

**Meeting of the Central Valley Flood Protection Board
October 25, 2013**

Staff Report – Encroachment Permit 18882

**California Department of Transportation, District 3
Rock Slope Protection at Big Chico Creek Bridge, Butte County**

1.0 – ITEM

Consider approval of Permit No. 18882 (Attachment B).

2.0 – APPLICANT

California Department of Transportation, District 3

3.0 – LOCATION

The proposed project is located at the existing State Route 32 bridge spanning Big Chico Creek (Bridge No. 12-0043) in an unincorporated, suburban section of Butte County on the western edge of the City of Chico (Attachment A).

4.0 – DESCRIPTION

Caltrans proposes to place rock slope protection (RSP) at bridge Piers 2 and 3 to protect the exposed footings from scour. Approximately 30 cubic yards of native soil will be excavated and replaced with 85 cubic yards of "Light" gradation RSP. "Light" gradation RSP is comprised of average rock size weighing 200 pounds with an equivalent diameter of approximately 1.3 feet. The rock will range in size from 8 inches to 1.8 feet. A minor 2.5-foot concrete footing will be placed on the upstream end of the piers below the bottom course of the proposed RSP. See Attachment C for further details.

5.0 – AUTHORITY OF THE BOARD

California Code of Regulations, Title 23 (CCR 23), §6, Need for a Permit
CCR 23, §121, Erosion Control
CCR 23, §128, Bridges

6.0 – AGENCY COMMENTS AND ENDORSEMENTS

Comments and endorsements associated with this project from all pertinent agencies are shown below:

- The U.S. Army Corps of Engineers comment letter has not been received for this application. Staff anticipates receipt of a letter indicating that the USACE District Engineer has no objection to the project, subject to conditions. Upon receipt of the letter, staff will review to ensure conformity with the permit language and incorporate it into the permit as Exhibit A.
- DWR Sutter Maintenance Yard has endorsed this project without conditions.

7.0 – PROJECT HISTORY

The bridge was initially built in 1921 and widened in 1966. The proposed project will preserve the useful life of the bridge by repairing scour damage, and protecting the bridge piers to prevent future scour.

The project is needed because storm flows over a period of years have resulted in scour damage around the bridge foundation, washing away the earthen material surrounding the footings. The potential for future scour requires the installation of protection measures. Caltrans considers the current status of the bridge to be "scour critical," meaning that in a significant hydraulic event such as a 100-year flood, there is a possibility that additional damage to the bridge foundation could be sustained that would put the bridge out of service.

8.0 – PROJECT ANALYSIS

Board staff performed the following review:

8.1 – Hydrology and Hydraulic Analysis

The Big Chico Creek channel lies within a FEMA Special Flood Hazard Area subject to inundation by the one percent Annual Chance Flood - Zone AE - "Base Flood Elevations Determined." Surveys performed by the Caltrans Survey unit in July 2012 indicate the soffit elevation of the bridge ranges between 192.1 and 192.2 feet (NAVD88). The computed water surface elevations for existing and proposed conditions are 186.22 and 186.28 feet respectively. With a minimum soffit elevation of 192.1 feet the computed freeboard at existing and proposed conditions is 5.88 and 5.82 feet respectively, and freeboard for the proposed project is compliant with CCR 23.

A HEC-RAS analysis was conducted to determine the effect of RSP armoring on flood water surface elevations. The analysis used a design flow of 1,490 cubic feet per second (cfs) to model the 100-year flood event.

Based on the analysis results, when rock is placed within the channel on a slope of 1.5H:1V beginning at the face of the piers from an elevation 1.5 feet above the top of the spread footing, and extending horizontally 5.5 feet from the face of the piers, there is a 0.06-foot rise in the water surface elevation. This is considered less than significant and acceptable given the benefits of scour reduction. The maximum increase in the channel velocity is 0.28 feet per second (fps) which is also considered to be less than significant. Therefore the placement of the proposed RSP to protect the bridge piers is not expected to have any adverse hydraulic impacts. Table 1 below summarizes the hydraulic analysis.

**Table 1 – Summary of the Hydraulic Analysis
(Caltrans Addendum Report, July 01, 2013.)**

Q ₁₀₀ cfs	Soffit Elevation (feet)	Existing (Pre-construction)			Future (Post-construction)		
		WSE (feet)	V (feet/s)	Freeboard (feet)	WSE (feet)	V (feet/s)	Freeboard (feet)
1,490	192.22	186.22	5.49	5.88	186.28	5.77	5.82

There were, however, two hydraulic reports prepared for this project. The hydraulic report dated October 10, 2012 states that there is a 0.6 foot rise in the water surface

elevation. However the Addendum Report dated July 1, 2013 states that there is a 0.06 feet rise in the water surface elevation. Since the Addendum Report is based on the revised discharge data based on most current USGS gage data for gage station 11384000 Big Chico Creek near Chico, Board staff has considered the Addendum Report to be appropriate for this review.

