CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-1865
VOICE (707) 445-7833
FACSIMILE (707) 445-7877

W18e

MEMORANDUM

Date: October 5, 2009

To: Commissioners and Interested Parties

From: Peter Douglas, Executive Director
Robert S. Merrill, North Coast District Manager
Melanie Faust, Coastal Program Analyst/ Statewide Transportation Liaison

Subject: **Addendum to Commission Meeting for Wednesday, October 7, 2009, North Coast District Item W18e, CDP No. 1-09-027 (Caltrans/Greenwood Creek Bridge Replacement/Mendocino County)**

STAFF NOTE

Staff proposes minor revisions of the staff recommendation on Coastal Development Permit Amendment Application No. 1-09-027, the application of Caltrans to replace the Greenwood Creek Bridge on Highway One in Mendocino County, just south of the village of Elk. The revisions are for the purpose of making a minor change to the project description and for clarifying and correcting the special conditions of the staff report. The changes are minor and do not result in any additional or increased adverse impacts on coastal resources.

Staff continues to recommend that the Commission approve the project with the special conditions included in the staff recommendation of September 24, 2009, as modified by the revisions described below.

The revisions listed by sequential number below are referenced by staff report page, special condition number, and line number within the pertinent special condition. Changes are shown by the following typographical conventions: text shown in regular font is text as already set forth in the condition; text shown in ~~strike-thru~~ is text that is hereby deleted by these revisions, and text shown in <u>underline</u> is text that is hereby added by these revisions.

<u>Changes to the Staff Report:</u>

1. Page 1, PROJECT DESCRIPTION, line 9: Caltrans no longer proposes any visible retaining walls within the limits of the project, thus the 4-ft.-high concrete walls previously

proposed along the toe of cut slopes have been eliminated. The ½:1 cut slopes will be allowed to remain in a natural state, with gradual re-growth of native vegetation, which is consistent with the existing site conditions. Though the toe walls would have had minimal visual impact within the corridor, this change continues the existing site conditions and eliminates any potential, albeit minor, visual impacts that the low retaining walls might have produced. Therefore:

~~Concrete walls up to 4 feet in height are proposed along the toe of cut slopes visible from the traveled way.~~

2. Page 4 (summary) – paragraph 4 – last sentence, correction:

…The previous proposal relied on the placement of massive conventional fill slopes on the east side of the highway. In contrast, the present proposal includes vertical concrete ~~tie-back~~ soldier pile walls to limit the placement of fill…

3. Page 11, Paragraph 6, line 13, a portion of Special Condition No. 2, (Caltrans notes that not all waste concrete is suitable for recycling into constituent products for reuse, but that alternatives exist that would produce the same result):

...dust does not drain into the banks, channel, or waters within the project area. All demolition debris shall be recycled, and concrete debris shall be recycled at a licensed facility qualified to accept such wastes, and, if the material is suitable for reuse in concrete production, it shall be reduced to constituents necessary to produce new wet concrete product rather than resold in a manner that could allow the subject debris to be used as fill. Alternatively, if the material is not suitable for this purpose, Caltrans shall require the contractor to recycle the material within the project footprint if feasible, where fill material is required and where the material would reduce the import of fill and would not be subject to erosion into the adjacent riparian corridors. Caltrans shall require the subject contractor to provide evidence that the demolition debris has been properly processed or otherwise recycled in ~~this~~ a suitable manner and shall provide written evidence of such disposal to the satisfaction of the Executive Director within thirty (30) days after completion of demolition activities…

4. Page 13, paragraph 12, line 5, a portion of Special Condition No. 2 (clarification of options to collect, treat, and dispose of waters that may be affected by construction processes):

