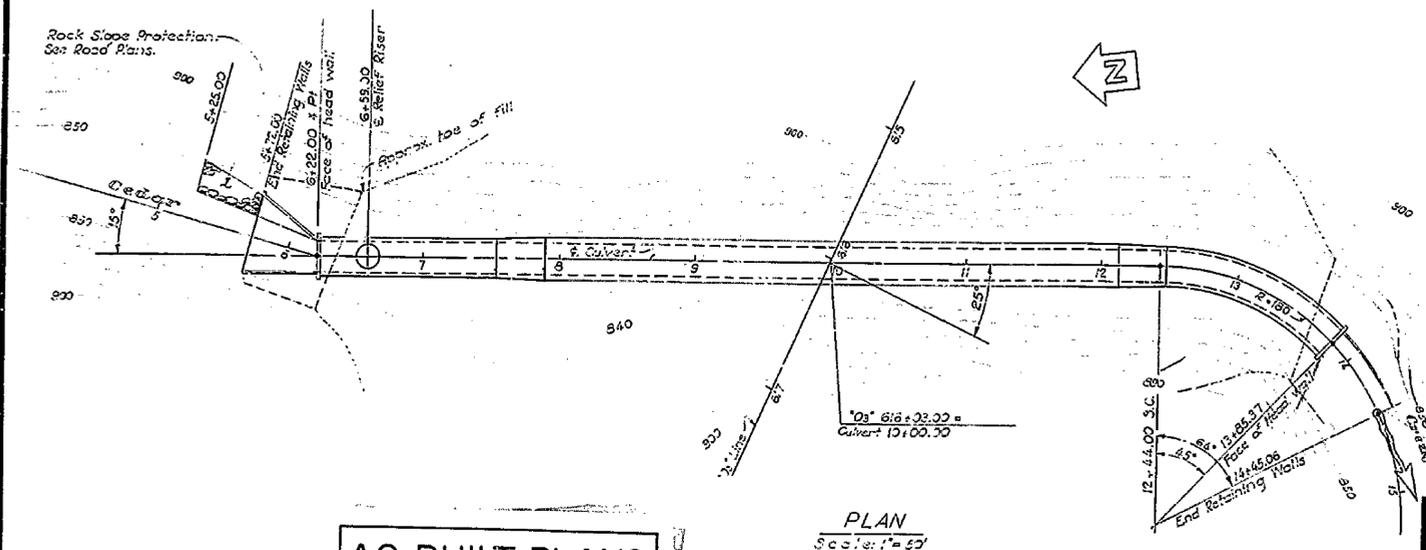
DESIGN: A.A.S.H.O. DATED 1961 WITH REVISIONS AND AS SUPPLEMENTED BY BRIDGE PLANNING AND DESIGN MANUAL.

LOADING: SECTION B-B:-  
EARTH PRESSURE = 84 LBS. PER CUBIC FOOT; EQUIVALENT  
FLUID PRESSURE = 84 LBS PER CUBIC FOOT

SECTION A-A:-  
EARTH PRESSURE = 120 LBS. PER CUBIC FOOT; EQUIVALENT  
FLUID PRESSURE = 36 LBS. PER CUBIC FOOT

REINFORCED CONCRETE: FS = 20,000 P.S.I., N = 10  
FC = 1,200 P.S.I.

EXPANSION JOINTS: PLACE 1/2" EXPANSION JOINT FILLER @ 35'-6" CTRS. IN ARCH RIB ONLY. NONE IN INVERT SLAB OR FOOTINGS.



**AS BUILT PLANS**  
Contract No. 01-039954  
Date Completed \_\_\_\_\_  
Document No. 10000684

**AS BUILT**  
CORRECTIONS BY AL Moore WEM  
CONTRACT NO. 01-059053  
DATE 12-8-69 3-17-70

BRIDGE DEPARTMENT  
DESIGN SECTION 9

Section Supervisor: A. E. Bode  
Project Designer: William A. Moore

DESIGN	By <u>William A. Moore</u>	Checked <u>W. A. Moore</u>
DETAILS	By <u>W. A. Moore</u>	Checked <u>W. A. Moore</u>
LAYOUT	By <u>W. A. Moore</u>	Checked <u>W. A. Moore</u>
QUANTITIES	By <u>W. A. Moore</u>	Checked <u>W. A. Moore</u>
SPECIFICATIONS	By <u>W. A. Moore</u>	Checked <u>W. A. Moore</u>

Approved & recommended by: W. A. Moore

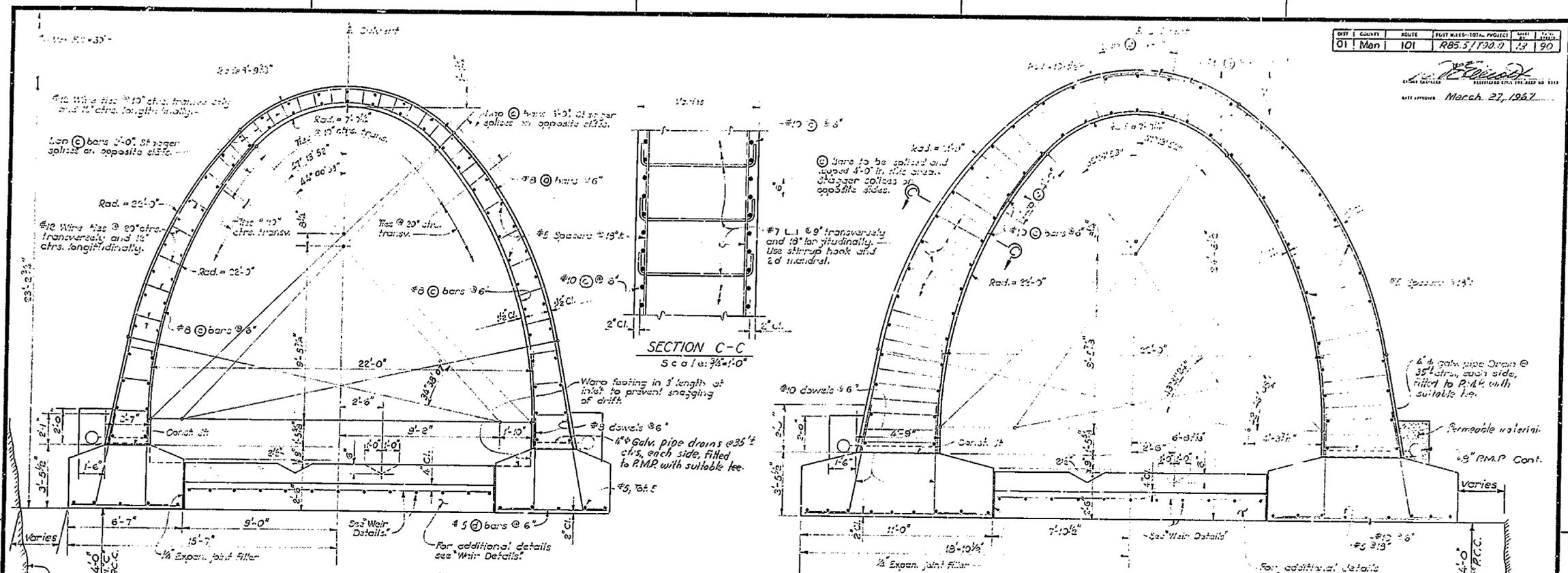
STATE OF CALIFORNIA  
TRANSPORTATION AGENCY  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS

**CEDAR CREEK CULVERT**

LOCATED ABOUT 2.1 MI. S. OF LEGGETT IN MENDOCINO COUNTY

**GENERAL PLAN**

BRIDGE NO. 10-226  
POST MILE 89.1  
DRAWING NO. 10226-3  
SHEET 1-RI 9



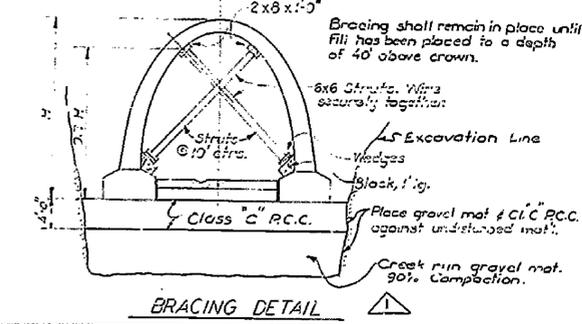
QUANTITIES: Arch only Concrete = 4.52 cu. yds. per lin. ft.  
 Reinf. steel = 8.10 lbs. per lin. ft.  
 Inverts (Invert only) Concrete = 0.85 cu. yds. per lin. ft.  
 Reinf. steel = 46.00 lbs. per lin. ft.

QUANTITIES: Arch only Concrete = 315 Cu. yds. per lin. ft.  
 Reinf. steel = 18.90 lbs. per lin. ft.  
 Inverts (Invert only) Concrete = 0.75 Cu. yds. per lin. ft.  
 Reinf. steel = 4.0 lbs. per lin. ft.

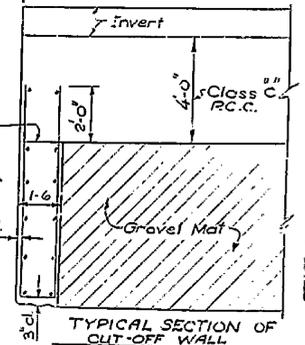
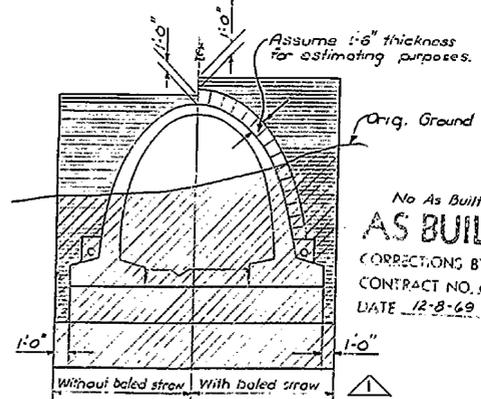
BAR LETTER	SHAPE	BAR SIZE NUMBER	LENGTH
a	⌒	8	10'-3"
b	⌒	8	10'-3"
c	⌒	8	10'-3"
d	⌒	5	8'-3"
Reinforcing Dowels	JL	8	6'-6"
Invert Slab		5	17'-8"
Number of Spacers		5	89 Tot.

BAR LETTER	SHAPE	BAR SIZE NUMBER	LENGTH
a	⌒	12	35'-3"
b	⌒	12	35'-3"
Reinforcing Dowels	JL	12	7'-6"
Reinforcing Dowels	JL	12	10'-3"
Invert Slab		5	15'-5"
Number of Spacers		5	25 Tot.

Place gravel mat and Class C R.C.C. against undisturbed mat.



**AS BUILT PLANS**  
 Contract No. 01-039954  
 Date Completed  
 Document No. 10000684

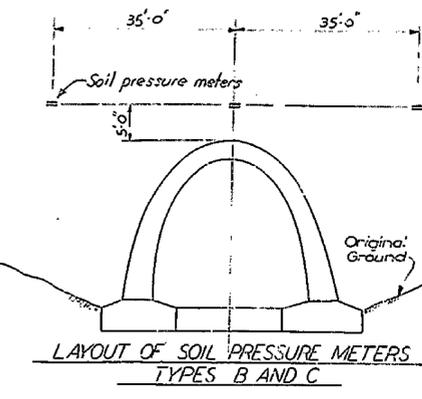
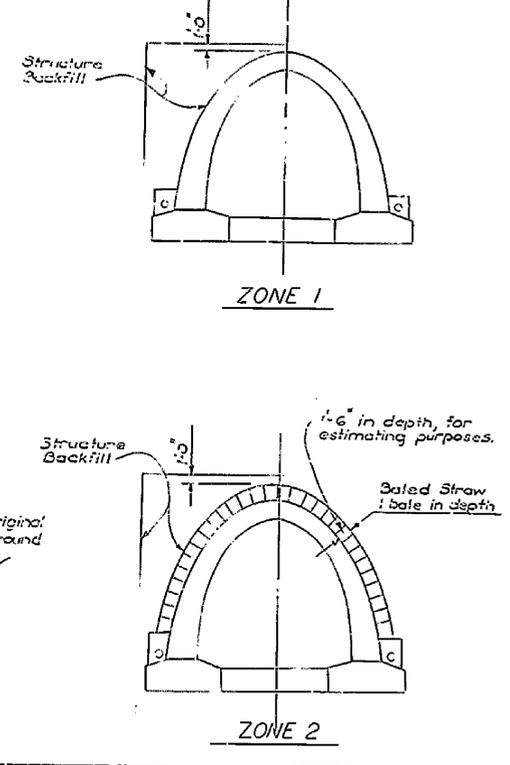
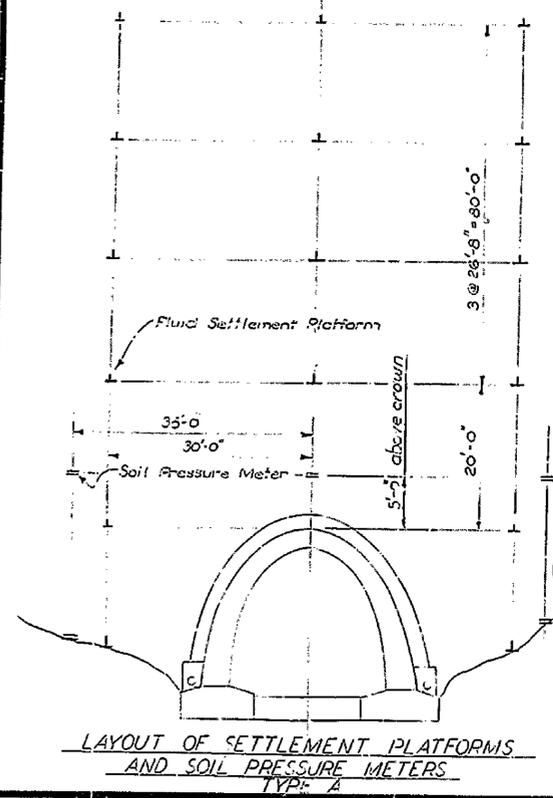
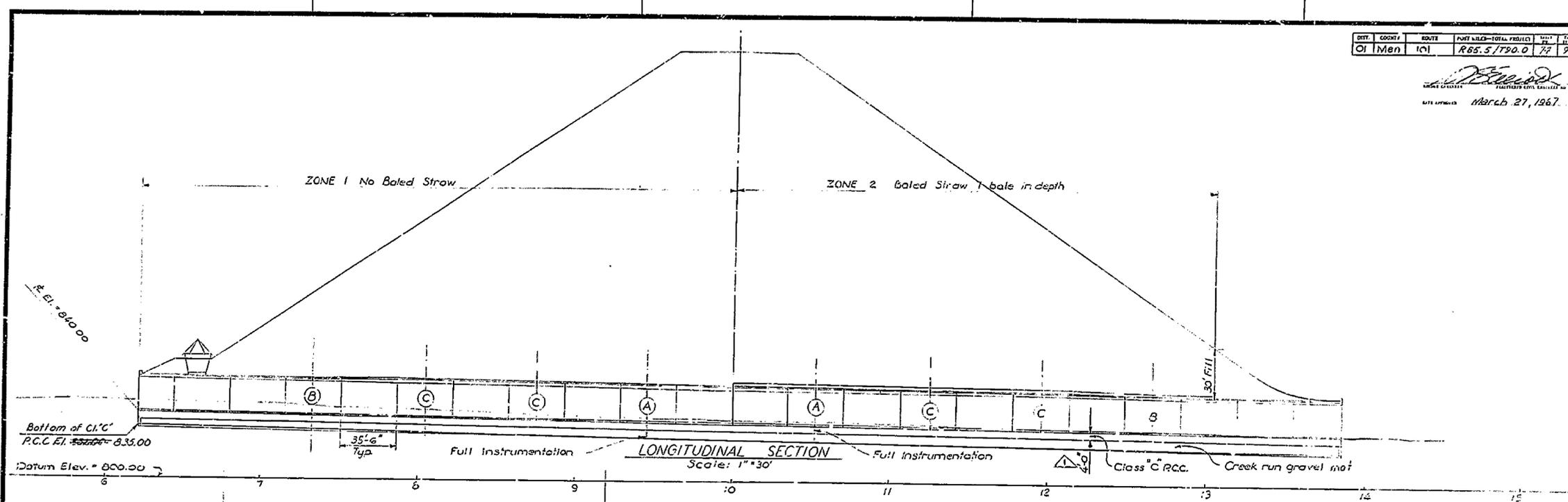


BRIDGE DEPARTMENT <b>DESIGN SECTION 9</b>		STATE OF CALIFORNIA HIGHWAY TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Section Supervisor: A.E. Johnson Designer: M.H. Moore Checker: R. Sorenson		<b>CEDAR CREEK CULVERT</b>	
DETAILS: By Leonard A-R-4 QUANTITIES: By A.E. Johnson		SECTIONS	
BRIDGE NO. 10-226	POST MILE	DRAWING NO. 10224-4	SHEET 3 OF 3
DATE: 12-8-69 3-17-70		REVISIONS	

WO 039951  
 CU 4201

DATE	CONTRACT	ROUTE	POST MILES - TOTAL PROJECT	POST MILES	SHEET NO.	TOTAL SHEETS
01 Mar	101	R65.5/190.0	17	90		

DATE APPROVED: *[Signature]*  
March 27, 1967.



**AS BUILT PLANS**  
Contract No. 01-039954  
Date Completed. \_\_\_\_\_  
Document No. 10029684

**AS BUILT**  
CORRECTIONS BY A.L. Moore WEW  
CONTRACT NO. 01-039953  
DATE 12-8-69 3-17-70

MARK	DATE	DESCRIPTION	BY	CHK
△	1967	Revise Ch. C, add rock mat	RGS	JCA
REVISIONS				

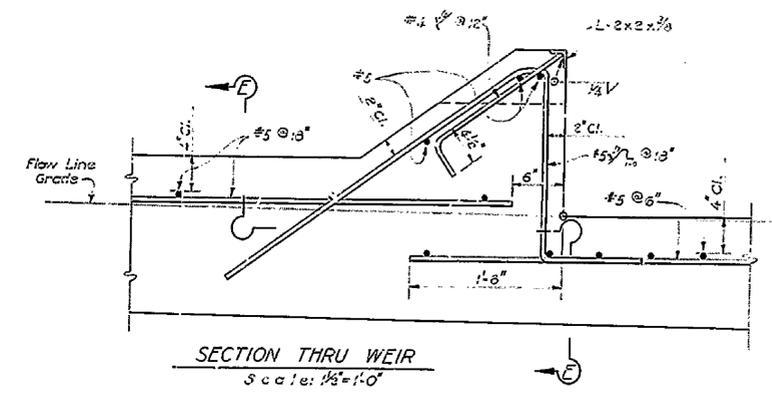
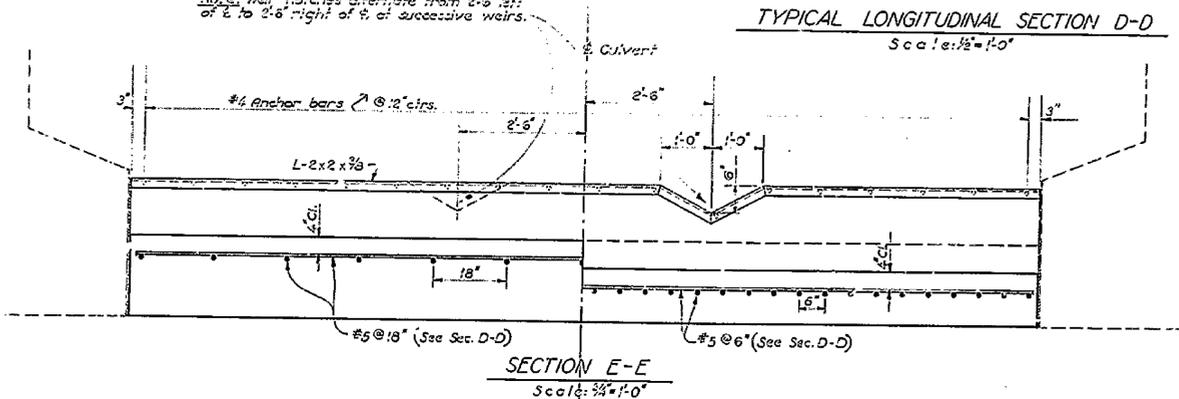
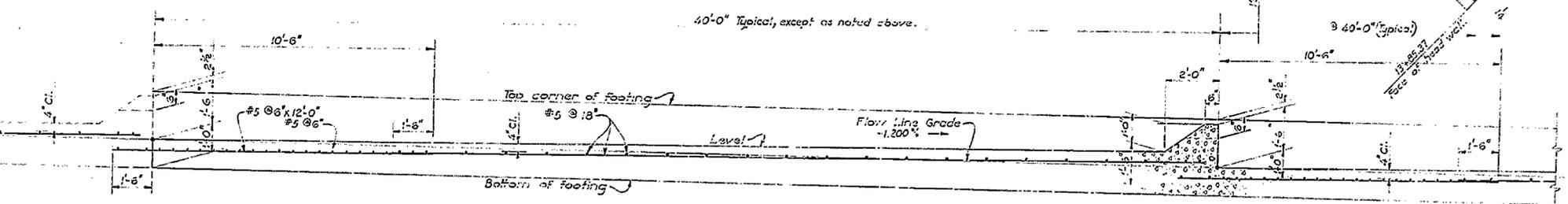
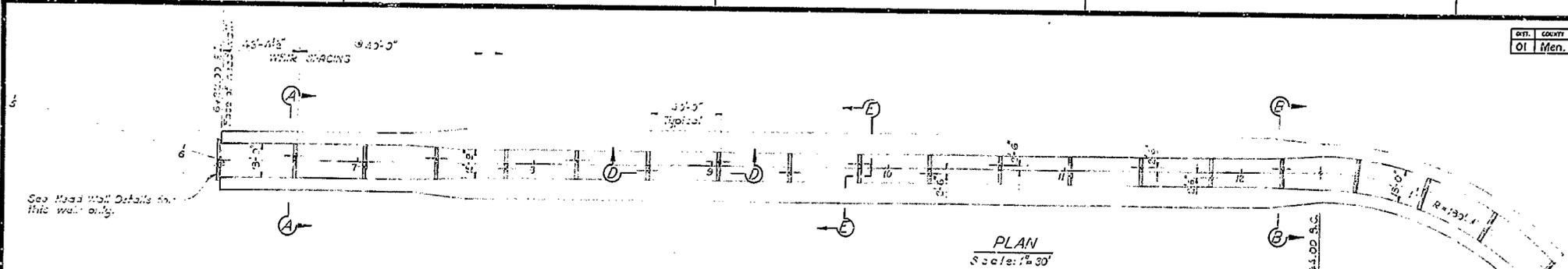
BRIDGE DEPARTMENT <b>DESIGN SECTION 9</b>	
Section Supervisor	<u>A.E. Baden</u>
DESIGN	By <u>[Signature]</u> 1-67 Checked <u>FRIEDMAN</u>
DETAILS	By <u>OLEARY</u> 1-67 Checked <u>FRIEDMAN</u>
QUANTITIES	By <u>[Signature]</u> 3-67 Checked <u>R. STEIN</u>

STATE OF CALIFORNIA HIGHWAY TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
<b>CEDAR CREEK CULVERT</b>	
<b>BACKFILL DETAILS</b>	
BRIDGE NO. <u>10-226</u>	POST MILES <u>89.1</u>
DRAWING NO. <u>10226-11</u>	SHEET <u>3-21</u> OF <u>9</u>

WO  
CU  
Disregard prices bearing earlier revision dates

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men.	101	R85.5 / 190.0	75	90

DATE APPROVED *March 27, 1967*



**AS BUILT PLANS**  
Contract No. 01-039954  
Date Completed \_\_\_\_\_  
Document No. 10000684

**AS BUILT** No As Built Change  
CORRECTIONS BY Al Moore WEIR  
CONTRACT NO. 01-039953  
DATE 11-8-69 3-17-70

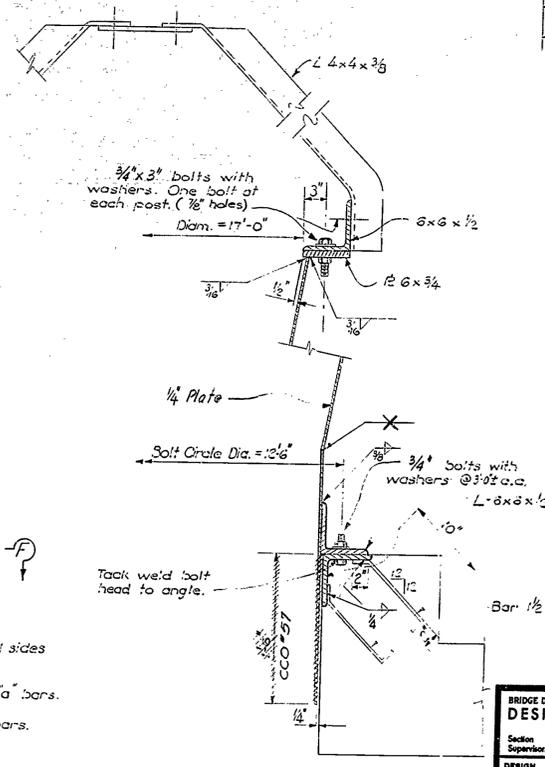
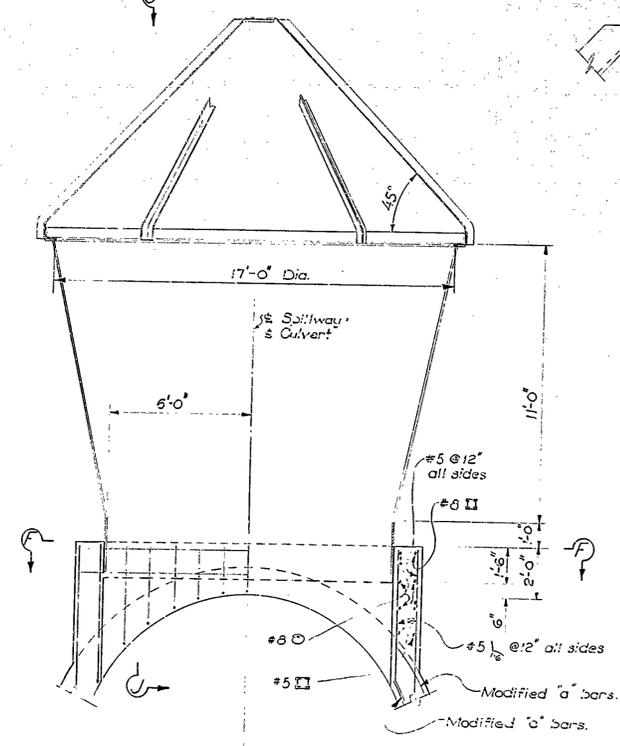
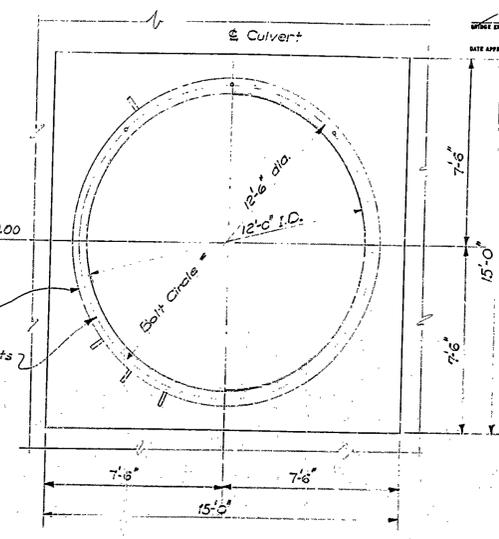
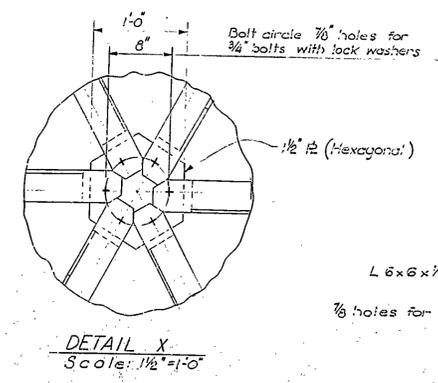
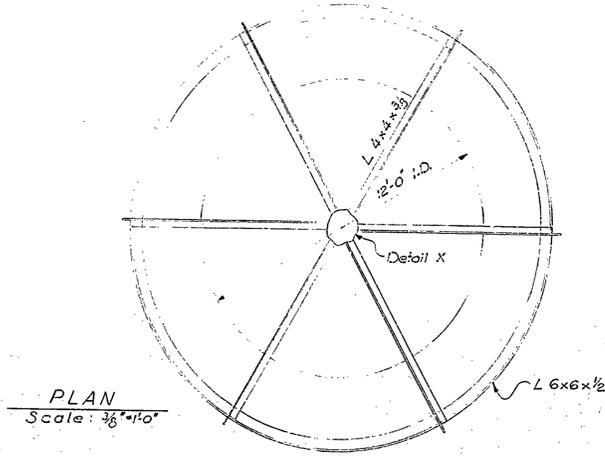
BRIDGE DEPARTMENT <b>DESIGN SECTION 9</b>		STATE OF CALIFORNIA HIGHWAY TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Section Supervisor <u>C. E. Madia</u>	DESIGN BY <u>M. J. ...</u>	CEDAR CREEK CULVERT	
Checked <u>...</u>	DETAILS BY <u>Le ...</u>	WEIR DETAILS	
Checked <u>...</u>	QUANTITIES BY <u>...</u>	BRIDGE NO. <u>10-226</u>	POST MILE <u>...</u>
Checked <u>...</u>	Checked <u>...</u>	DRAWING NO. <u>10226-5</u>	SHEET <u>4</u> OF <u>9</u>
Disregard points bearing earlier, unless dated		REVISION DATES	PRELIMINARY (PAGE ONLY)

75

WO  
CU

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	Men	101	Rd 5.5 / 190.0	76	90