Based on the review of the submitted hydraulic analysis, Board staff has concluded that the proposed RSP placement project is hydraulically compliant with CCR 23, and will result in no adverse hydraulic impacts to facilities of the State Plan of Flood Control, the Big Chico Creek floodway, or nearby properties upstream and downstream from the project.

8.2 – Geotechnical Analysis

Board staff has concluded that the proposed RSP placement project is geotechnically compliant with CCR 23, and will result in no adverse geotechnical impacts to facilities of the State Plan of Flood Control, the Big Chico Creek floodway, or nearby properties upstream and downstream from the project.

8.3 – Pier Scour Analysis and Channel Bank Erosion

The pier scour analysis for the existing pier conditions shows that the potential scour for both Piers 2 and 3 would undermine the footings. The potential scour elevations at these piers were calculated to be 173.13 and 173.4 feet at Piers 2 and 3 respectively. With the bottom of the footings for Piers 2 and 3 at 176.0 and 174.5 feet respectively, the potential scour would undercut the piers leading to probable failure. Caltrans considers this project to be scour critical with treatment needed prior to this flood season. Caltrans further recommends that after the RSP is installed that the bridge should be inspected biannually.

In addition to the existing scour threat, ongoing channel bank erosion can be cured by the RSP installation which will flatten the channel slopes.

Board staff concludes that the mitigation as proposed will compensate for the scour.

8.4 – Long Term Maintenance

Caltrans will maintain the bridge consistent with its regular ongoing maintenance program. (See Attachment D).

9.0 – CEQA ANALYSIS

Board staff has prepared the following California Environmental Quality Act (CEQA) determination:

The Board, as a responsible agency under CEQA, has reviewed Initial Study/Mitigated Negative Declaration (IS/MND) (SCH Number: 2012072021, November 2012) and Mitigation Measures for the Seven Bridges Scour Repair Project prepared by the lead agency, California Department of Transportation. These documents, including project designs, may be viewed or downloaded from the Central Valley Flood Protection Board website at <http://www.cvfpb.ca.gov/meetings/2013/10-25-2013.cfm> under a link for this agenda item. These documents are also available for review in hard copy at the Board and Caltrans offices.

Caltrans determined that the project would not have a significant effect on the environment on November 30, 2012, and filed a Notice of Determination on December 5, 2012 with the State Clearinghouse. Board staff finds that although the proposed project could have a potentially significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. The project proponent has incorporated mandatory mitigation measures into the project plans to avoid identified impacts or to mitigate such impacts to a point where no significant impacts will occur. These mitigation measures are included in the project proponent's IS/MND and address impacts to biological resources. The description of the mitigation measures are further described in the adopted IS/MND.

10.0 – SECTION 8610.5 CONSIDERATIONS

- Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

- The best available science related to the scientific issues presented by the Executive Officer, legal counsel, the Department or other parties that raise credible scientific issues:

In making its findings, the Board has used the best available science relating to the issues presented by all parties, and the design is in compliance with these standards.

- Effects of the decision on facilities of the State Plan of Flood Control, and consistency of the proposed project with the Central Valley Flood Protection Plan as adopted by Board Resolution 2012-25 on June 29, 2012:

This project has negligible adverse effects on facilities of the State Plan of Flood Control and is consistent with the 2012 Central Valley Flood Protection Plan.

- Effects of reasonable projected future events including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

There are no other foreseeable projected future events that would impact this project.

11.0 – LAND and RIGHT-OF-WAY

The proposed project results in a “no adverse impacts” condition. Properties upstream and downstream of the project will not be adversely impacted during the 100-year event due to the proposed work. All work will be performed within the Caltrans ROW.