… and use of Baker Tanks or the equivalent to collect, treat and test potentially contaminated de-watering effluent. Dewatering of effluent that has been in contact with cement/concrete or other potential contaminants shall not be de-watered into coffer dams or sediment basins within the project area unless first collected and

treated to ensure that the chemistry of the water is consistent with the background pH and other measures of water quality of Greenwood Creek and as otherwise required by the Regional Water Quality Control Board, and shall be fully captured and taken to a licensed disposal facility offsite if the contamination is such that on-site treatment would be inadequate to meet this standard. The manner in which treatment and/or ~~D~~disposal of ~~such~~ contaminated effluent is undertaken and in which treatment results are tested and verified shall be documented by the Caltrans resident engineer and noted by the biological monitor in the monitoring reports to be retained by Caltrans as part of the permanent files; and

5. Page 14, paragraph 15, a portion of Special Condition No. 2 (with regard to requirements for sealing concrete forms, assuring water-tight condition of forms is infeasible, but grouting of forms will ensure adequate retention of wet concrete during construction):

….All forms that may be utilized for wet concrete/cement pours shall be grout-sealed, or the equivalent to prevent release of concrete/cement, and the grout shall be allowed to cure adequately and be ~~water-tested~~ inspected by ~~under the supervision of inspected by the fisheries or general~~ the biological monitor and the resident engineer to ensure complete seal before any wet concrete/cement or other chemical treatments may be applied to the forms…

6. Page 16, paragraph A, portion of Special Condition No. 3 (with regard to requirements to submit a temporary bridge crossing plan, staff has determined that sixty days of staff review would be adequate):

… Prior to commencement of construction, but in not less than ~~ninety (90)~~ sixty (60) days prior to Caltrans' proposed commencement of work to install the subject temporary bridge crossing of Greenwood Creek, Caltrans shall submit a Temporary Bridge Crossing Plan (TBCP) for the review and approval of the Executive Director…

7. Page 19, paragraphs 5 and 6, a portion of Special Condition No. 4 (regarding requirements for managing invasive plants, changes are proposed to provide a more specific and feasible method of addressing the removal and management of invasive vegetation within the right-of-way, and to provide a specific window to ensure the successful establishment of new plantings that are designed to become wild habitat):

5) … Caltrans shall, during the three-year construction period, annually remove ~~all~~ invasive non-native plant species from the right-of-way area surrounding and including the entire project area that is subject to the development authorized by CDP 1-09-027, in accordance with a plan prepared by Caltrans for the review and approval of the Executive Director prior to commencement of construction, that establishes feasible performance standards based on ecologically important

vegetation management, with particular attention to the eradication of pampas grass. Caltrans shall thereafter, upon completion of project construction, remove invasive species within the revegetation area ~~quarterly during the first two years of revegetation, and annually thereafter until~~ on a schedule and in a manner approved by the Executive Director that ensures that the revegetation goals have been achieved to the satisfaction of the Executive Director.

6) … All plantings shall be maintained in good condition for the minimum of ten (10) years after the initial planting, and any new plantings that must be undertaken to replace weak or dead plantings shall require additional monitoring as necessary to ensure that the last plantings are successfully established and require no further artificial inputs for successful survival, ~~life of the development approved by CDP 1-09-027~~, and all plantings shall be watered, weeded, replaced, and otherwise maintained by Caltrans as necessary to achieve and maintain this standard…

8. Page 21, paragraph C, line 8, portion of Special Condition 6 (Regarding the establishment of a reserve account for contingency funds for remediation of unforeseen problems in implementing the proposed mitigation on State Park lands. The changes clarify that the 20% contingency funds shall be divided into 10% for initial contract with State Parks and 10% to be held in reserve by Caltrans for final compliance assurance):

… In addition, Caltrans shall provide evidence to the satisfaction of the Executive Director that an additional amount equal to not less than ten percent (10%) shall be included as a contingency amount in the contract with State Parks, and in addition, a separate ~~twenty~~ ten percent (~~20~~ 10%) of the mitigation fee paid to State Parks shall be held in a reserve account by Caltrans (for a total contingency amount of 20%) for the purpose of ensuring that adequate funds are available for adaptive management and further monitoring that may be necessary to address unforeseen problems in meeting the milestones and goals….