  
 REGISTERED CIVIL ENGINEER No. 8111  
 DATE APPROVED March 27, 1967



**AS BUILT PLANS**  
 Contract No. 01-039954  
 Date Completed \_\_\_\_\_  
 Document No. 10000684

**AS BUILT**  
 CORRECTIONS BY AL Moore WEN  
 CONTRACT NO. 01-039953  
 DATE 12-8-69 3-17-70

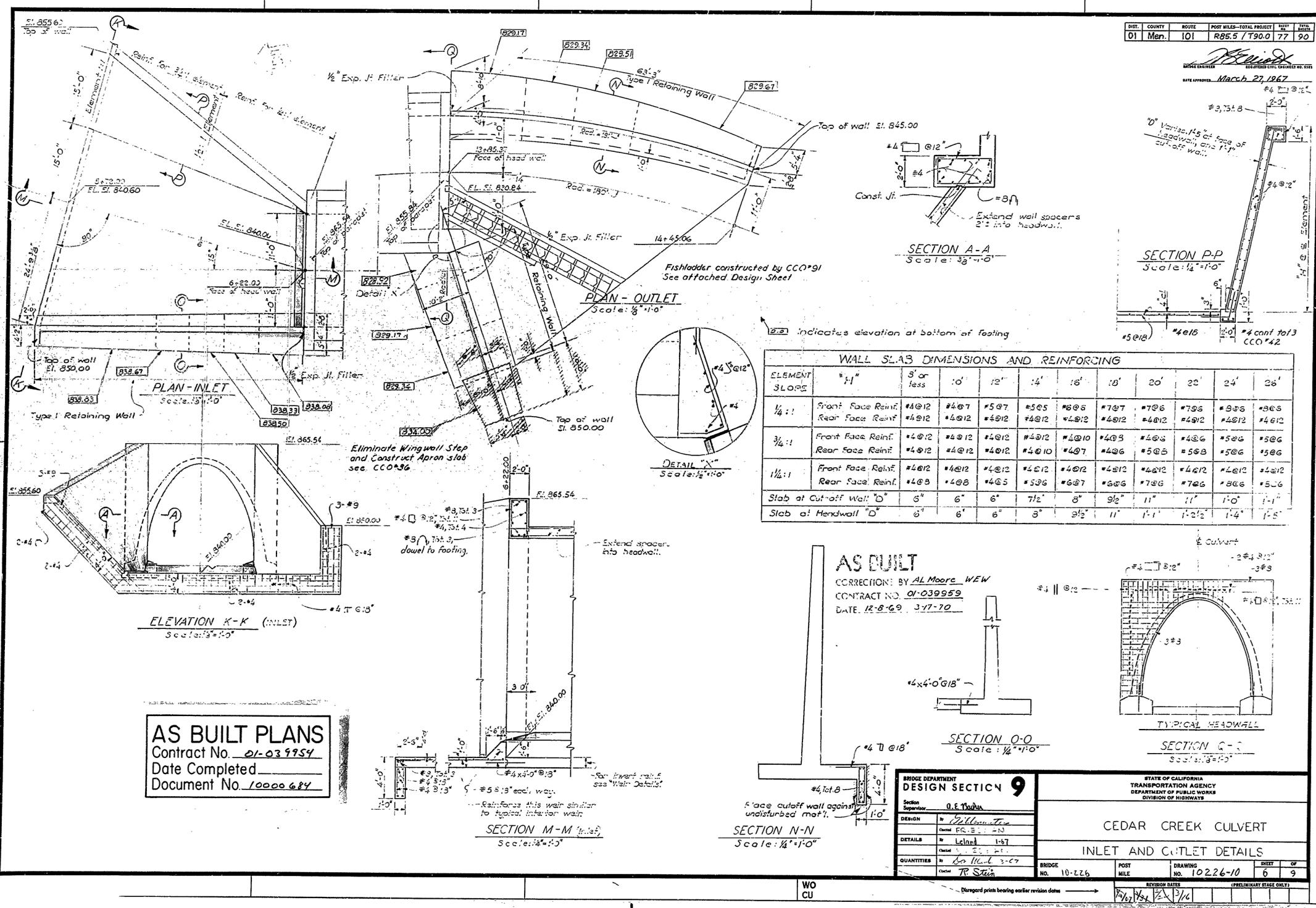
BRIDGE DEPARTMENT <b>DESIGN SECTION 9</b>		STATE OF CALIFORNIA HIGHWAY TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Section Supervisor: <u>A. E. Baska</u>		CEDAR CREEK CULVERT	
DESIGN By: <u>William E. Baska</u> Checked: <u>W. E. Baska</u>		RELIEF RISER DETAILS	
DETAILS By: <u>Clary 1-67</u> Checked: <u>W. E. Baska</u>		BRIDGE NO. <u>10-226</u>	POST MILE <u>      </u>
QUANTITIES By: <u>W. E. Baska</u> Checked: <u>R. Stein</u>		DRAWING NO. <u>10226-9</u>	SHEET <u>5</u> OF <u>9</u>
Discard prints bearing earlier revision dates		REVISION DATES (PRELIMINARY STAGE ONLY) 1/20/67 3/16	

76

WO  
CU

DIST.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET	TOTAL SHEETS
01	Men.	101	R85.5 / T90.0	77	90

DESIGNED BY *W. H. H. H.*  
 DATE APPROVED March 27, 1967



**AS BUILT PLANS**  
 Contract No. *01-039954*  
 Date Completed \_\_\_\_\_  
 Document No. *10000 684*

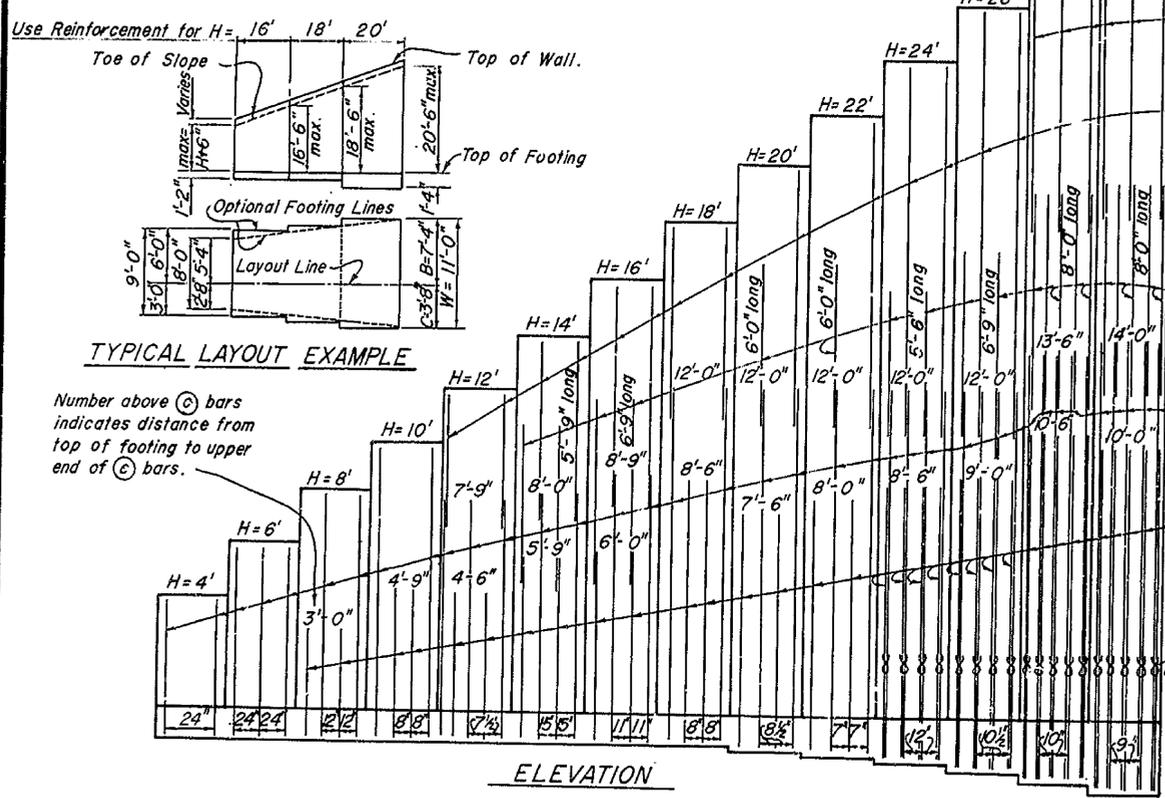
<b>BRIDGE DEPARTMENT</b> <b>DESIGN SECTION 9</b>		STATE OF CALIFORNIA TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	
Section Supervisor: <i>O.E. Thum</i>		<b>CEDAR CREEK CULVERT</b>	
DESIGN BY: <i>W. H. H. H.</i> CHECKED BY: <i>FR. E. E. H.</i>		<b>INLET AND OUTLET DETAILS</b>	
DETAILS BY: <i>Lehr</i> 1-67 CHECKED BY: <i>FR. E. E. H.</i>		BRIDGE NO. 10-226	POST MILE
QUANTITIES BY: <i>Ben M. H. H.</i> 2-67 CHECKED BY: <i>R. Stein</i>		DRAWING NO. 10226-10	SHEET 6 OF 9
REVISION DATA (PRELIMINARY STAGE ONLY)			

Revised 9-24-58  
 dated Note  
 v. Location  
 Key 9: 58.5  
 Section Ref.  
 noted 10-21-58  
 raged note of top  
 Spread Fig. Sec  
 6-21-60  
 isions in table  
 20 577  
 led 1 after 4.311  
 ver right hand  
 non of sheet  
 1-1 577  
 noted Key 1 added  
 1st Jun 1  
 1-1-51 573  
 noted Table and  
 noted Note. Note  
 in Spread Fig. Sec  
 10 12 11  
 ision: 8-22-62  
 ided note pertaining  
 quantities  
 Olexator  
 eleted Dim.  
 me in Spread  
 coting Section  
 -43- J.W.  
 hanged "5036 to  
 5024 in Table  
 18 "Rain" Steel, 4"  
 "Alum. Chnged"  
 7-1-52 2 3412  
 1-2-54 11  
 noted Note. Note  
 1-2-54 11  
 Deleted Section  
 Note 1-6 Column  
 2-1-54 Sec 12-14  
 noted 8.5 to 10.5 in  
 MC. PRE. CTS. 4" TABLE  
 1-1-54 66 E.J.  
 noted Note  
 6-11-54 E.J.

DATE	BY	REVISION	NO.	DESCRIPTION
01	Men	101	R85.5	1790.0
			78	90

March 27, 1967

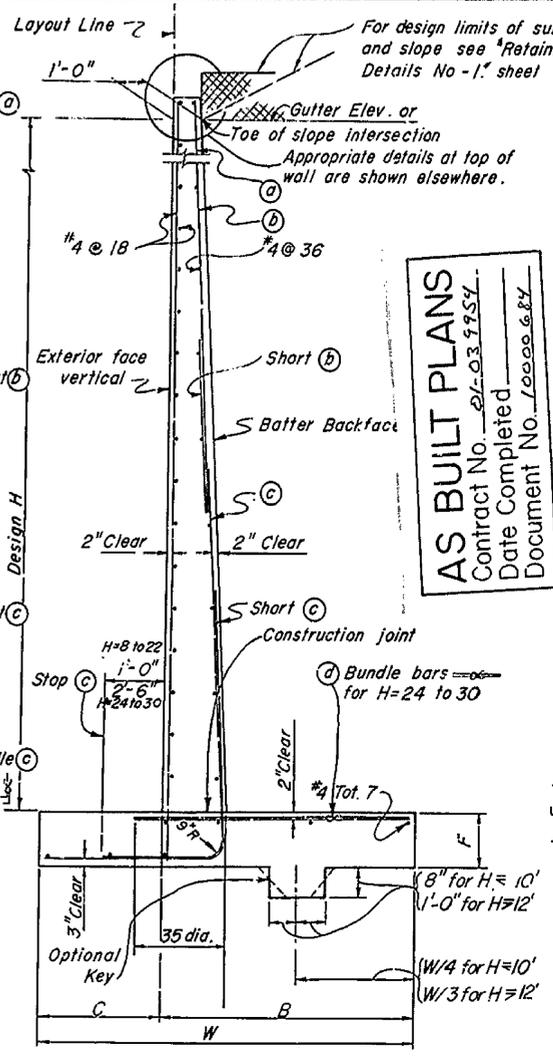
Note:  
 Bar cut-offs may be varied in  
 increments of 6".



ELEVATION

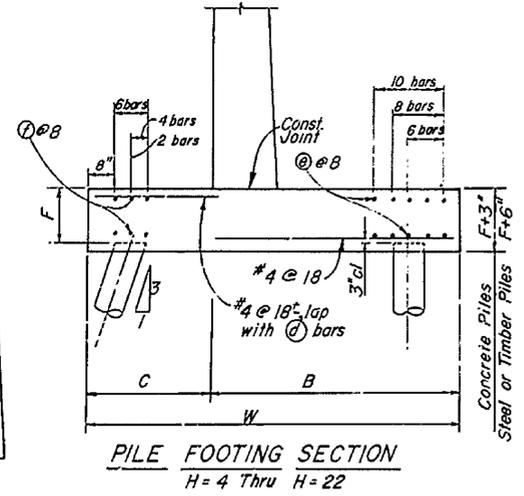
Design H	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'
W	3'-2"	4'-2"	5'-2"	6'-2"	7'-2"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-5"	14'-3"	15'-3"	16'-3"
C	1'-0"	1'-4"	1'-8"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"	3'-8"	4'-0"	4'-5"	4'-9"	5'-1"	5'-5"
B	2'-2"	2'-10"	3'-6"	4'-2"	4'-10"	5'-4"	6'-0"	6'-8"	7'-4"	8'-0"	8'-10"	9'-6"	10'-2"	10'-10"
F Spread Fig.	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-4"	1'-6"	1'-8"	1'-11"	2'-2"	2'-4"	
Batter	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	5/8:12	5/8:12	3/4:12	7/8:12
⊙ bars	#5 @ 24	#5 @ 24	#5 @ 12	#5 @ 8	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2
⊙ bars	#5 @ 24	#5 @ 24	#5 @ 12	#5 @ 8	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2
⊙ bars	#5 @ 24	#5 @ 24	#5 @ 12	#5 @ 8	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2	#5 @ 7 1/2
Total ⊙ bars	6-#6	6-#6	6-#6	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7	10-#7
Total ⊙ bars	0.85	1.4	2.2	3.1	4.1	5.2	6.5	8.0	9.7	11.6	13.7	16.0	18.6	21.1
level	2.3	3.8	5.6	7.7	10.2	12.6	15.6	19.0	24.9	27.3	32.8	38.1	43.9	50.0
surcharge	1.4	1.8	2.2	2.5	2.8	3.1	3.5	3.8	4.1	4.6	4.7	5.3	5.7	6.2
2:1	0.7	1.4	2.3	3.4	4.8	6.3	8.1	10.2	12.6	15.3	18.4	21.7	25.4	29.1
unlimited	2.3	3.9	5.8	8.2	11.0	13.9	17.5	21.5	28.3	31.5	38.0	44.4	51.5	58.9
slope	1.1	1.5	2.0	2.5	2.9	3.4	3.8	4.3	4.8	5.5	5.9	6.5	7.1	7.8
1 1/2:1	1.1	2.0	3.1	4.1	5.4	6.9	8.4	10.0	11.8	13.9	16.2	18.6	21.1	23.4
limited	2.7	4.5	6.5	8.9	11.7	14.2	17.5	21.0	27.1	29.6	35.2	40.7	46.3	52.3
slope	1.3	1.9	2.4	2.8	3.5	4.2	4.6	4.9	5.5	5.8	6.4	6.9	7.5	
Spread	14	20	28	39	56	84	108	169	206	259	328	393	429	484
Footing	8.9	12.6	16.3	20.2	24.3	29.5	33.8	38.5	45.0	52.1	63.1	73.0	87.6	102.7
Concrete	24	31	39	44	52	61	71	82	95	110	128	149	174	204
pile ftg.	10.6	12.8	16.7	20.8	25.2	29.5	34.1	39.0	45.8	53.1	64.4	74.6	89.4	104.8

⊙ Denotes a bundle of 2 bars

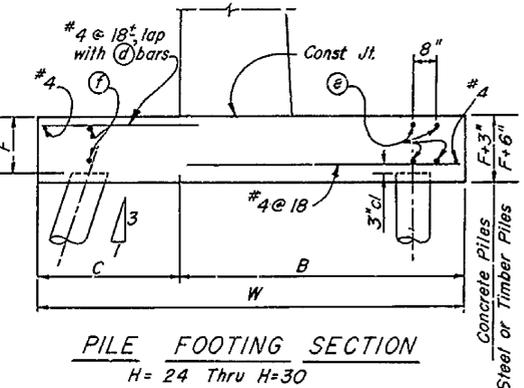


SPREAD FOOTING SECTION

Note:  
 For details not shown and drainage notes  
 see "Retaining Wall Details No. 1."  
 Quantities apply to Design H portion and exclude  
 the added portion above "Gutter Elevation."



PILE FOOTING SECTION  
 H= 4 Thru H= 22



PILE FOOTING SECTION  
 H= 24 Thru H= 30

AS BUILT PLANS  
 Contract No. 01-03-9957  
 Date Completed  
 Document No. 10000687

AS BUILT

REVISIONS BY  
 CONTRACT NO. 01-03-9957  
 DATE 12-1-58

Note:  
 Reinforcement detailed is to be placed  
 in addition to that shown for spread  
 footing. All piles not shown, see Pile  
 Layout on other sheets.  
 ⊙ For pile footing Design H= 4' use  
 same footing dimensions as  
 Design H= 6'

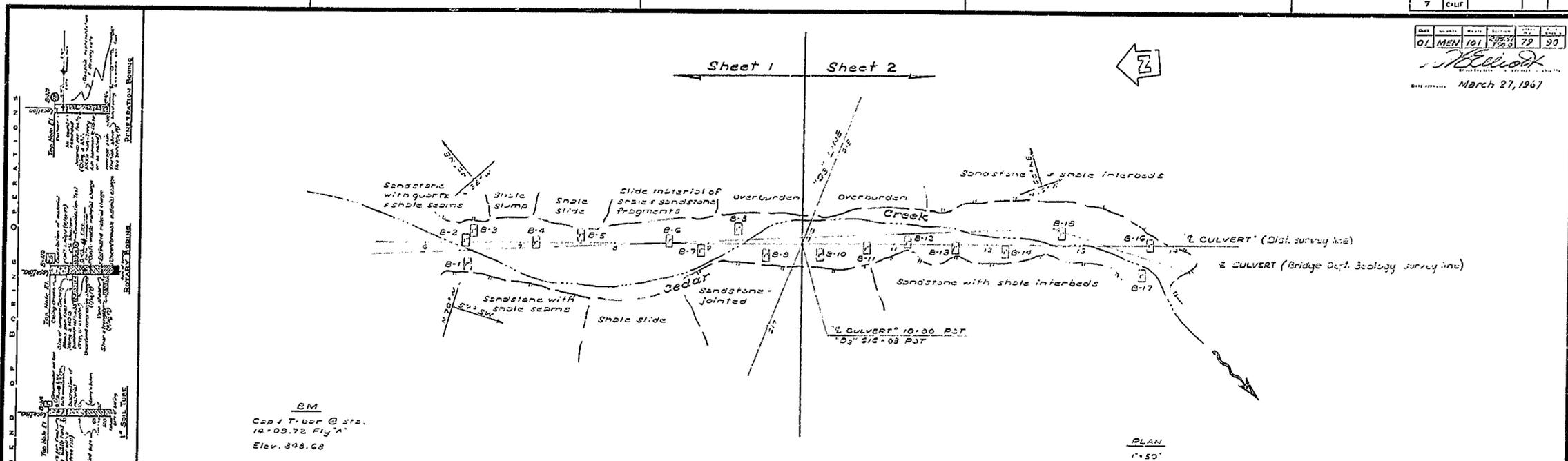
NOTE: This Sheet supersedes Sheet No. B 3-1  
 page 57 of the STANDARD PLANS  
 dated November 1966.

12/66	STATE OF CALIFORNIA TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS	X5-3-46
CEDAR CREEK CULVERT SPECIAL DETAILS		
RETAINING WALL TYPE I H=4'-30'		
BRIDGE NO. 10-226	POST MILE 89.1	DRAWING NO. 1022-2-7
REVISION DATES		PRELIMINARY STAGE ONLY

W.O.

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

O.I. MEN 101 79 30  
 March 27, 1967



BM  
 Cap & T. 100' @ Sta.  
 10+00.72 Fly "A"  
 Elev. 348.68

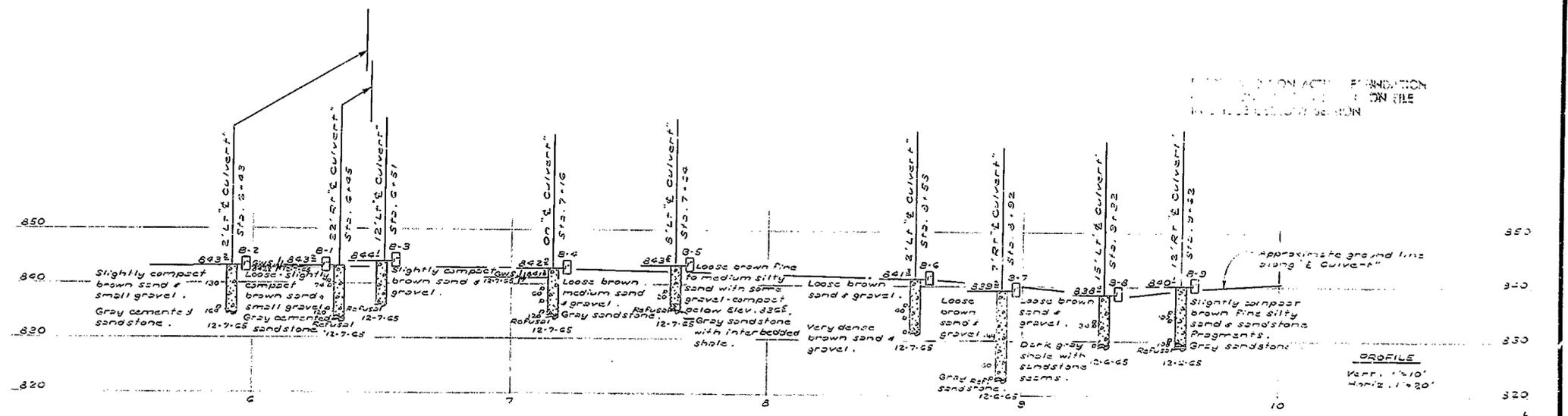
LEGEND OF EARTH MATERIALS

Gravel	Silt	Clay	Sandstone
Sand	Siltstone	Claystone	Shale
Silt	Siltstone	Claystone	Shale
Clay	Siltstone	Claystone	Shale
Sandstone	Siltstone	Claystone	Shale
Shale	Siltstone	Claystone	Shale

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SITE LIMITS

Gravel	Silt	Clay	Sandstone
Sand	Siltstone	Claystone	Shale
Silt	Siltstone	Claystone	Shale
Clay	Siltstone	Claystone	Shale
Sandstone	Siltstone	Claystone	Shale
Shale	Siltstone	Claystone	Shale

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.



**AS BUILT PLANS**  
 Contract No. 01-039954  
 Date Completed \_\_\_\_\_  
 Document No. 10000684

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

SHEET 1 OF 3

**CEDAR CREEK CULVERT**  
**LOG OF TEST BORINGS #1**

SCALE: AS SHOWN  
 BRIDGE: 0-224  
 FILL: \_\_\_\_\_  
 DRAWING: 10000684-7

PREL. DRAWING NO. PR- \_\_\_\_\_

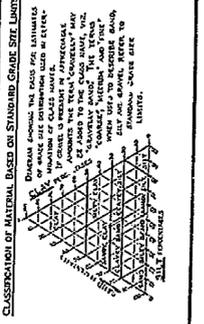
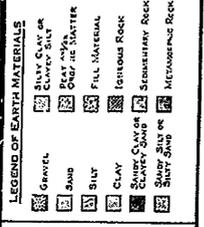
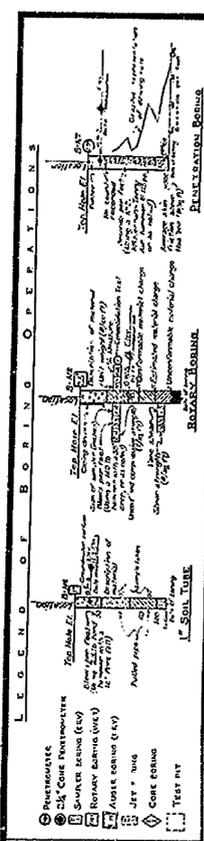
FIELD STUDY  
 DRAWN BY  
 CHECKED BY

BRIDGE DEPARTMENT  
 ENGINEERING GEOLOGY SECTION

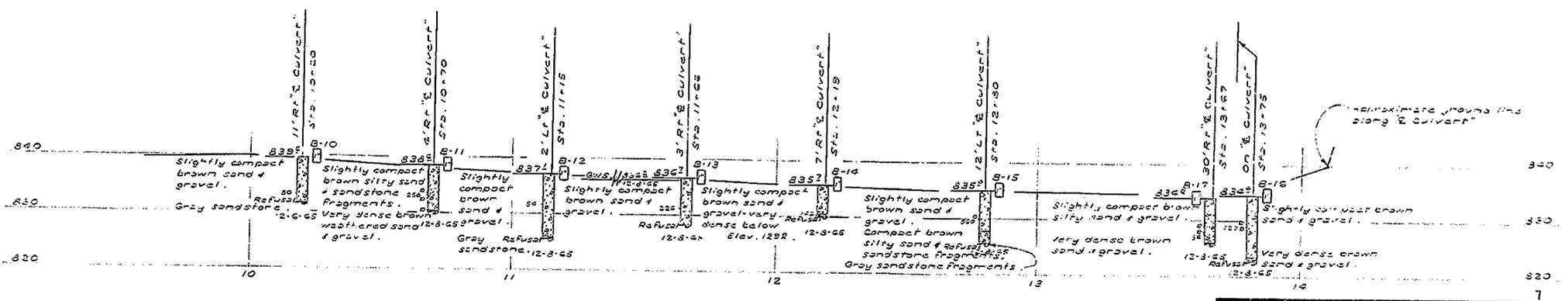
79

FED. ROAD DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

01 MEN 101 0855/ 00 30  
 O. S. ...  
 March 27, 1967



NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.



**AS BUILT PLANS**  
 Contract No. 01-039954  
 Date Completed \_\_\_\_\_  
 Document No. 10000684

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS

SHEET 7 OF 9

**CEDAR CREEK CULVERT**

**LOG OF TEST BORINGS 1/2**

SCALE 45' HORIZ. BRIDGE 1:250 FILL DRAWING 10226-8

PREL. DRAWING NO. PR-

FIELD STUDY	8-5	10-27-67	10-27-67
DRAWING	10-27-67	10-27-67	10-27-67
CHECKED	10-27-67	10-27-67	10-27-67

BRIDGE DEPARTMENT  
 ENGINEERING GEOLOGY SECTION

80

01201  
039954

Discard plots bearing earlier numbers

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

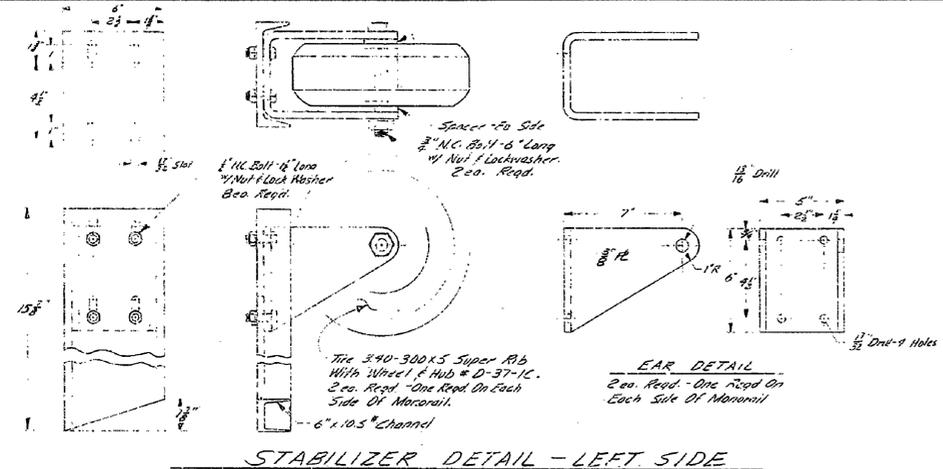
**Identified by**

**Project ID 0112000283**

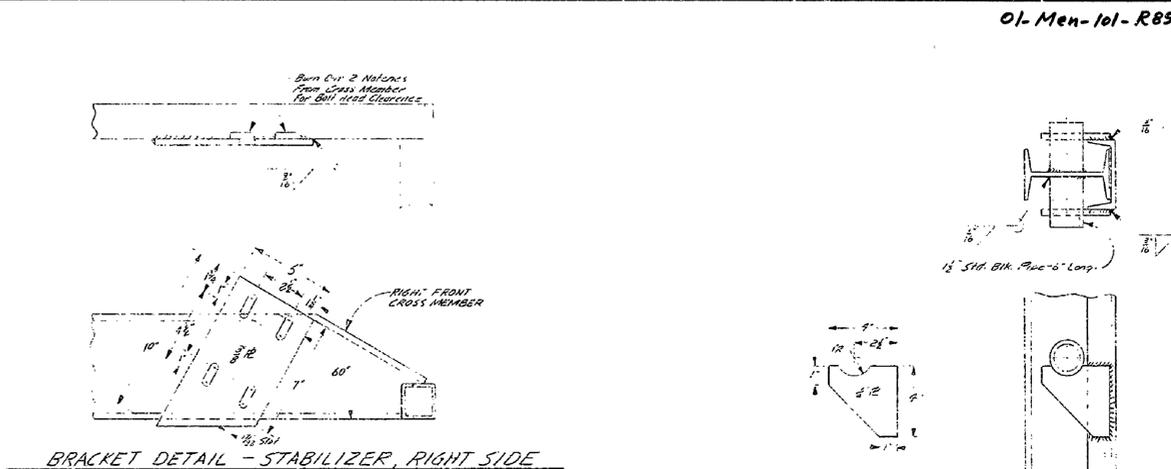
## **MATERIALS INFORMATION**

As-Builts:

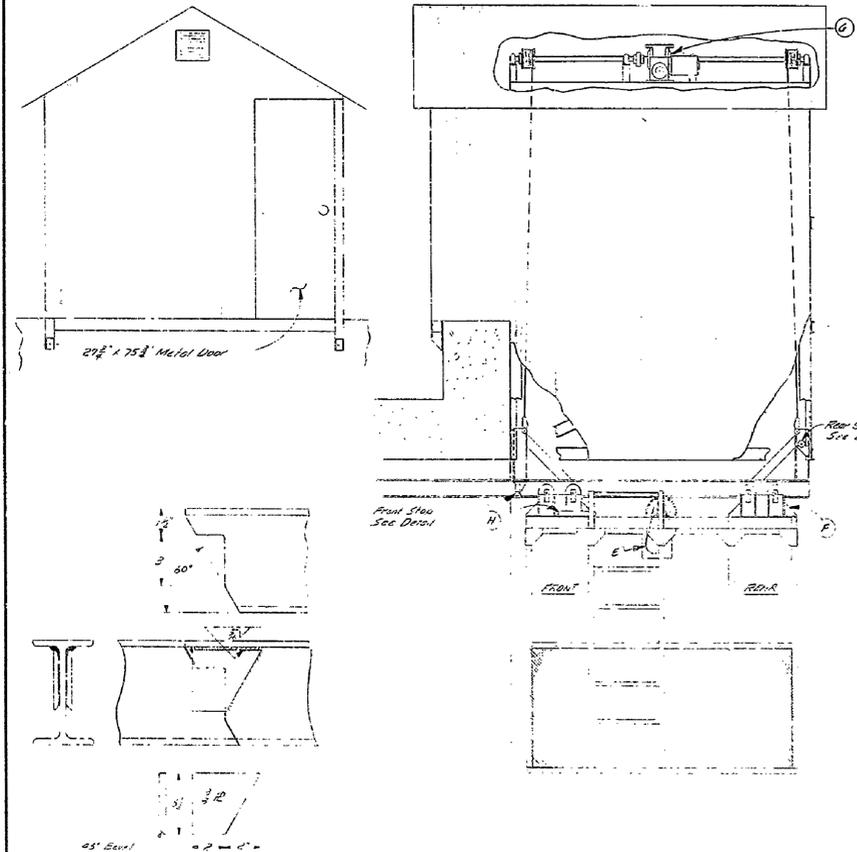
2. 1968 Monorail and Cab



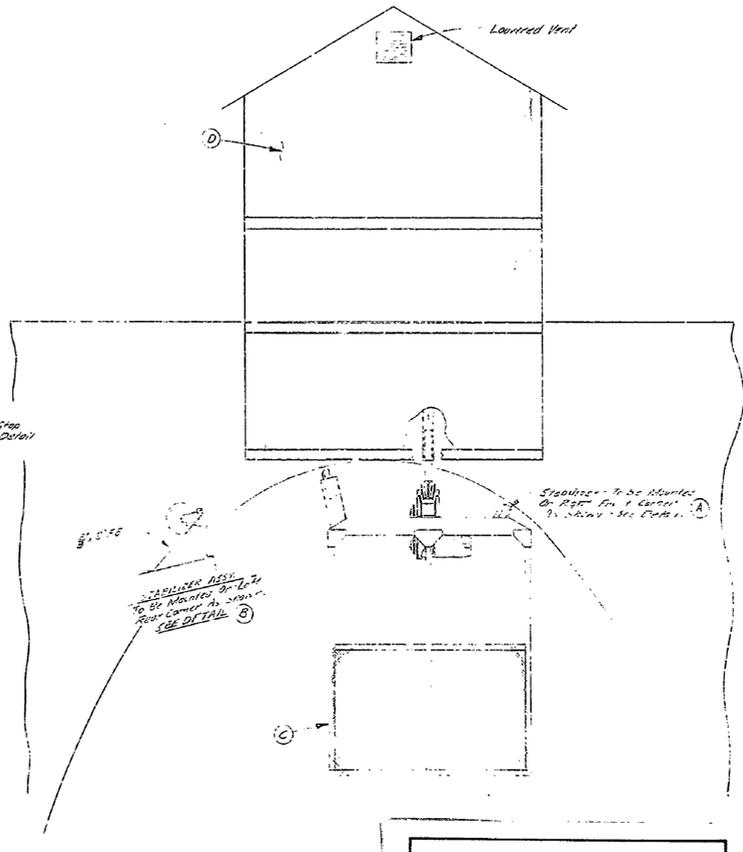
STABILIZER DETAIL - LEFT SIDE



BRACKET DETAIL - STABILIZER, RIGHT SIDE



STOP DETAIL - FRONT



STOP DETAIL - REAR  
Locate and Weld at Assembly, Approp. Position Shown. - Scale 1"=1"

REFERENCE DATA		
ITEM	NAME	DRWG. NO.
A	Stabilizer - Right Side	62-026-1
B	Stabilizer - Left Side	" " 1
C	Cab Assy.	" " 2
D	Storage Shed Assy.	" " 3
E	Cab Drive Assy.	" " 4
F	Cab Carrier Assy.	" " 5
G	Drive Assy. - Cab to Storage Shed.	" " 6
H	Brake Detail	" " 7
I	Ladder, Overhaul and Platform.	" " 8

MONORAIL POSITION

**AS BUILT PLANS**  
 Contract No. UNKNOWN  
 Date Completed 8-68  
 Document No. Plan 1588

Br. No. 10-226

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS  
 EQUIPMENT DEPARTMENT

ASSEMBLY AND DETAILS

INDUSTRIAL CODES OF 1951 - SUBJECT

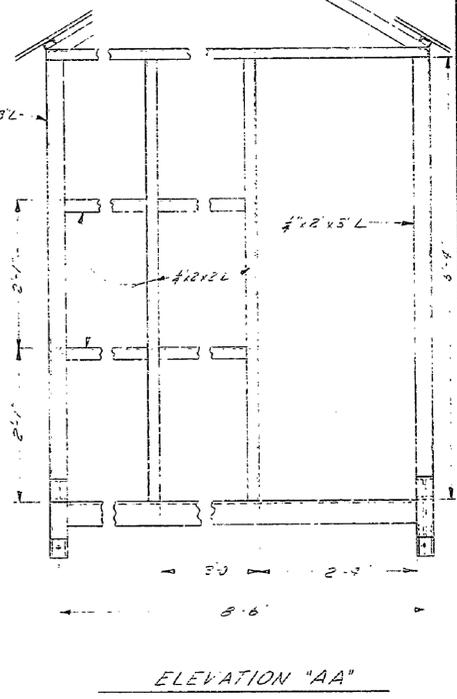
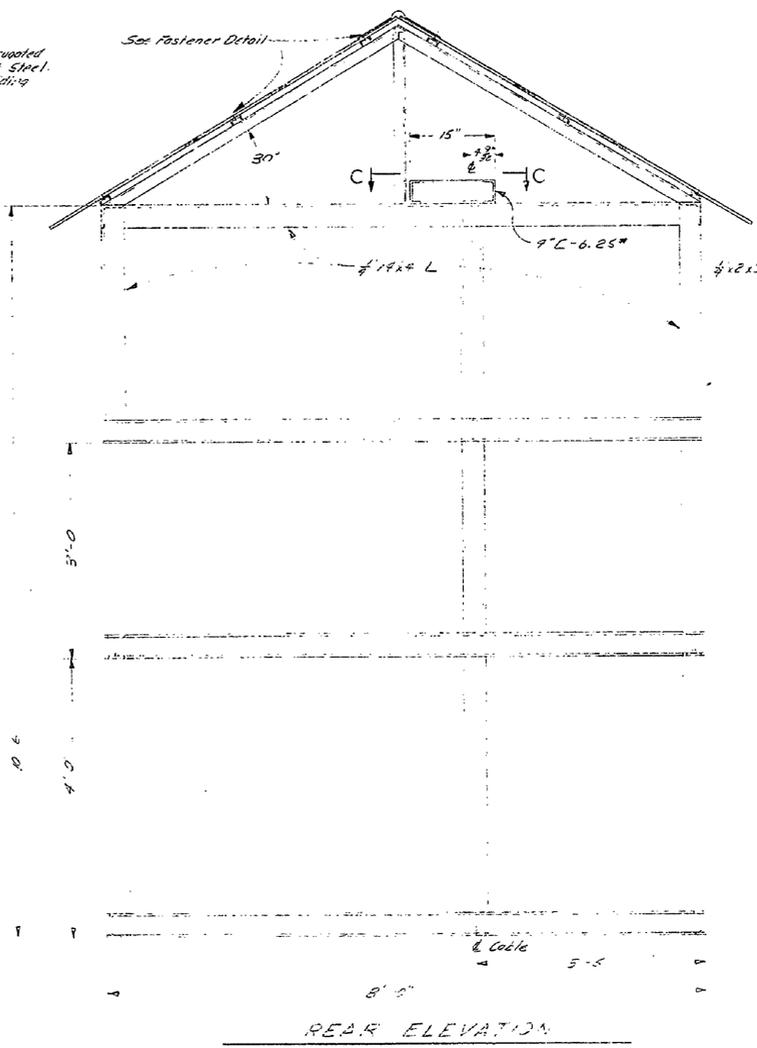
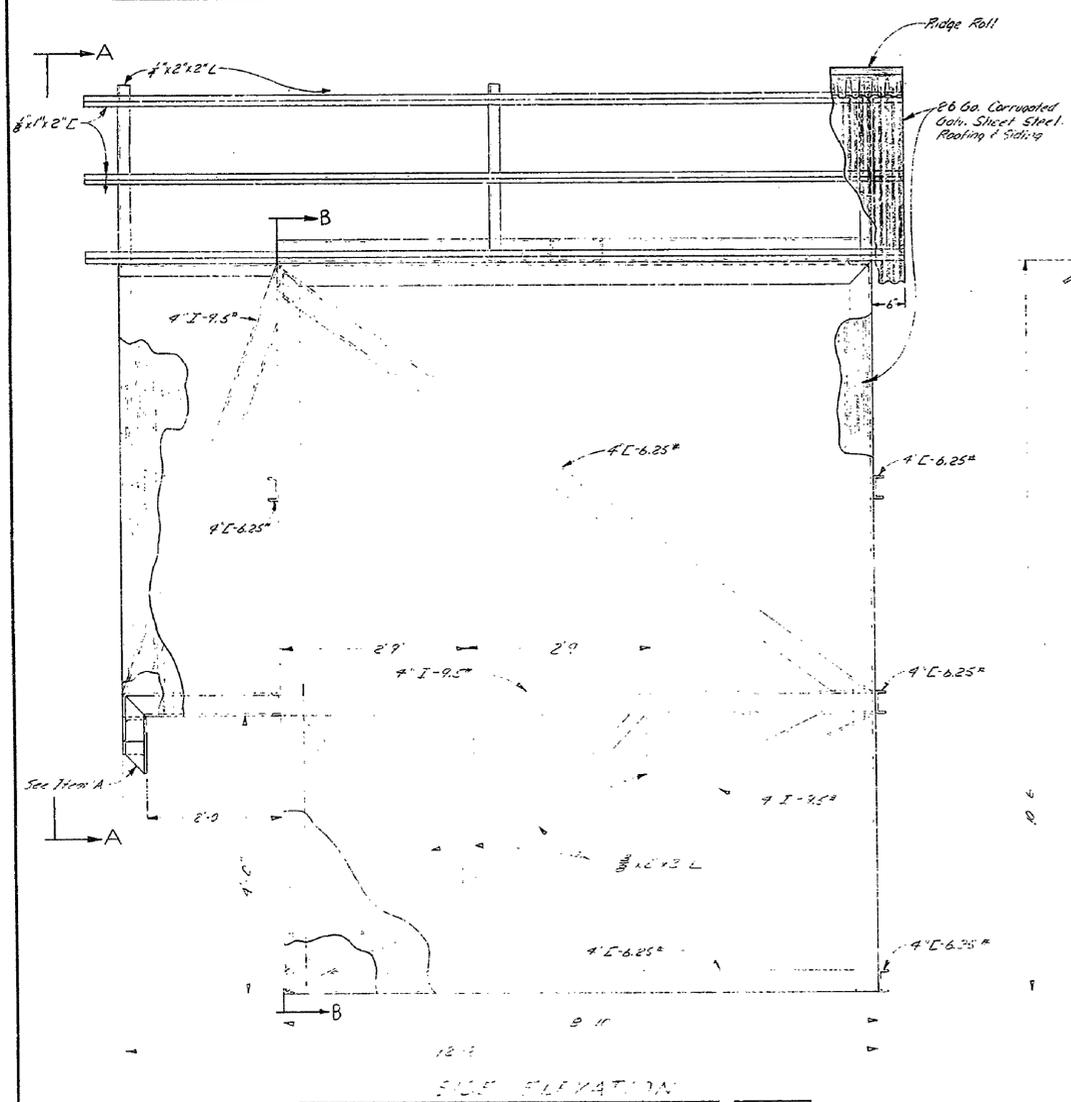
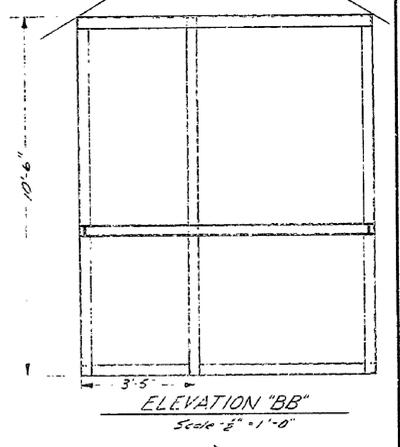
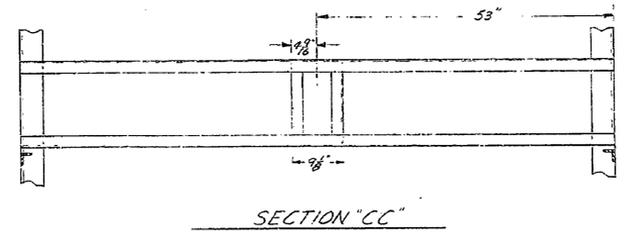
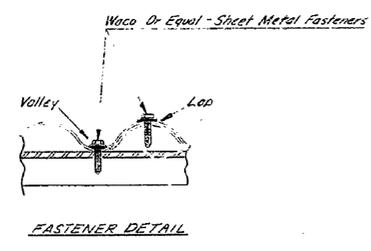
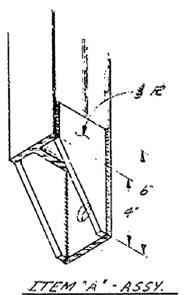
SCALE	DATE	FILE
AS SHOWN	8-20-68	62-026-1
DRAWN	CJ	FILE
CHECKED		APPROVED
		SHEET 1 of 8 SHEETS

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 12/2/79 SIGNATURE Sub Meadows TITLE 177/100/100/100/100/100



01-Men-101-RB925



NOTE - All Weld Constr. Unless Otherwise Shown

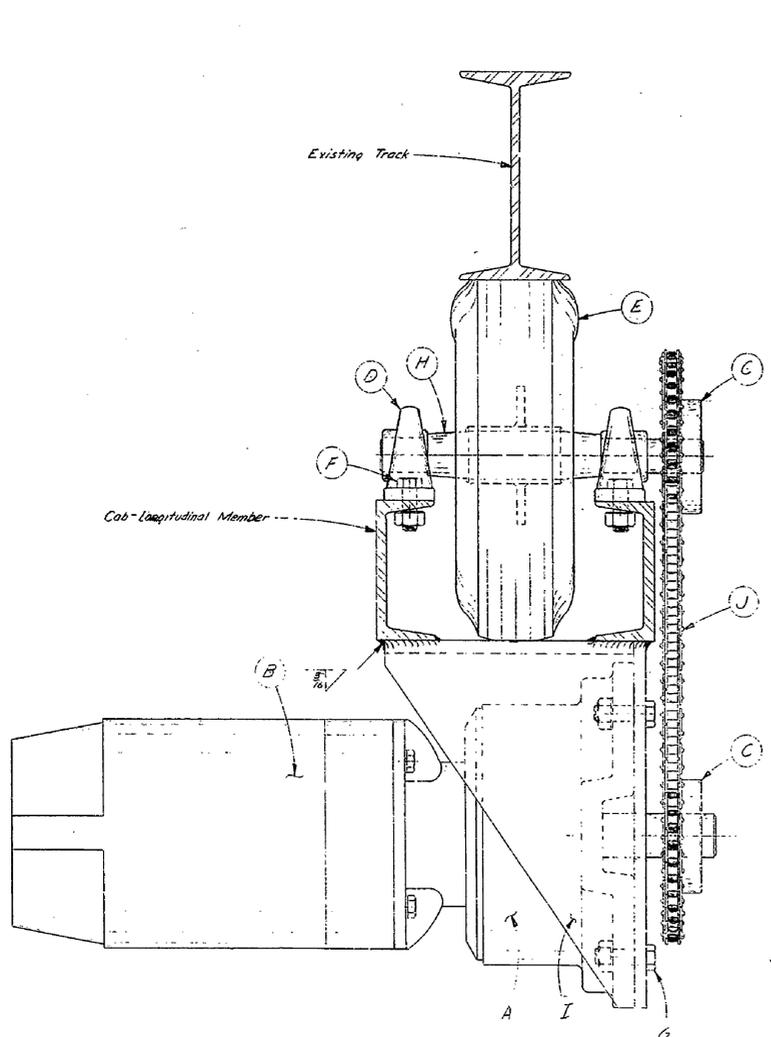
STATE OF CALIFORNIA			
DEPARTMENT OF PUBLIC WORKS			
DIVISION OF HIGHWAYS			
EQUIPMENT DEPARTMENT			
STORAGE SHED			
MONORAIL, CEDER CREEK CULVERT			
SCALE 3/4\"/>			
DRAWN <i>BP</i>	FILE	62-D26-3	
CHECKED	APPROVED		SHEET 2 OF 2 SHEETS

Br. No. 10-226

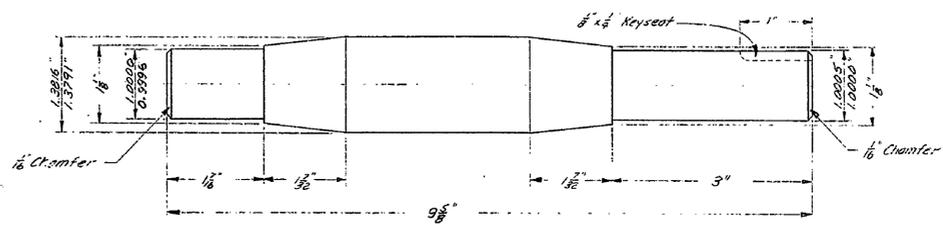
**AS BUILT PLANS**  
 Contract No. UNKNOWN  
 Date Completed 8-68  
 Document No. Plan 1588

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

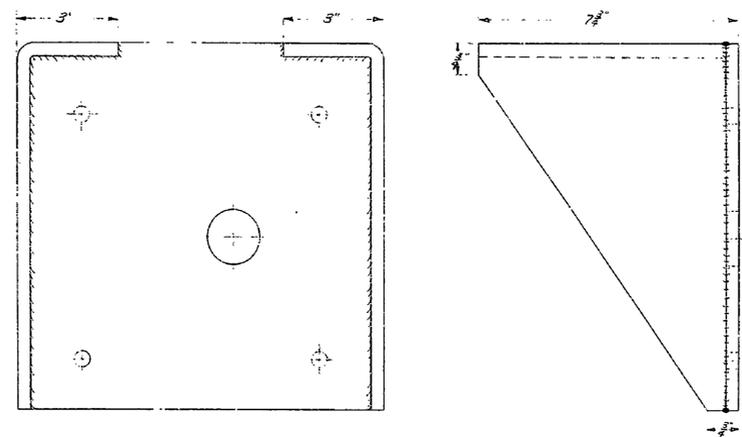
DATE 12/2/79 SIGNATURE Sub-Master TITLE Chief of Bureau



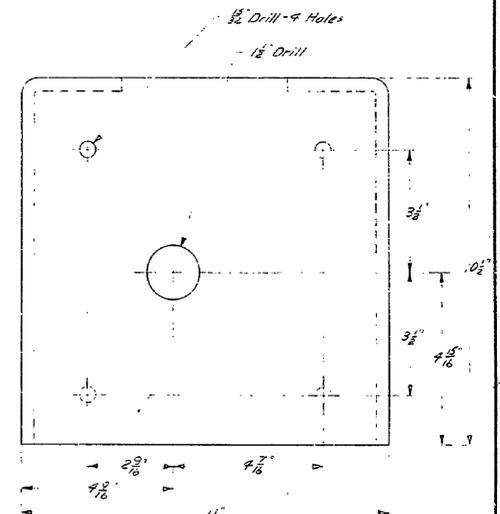
ASSEMBLY - END VIEW



DETAIL OF ITEM "H"  
Full Scale



DETAIL OF ITEM "I"  
1/8" All Weld Constr.



**AS BUILT PLANS**  
 Contract No. UNKNOWN  
 Date Completed 8-68  
 Document No. Plan 1588

Item (Quan.)	Material	Item (Quan.)	Material
A 1	Sear Reducer - Boston # F226 DPK-1445 (Flange Mount)	F 4	1/8" N.C. Bolt - 1 1/2" Long w/ Nut & Lockwasher
B 1	D.C. Motor - Boston # 29010 (Flange Mount)	G 4	1/8" N.C. Bolt - 1 1/2" Long w/ Nut & Lockwasher
C 2	Bracket - Dodge # 7L8930 1/2" Roller Lock Bushing # .610	H 1	1 1/2" Dia 9 Bar Stock - 9 1/2" Long
D 2	Pinion Blank - Seal Master # 5516-M	J 1	1/8" F.M.S. - Refer to Detail For Size
E 1	Tire 390-30015 Super Rib w/ Wheel & Hub	J 12	#90 - 3/8" Pitch Roller Chain - 90 Long 1/2" Master Link

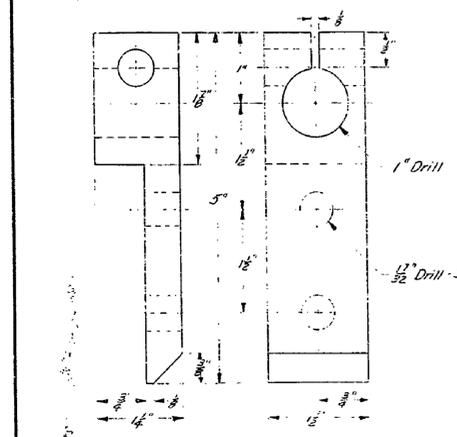
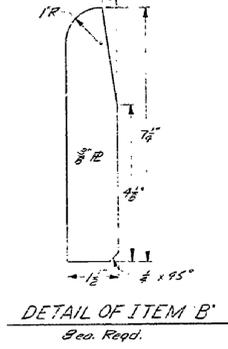
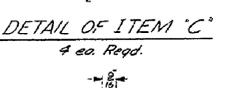
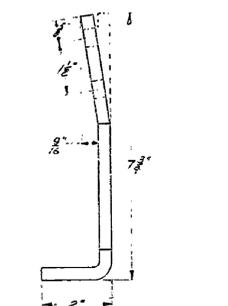
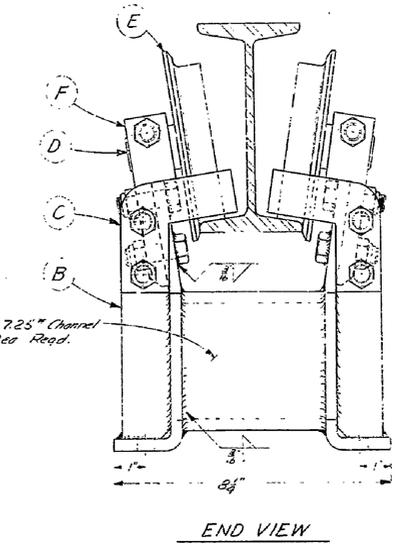
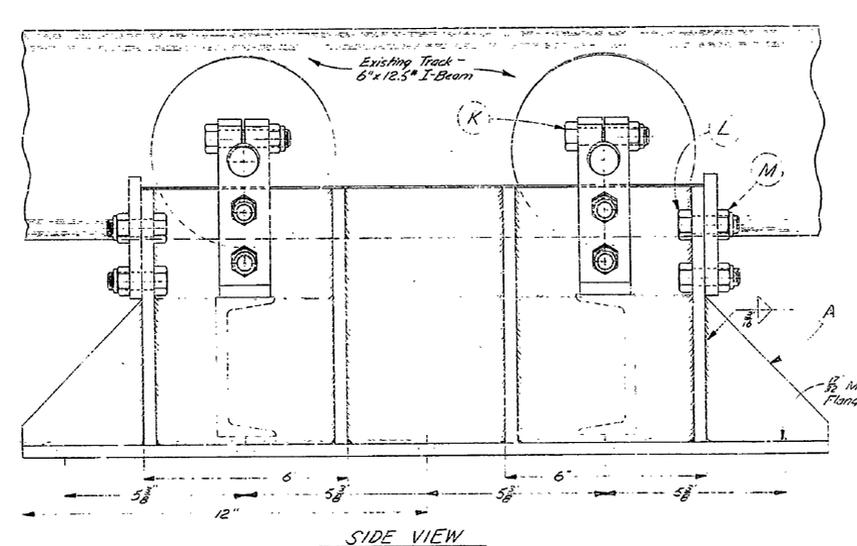
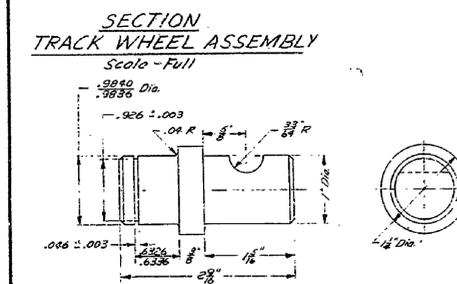
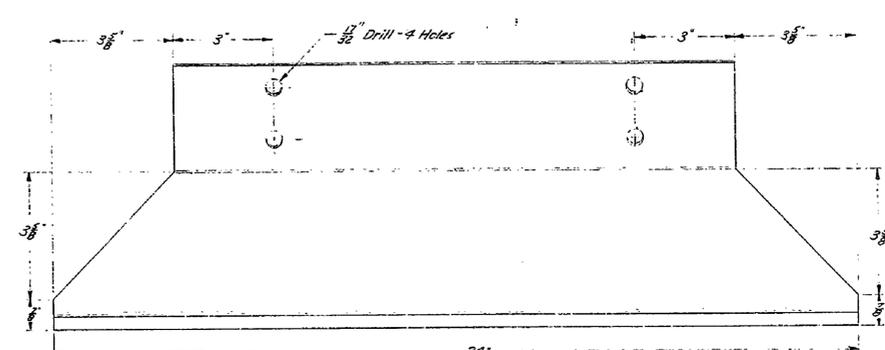
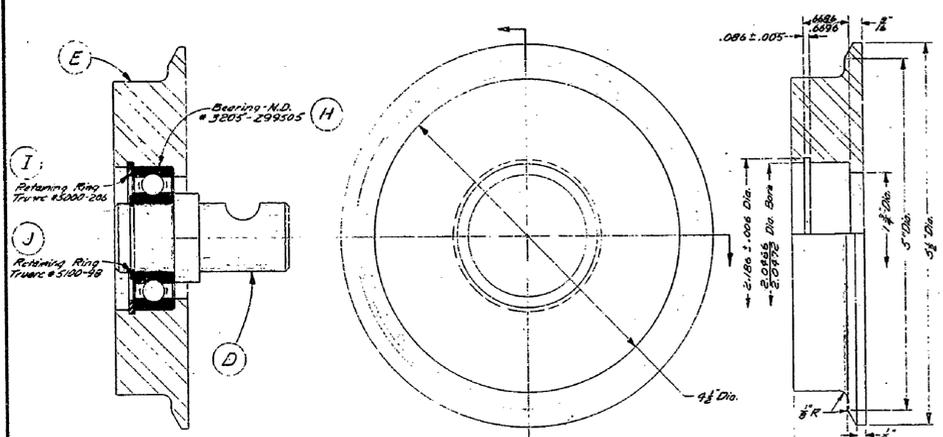
**Br. No. 10-226**

STATE OF CALIFORNIA  
 DEPARTMENT OF PUBLIC WORKS  
 DIVISION OF HIGHWAYS  
 EQUIPMENT DEPARTMENT  
 DRIVE DETAILS  
 MONDRIAN, CEDER CREEK CULVERT

SCALE 1/2" = 1'-0"  
 DATE 8-20-68  
 DRAWN BY JF  
 CHECKED JF  
 APPROVED JF  
 SHEET 2 OF 2 SHEETS

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 12/2/74  
 SIGNATURE [Signature]  
 TITLE [Title]



**MATERIALS LIST**

Item	Quan	Material	Item	Quan	Material
A	2	3/8" x 10" x 26" F.M.S.	H	4	Bearing - M.D. # 3205-299505
B	8	3/8" x 1 1/2" x 7 1/2" F.M.S.	I	4	Retaining Ring - Truarc # 5000-206
C	4	3/8" x 3 1/2" x 3 1/2" F.M.S.	J	4	Retaining Ring - Truarc # 5100-98
D	4	1 1/2" Dia. Bar Stock - 2 1/2" Long	K	4	3/4" 20 UNF Bolt - 2" Long
E	4	1 1/2" x 5 1/2" Dia. F.M.S.	L	16	3/8" 20 UNF Bolt - 1 1/2" Long
F	4	1 1/2" x 1 1/2" Long F.M.S.	M	20	ESNA # 22N1B3-080 Hex Lock Nut.
G	2	4" x 7.25" Channel - 4 1/2" Long	N		

**NOTE**  
One 4 Wheel Trolley Assembly Shown On This Drawing. Two Assemblies Required. One Assembly To Be Mounted At Each End Of Monorail Cab.