12.0 – STAFF RECOMMENDATION

Staff recommends that the Board:

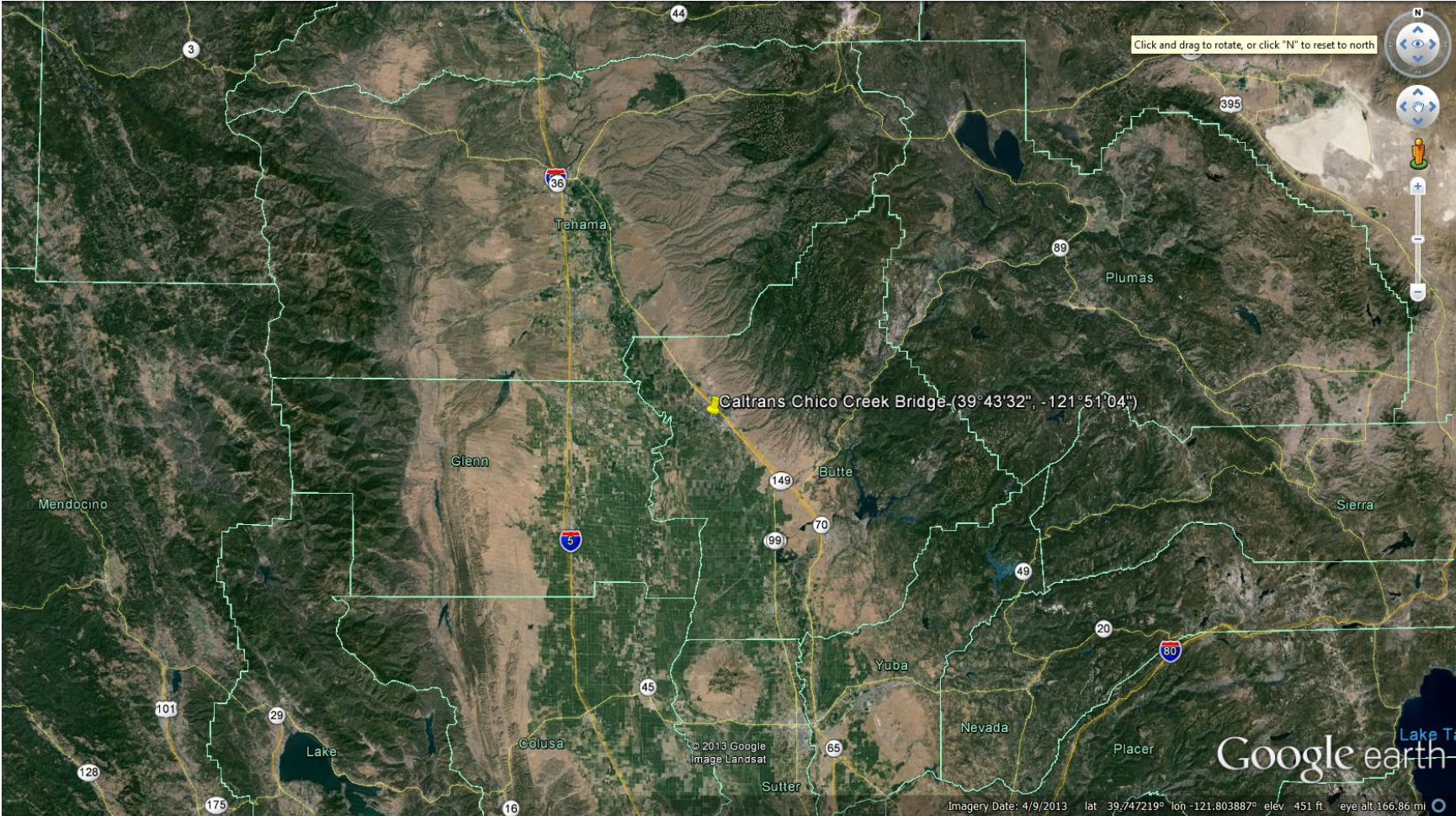
- adopt the CEQA findings,
- approve the permit in substantially for form provided, conditioned upon receipt of a U.S. Army Corps of Engineers comment letter indicating that the District Engineer has no objection to the project, subject to conditions, and
- direct staff to file a Notice of Determination with the State Clearinghouse.