9. Page 22, paragraph A, portion of Special Condition No. 8 (with regard to the requirements to submit a Storm Water Pollution Prevention Plan, staff has determined that sixty days of staff review would be adequate):

… Not less than ~~(90) ninety~~ (60) sixty days prior to commencement of construction covered by the subject Storm Water Pollution Prevention Plan (SWPPP) that shall be prepared…the SWPPP shall be submitted for the review and approval of the Executive Director….

10. Page 25, Paragraph F, portion of Special Condition No. 9, ([biological] monitor to verify SWPPP compliance reports), the following changes are necessary to clarify the purpose and requirements for review and reporting of SWPPP compliance reports:

> The monitor shall ~~evaluate for~~ verify the accuracy and completeness all Storm Water Prevention Plan (SWPPP) Best Management Practices compliance reports prepared by the contractor chosen by Caltrans (the contractor's reports are in all cases first reviewed by the Caltrans site supervisor or other Caltrans construction employee designated by the supervisor), to ensure that the reports are consistent with the observations of the monitor and that any remedial action requested by the monitor or by the Caltrans site supervisor or other designated Caltrans staff has been adequately addressed. When the monitor is unavailable (such as during construction periods when a biological monitor is not ordinarily required to be on site), the Caltrans site supervisor shall ~~perform the evaluation~~ submit copies of the contractor's reports as reviewed and approved by the Caltrans site supervisor directly to the Executive Director rather than combining the reports with the biological monitor's routine reports that would otherwise be submitted. The results shall be recorded in the engineer's daily records, and transmitted to the Executive Director and to any other agency requesting copies, along with a copy of the SWPPP report reviewed, with the biological monitor's reports…

11. Page 26, portion of Special Condition No. 10 (site inspections), add a line to clarify that for safety purposes, site visitors would announce themselves to the Caltrans resident engineer in charge of the project, though not necessarily in advance of arrival:

> … shall accompany staff during such site visits. Site visitors will notify the Caltrans supervisor on site of their arrival, and the site supervisor will maintain on site and provide safety gear (such as goggles, safety vests, and hearing protection) and instructions for the visitors.

CALIFORNIA COASTAL COMMISSION
NORTH COAST DISTRICT OFFICE
710 E STREET • SUITE 200
EUREKA, CA 95501-6813
VOICE (707) 445-7833
FACSIMILE (707) 445-7877

MAILING ADDRESS:
P. O. BOX 4908
EUREKA, CA 95502-4908

W18e

Filed: 9/23/09
49th Day: 11/11/09
180th Day: 3/22/10
Hearing: 10/7/09
Staff Report: 9/23/09
Staff: MKF/Eureka

STAFF REPORT: REGULAR CALENDAR

APPLICATION: **1-09-027**

APPLICANT: **Caltrans, District 1 (Eureka)**

PROJECT LOCATION: Highway 1, south of Elk, Mendocino County

PROJECT DESCRIPTION: Caltrans proposes to replace the Greenwood Creek Bridge crossing on Highway One, south of Elk, in Mendocino County. The 2-lane, 5-span, 505-ft.long, 31-ft. wide, 80 ft. high, reinforced concrete box bridge constructed in 1955 would be replaced with a 2-lane, 3-span, 520-ft.long, 46-ft. wide cast-in-place pre-stressed concrete box girder bridge aligned 7 feet east of the existing bridge centerline and extending the new bridge deck approximately 14 feet further eastward. The new design includes a 5-ft. wide Coastal Trail corridor on the west side that will be separated from traffic by a guard rail. The outer rails will include a bicycle rail on the east side placed on top of a ST-10 guard rail, totaling 42 inches in height. Concrete retaining walls up to 4 feet in height are proposed along the toe of cut slopes visible from the traveled way. No pile-driving is proposed. One-way signalized traffic control would be required during much of the three-year construction schedule. The off-bridge highway sections would be realigned to the point of conformity with the existing highway. Proposed grading includes approximately 4,750 cubic yards of excavation, 3,450 cubic yards of fill, and 1,400 cubic yards of export. Demolition of the old bridge would produce up to 10,000 cubic yards of asphalt & concrete debris. Off-site compensatory wetland mitigation equivalent to a 4:1 ratio of new wetland area to impacted wetland area is proposed at Mendocino Headlands State Park (Big River Unit).