**Br. No. 10-226**

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
**DIVISION OF HIGHWAYS**  
EQUIPMENT DEPARTMENT

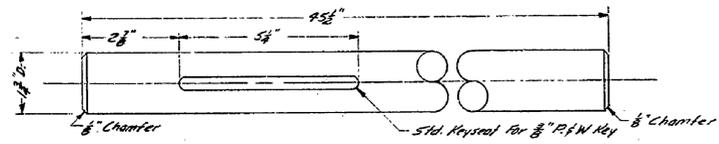
**CARRIER DETAILS**  
MONORAIL, CEDER CREEK CULVERT

SCALE: As Shown  
DATE: 8-20-68  
DRAWN: JPD  
FILE: 62-026-5  
CHECKED: APPROVED: SHEET: 5 of 2 SHEETS

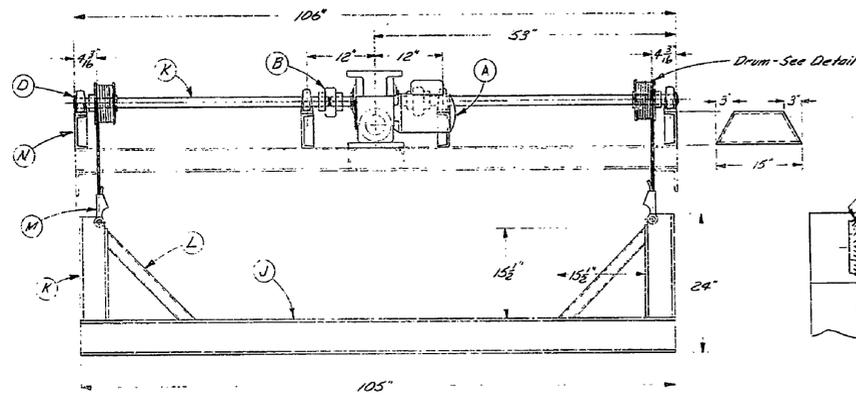
**AS BUILT PLANS**  
Contract No. UNKNOWN  
Date Completed 8-68  
Document No. 1588

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE: 12/2/79  
BY: Sub. Spadens  
BY: M. Hoffman, Supervisor

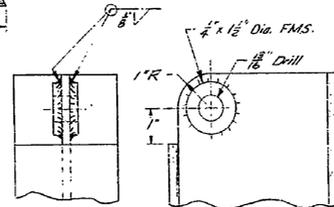


DETAIL OF ITEM "K"  
2 ea. Req'd. - Scale 3/4" = 1"

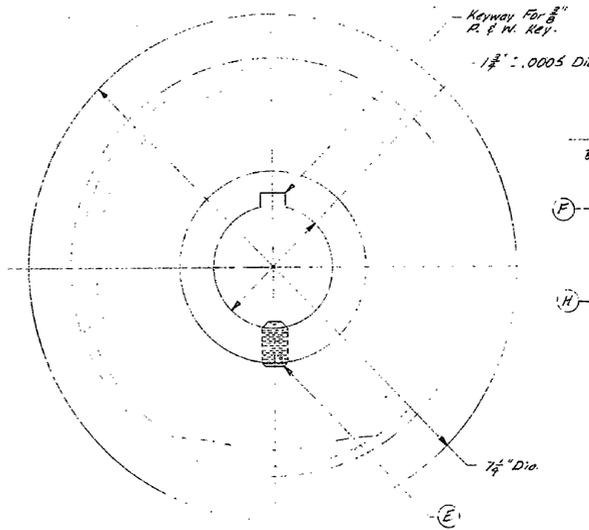


DRIVE ASSEMBLY  
Scale - 1" = 1'-0"

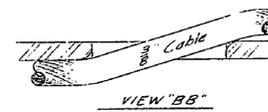
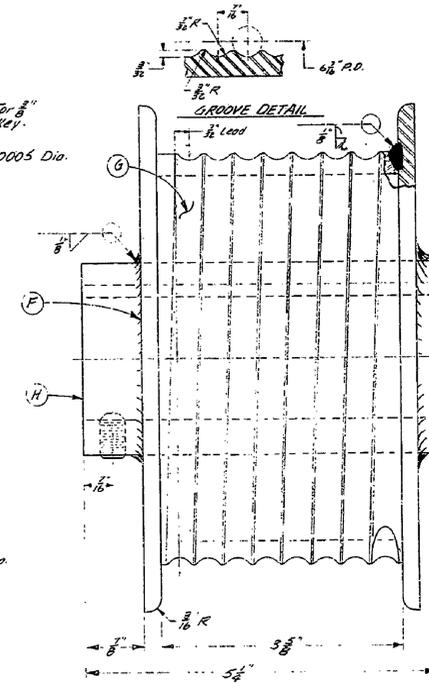
NOTE - All Weld Constr. Unless  
Otherwise Shown.



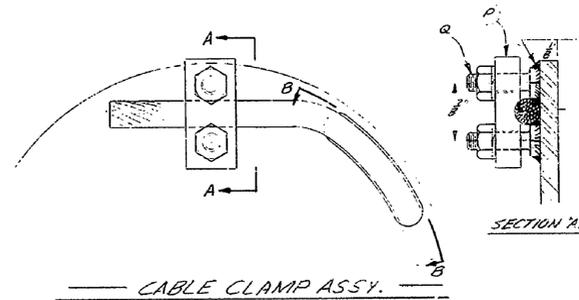
DETAIL OF ITEM "K"  
Scale 3/4" = 1"



DRUM DETAIL  
2 ea. Req'd. Opposite - Full Scale



VIEW "BB"



CABLE CLAMP ASSY.



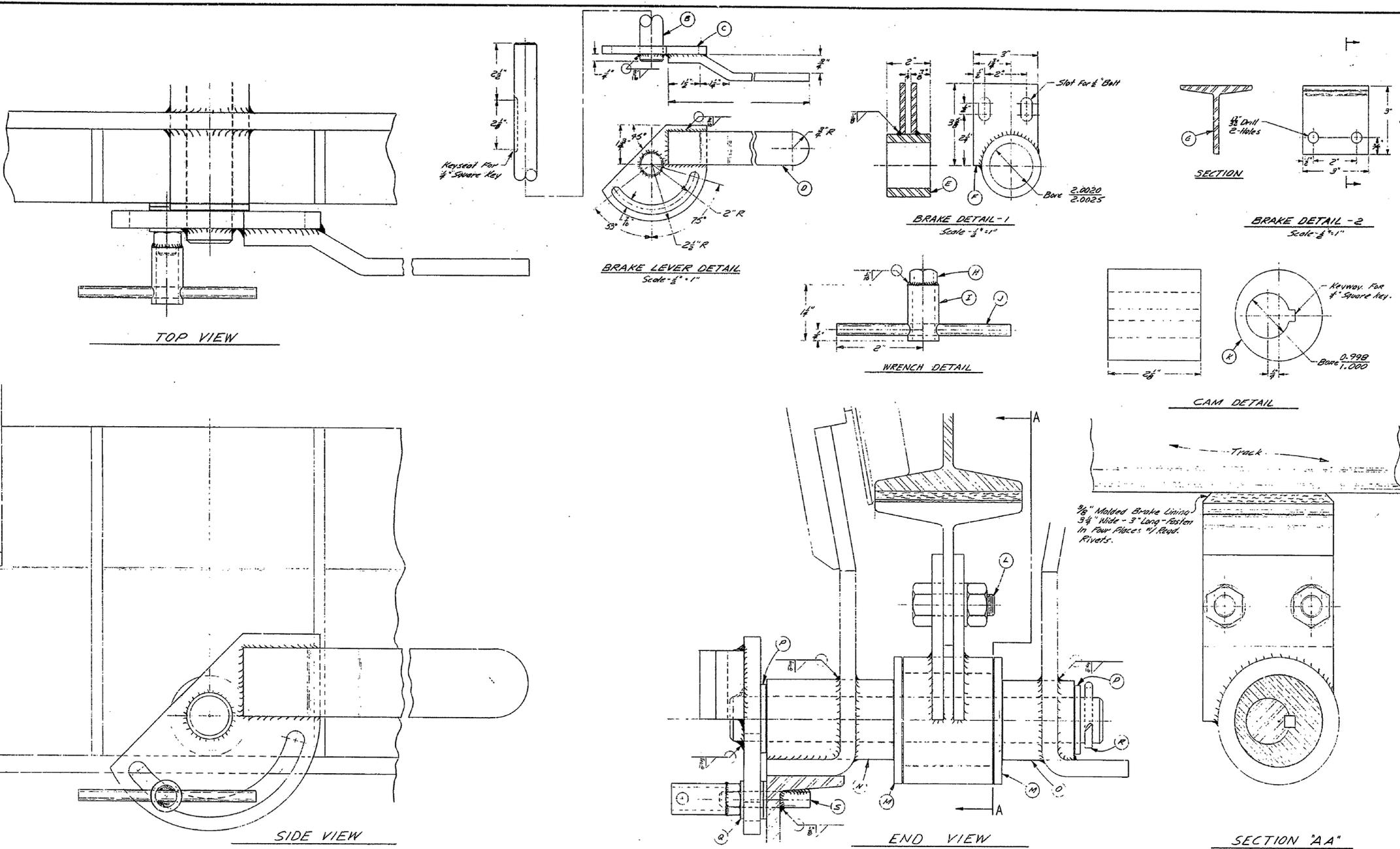
DETAIL OF ITEM "P"

**AS BUILT PLANS**  
Contract No. UNKNOWN  
Date Completed 8-68  
Document No. Class 1588

Item	Quan.	Component or Material	Item	Quan.	Component or Material
A	1	Morse # 90608-300 Gear Reducer w/ TEFC Single Phase Motor	J	1	6" I 12.5" - 105" Long.
B	2	Morse # 609 Chain Coupling w/ 1 1/2" Bore	K	2	5" I 10.0" - 18" Long.
C	2	Morse # DR6-25 Coupling Socket	L	2	3" Sp. Tubing 22" Long - 1/2" Wall Thickness.
D	4	Sedmaster # NP-28 Pillow Block	M	2	3/8" Std. Open Wire Rope Wedge Type Socket
E	2	3/8" Hex Socket Set Screws with Cup Point - 1/2" Long.	N	4	6" I 12.5" - 15" Long.
F	4	1/2" x 28" Dia. SH R.	O	2	1 1/2" x Bar Stock #55 Long.
G	2	6" OD x 1/2" ID SH Tubing 5 3/8" Long.	P	2	3/8" x 3/4" x 1/2" F.S.
H	2	2" OD x 1/8" ID SH Tubing 5 3/8" Long.	Q	4	3/8" NC Bolt 1" Long w/ Nut & Lock Washer.
I	2	3/8" P.C.N. Key - 5 3/8" Long.			

Br. No. 10-226  
STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS  
EQUIPMENT DEPARTMENT  
DRIVE DETAILS - STORAGE SHED  
MONORAIL, CEDER CREEK CULVERT  
SCALE AS SHOWN DATE 8-20-68 62-026-6  
DRAWN GJD FILE  
CHECKED APPROVED SHEET 6 of 2 SHEETS

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.  
DATE 12/2/79 SIGNATURE Sub. Spadana PROJECT No. 10/226



MATERIAL LIST					
Item	Quan.	MATERIAL	Item	Quan.	MATERIAL
B	1	1" Dia. w Bar Stock - 8 3/8" Long	H	1	3/8" NC Nut
C	1	3/8" x 2 1/2" x 2 1/2" F.M.S.	I	1	3/8" SH. BH Piece - 1 1/2" Long
D	1	3/8" x 1 1/2" x 1 1/2" Long F.B.	J	1	1/4" Dia. w SH. Bar Stock - 4" Long
E	1	2 3/8" O.D. x 2" I.D. SH. Tubing - 2" Long	K	1	2" Dia. w Bronze Bearing Bar Stock - 2 1/2" Long
F	2	2" x 3" x 3/8" F.M.S.	L	2	1/2" NC Bolt - 1 1/2" Long w/ Nut & Lock Washer
G	1	1" x 1 1/2" x 3" Room - 3" Long	M	2	3/16" x 2 3/8" O.D. x 1 1/2" I.D. SH. Washer
N	1	1 3/8" O.D. x 1 1/2" I.D. SH. Tubing - 2 3/8" Long	O	1	1 3/8" O.D. x 1 1/2" I.D. SH. Tubing - 1 3/8" Long
P	2	1 1/2" I.D. Flat Washer	Q	3	1 3/8" I.D. Flat Washer
R	1	3/8" Collar Pin	S	1	3/8" NC Bolt - 2" Long

Br. No. 10-226

STATE OF CALIFORNIA  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS  
EQUIPMENT DEPARTMENT

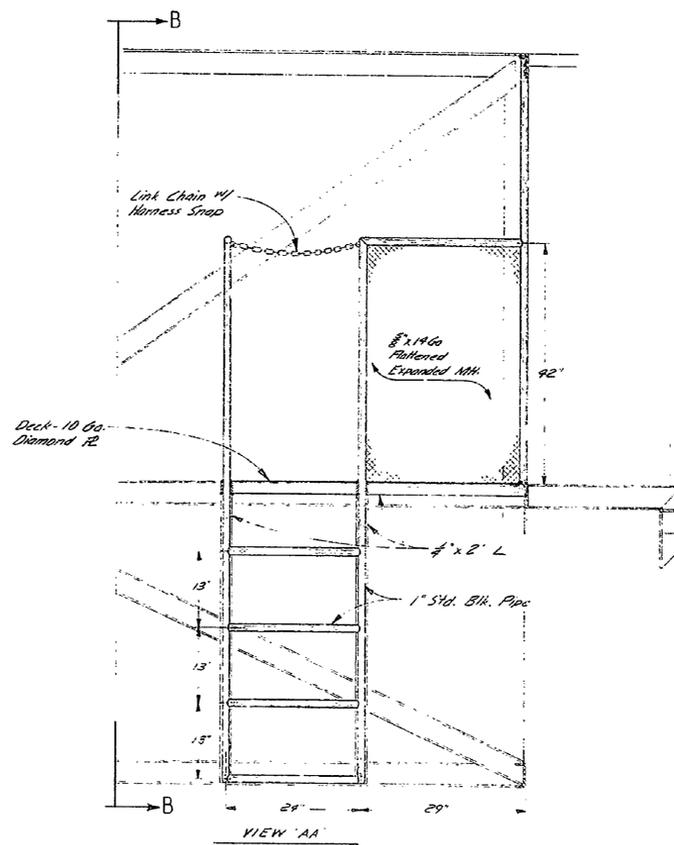
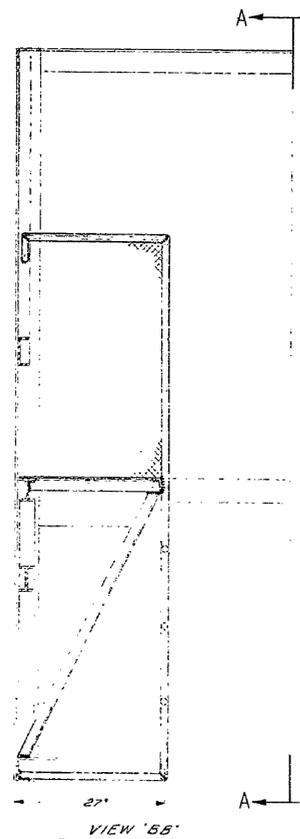
BRAKE DETAIL  
MONORAIL CEDER CREEK CULVERT

SCALE 3/4" = 1" FULL  
DATE 8-20-68  
DRAWN GFD  
CHECKED GFD  
APPROVED  
SHEET 2 of 2 SHEETS

AS BUILT PLANS  
Contract No. UNKNOWN  
Date Completed 8-68  
Document No. 0100 1588

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 12/2/79  
SIGNATURE [Signature]  
TITLE [Title]



**AS BUILT PLANS**  
 Contract No. UNKNOWN  
 Date Completed 8-68  
 Document No. Plan 1588

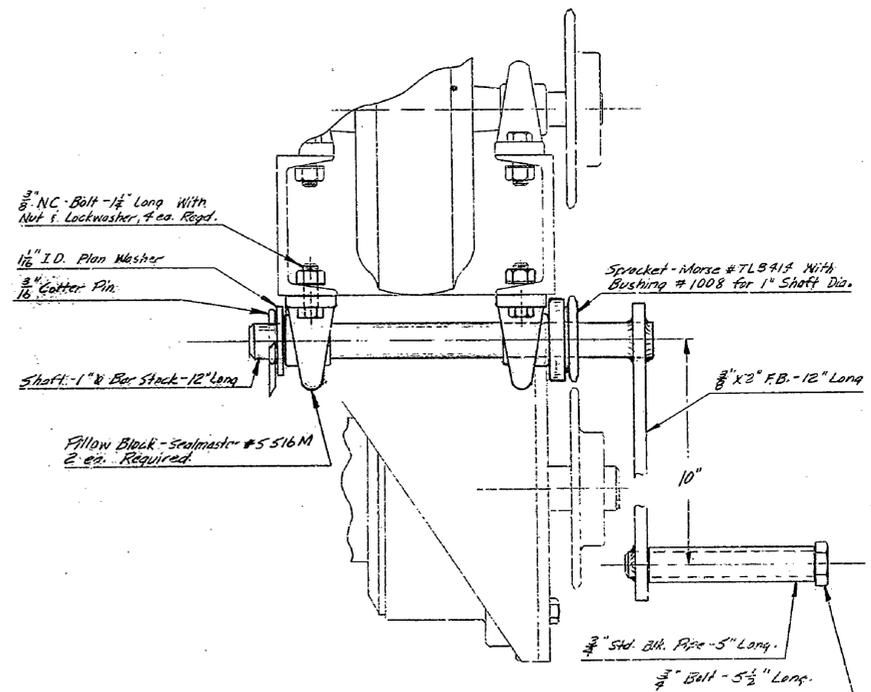
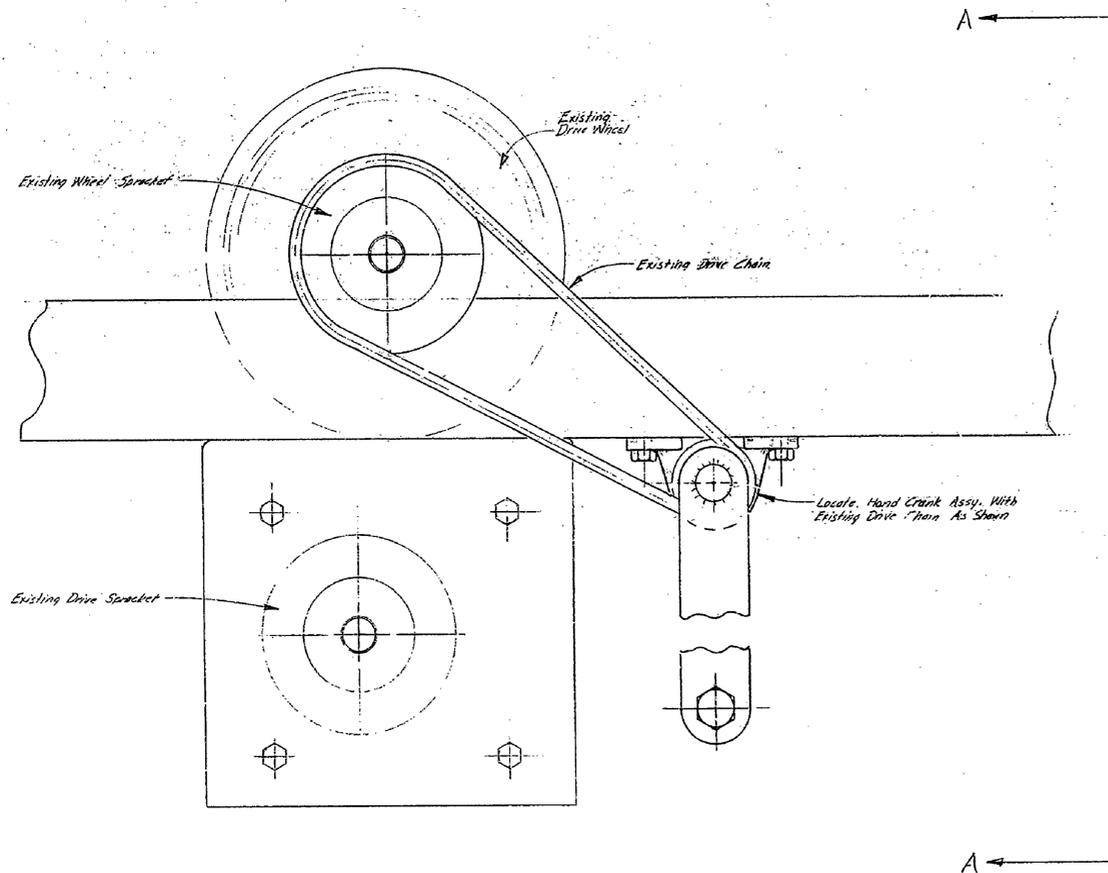
**LADDER AND GUARDRAIL DETAIL**  
 All Weld Constr. ~ Scale 1" = 1'-0"

**Br. No. 10-226**

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS <b>DIVISION OF HIGHWAYS</b> EQUIPMENT DEPARTMENT			
DETAIL SHEET			
MONDRAIL, CEDAR CREEK CULVERT			
SCALE <u>As Shown</u>	DATE <u>8-20-68</u>	FILE <u>62-026-B</u>	
DRAWN <u>J.P.</u>	FILE		
CHECKED	APPROVED	SHEET <u>2</u> OF <u>2</u> SHEETS	

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.

DATE 12/2/79 BY Neil Meadows THIS 17/100/100 SUPERVISOR



**AS BUILT PLANS**  
 Contract No. UNKNOWN  
 Date Completed 8-68  
 Document No. Plan 1588

**Br. No. 10-226**

STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS <b>DIVISION OF HIGHWAYS</b> EQUIPMENT DEPARTMENT			
MONORAIL <b>HAND CRANK ASSY</b>			
SCALE $\frac{1}{2}$ "	DATE 2-20-69	SHEET 1 OF 1	
DRAWN GFD	FILE 62-226-9	SHEET 1 OF 1	
CHECKED	APPROVED	SHEET 1 OF 1	

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN  
 UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO  
 AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.  
 DATE 12/2/79 BY Sub Quaderna TITLE Monorail Supervisor

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

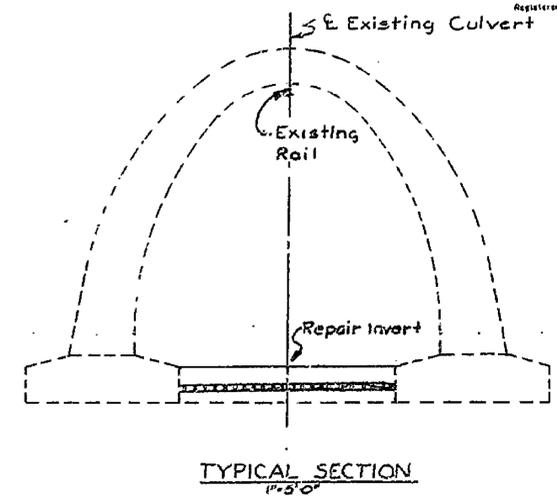
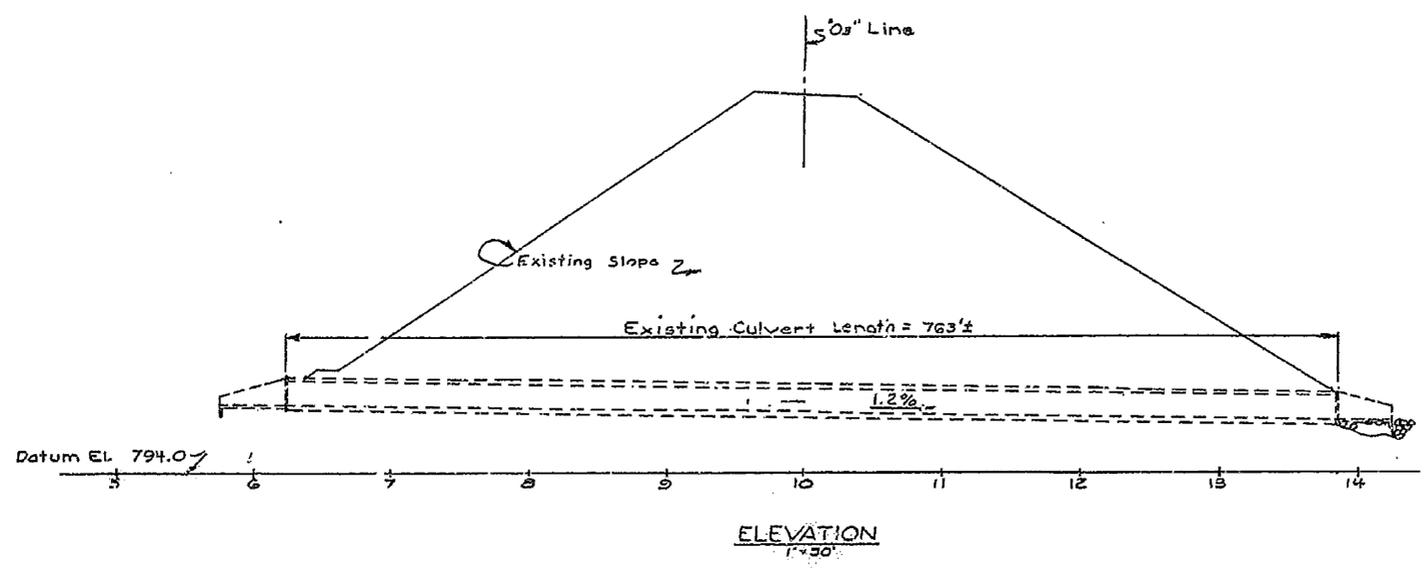
## **MATERIALS INFORMATION**

As-Builts:

3. 1977 EA 01-170504

DATE	PROJECT	POST OFFICE	PROJECT NO.	SHEET NO.
01-MEN	(C1)	R89.2	1	3

Approved by: *Albert C. Cook* 2178  
 Chief, Project Development Division  
 Registered Civil Engineer No. 8532  
 Date: April 24, 1977



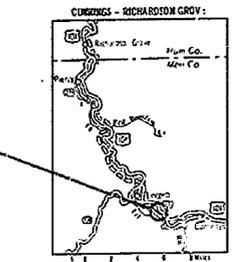
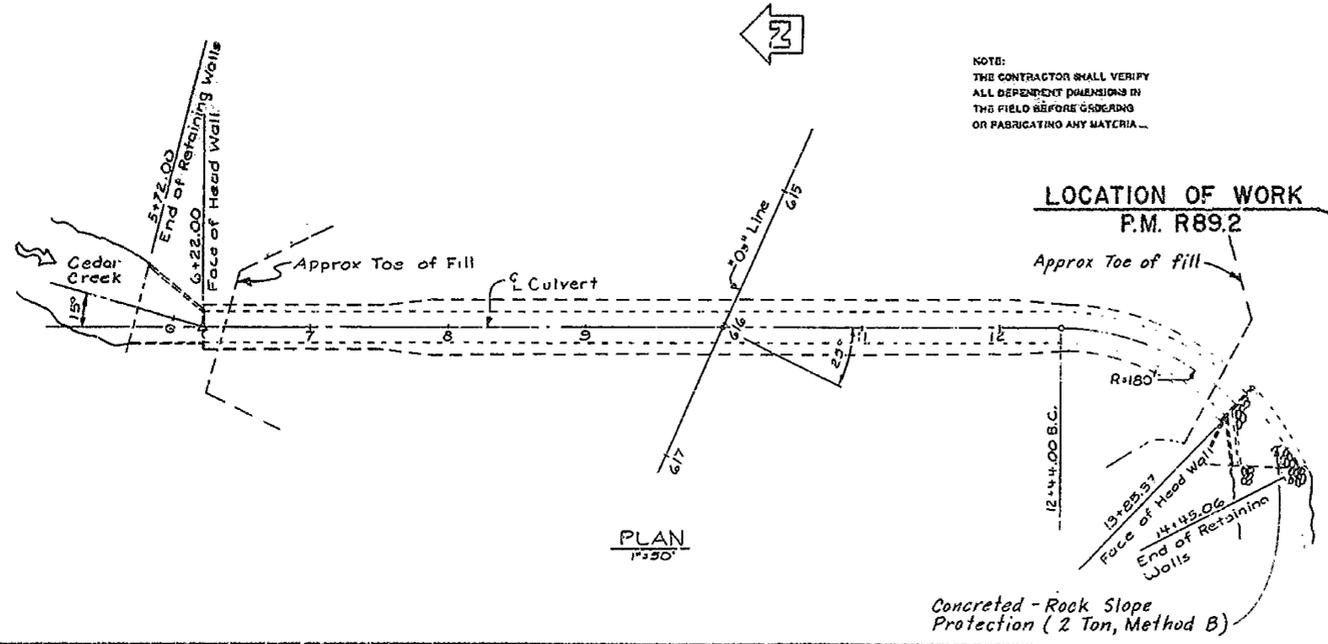
APPROXIMATE QUANTITIES

CONCRETE-ROCK SLOPE PROTECTION (2 TON, METHOD B)	315 CY
BRIDGE SPANAL (PORTION)	LUMP SUM
CONCRETE (CONCRETE-ROCK SLOPE PROTECTION)	210 CY

ESTIMATED QUANTITIES

STRUCTURAL CONCRETE, BRIDGE	360 CY
STRUCTURAL STEEL (BRIDGE)	188,000 LB

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.



AS BUILT  
 RW Douglas  
 SY 16-04-04  
 DATE 10-17-80

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	OUTLET DETAILS
3	WEIR DETAILS

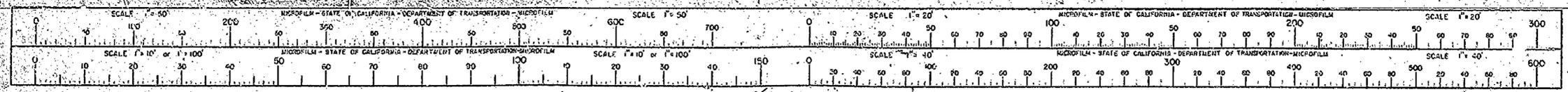
IN MENDOCINO COUNTY  
 ABOUT 2.0 MILE SOUTH OF LEGETT  
 AT CEDAR CREEK BRIDGE NO. 10-226

to be supplemented by Standard Plans dated January, 1975

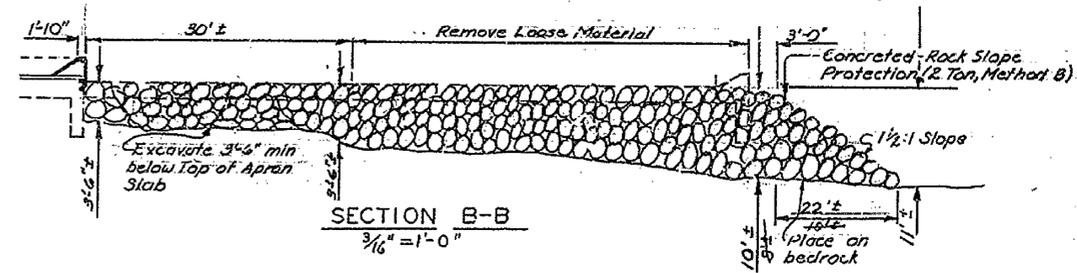
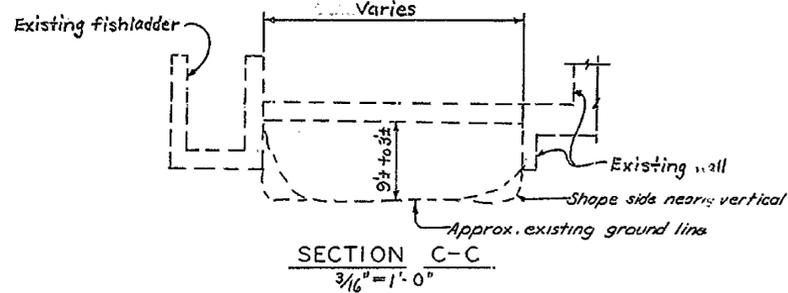
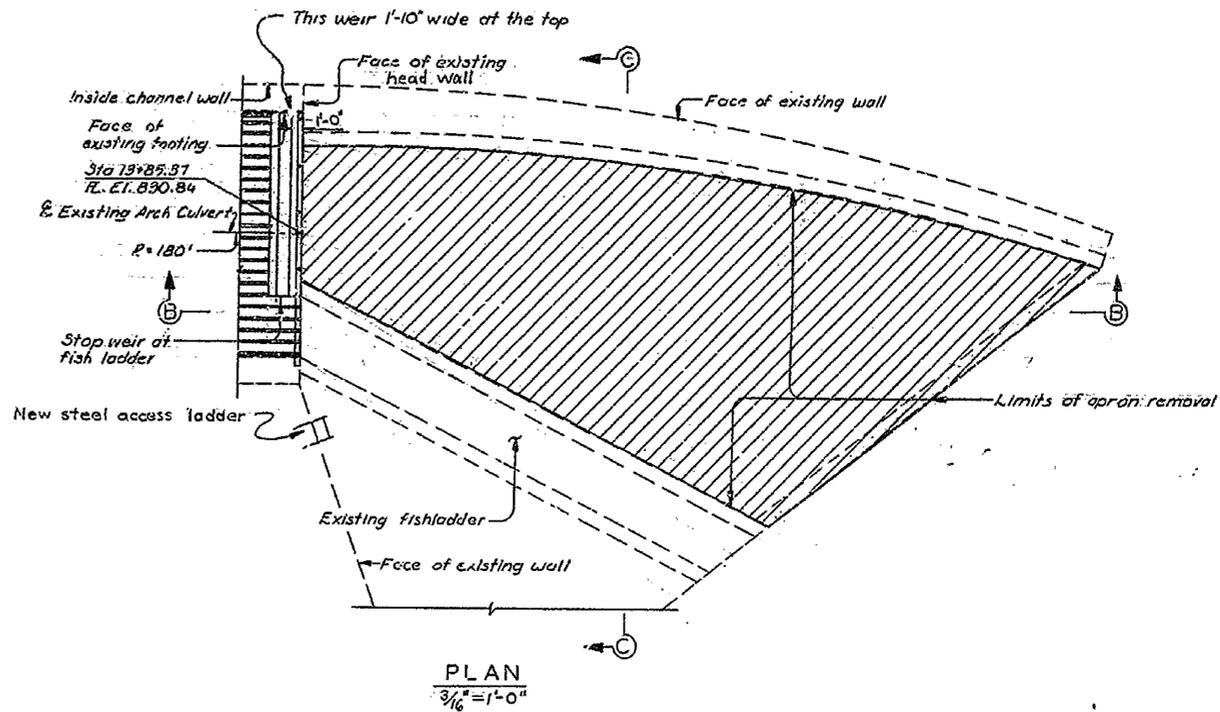
Prepared by: <i>A. E. Baker</i> 2-16-77 Checked by: <i>W. E. Warner</i> 2-17-77 Approved by: <i>Albert C. Cook</i> 2-17-77	DESIGN: <i>Albert C. Cook</i> 2-17-77 DETAILS: <i>W. E. Warner</i> 2-17-77 QUANTITIES: <i>W. E. Warner</i> 2-17-77	LIVE LOADING: HS 20-44 AND ALTERNATIVE CHECKED BY: <i>W. E. Warner</i> 2-17-77 SPECIFICATIONS: <i>W. E. Warner</i> 2-17-77	State of CALIFORNIA DEPARTMENT OF TRANSPORTATION OFFICE OF STRUCTURES DESIGN GROUP 7 PROJECT ENGINEER: <i>Albert C. Cook</i>	BRIDGE NO.: 10-226 POST MILE: R89.2 CONTRACT NO.: 01-170504 REPAIRS TO CEDAR CREEK CULVERT GENERAL PLAN
--	--	--	--	---

AS BUILT PLANS  
 Contract No. 01-170504  
 Date Completed 6-3-80  
 Document No. \_\_\_\_\_

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.  
 7-23-80 *Joseph M. Lata* SUPERVISOR OF MICROFILM SERVICES



SHEET	COUNTY	ROUTE	POST MILE - TOTAL PROJECT	SHEET
01	Men	101	R 89.2	2
O. E. Bunker				8555
APRIL 25, 1977				



NOTE:  
THE CONTRACTOR SHALL VERIFY  
ALL DEPENDENT DIMENSIONS IN  
THE FIELD BEFORE ORDERING  
OR FABRICATING ANY MATERIAL.