13.0 – LIST OF ATTACHMENTS

- A. Vicinity and Project Location Maps
- B. Draft Permit No. 18882
- C. Project Construction Details
- D. Caltrans Letter regarding regular maintenance activities, May 31, 2013

Technical Review:	Deb Biswas, PhD, PE, Engineer, WR
Environmental Review:	James Herota, Senior Environmental Scientist (Specialist)
Document Review:	David R. Williams, PE, Projects Section Chief
	Eric R. Butler, PE, Projects and Environmental Branch Chief
	Len Marino, PE, Chief Engineer

ATTACHMENT A, VICINITY MAP



ATTACHMENT A, LOCATION MAP



DRAFT

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE CENTRAL VALLEY FLOOD PROTECTION BOARD

PERMIT NO. 18882 BD

This Permit is issued to:

California Department of Transportation, District 3
703 B Street
Marysville, California 95901

The purpose of this project is to place rock slope protection (RSP) at Piers 2 and 3 under the Big Chico Creek Bridge (Bridge No. 12-0043) to protect the exposed footings from scour. Approximately 30 cubic yards of native soil will be excavated and replaced with 85 cubic yards of "Light" gradation RSP. "Light" gradation RSP is comprised of an average rock size weighing 200 pounds. Fifty percent of the rock used for armoring is expected to be 200 pounds with an equivalent diameter of approximately 1.3 feet, with rock sizes ranging from 8 inches to 1.8 feet (Caltrans assumes rock have a specific gravity of 2.65. A minor 2.5-foot concrete footing will be placed on the upstream end of the piers below the bottom course of the proposed RSP.

The project is located at the existing State Route 32 bridge spanning Big Chico Creek Post Mile 8.31 on the western edge of the City of Chico. (Section 34, T22N, R1E, MDB&M, Sutter Maintenance Yard, Big Chico Creek, Butte County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project as described above.

(SEAL)

Dated: _____

Executive Officer

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Central Valley Flood Protection Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Central Valley Flood Protection Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Central Valley Flood Protection Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Central Valley Flood Protection Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 18882 BD

THIRTEEN: All work completed under this permit, as directed by the general and special conditions herein, shall be accomplished to ensure that the work is not injurious to adopted plans of flood control, regulated streams, and designated floodways under Board jurisdiction, as defined in California Code of Regulations, Title 23. This permit only applies to the completion of work in the project description located within, or adjacent to and having bearing on Board jurisdiction, and which directly or indirectly affects the Board's jurisdiction. This special condition shall apply to all subsequent conditions herein.

LIABILITIES / IMDEMNIFICATION

FOURTEEN: The permittee shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California, including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages related to the Central Valley Flood Protection Board's approval of this permit, including but not limited to claims filed pursuant to the California Environmental Quality Act. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

FIFTEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend, indemnify, and hold the Central Valley Flood Protection Board and the State of California; including its agencies, departments, boards, commissions, and their respective officers, agents, employees, successors and assigns (collectively, the "State"), safe and harmless, of and from all claims and damages arising from the project undertaken pursuant to this permit, all to the extent allowed by law. The State expressly reserves the right to supplement or take over its defense, in its sole discretion.

SIXTEEN: The Central Valley Flood Protection Board and Department of Water Resources shall not be held liable for damages to the permitted encroachment(s) resulting from releases of water from reservoirs, flood fight, operation, maintenance, inspection, or emergency repair.

EASEMENT, LICENSE OR TEMPORARY ENTRY PERMIT

SEVENTEEN: If the construction project extends onto land owned in fee and/or easement by the Sacramento and San Joaquin Drainage District acting by and through the Central Valley Flood Protection Board, the permittee should secure an easement, license, or temporary entry permit from the Board prior to commencement of work. Contact Angelica Aguilar at (916) 653-5782.

PERMITTING AND AGENCY CONDITIONS

EIGHTEEN: The letter from the U.S. Army Corps of Engineers, Sacramento District dated _____, 2013 is attached to this permit as Exhibit A and is incorporated by reference.

NINETEEN: The permittee shall contact the U.S. Army Corps of Engineers, Sacramento District, Regulatory Branch, 1325 J Street, Sacramento, California 95814, telephone (916) 557-5250, as compliance with Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act may be required.

TWENTY: If the permittee does not comply with the conditions of the permit and enforcement by the Board is required, the permittee shall be responsible for bearing all costs associated with the enforcement action, including reasonable attorney's fees.

TWENTY-ONE: The permittee agrees to incur all costs for compliance with local, State, and Federal permitting and resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces.

PRE-CONSTRUCTION

TWENTY-TWO: The permittee shall contact the Central Valley Flood Protection Board by telephone at (916) 574-0609, and submit the enclosed postcard to the Department of Water Resources to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

TWENTY-THREE: Thirty (30) calendar days prior to start of any demolition and/or construction activities within the floodway, the permittee shall submit to the Chief Engineer two sets of plans, specifications and supporting geotechnical and/ or hydraulic impact analyses, for any and all temporary, in channel cofferdam(s), gravel work pad(s), work trestle(s), scaffolding, piles, and/or

other appurtenances that are to remain in the floodway during the flood season from November 1 through April 15. The Central Valley Flood Protection Board shall acknowledge receipt of this submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Central Valley Flood Protection Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or local maintaining agency when necessary. The Central Valley Flood Protection Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days.

TWENTY-FOUR: Prior to commencement of work, the permittee shall create a photo record, including associated descriptions, of the existing bridge site conditions. The photo record shall be certified (signed and stamped) by a licensed land surveyor or licensed civil engineer registered in the State of California and submitted to the Central Valley Flood Protection Board within 30 days of beginning the project.

TWENTY-FIVE: The permittee shall provide supervision and inspection services acceptable to the Central Valley Flood Protection Board. A licensed civil engineer registered in the State of California shall certify that all work was inspected and performed in accordance with submitted drawings, specifications, and permit conditions.

TWENTY-SIX: All addenda or other changes made to the submitted documents by the permittee after issuance of this permit shall be submitted to the Chief Engineer for review and approval prior to incorporation into the permitted project. The submittal shall include supplemental plans, specifications, and supporting geotechnical, hydrology and hydraulics, or other technical analyses. The Central Valley Flood Protection Board shall acknowledge receipt of the addendum or change submittal in writing within ten (10) working days of receipt, and shall work with the permittee to review and respond to the request as quickly as possible. Time is of the essence. The Central Valley Flood Protection Board may request additional information as needed and will seek comment from the U.S. Army Corps of Engineers and / or the local maintaining agency when necessary. The Central Valley Flood Protection Board will provide written notification to the permittee if the review period is likely to exceed thirty (30) calendar days. Upon approval of the submitted documents the permit shall be revised, if needed, prior to construction related to the proposed changes.

CONSTRUCTION

TWENTY-SEVEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of the Central Valley Flood Protection Board.

TWENTY-EIGHT: No construction work of any kind shall be done during the flood season from November 1 to April 15 without prior approval of the Central Valley Flood Protection Board.

TWENTY-NINE: No material stockpiles, temporary buildings, or equipment shall remain in the floodway during the flood season from November 1 to April 15.

THIRTY: Rock slope protection (RSP) shall be uniformly placed in a manner which avoids segregation.

THIRTY-ONE: Rock slope protection (RSP) shall be quarry stone with a specific gravity of 2.65 or greater, and shall meet the following grading requirements or equivalent:

Quarry Stone

Stone Size	Percent Passing
15 inches;	100
8 inches;	80-95
6 inches;	45-80
4 inches;	15-45
2 inches;	0-15

THIRTY-TWO: The rock slope protection (RSP) shall not contain any reinforcing steel, floatable, or objectionable material. Asphalt or other petroleum-based products may not be used as slope protection within the floodway.

THIRTY-THREE: The recommended minimum thickness of rock slope protection, measured perpendicular to the bank or levee slope, is 18 inches below the usual water surface and 12 inches above the usual water surface.

THIRTY-FOUR: The rock slope protection shall be sufficiently keyed horizontally and vertically into the streambed for better stability.

THIRTY-FIVE: All debris generated by this project shall be disposed of outside the Big Chico Creek floodway.

CONSTRUCTION MATERIALS

THIRTY-SIX: All fill material shall be imported impervious material with 20 percent or more passing the No. 200 sieve, a plasticity index of 8 or more, and a liquid limit of less than 50 and free of lumps or stones exceeding 3 inches in greatest dimension, vegetative matter, or other unsatisfactory material. Fill material shall be compacted in 4- to 6-inch layers to a minimum of 90 percent relative compaction as measured by ASTM Method D1557-91, or appropriate Board approved equal.

VEGETATION / ENVIRONMENTAL MITIGATION

THIRTY-SEVEN: The mitigation measures approved by the CEQA lead agency and the permittee are found in its Mitigation and Monitoring Reporting Program (MMRP) adopted by the CEQA lead agency. The permittee shall implement all such mitigation measures.

POST-CONSTRUCTION

THIRTY-EIGHT: The work area shall be restored to the condition that existed prior to start of work.

THIRTY-NINE: Within 120 days of completion of the project, the permittee shall submit to the Central

Valley Flood Protection Board as-built drawings and a certification report, stamped and signed by a licensed civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the Central Valley Flood Protection Board permit conditions and submitted drawings and specifications.

OPERATIONS AND MAINTENANCE

FORTY: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Central Valley Flood Protection Board, Department of Water Resources, or any other agency responsible for maintenance.

FORTY-ONE: The permittee shall be responsible for repair of any damages to the channel or any other flood control facilities due to construction, operation, or maintenance of the proposed project.