**AS BUILT**  
CONTRACTOR: Ray Douglas  
CONTRACT NO.: 01-170504  
DATE: 6-3-80

DESIGN	BY <u>Albert Bunker</u> 2/77	CHECKED <u>PHB</u> 2-77
DETAILS	BY <u>W.E. Warren</u>	CHECKED <u>PHB</u> 2-77
QUANTITIES	BY <u>W.E. Warren</u> 2/77	CHECKED <u>W.E. Warren</u>

State of  
**CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

STRUCTURES - DESIGN 7  
PROJECT ENGINEER Albert Bunker

BRIDGE NO.  
10-226  
POST MILE  
R 89.2

REPAIRS TO CEDAR CREEK CULVERT  
OUTLET DETAILS

ORIGINAL SCALE IN INCHES  
FOR REDUCED PLANS

CU 01201  
WO 170501

Disregard price bearing earlier revision data

REVISION DATES (PRELIMINARY STAGE ONLY)

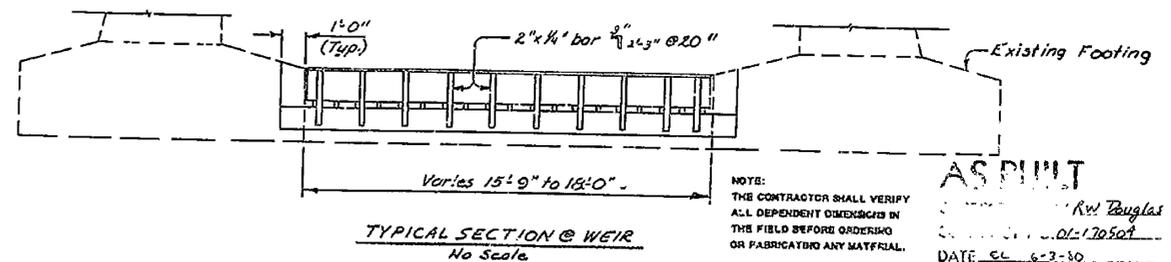
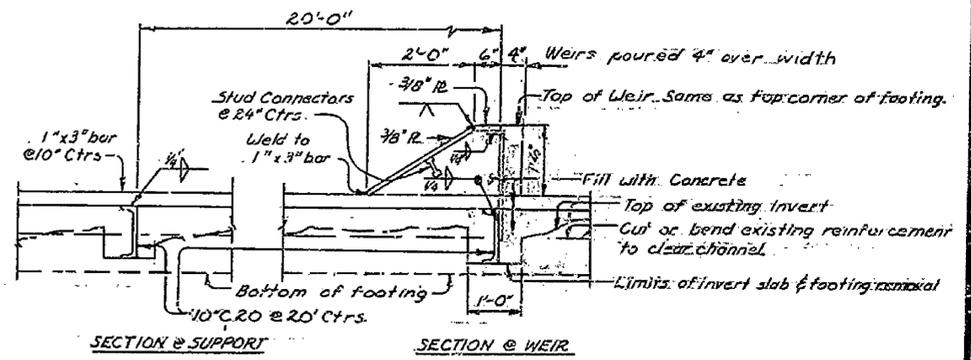
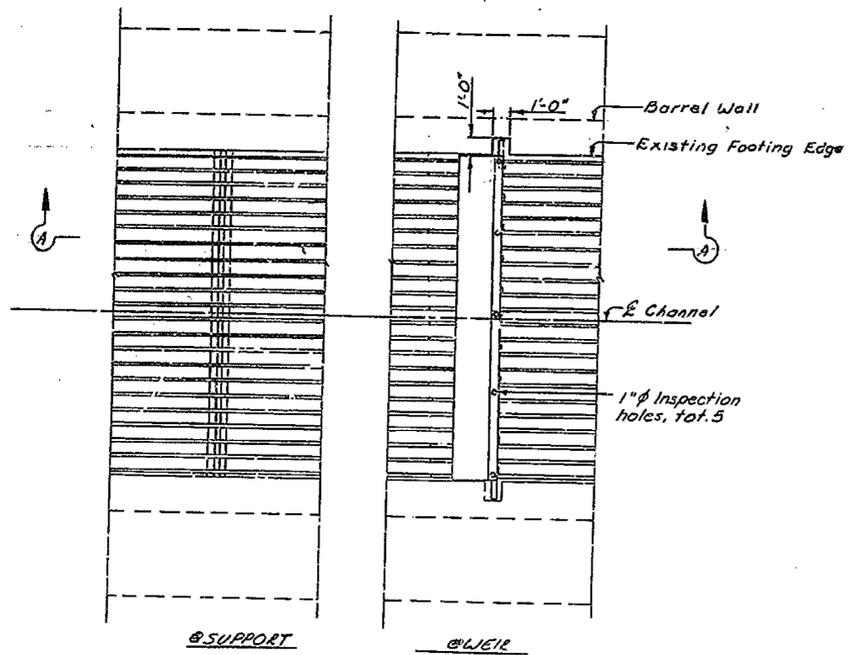
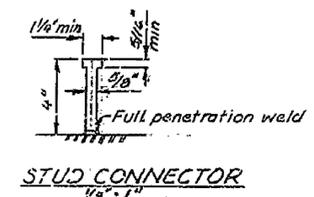
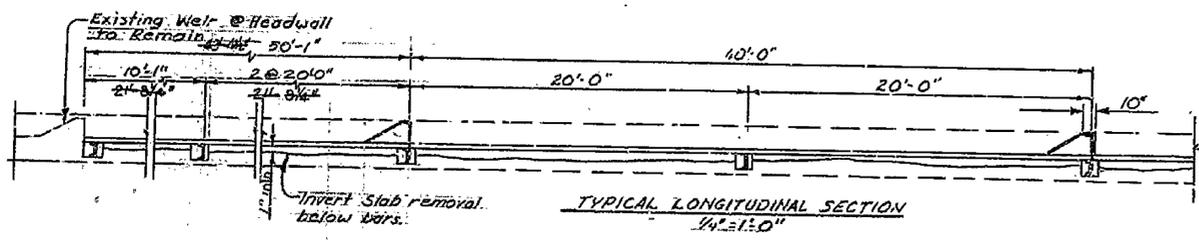
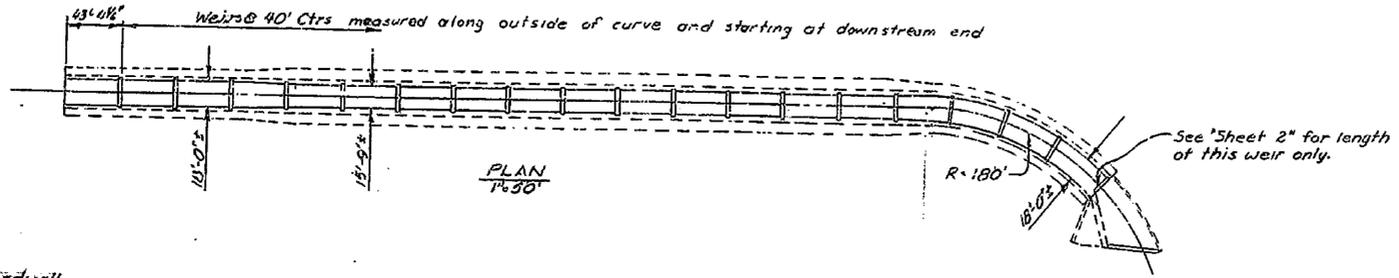
SHEET 2 OF 3

**AS BUILT PLANS**  
Contract No. 01-170504  
Date Completed 6-3-80  
Document No. \_\_\_\_\_

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.  
DATE 7-28-80 SIGNATURE Jacob M. Lutz TITLE SUPERVISOR OF MICROFILM SERVICES



DATE	CHECKED	NOTED	POST MILE - TOTAL PROJECT	SHEET	OF
01/25/77	10/	R 89.2	3	3	
D. E. Madhu 8558					
April 25, 1977					



Note:  
If Contractor elects to prefabricate bars and channels into sections convenient for hauling and placing, he shall submit details of splices and connections to the Engineer for approval.

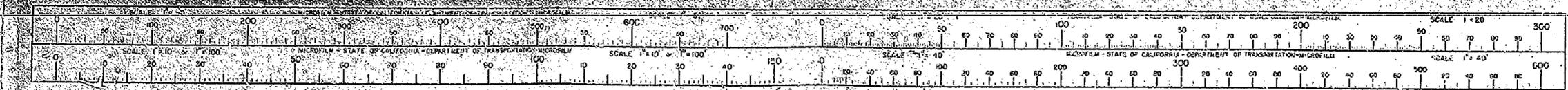
AS BUILT  
K. Douglas  
01-170504  
DATE 6-3-80

DESIGN	BY Albert P. Banks 2/77	CHECKED P. H. Baker 2/77	BRIDGE NO.	10-226	PROJECT	REPAIRS TO CEDAR CREEK CULVERT
DETAILS	BY W. E. Warren 2/10/77	CHECKED P. H. Baker 2/77	POST MILE	R 89.2	PROJECT ENGINEER	Albert P. Banks
QUANTITIES	BY B. J. Smith 2/77	CHECKED W. E. Warren				

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	CU 01201	WO 170501	Disregard price bearing earlier revision dates	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
									3	3

AS BUILT PLANS  
Contract No. 01-170504  
Date Completed 6-3-80  
Document No.

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.  
DATE 7-23-80 BY Joseph M. Lata TITLE SUPERVISOR OF HIGHWAY CONSTRUCTION



# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **MATERIALS INFORMATION**

As-Builts:

4. 1985 EA 01-201714

Dist.	County	Route	Post Miles	Sheet No.	Total Sheets
01	Men	101	R89.2	1	3

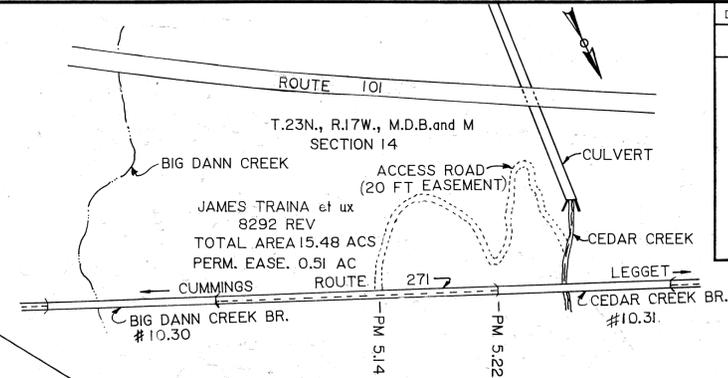
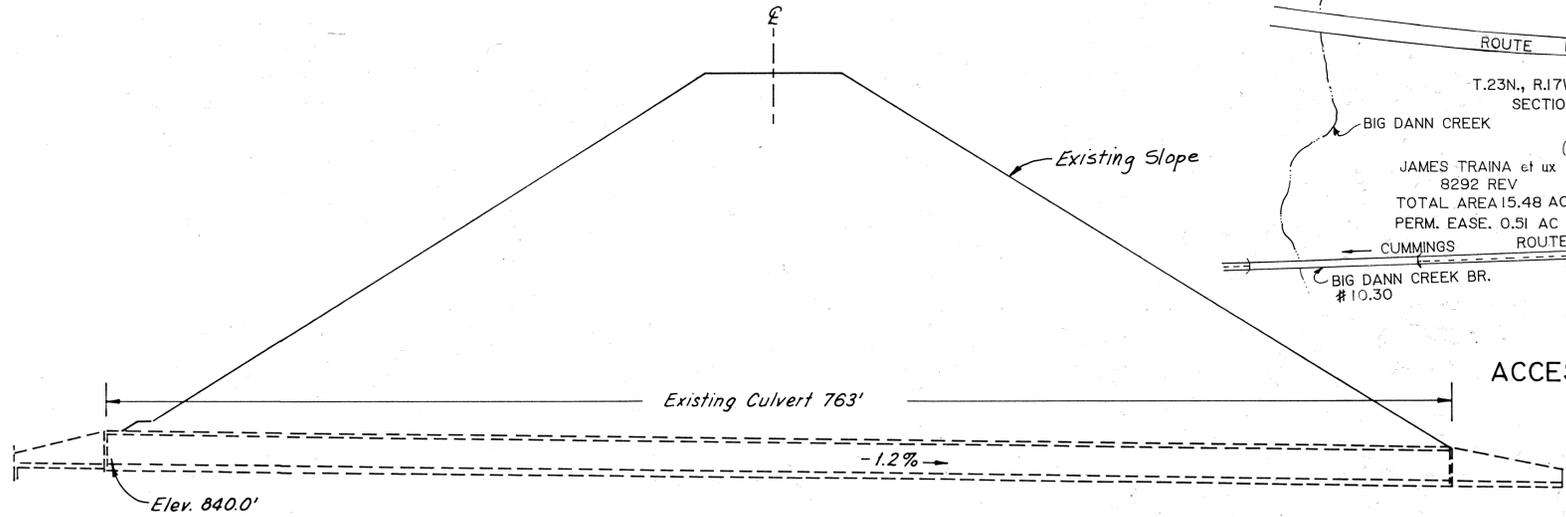
*J. Sherman Valentine Corp.*  
 CHIEF PROJECT DEVELOPMENT BRANCH  
 REGISTERED CIVIL ENGINEER No. 14011  
 DATE APPROVED May 28, 1985

**INDEX OF SHEETS**

- Sheet No. 1 Title, Location Map, Plan & Typical Cross Sections
- " " 2 Miscellaneous Details
- " " 3 Cedar Creek Fishladder

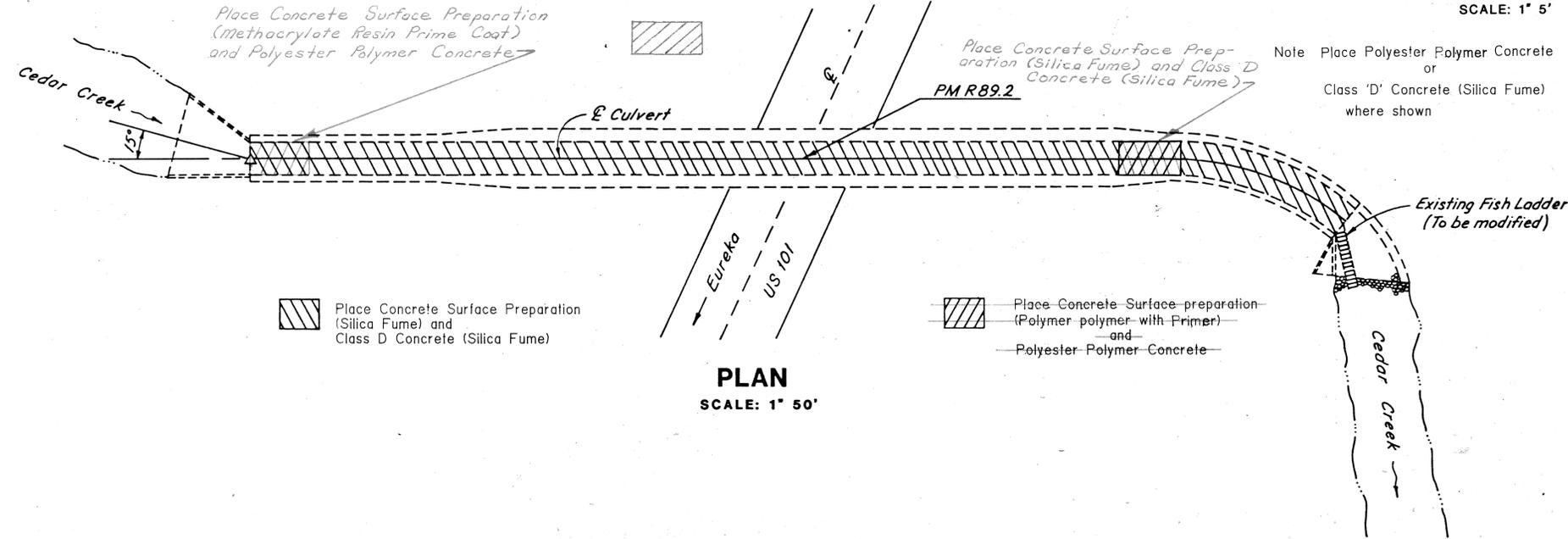
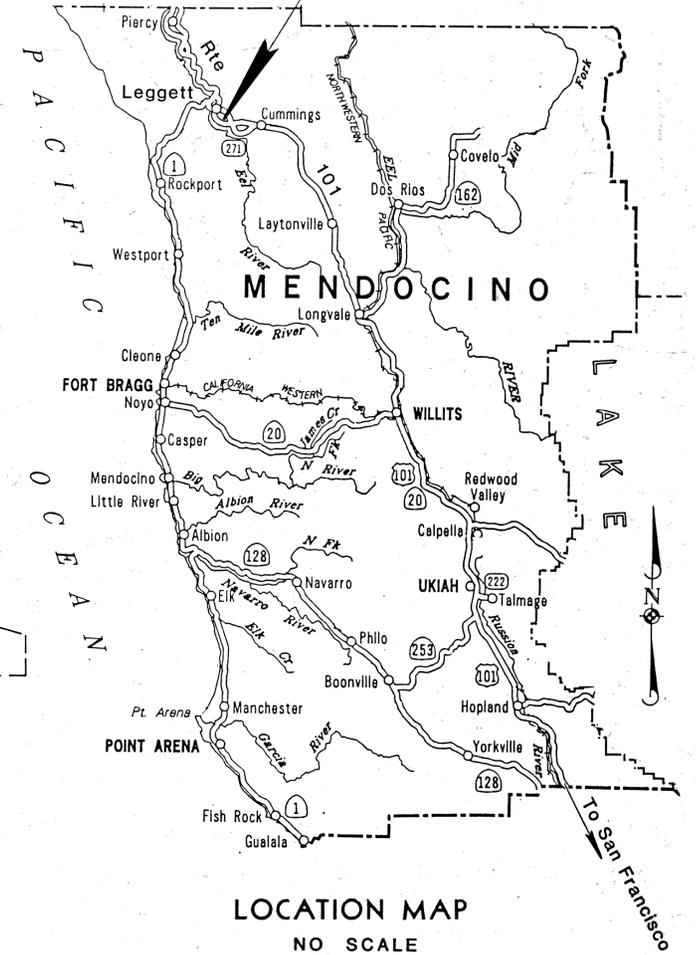
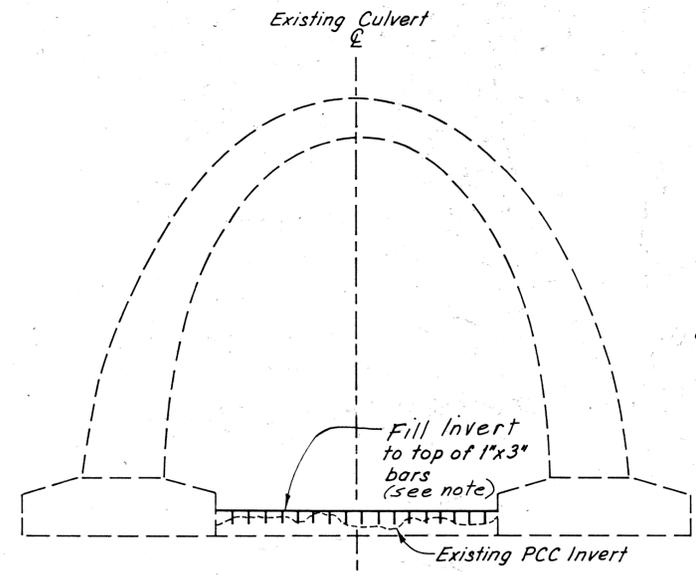
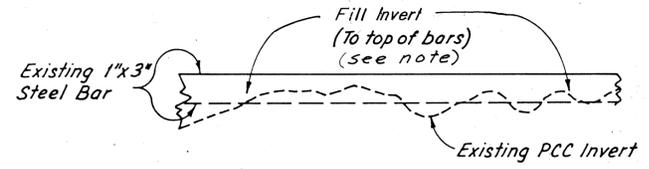
**APPLICABLE STANDARD PLANS**

A-10



**ACCESS ROAD LOCATION**

**LOCATION OF WORK**  
PM R 89.2



Note Place Polyester Polymer Concrete or Class 'D' Concrete (Silica Fume) where shown

1985 J. Sherman Valentine Corp.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
**STATE HIGHWAY**

**IN MENDOCINO COUNTY NEAR  
LEGGETT AT CEDAR CREEK**

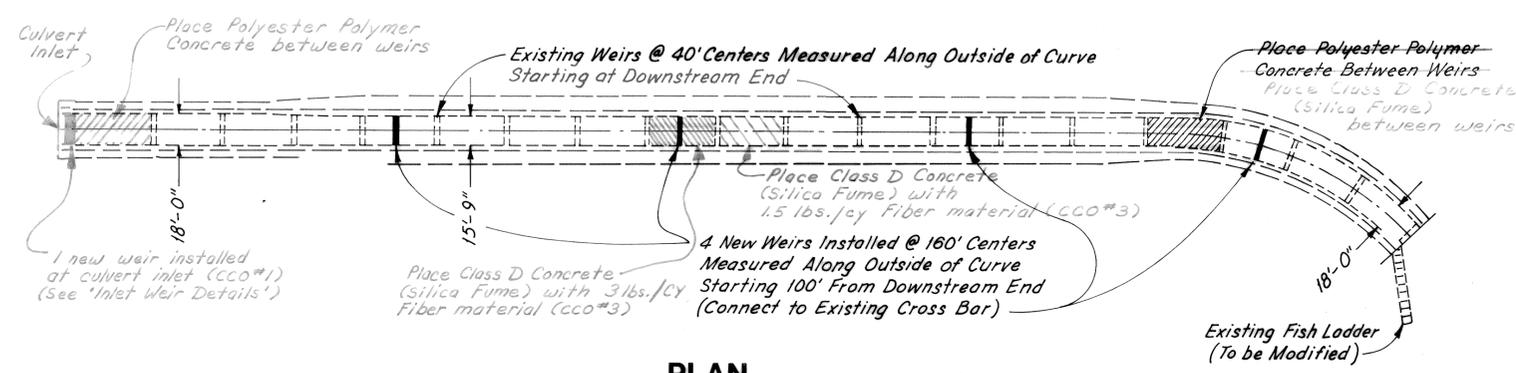
To be supplemented by Standard Plans dated July, 1984

Contract No. **01-201714**

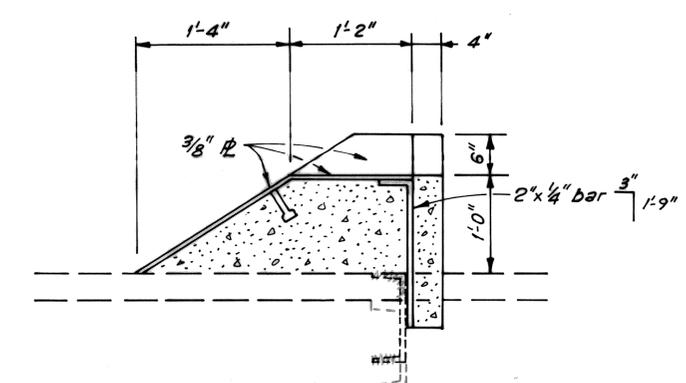
Date	Approval Recommended By
	D. A. Brown
Date	Project Studies Engineer
	A. O. Soils
Date	Project Engineer
	R. G. Wilson

Dist	County	Route	Post Miles Total Project	Sheet No.	Total Sheets
01	Men	101	R89.2	2	3

**A. O. Sauls**  
PROJECT STUDIES ENGINEER REGISTERED CIVIL ENGINEER  
NO. 23477  
DATE APPROVED May 28, 1985

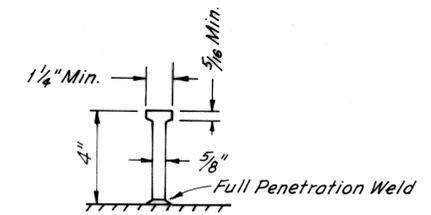


**PLAN**  
SCALE: 1" 50'

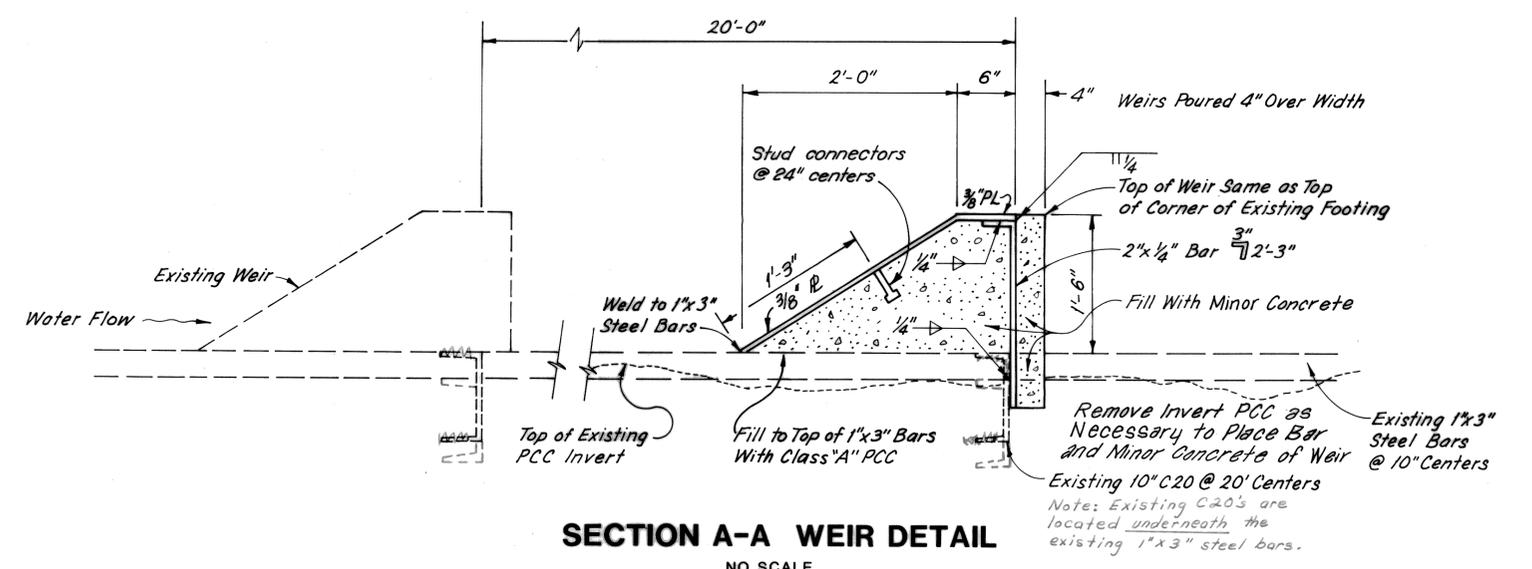


SIMILAR TO SECTION A-A EXCEPT AS NOTED  
**SECTION B-B WEIR DETAIL**  
NO SCALE

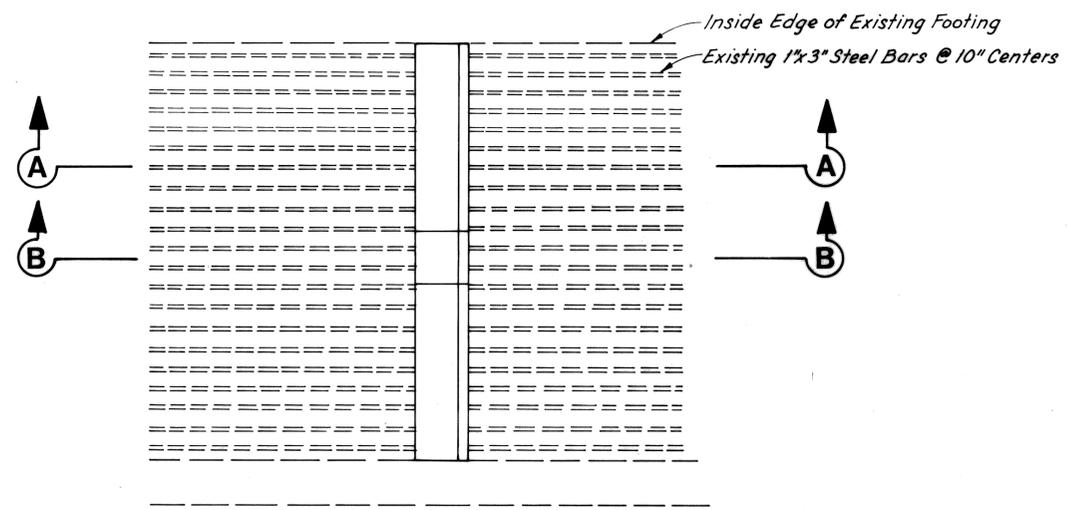
Misc. Iron & Steel (Weir) (4) = 3,243 lbs.  
" " " " (Fishladder) = 4,407 lbs.  
Total 7,650 lbs.



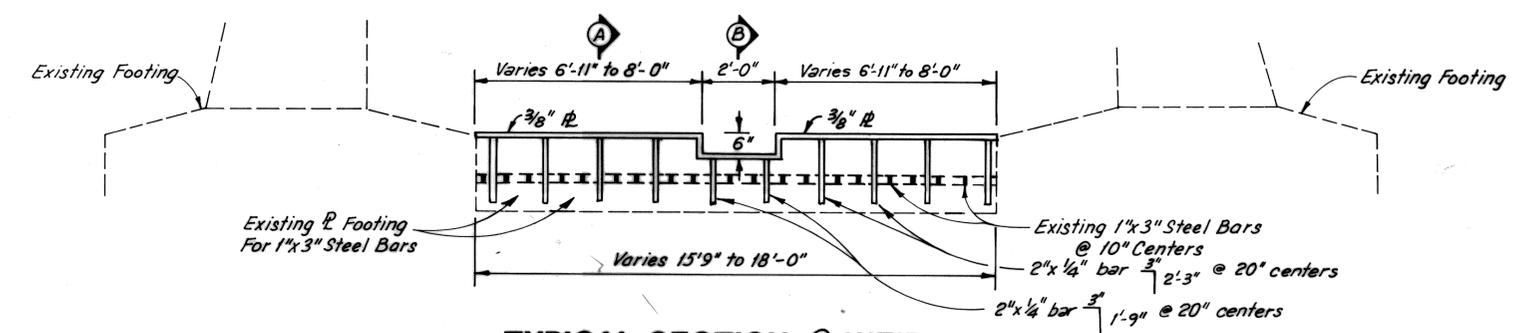
**STUD CONNECTOR**  
NO SCALE



**SECTION A-A WEIR DETAIL**  
NO SCALE



**PART PLAN**  
SCALE: 1" 5'



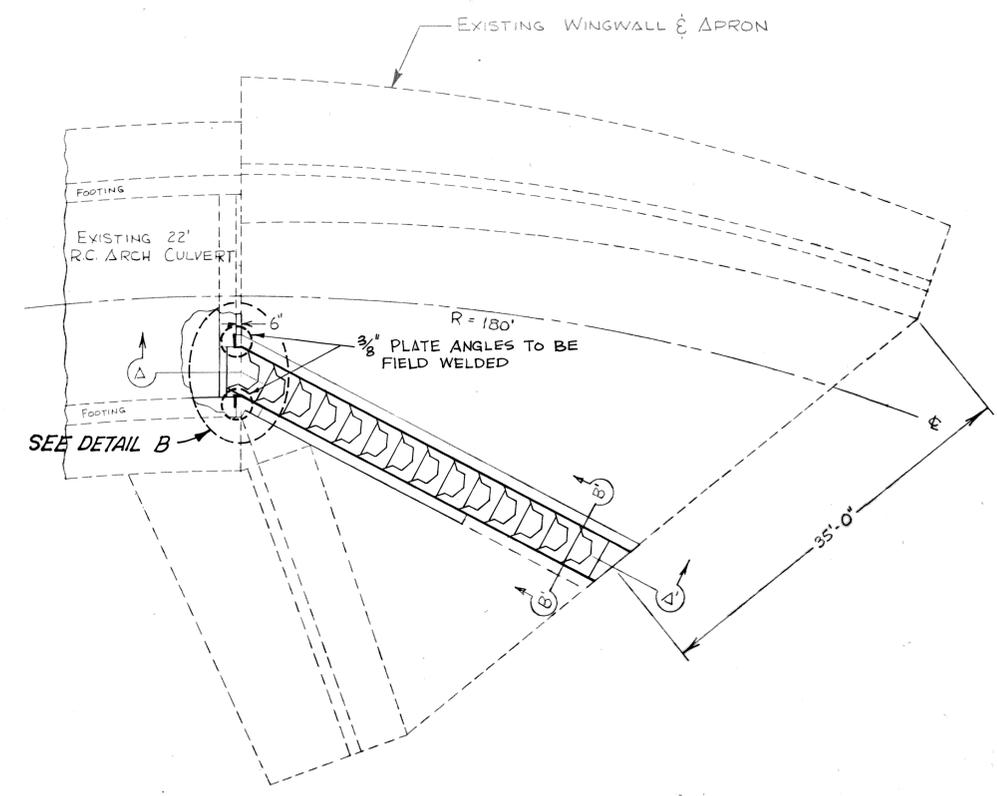
**TYPICAL SECTION @ WEIR**  
NO SCALE

Note:  
Contractor Shall Verify All Dependent Dimensions In The Field Before Ordering Or Fabricating Any Material

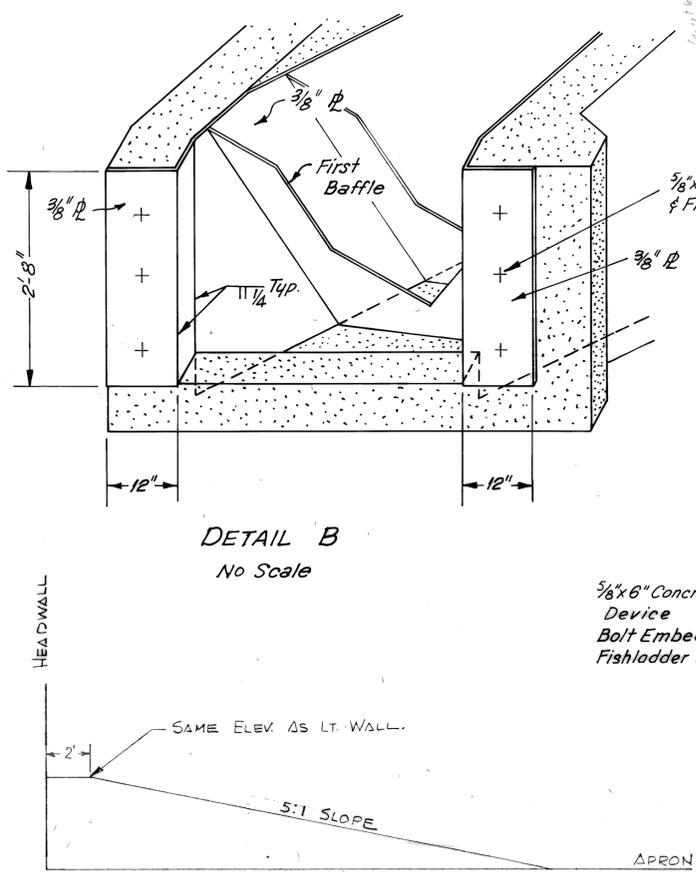
**MISCELLANEOUS DETAILS**

01-201714 Asbuilt 1985

Project Engineer: R. G. Wilson  
Project Studies Engineer: A. O. Sauls  
Approval Recommended By: D. A. Brown

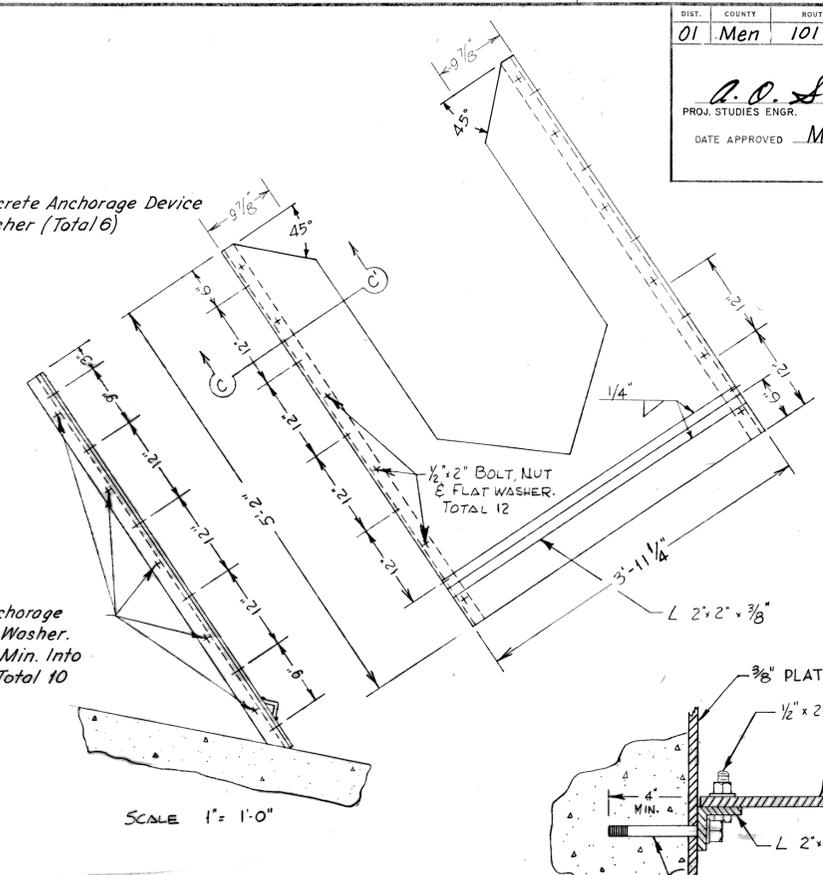


PLAN  
 SCALE - 1/8" = 1'-0"

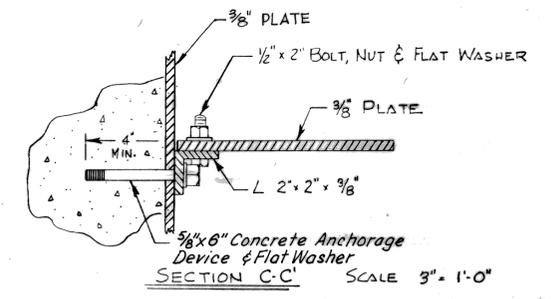


DETAIL B  
 No Scale

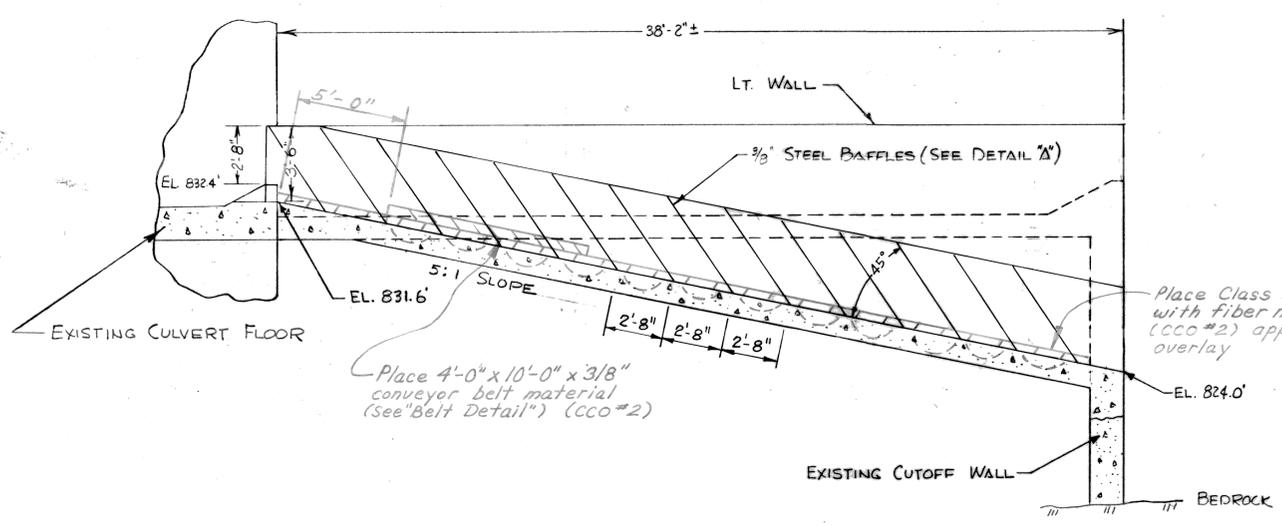
RT WALL PROFILE



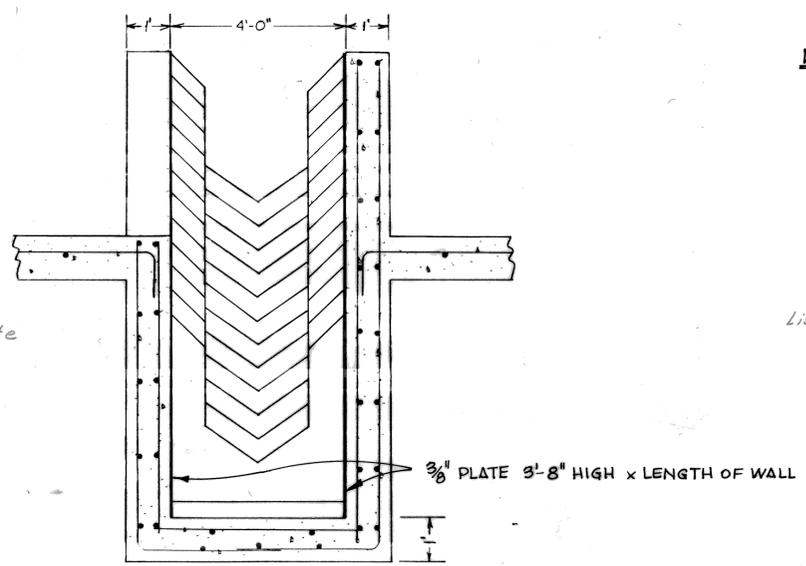
BAFFLE DETAIL 'A'



SECTION C-C' SCALE 3" = 1'-0"



SECTION A-A'  
 SCALE 1/4" = 1'-0"



SECTION B-B'  
 SCALE 1/2" = 1'-0"

**NOTES:**

1. ALL BAFFLES TO BE REPLACED
2. ALL INSIDE EDGES OF BAFFLE TO BE GROUND SMOOTH.
3. BAFFLES NEED NOT BE GALVANIZED.
4. BAFFLES TO BE MOVED 1 FT. DOWNSTREAM & AN ADDITIONAL BAFFLE PLACED AT THE UPSTREAM END.
5. WALL ARMOR PLATING TO BE ANCHORED INTO SOUND EXISTING CONCRETE.
6. PLATING ANGLES MAY BE FIELD FABRICATED.

*List of Contract Change Orders*

1. Install one new weir at culvert inlet (See 'Inlet Weir' Details)
2. Place Class A concrete overlay at bottom of fish ladder and install a 4'-0" x 10'-0" x 3/8" piece of conveyor belt material.
3. Place fiber material with Class D concrete (Silica Fume) on culvert invert as shown on plans.

01-201714 As built 1985

**CEDER CREEK FISHLADDER**

DESIGNED: R. LEWIS 7-69  
 CHECKED: A. R. KAY 7-69

Project Engineer	Date	Project Studies Engineer	Date	Approval Recommended By	Date
R. G. Wilson		A. O. Sauls		D. A. Brown	

REV. 8/84 RP 201711

(DRYDEN DENIL FISHLADDER)

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **MATERIALS INFORMATION**

As-Builts:

5. 1996 EA 01-357205

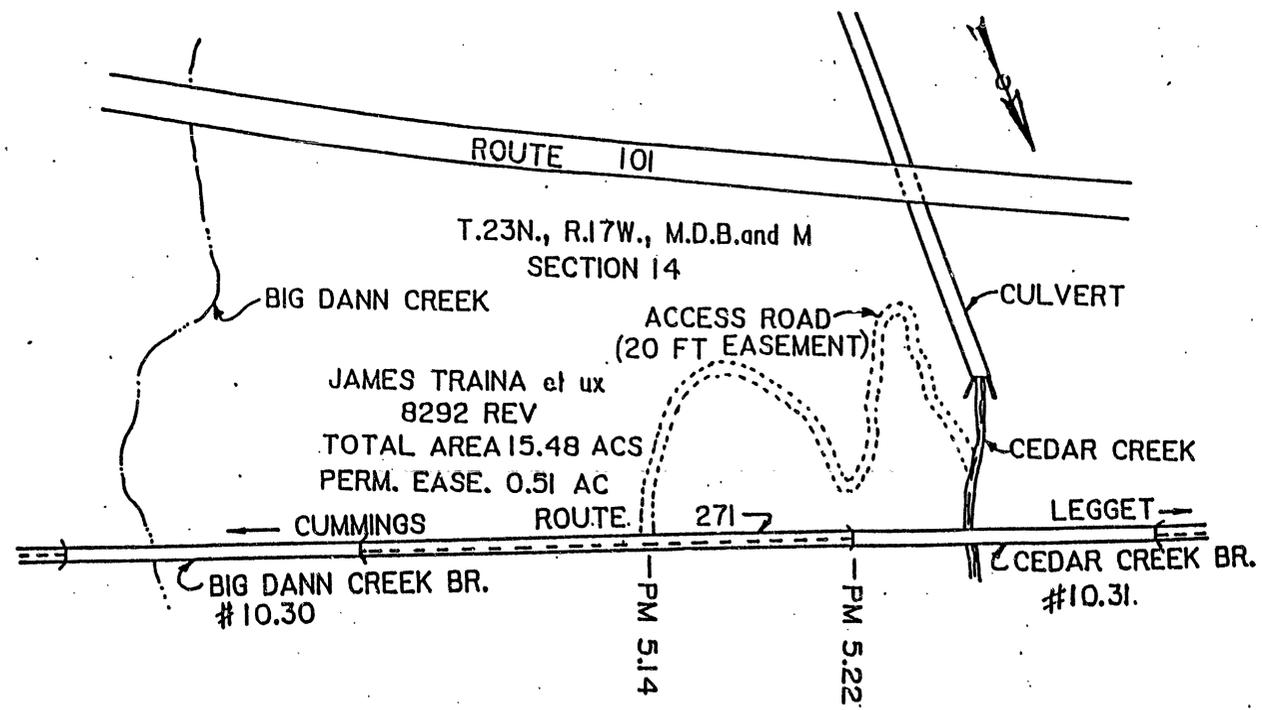


DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	2	8

*Charles C. Fielder*  
Registered Civil Engineer

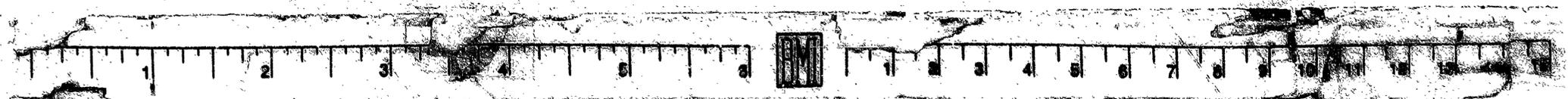
Date Plans Approved \_\_\_\_\_

REGISTERED PROFESSIONAL ENGINEER  
CHARLES C. FIELDER  
No. 048032  
Exp. 9-30-00  
CIVIL  
STATE OF CALIFORNIA



ACCESS ROAD LOCATION

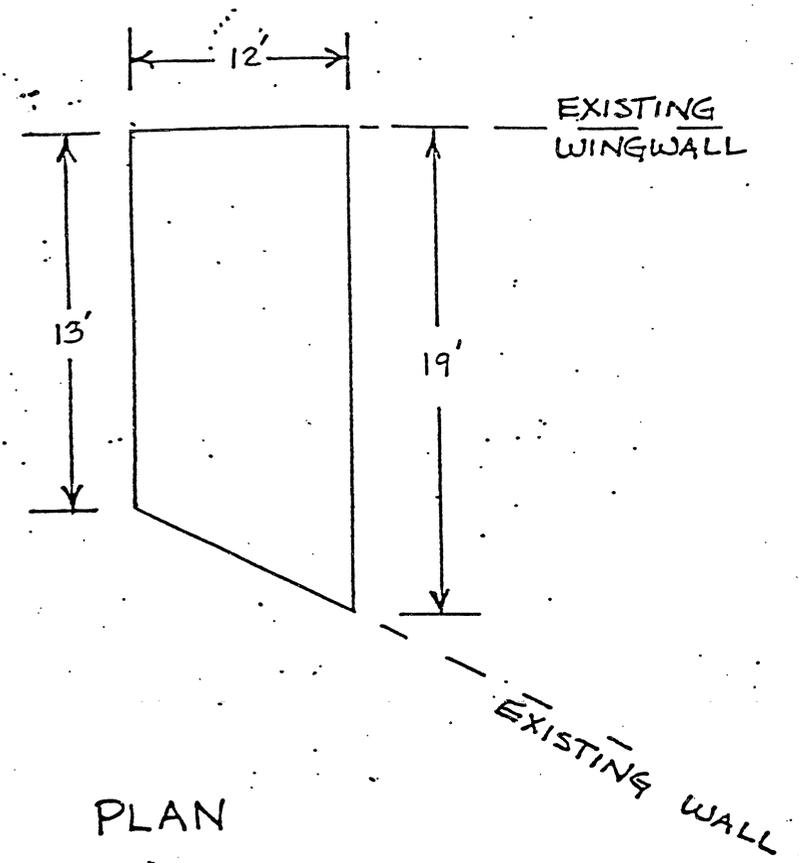
01 222 357205



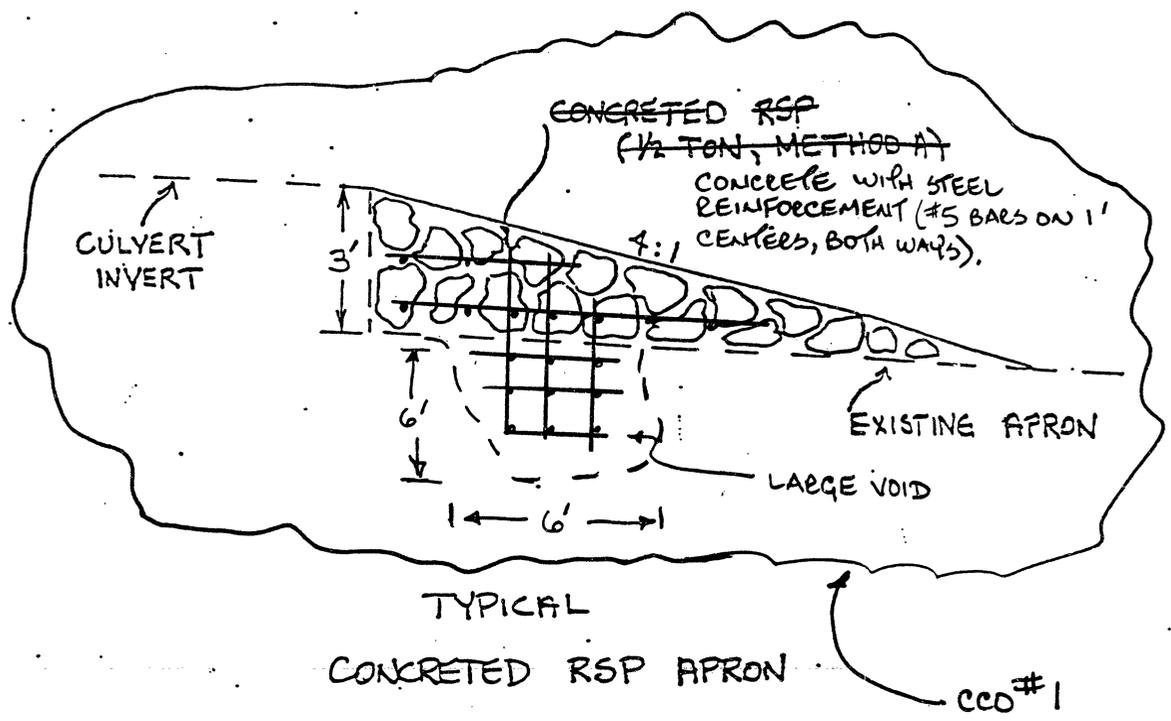
DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	3	8

Registered Civil Engineer  
 Date Plans Approved \_\_\_\_\_  
 REGISTERED PROFESSIONAL ENGINEER  
 CHARLES C. FIELDER  
 No. 049052  
 Exp. 9-30-00  
 CIVIL  
 STATE OF CALIFORNIA

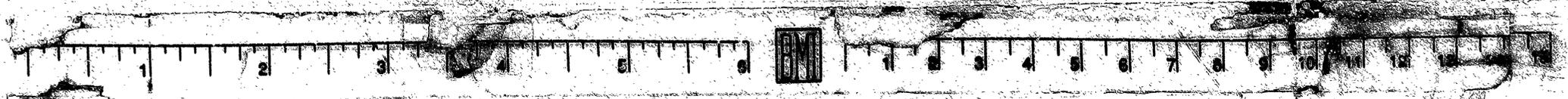
CONTRACT No. 01-357204  
 DATE ACCEPTED 10-28-96  
**AS BUILT**  
 RESIDENT ENGINEER CHARLES DOLY  
 REVISIONS BY C. DOLY DATE 1-27-97



PLAN  
 CONCRETED RSP APRON



MEN-101-R89.0/89.3  
 REPAIR CEDAR CREEK FISH LADDER  
 01222 357201  
 NO SCALE

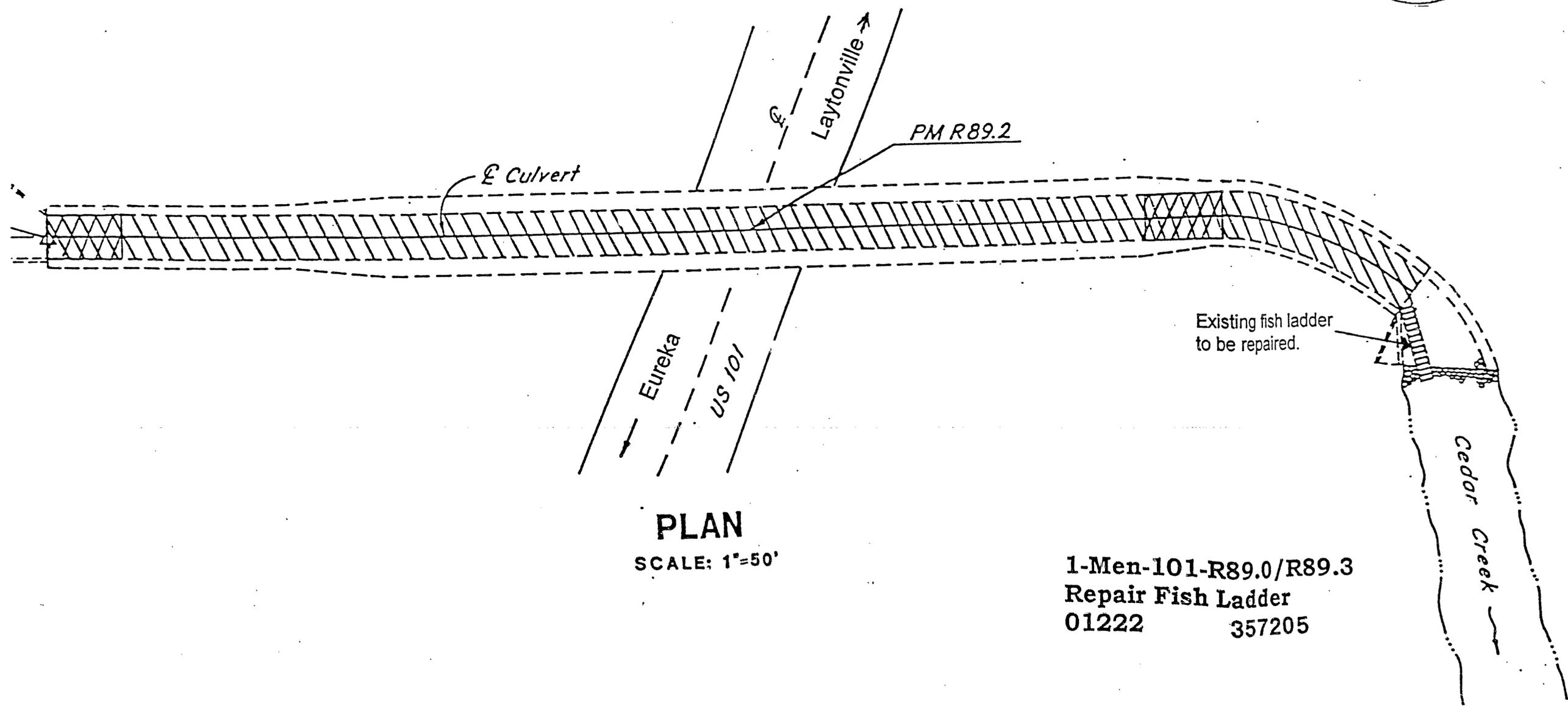


DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	4	8

*Charles C. Fielder*  
 Registered Civil Engineer

No. 049052  
 Exp. 9-30-00

Date Plans Approved



**PLAN**  
SCALE: 1"=50'

1-Men-101-R89.0/R89.3  
 Repair Fish Ladder  
 01222            357205



NOTE: WELD SHEETS OF 1/2" STEEL

DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	5	8

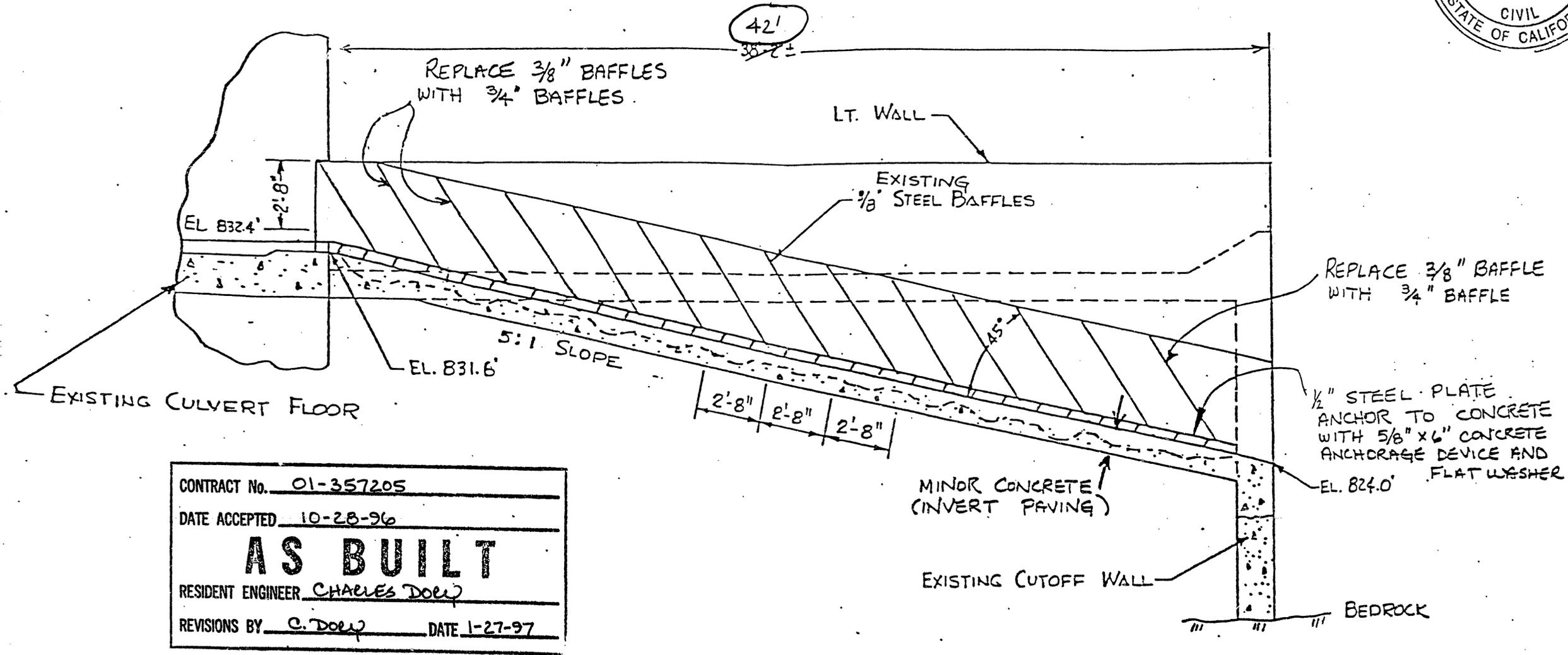
Registered Civil Engineer

*Charles C. Fielder*

No. 049052  
Exp. 9-30-00

Date Plans Approved

REGISTERED PROFESSIONAL ENGINEER  
CHARLES C. FIELDER  
No. 049052  
Exp. 9-30-00  
CIVIL  
STATE OF CALIFORNIA



CONTRACT No. 01-357205

DATE ACCEPTED 10-28-96

**AS BUILT**

RESIDENT ENGINEER *Charles Dole*

REVISIONS BY *C. Dole* DATE 1-27-97

SECTION  $\Delta-\Delta'$

SCALE 1/4" = 1'-0"