FORTY-TWO: If the permitted encroachment(s) result in any adverse hydraulic impact or if the flows being conveyed in an overland release result in scouring the permittee shall provide appropriate mitigation acceptable to the Central Valley Flood Protection Board.

FORTY-THREE: If erosion occurs adjacent to the permitted encroachment(s), the permittee shall repair the eroded areas and place adequate revetment on the affected areas to prevent further erosion.

FORTY-FOUR: At the request of either the permittee or Central Valley Flood Protection Board the permittee and Board shall conduct joint inspections of the project and floodway after significant flood events or flood seasons to assess the integrity and operation of the project, and to assess and respond to any adverse impacts on the floodway or adjacent properties.

PROJECT ABANDONMENT, CHANGE IN PLAN OF FLOOD CONTROL

FORTY-FIVE: If the project, or any portion thereof, is to be abandoned in the future, the permittee shall abandon the project under direction of the Central Valley Flood Protection Board and Department of Water Resources, at the permittee's cost and expense.

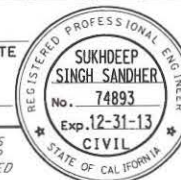
FORTY-SIX: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, the Central Valley Flood Protection Board may remove the encroachment(s) at the permittee's expense.

END OF CONDITIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Gle	5,20, 32,162	Var		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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



PRELIMINARY PLANS

NOTES:

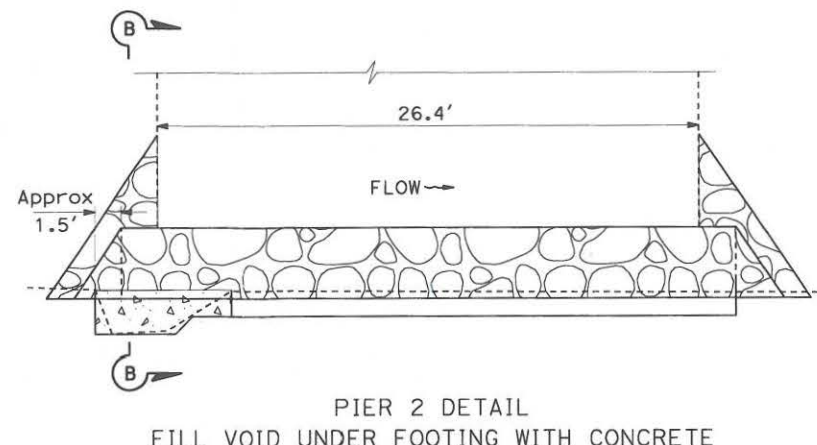
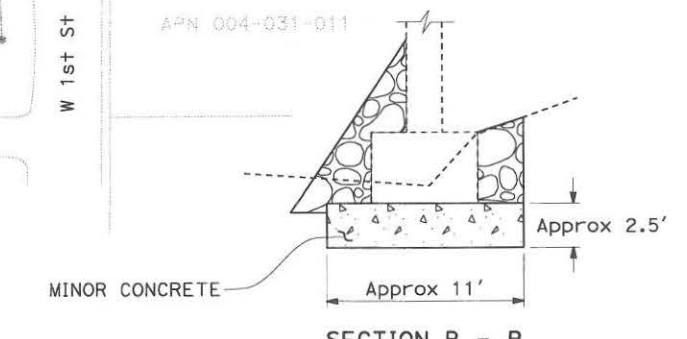
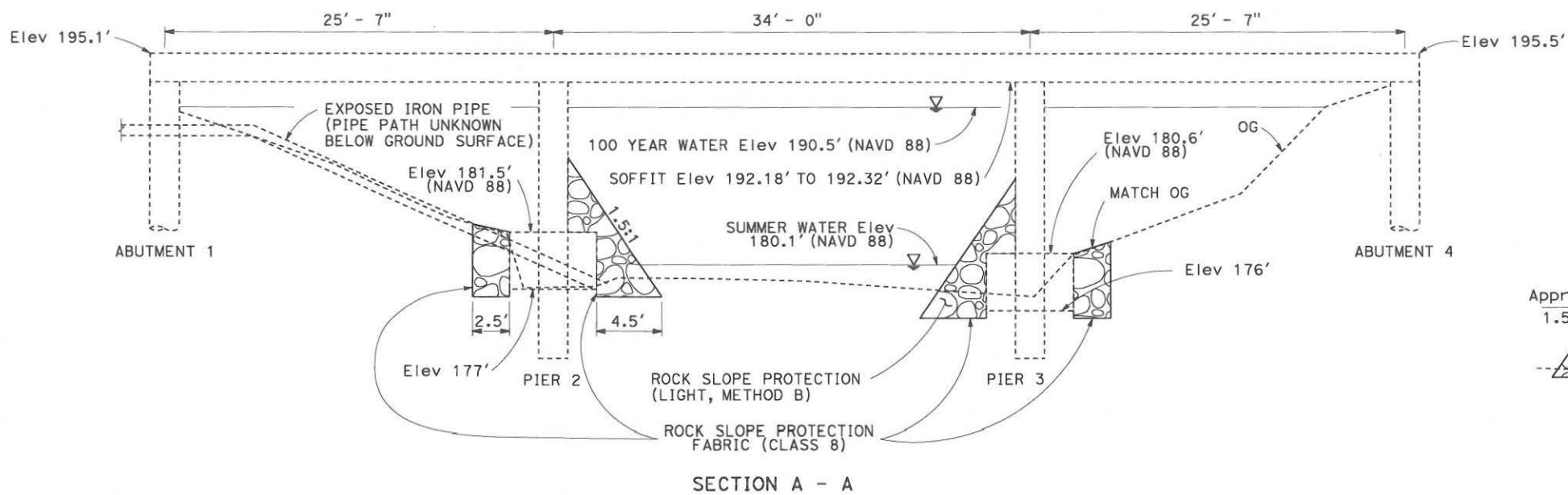
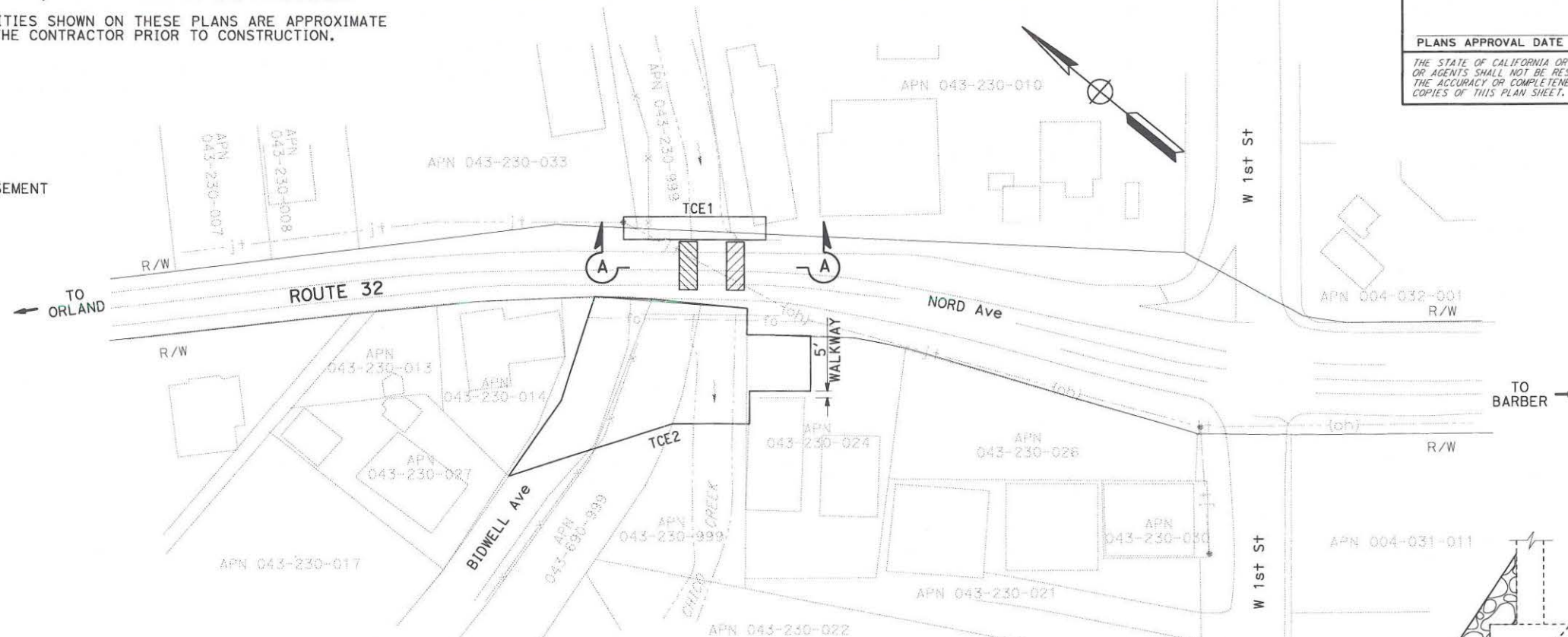
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