**TYPICAL FISH LADDER**

MEN-101-R89.0/89.3

REPAIR CEDAR CREEK FISH LADDER

01222 357205



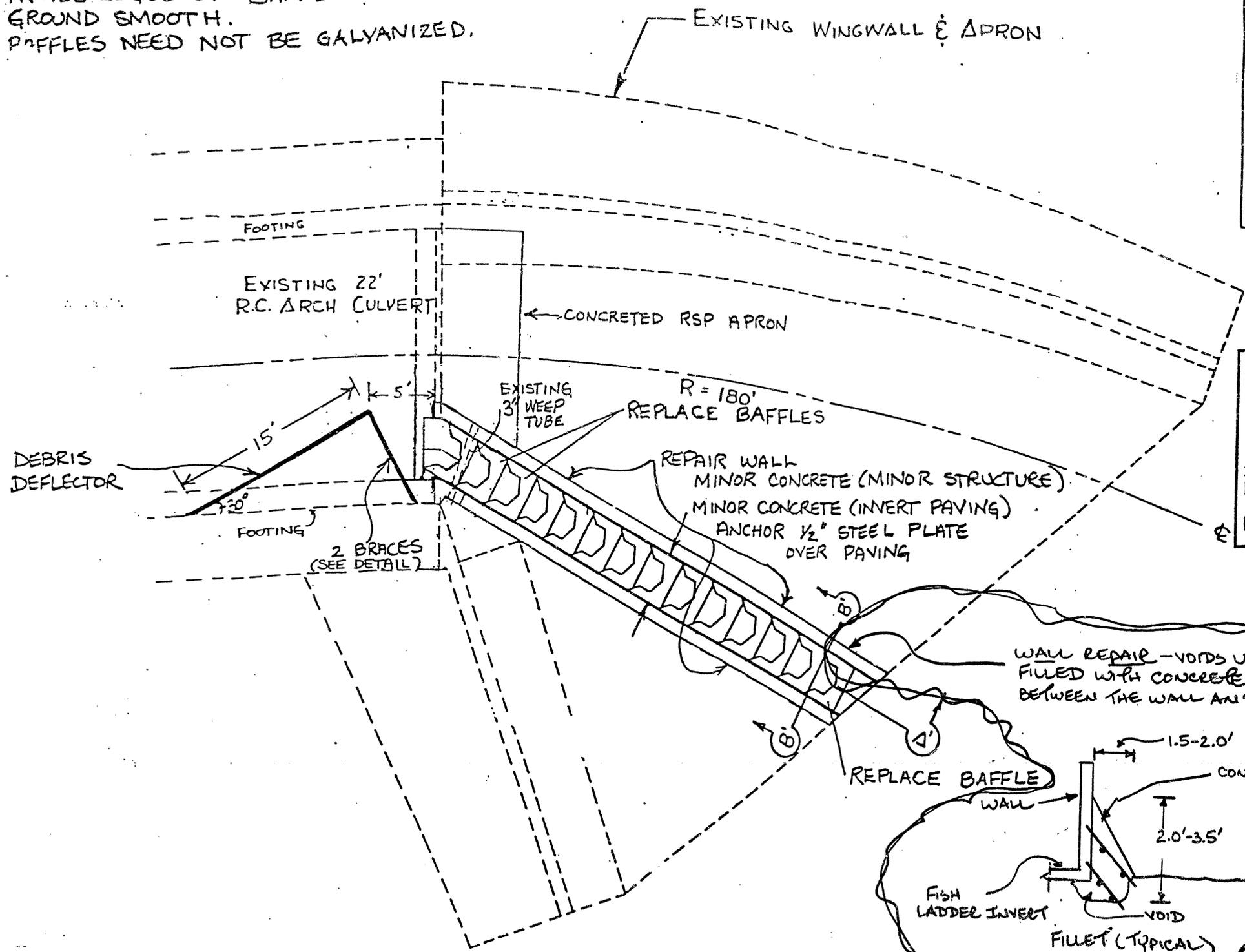


**NOTES:**

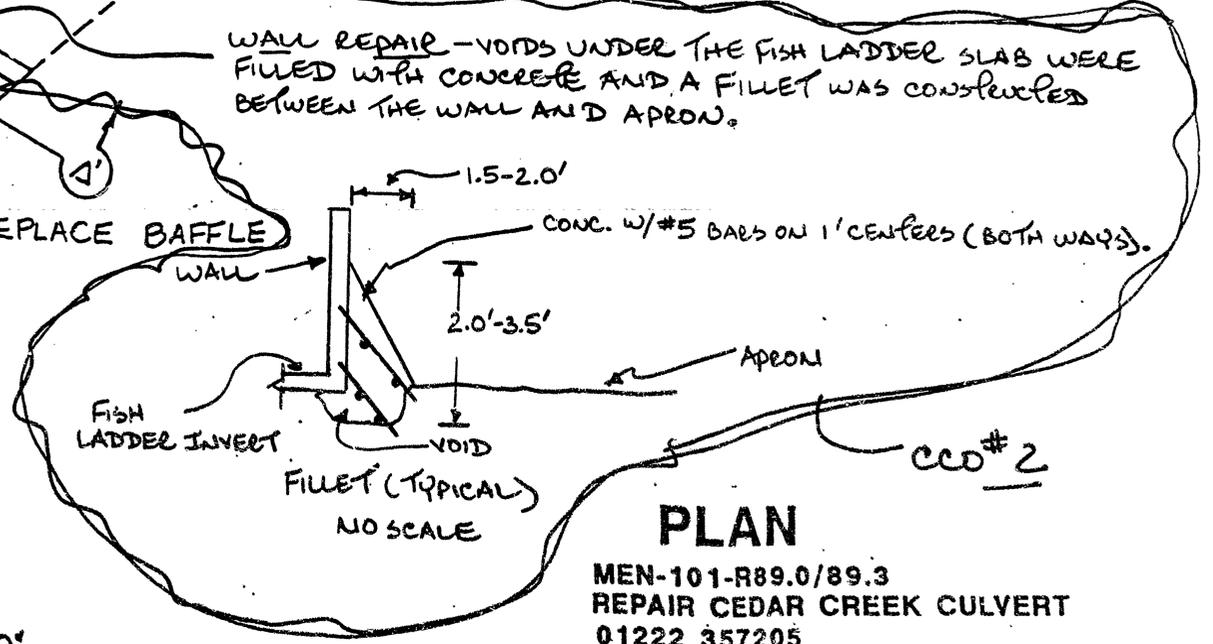
1. INSIDE EDGES OF BAFFLES TO BE GROUND SMOOTH.
2. BAFFLES NEED NOT BE GALVANIZED.

DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	7	8

*Charles C. Fielder*  
 Registered Civil Engineer  
 No. 049052  
 Exp. 9-30-00  
 CIVIL  
 STATE OF CALIFORNIA

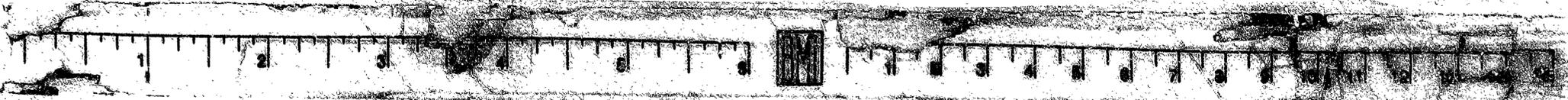


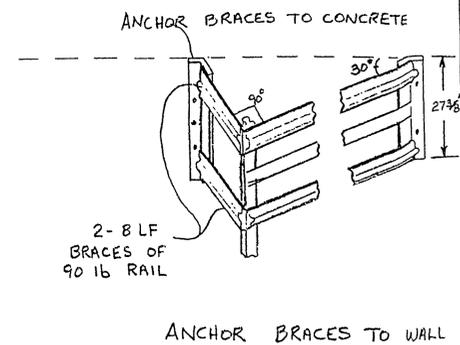
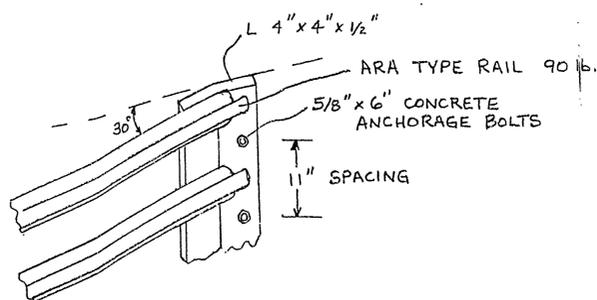
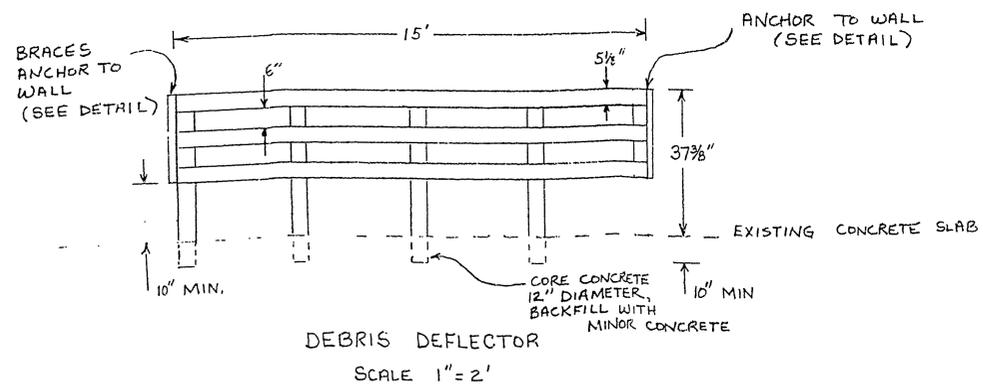
CONTRACT No. 01-357205  
 DATE ACCEPTED 10-28-96  
**AS BUILT**  
 RESIDENT ENGINEER CHARLES DORW  
 REVISIONS BY C. DORW DATE 1-27-97



SCALE - 1/8" = 1'-0"

**PLAN**  
 MEN-101-R89.0/89.3  
 REPAIR CEDAR CREEK CULVERT  
 01222 357205





DIST	COUNTY	ROUTE	POST MILES	SHEET NO.	TOTAL SHEETS
01	MEN	101	R89.0/89.3	8	8

Charles C. Fielder  
 Registered Civil Engineer  
 No. 049052  
 Exp. 2-30-00  
 Date Plans Approved

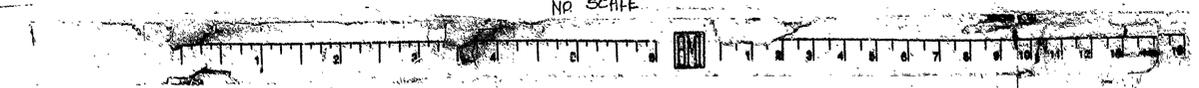
REGISTERED PROFESSIONAL ENGINEER  
 CHARLES C. FIELDER  
 No. 049052  
 Exp. 2-30-00  
 CIVIL  
 STATE OF CALIFORNIA

CONTRACT No.	01-357205
DATE ACCEPTED	10-28-96
<b>AS BUILT</b>	
RESIDENT ENGINEER	CHARLES DOB?
REVISIONS BY	C. Dob? DATE 1-27-97

DEBRIS DEFLECTOR DETAILS

MEN-101-R89.0/89.3  
 REPAIR CEDAR CREEK FISH LADDER  
 01222 357205

- NOTES:
1. DEBRIS DEFLECTOR TO BE FABRICATED FROM 90 LB TYPE ARA RAIL.
  2. 1/2" D WELD VERTICAL AND HORIZONTAL MEMBERS AT ALL POINTS OF CONTACT.
  3. RAIL TO BE SPACED 6" APART.
  4. RAIL DIMENSIONS ARE 5 5/8" HIGH BY 5 1/8" WIDE.



# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **MATERIALS INFORMATION**

As-Builts:

6. 1999 EA 01-310304

INDEX OF SHEETS

Sheet No.	Description
1	Title and Location Map
2	Typical Cross Sections
3	Layout
4-7	Construction Details
8	Construction Area Signs
9	Summary of Quantities
10	Revised Standard Plan
11-12	New Standard Plans
9a	CCO #6 Fish Ladder Repair

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO CONTRACTORS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 PROJECT PLANS FOR CONSTRUCTION ON  
**STATE HIGHWAY**

IN MENDOCINO COUNTY  
 NEAR LEGGETT  
 ABOUT 3.0 km SOUTH OF THE  
 ROUTE 1/101 INTERSECTION AT  
**CEDAR CREEK ARCH CULVERT**

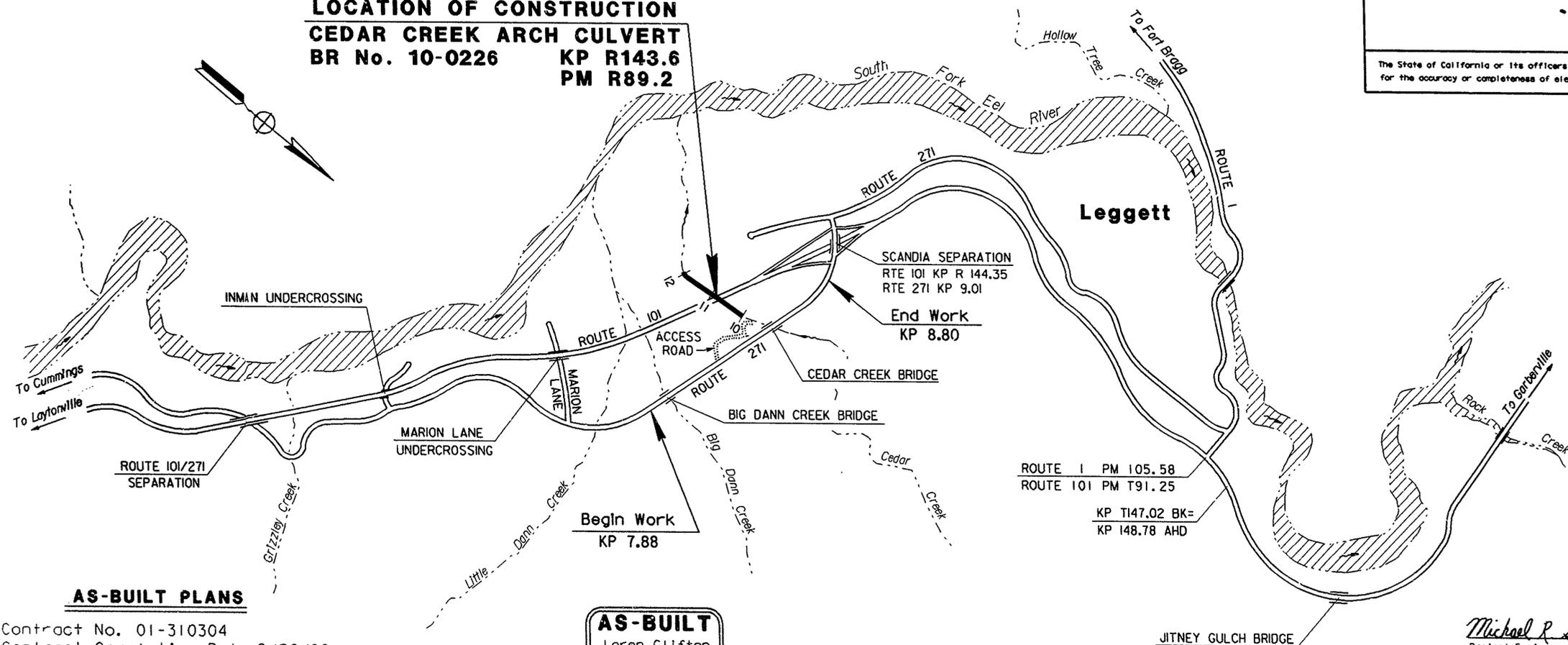
To be supplemented by Standard Plans dated July, 1997

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
01	Men	101	R143.6	1	12



The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LOCATION OF CONSTRUCTION  
**CEDAR CREEK ARCH CULVERT**  
 BR No. 10-0226 KP R143.6  
 PM R89.2



AS-BUILT PLANS

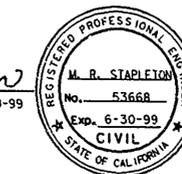
Contract No. 01-310304  
 Contract Completion Date 9/28/99  
 Contract Acceptance Date 10/25/99  
 Arch Culvert Rehabilitation  
 HSH Construction, Contractor  
 Loren Clifton, Resident Engineer

**AS-BUILT**  
 Loren Clifton  
 RESIDENT ENGINEER  
 01-310304  
 CONTRACT NUMBER  
 1999  
 CONSTRUCTION YEAR  
*J. Clifton*  
 APPROVAL

NO SCALE

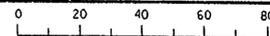
*Michael R. Stapleton*  
 Project Engineer Date 1-19-99  
 Registered Civil Engineer

March 15, 1999  
 Plans Approval Date



PROJECT MANAGER	K. SARTORIUS
PROJECT ENGINEER	M. R. STAPLETON

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".



LAST REVISION DATE PLOTTED -> 10-DEC-2002 00-00-00



Contract No. 01-310304

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Men	101	RI 43.6	3	12

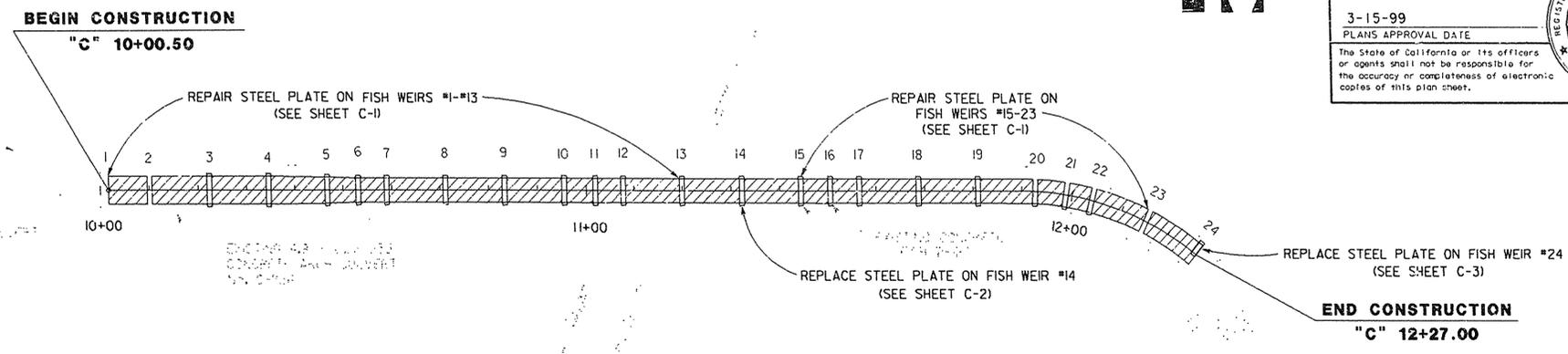
Michael R. Stapleton  
REGISTERED CIVIL ENGINEER  
1-13-99

3-15-99  
PLANS APPROVAL DATE

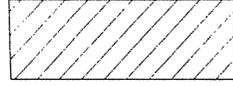
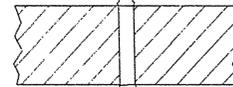
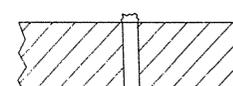
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTE:  
FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE

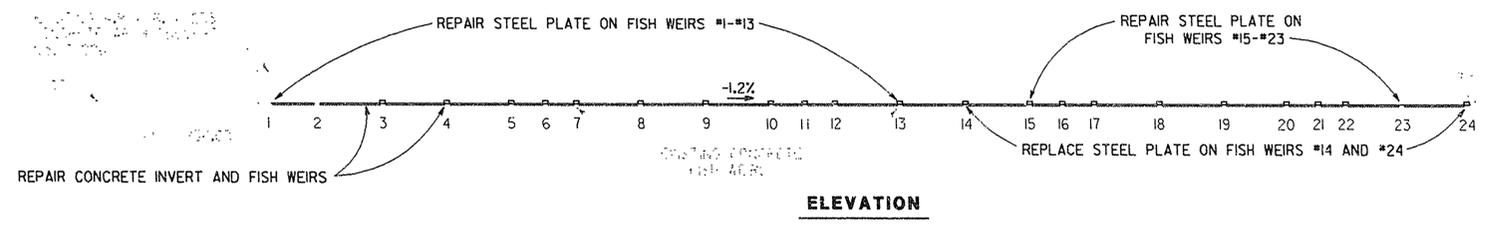
T23N R17W MD B&M  
SECTION 14



**LEGEND**

-  SPECIAL CONCRETE (INVERT REPAIR)
-  REPAIR CONCRETE AT FISH WEIRS #3-#19 (BOTH SIDES)
-  REPAIR CONCRETE AT FISH WEIRS #20-#22 (RIGHT SIDE ONLY)
-  REPAIR CONCRETE ON FISH WEIR #24 (LEFT SIDE ONLY)
-  NO CONCRETE REPAIR NEEDED AT FISH WEIRS #1, #2, #23

**PLAN**



**ELEVATION**

**AS-BUILT**  
Loren Clifton  
RESIDENT ENGINEER  
01-310304  
CONTRACT NUMBER  
1999  
CONSTRUCTION YEAR  
*J.C.K.*  
APPROVAL

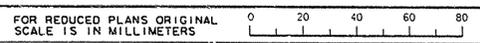
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 PROJECT ENGINEER  
 M. R. STAPLETON  
 DESIGN  
 Caltrans

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

SCALE 1:500

**LAYOUT**  
**L-1**

#10-149-13



USERNAME => f111nda  
DGN FILE => 131030e01.dgn

CU 03 231

EA 310301

DATE PLOTTED => 21-NOV-2002

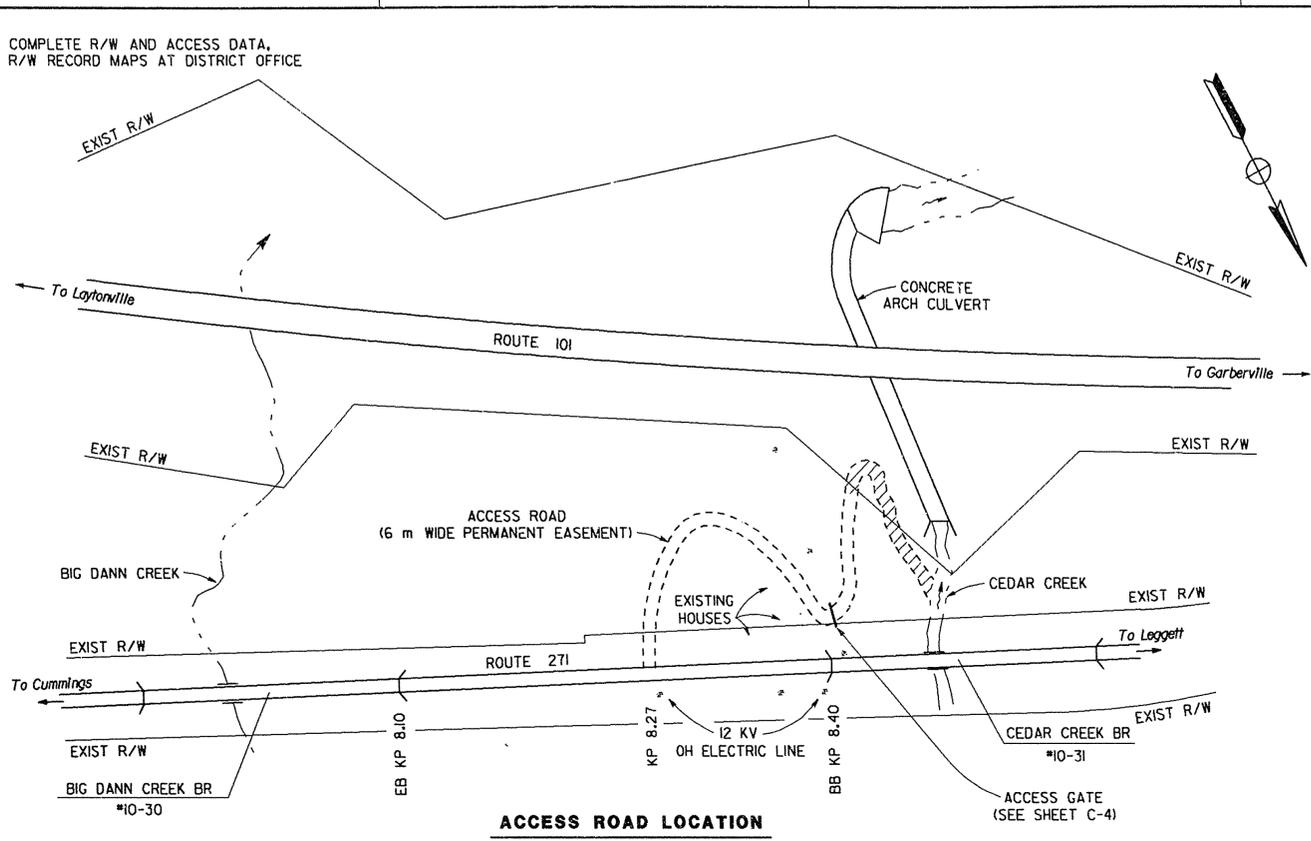




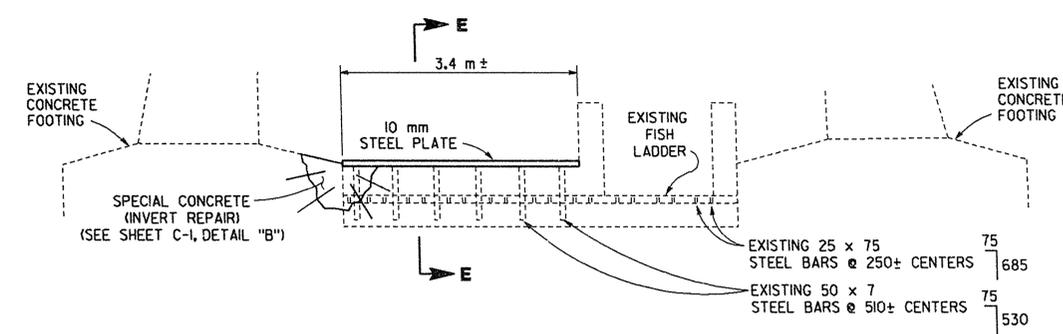
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 PROJECT ENGINEER  
 M. R. STAPLETON  
 DESIGN

DATE	REVISED BY
2/98	MRS
2/98	GGH
DATE	REVISED
2/98	GGH
DATE	REVISED
2/98	GGH
DATE	REVISED
2/98	GGH

NOTE:  
 FOR COMPLETE R/W AND ACCESS DATA,  
 SEE R/W RECORD MAPS AT DISTRICT OFFICE

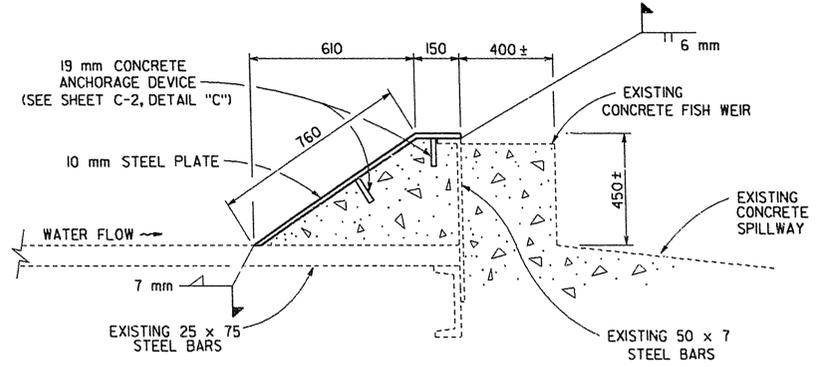


**ACCESS ROAD LOCATION**



**ELEVATION**

**REPLACE STEEL PLATE ON FISH WEIR #24**



**SECTION E-E**

**REPLACE STEEL PLATE ON FISH WEIR #24**



Contract No. 01-310304				
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET TOTAL SHEETS
01	Men	101	RI43.6	6 12
Michael R. Stapleton 1-19-99 REGISTERED CIVIL ENGINEER				
3-15-99 PLANS APPROVAL DATE				
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.				