ABBREVIATIONS:

TCE TEMPORARY CONSTRUCTION EASEMENT

LEGEND:

- WORK AREA - PIER 2
- WORK AREA - PIER 3



LOCATION 5
 BRIDGE # 12-0043 - BIG CHICO CREEK
 BUT-32-PM 8.31

CONSTRUCTION DETAILS
 NO SCALE

C-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - NORTH REGION ENGINEERING DIVISION OF ENGINEERING

FUNCTIONAL SUPERVISOR: KEN KEATON
 REVISIONS: GARY DUGHY, SUKHDEEP SANDHER, CALCULATED/DESIGNED BY, CHECKED BY

REVISOR: GARY DUGHY, SUKHDEEP SANDHER
 DATE: [blank]

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DEPARTMENT OF TRANSPORTATION

DISTRICT 3
703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-4233
FAX (530) 741-4245
TTY 711



*Flex your power!
Be energy efficient!*

May 31, 2013

Mr. David R. Williams
Senior Engineer, WR
Central Valley Flood Protection Board
3310 El Camino Avenue, Suite 151
Sacramento, CA 95821

Dear Mr. Williams:

The goal of Caltrans is to maintain existing facilities as nearly as possible to the original condition as constructed or improved. The Maintenance Program is assigned the care and upkeep of State highways. Proper care and upkeep conserves the public's investment in the highway system, and ensures that the system will continue to provide maximum benefits to the traveling public. See attached list of Maintenance Activities.

The legal definition of maintenance as provided by the California Streets and Highways Code, General Provisions, Section 27, include the following:

- (A) The preservation and keeping of rights of way, and each type of roadway, structure, safety convenience or device, planting, illumination equipment and other facility, in the safe and usable condition to which it has been improved or constructed, but does not include reconstruction or other improvement.
- (B) Operation of special safety conveniences and devices, and illuminating equipment.
- (C) The special or emergency maintenance or repair necessitated by accidents or by storms, or other weather conditions, slides, settlements or other unusual or unexpected damage to a roadway, structure or facility.

Many routine maintenance operations have the potential to affect water quality. The Maintenance Program, in cooperation with the Environmental Program, has developed procedures to protect water quality. These are included in the Maintenance Manual, and in the Caltrans Statewide Storm Water Management Plan. Caltrans has a statewide storm water permit. All districts are required to abide by the permit requirements.

To comply with federal regulations, all bridge structures over 20 feet long are inspected by qualified Area Bridge Maintenance Engineers (ABME) at a maximum interval of two (2) years, and more frequently if conditions require a more frequent inspection. As part of the inspection,

"Caltrans improves mobility across California"

Mr. David R. Williams
May 31, 2013
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engineering evaluation is made regarding the condition of all structural components, and work recommendations are made for any corrective actions required.

Periodic walk-through inspections are made by District Maintenance Supervisors to detect obvious defects, hazards or potential problems, and also to monitor known problems. The purpose of these inspections is to supplement the more detailed, but less frequent inspections by the ABME. Special attention is given to any condition that affects the safety and/or structural capacity.

After a major storm, earthquake, or other natural event that may cause damage to bridges, area supervisors inspect all bridges in the affected area for signs of damage. Any damage found is reported to the Structure Maintenance and Investigations Unit for follow up action.

Depending on the scope of work and monetary size of the recommended work, it can be performed in one of the five methods below:

- By District 3's local special crews: bridge, sign, or road maintenance crews.
- By local agencies (City/County), as per Highway Maintenance Agreement.
- By Maintenance Contract, funded by the Major Maintenance funds (HM3-115).
- By the State Highway Operations and Protection Program, funded by the bridge programs.
- By Service Contract.

Caltrans Maintenance will react promptly to emergencies while taking steps to protect employees, the public, and the environment. In addition, the Maintenance Program will practice proper scheduling and planning of routine maintenance procedures to keep delays at a minimum. Reasonable efforts are made to correct conditions that interfere with the flow of water under our structures, including clearing debris.

If you have any questions you may contact Nadarajah "Sutha" Suthahar, Project Manager, by phone at (530) 741-4001 or by email at nadarajah_suthahar@dot.ca.gov.

Sincerely,

JODY JONES
District Director

c: Mr. Len Marino, Chief Engineer - CVFPB