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
2. EXISTING CONCRETE ANCHORAGE DEVICES ARE TO REMAIN IN PLACE.
3. REMOVE EXISTING STEEL PLATE.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.
5. FOR COMPLETE RIGHT OF WAY DATA SEE RIGHT OF WAY MAPS AT DISTRICT OFFICE.

**LEGEND**

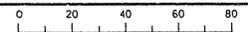
PORTION OF ACCESS REQUIRING RECONSTRUCTION

**AS-BUILT**  
 Loren Clifton  
 RESIDENT ENGINEER  
 01-310304  
 CONTRACT NUMBER  
 1999  
 CONSTRUCTION YEAR  
 J.C.K.  
 APPROVAL

**CONSTRUCTION DETAILS**  
 NO SCALE **C-3**

#10-149-13

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



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 DGN FILE => 131030g03.dgn

CU 03 231

EA 310301

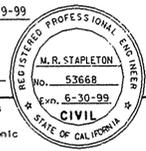
DATE PLOTTED => 21-NOV-2002  
 00-00-00



Contract No. 01-310304

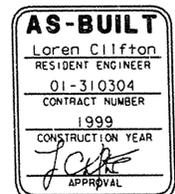
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Men	101	RI43.6	8	12

Michael R. Stapleton 1-19-99  
REGISTERED CIVIL ENGINEER



3-15-99  
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



NOTES:

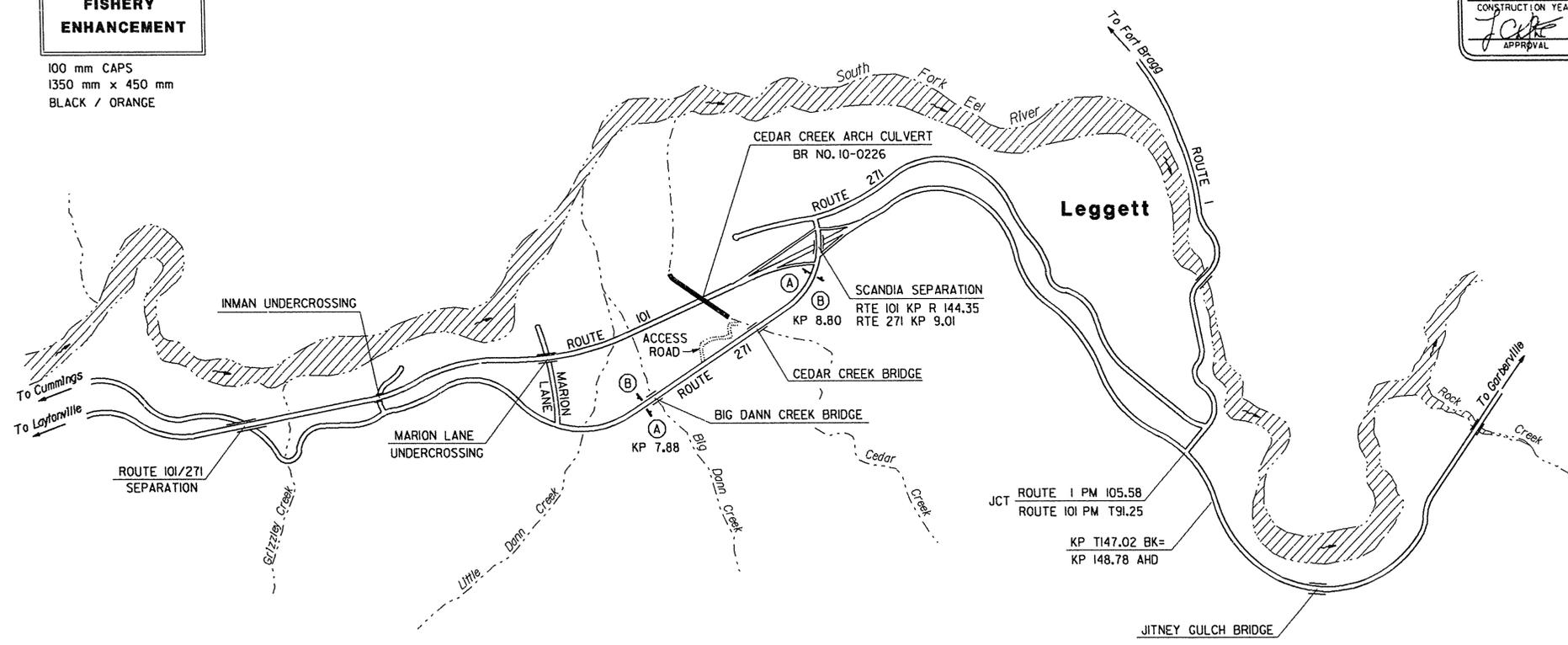
- EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- (S) STATIONARY MOUNTED SIGN.

CONSTRUCTION AREA SIGNS					
○	TYPE	SIGN MESSAGE	PANEL SIZE (mm)	NUMBER OF POSTS AND SIZE (mm)	NUMBER OF SIGNS
A	C18	ROAD CONSTRUCTION AHEAD (S)	1200 x 1200	1 - 89 x 140	2
	SC	FISHERY ENHANCEMENT	1350 x 450		
B	C13	END CONSTRUCTION (S)	1200 x 450	1 - 89 x 89	2

SPEC 1

**FISHERY ENHANCEMENT**

100 mm CAPS  
1350 mm x 450 mm  
BLACK / ORANGE



NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 PROJECT ENGINEER  
 M. R. STAPLETON  
 DATE REVISION BY  
 MRS 12/98  
 GGH 12/98  
 DATE REVISION  
 CHECKED BY

\*10-149-13

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN  
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 DGN FILE => 131030m01.dgn

**CONSTRUCTION AREA SIGNS**  
CS-1

CU 03 231

EA 310301

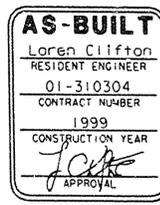
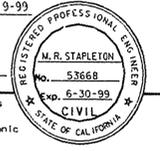
LAST REVISION: 00-00-00  
 DATE PLOTTED => 21-NOV-2002

Contract No. 01-310304



DIST	COUNTY	ROUTE	* KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
01	Men	101	R143.6	9	12

*Michael R. Stapleton*  
 REGISTERED CIVIL ENGINEER 1-19-99  
 3-15-99  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DESIGN**  
 PROJECT ENGINEER  
 M. R. STAPLETON  
 CALCULATED/DESIGNED BY: MFS 12/98  
 CHECKED BY: CGH 12/98  
 DATE REVISED: DATE REVISED

**SUMMARY OF QUANTITIES**

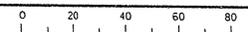
STATION	REPAIR CONCRETE INVERT					EROSION CONTROL (TYPE D)	ACCESS GATE (N)	REMARKS
	REMOVE CULVERT BEDLOAD	SPECIAL CONCRETE (INVERT REPAIR)	MISC IRON AND STEEL	REMOVE EXISTING STEEL PLATE	DRILL & BOND DOWEL			
		m <sup>3</sup>	kg	kg	m	m <sup>2</sup>	EA	
"C" 10+23.0 TO 12+05.0		5	47		23			REPAIR CONCRETE AT FISH WEIRS
"C" 10+01.5 TO 12+26.0	210	100						REPAIR CONCRETE INVERT
"C" 10+00.5 TO 12+16.0			8157					WELD ADDITIONAL STEEL PLATE TO FISH WEIRS #1-#13, #15-#23
"C" 11+32.0			351	345				REPLACE STEEL PLATE AT FISH WEIR #14
"C" 12+27.0			242	237				REPLACE STEEL PLATE AT FISH WEIR #24
ACCESS ROAD						1300	I	
TOTAL	210	105	8797	582	23	1300	I	

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

**SUMMARY OF QUANTITIES**  
**Q-1**

#10-149-13

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => f111ndg  
DGN FILE => 131030001.dgn

CU 03 231

EA 310301

LAST REVISION 00-00-00  
 DATE PLOTTED => 21-NOV-2002

Contract No. 01-310304



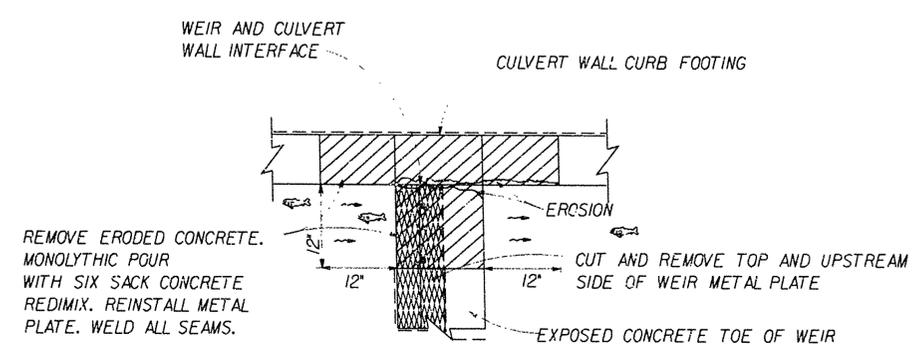
01	Men	101	R143.6	9a	12
3-15-99					
No. CIVIL					

**AS-BUILT**  
 Loren Clifton  
 RESIDENT ENGINEER  
 01-310304  
 CONTRACT NUMBER  
 1999  
 CONSTRUCTION YEAR  
*J. Clifton*  
 APPROVAL

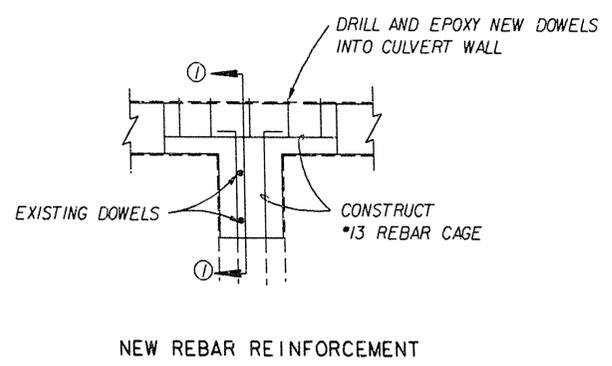
DATE REVISION BY  
 2/98 MRS.  
 DATE REVISION BY  
 2/98 GCH

PROJECT ENGINEER  
 M. R. STAPLETON

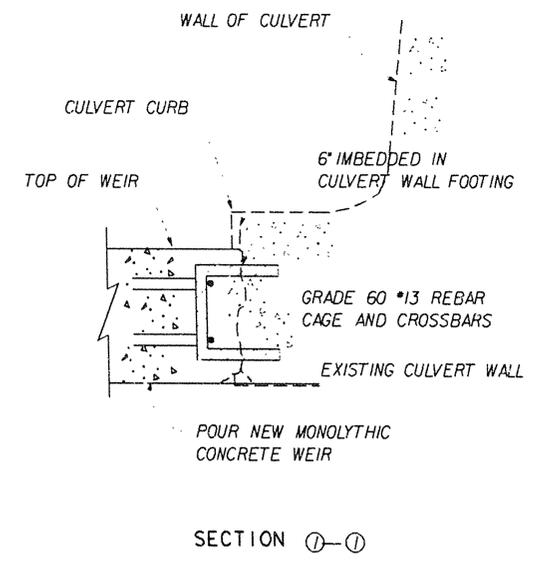
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**DESIGN**



REMOVE ERODED CONCRETE. MONOLITHIC POUR WITH SIX SACK CONCRETE REDIMIX. REINSTALL METAL PLATE. WELD ALL SEAMS.



NEW REBAR REINFORCEMENT



POUR NEW MONOLITHIC CONCRETE WEIR

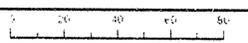
SECTION ①-①

**WEIR/CULVERT WALL INTERFACE**

CCO #6  
**FISH LADDER REPAIR**

\*10-149-13

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



REF NAME = 1111131  
 USN FILE = 131-572-06.dgn

CU 03 231

EA 310301

DATE PLOTTED: 02-11-99

# **INFORMATION HANDOUT**

**For Contract No. 01-0C3704**

**At 01-Men-101-R89.2**

**Identified by**

**Project ID 0112000283**

## **MATERIALS INFORMATION**

Asbestos and Lead Containing Survey Report dated December 11, 2014



Project No. S9805-01-28  
December 11, 2014

Steve Werner, Task Order Manager  
Caltrans District 1  
Environmental Engineering Office  
1656 Union Street  
Eureka, California 95501

Subject: ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT  
CEDAR CREEK CULVERT (10-0226)  
MENDOCINO COUNTY, CALIFORNIA  
CONTRACT NO. 03A2132, E-FIS 01 1400 0015 (EA 01-0E2000)  
TASK ORDER NO. 28, 01-MEN-101, POST MILE 89.24

Dear Mr. Werner:

In accordance with California Department of Transportation Contract No. 03A2132 and Task Order No. 28, we have performed an asbestos and lead-containing paint survey of the subject structure in Mendocino County, California. Our scope of services included surveying the structure for suspect asbestos-containing materials and lead-containing paint, collecting bulk samples, and submitting the samples to a laboratory for analyses.

### **PROJECT DESCRIPTION**

The project consists of the monorail housing at the Cedar Creek Culvert (10-0226) at Post Mile (PM) 89.24 on Highway 101 in Mendocino County, California. We performed asbestos and LCP survey activities at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plan, Figure 2.

### **GENERAL OBJECTIVES**

The scope of services outlined in TO-28 included the determination of the presence and quantity of asbestos and LCP at the project location prior to various improvements. Assuming that no asbestos is added during future operations, our survey would satisfy National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements. The information obtained from this investigation will be used by Caltrans for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

### **BACKGROUND**

#### **Asbestos**

The Code of Federal Regulations (CFR), 40 CFR 61, Subpart M, NESHAP and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than* 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than 1%* asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding, grinding, cutting, or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, California Code of Regulations (CCR) §1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be addressed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains more than 0.1% asbestos (Title 8, CCR 341.6).

## **Lead Paint**

Construction activities (including demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, §1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a substrate. Demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfills and recycling facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the representative total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the representative soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the representative soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentration) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California-hazardous or RCRA-hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with lead-containing paint. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in Title 8, CCR, §1532.1.

## **Architectural Drawings and Previous Survey Activities**

We reviewed structure as-built plans provided by Caltrans prior to field activities. We did not observe specifications or notes regarding the use of asbestos-containing materials or lead paint in the architectural plans provided. Previous asbestos survey reports were not available for our review.

## **SCOPE OF SERVICES**

Mr. David Watts, a California-Certified Asbestos Consultant (CAC), certification No. 98-2404 (expiration September 16, 2015), and Certified Lead Paint Inspector/Assessor and Project Monitor with the California Department of Public Health (DPH), certification numbers I-1734 and M-1734 (expiration December 4, 2015), performed the asbestos and LCP survey at the project location on October 15, 2014.

We observed no suspect asbestos ACM materials during our survey. Consequently, we collected no asbestos samples.

## **Lead Paint**

A total of two bulk paint samples were collected from suspect LCP observed at the project location. Mr. Watts field-composited the suspect LCP samples into one paint scheme prior to submittal to the laboratory. We did not observe deteriorated LCP during our survey. Our sampling procedures in accordance with TO-28 are discussed below:

- Collected bulk samples of suspect LCP using techniques presented in HUD guidelines. In addition, the painted areas were evaluated for evidence of deterioration such as flaking or cracking.
- Relinquished the composite bulk LCP sample under chain-of-custody protocol to Advanced Technology Laboratories, a California-licensed and Caltrans-approved subcontractor, for lead analysis in accordance with EPA Test Method 6010B. Advanced Technology Laboratories is accredited by the DPH for lead analysis. The laboratory analyses were requested on a turnaround period of ten days.

Approximate sample locations are presented on Figure 2. Materials represented by the samples collected are shown in the attached photographs.

## INVESTIGATIVE RESULTS

### Lead Paint

The composite sample representing intact paint applied to the monorail housing interior exhibited a total lead concentration of 29,000 mg/kg and a TCLP concentration of 0.69 mg/l.

Our sample identification number, description, and a summary of the analytical laboratory test results for paint are summarized below. Reproductions of the laboratory reports and chain-of-custody documentation are attached.

Total and Soluble Lead				
Sample No.	Paint Description	Approximate Quantity Peeling/Flaking	Total Lead (mg/kg)	TCLP Lead (mg/l)
0226-P1A/B	Monorail housing interior	Intact	29,000	0.69

*TCLP = Toxicity Characteristic Leaching Procedure (EPA Test Method 1311)*

*mg/kg = milligrams per kilogram (EPA Test Method 6010B)*

*mg/l = milligrams per liter (EPA Test Method 6010B)*

## RECOMMENDATIONS

### Asbestos

Since no suspect ACM was observed during our survey, the Cal/OSHA asbestos standard does not apply for planned activities. In addition, demolition debris would not be considered a California hazardous waste based on asbestos content. However, written notification to the Mendocino County Air Quality Management District is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not).

### Lead Paint

Monorail system paint sampled during our survey would be classified as California hazardous based on lead content if stripped, blasted, or otherwise separated from the substrate.

We recommend that all paints at the project location be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, and demolition activities. This recommendation is based on LCP sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some paints. In

accordance with Title 8, CCR, §1532.1(p), written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to certain lead-related work. Compliance and training requirements regarding construction activities where workers may be exposed to lead are presented in Title 8, CCR, §1532.1, subsections (e) and (l), respectively. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

## **REPORT LIMITATIONS**

The asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structure identified above. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas of the structure that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us should you have any questions concerning the contents of this report or if we may be of further service.

Sincerely,

**GEOCON CONSULTANTS INC.**

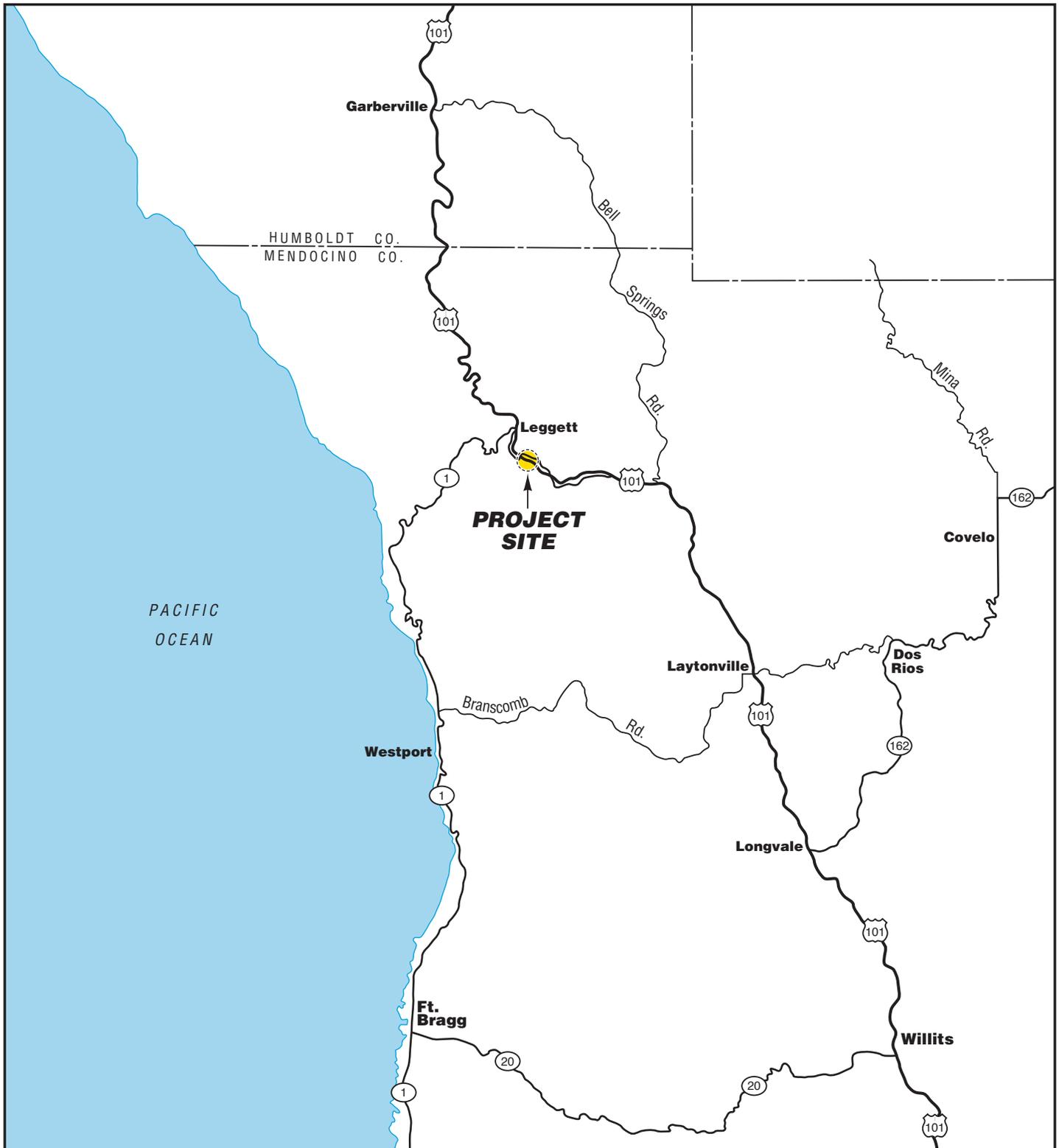
  
David A. Watts, CAC  
Senior Project Scientist

  
John E. Juhrend, PE, CEG  
Project Manager



(2 + 2 CD) Addressee

Attachments:        Figure 1, Vicinity Map  
                             Figure 2, Site Plan  
                             Site Photographs (1 through 3)  
                             Analytical Laboratory Reports and Chain-of-custody Documentation



**GEOCON**  
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

Cedar Creek

Mendocino County,  
California

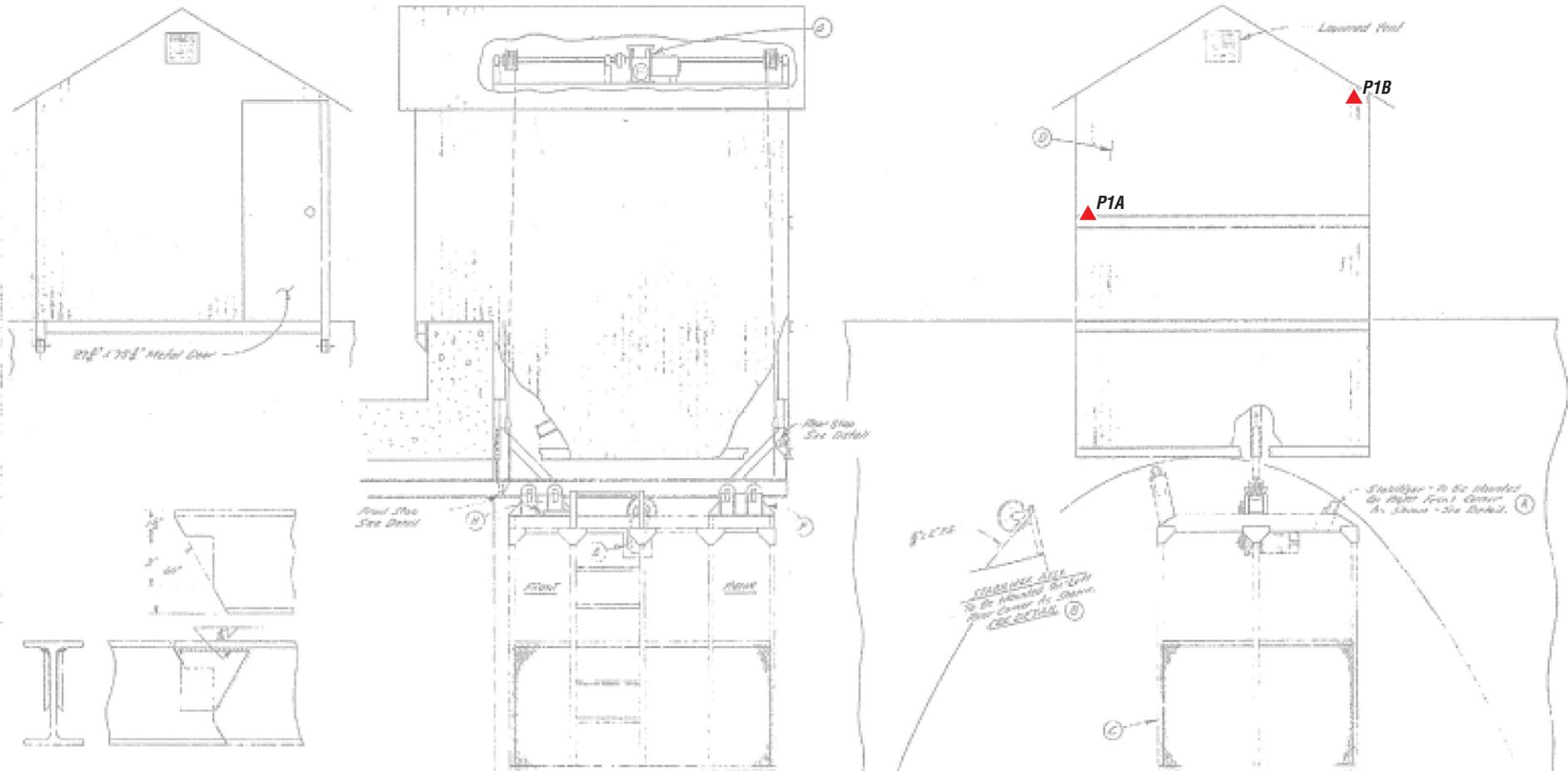
**VICINITY MAP**

GEOCON Proj. No. S9805-01-28

Task Order No. 28

December 2014

Figure 1



**CEDAR CREEK (10-0226)**

**LEGEND:**

▲ Approximate Paint Sample Location



**GEOCON**  
CONSULTANTS, INC.

3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

Cedar Creek		
Mendocino County, California		<b>SITE PLAN</b>
GEOCON Proj. No. S9805-01-28		
Task Order No. 28	December 2014	Figure 2



**Photo 1 – Cedar Creek Culvert (10-0226) at PM 89.24 on Highway 101 in Mendocino County, California**



**Photo 2 – Monorail housing interior**



**Photo 3 – Monorail housing interior**



**GEOCON**  
CONSULTANTS, INC.

3160 GOLD VALLEY DR – SUITE 800 – RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 – FAX 916.852.9132

**PHOTOGRAPHS 1, 2, & 3**

Cedar Creek Culvert (10-0226)  
Mendocino County, California

S9805-01-28

December 2014

October 24, 2014

Dave Watts  
Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore, CA 94550  
Tel: (925) 961-5273  
Fax:(925) 371-5915

ELAP No.: 1838  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
TCEQ No. : T104704502

Re: ATL Work Order Number : 1403119  
Client Reference : D1/D2 BRIDGES, S9805-01-28

Enclosed are the results for sample(s) received on October 17, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



## Certificate of Analysis

Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore , CA 94550

Project Number : D1/D2 BRIDGES, S9805-01-28

Report To : Dave Watts

Reported : 10/24/2014

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CDR-P1A/B	1403119-01	Paint	10/15/14 0:00	10/17/14 9:50





## Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : D1/D2 BRIDGES, S9805-01-28

Report To : Dave Watts

Reported : 10/24/2014

### Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

#### Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



November 04, 2014

Dave Watts  
Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore, CA 94550  
Tel: (925) 961-5273  
Fax:(925) 371-5915

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CSDLAC No.: 10196  
ORELAP No.: CA300003  
TCEQ No. : T104704502

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Reported : 11/04/2014

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Livermore, CA 94550

Project Number : D1/D2 BRIDGES, S9805-01-28

Report To : Dave Watts

Reported : 11/04/2014

**Client Sample ID CDR-P1A/B**

**Lab ID: 1403119-01**

**TCLP Metals by ICP-AES EPA 6010B**

**Analyst: CB**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	0.69	0.42	1	B4J0850	10/31/2014	10/31/14 18:09	

### QUALITY CONTROL SECTION

**TCLP Metals by ICP-AES EPA 6010B - Quality Control**

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
<b>Batch B4J0850 - EPA 3010A_SOIL</b>									
<b>Blank (B4J0850-BLK1)</b>				Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	ND	0.050			NR				
<b>Blank (B4J0850-BLK2)</b>				Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	ND	0.050			NR				
<b>LCS (B4J0850-BS1)</b>				Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	0.963356	0.050	1.00000		96.3	80 - 120			
<b>Duplicate (B4J0850-DUP1)</b>				<b>Source: 1402935-04</b> Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	1.26539	0.050		1.16267	NR		8.46	20	
<b>Duplicate (B4J0850-DUP2)</b>				<b>Source: 1402990-27</b> Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	ND	0.050		ND	NR			20	
<b>Matrix Spike (B4J0850-MS1)</b>				<b>Source: 1402935-04</b> Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	3.45325	0.050	2.50000	1.16267	91.6	77 - 121			
<b>Matrix Spike Dup (B4J0850-MSD1)</b>				<b>Source: 1402935-04</b> Prepared: 10/31/2014 Analyzed: 10/31/2014					
Lead	3.54586	0.050	2.50000	1.16267	95.3	77 - 121	2.65	20	



## Certificate of Analysis

Geocon Consultants, Inc.

6671 Brisa Street

Livermore, CA 94550

Project Number : D1/D2 BRIDGES, S9805-01-28

Report To : Dave Watts

Reported : 11/04/2014

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PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
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- (3) Results are wet unless otherwise specified.

Diane Galvan

---

**From:** Dave Watts, CAC [watts@geoconinc.com]  
**Sent:** Tuesday, October 28, 2014 1:50 PM  
**To:** Diane Galvan  
**Subject:** Re: D1/D2 BRIDGES

Same tat

David Watts, Geocon  
925-785-5340  
[watts@geoconinc.com](mailto:watts@geoconinc.com)  
Sent from my iPhone

On Oct 28, 2014, at 1:49 PM, "Dave Watts, CAC" <[watts@geoconinc.com](mailto:watts@geoconinc.com)> wrote:

S9805-01-28

For all, please run:

TCLPs on results >1000 ppm  
WETs on results 50-999 ppm

Run TCLPs on WET fails if TTLC at or above 100 ppm.

Thanks.

David Watts, Geocon  
925-785-5340  
[watts@geoconinc.com](mailto:watts@geoconinc.com)  
Sent from my iPhone