RECOMMENDATION: **Approval with Conditions**

MOTION & RESOLUTION: **Page 6**

LOCAL APPROVALS REQUIRED: N/A. Project review was undertaken under combined jurisdictional method, see details below.

OTHER APPROVALS RECEIVED: Caltrans previously obtained all necessary state and federal reviews and authorizations for the alternative bridge replacement project proposed in 2002 – 2005, and has since applied for or received updates to all of these. The project requires review by National Marine Fisheries Service (NMFS) & U.S. Fish & Wildlife Service (USFWS) (Federal Endangered Species Act), California Department of Fish & Game (CDFG) (1602 Streambed Alteration Agreement); RWQCB (Section 401 Certification, National Pollutant Discharge Elimination System (NPDES); and the Army Corps of Engineers (Section 404 Permit).

PROCEDURAL NOTES

1. To Submit Public Comments:

Public comments concerning this staff report may be provided to the North Coast District Office at the letterhead address.

2 Availability of environmental information:

All environmental information relied on by the Commission and its staff is available for review at the above-referenced North Coast District Office of the California Coastal Commission, in Eureka. Caltrans prepared and certified a "Negative Declaration and Initial Study for the Greenwood Creek Bridge Replacement Project" dated January 2004, to comply with the California Environmental Quality Act (CEQA), and additionally prepared and certified the "Addendum to the Greenwood Creek Bridge Replacement Negative Declaration" dated May 2009. These and any other environmental documents submitted by Caltrans and relied on by the Commission and its staff will be available for review at the North Coast District Office of the California Coastal Commission (see letterhead address for contact information).

3. Jurisdiction and Standard of Review:

The proposed project area is bisected by the boundary between the retained coastal development permit jurisdiction of the Commission and the coastal development permit jurisdiction delegated to Humboldt County by the Commission through the County's certified Local Coastal Program.

The Coastal Act was amended by Senate Bill 1843 in 2006, effective January 1, 2007. The amendment added Section 30601.3 to the Coastal Act. Section 30601.3 authorizes the Commission to process a consolidated coastal development permit application when agreed to by the local government, the applicant, and the Executive Director, for

projects that would otherwise require coastal development permits from both the Commission and from a local government with a certified LCP. The local government's certified LCP may be used as guidance.

In this case, the Mendocino County Board of Supervisors passed a resolution authorizing County staff to request the consolidated processing of the application by the Coastal Commission staff, and Caltrans has also requested that Coastal Commission staff undertake the consolidated permit processing. The Executive Director has authorized the consolidated processing on behalf of the Commission.

The application fee for a coastal development permit is ordinarily determined by the Commission's permit fee schedule. However, the Commission does not require state or local governments or agencies to pay application fees. Thus, Caltrans has not been required to submit any fees for the processing of the subject coastal development permit. Staff processing of the application is compensated through the transportation liaison program funded by Caltrans.

4. Exhibits

The exhibits submitted with the printed copies of the staff report have been reproduced in black and white to save costs; however, the website version of the staff report may have colorized versions of some of the same exhibits.

SUMMARY

Staff recommends approval of the proposed Greenwood Creek Bridge replacement project, with special conditions.

The California Department of Transportation (hereinafter "Caltrans" or "applicant") proposes to replace the two-lane Greenwood Creek Bridge on Highway One, just south of the village of Elk, in southern Mendocino County. (See Exhibits 1-5) The existing concrete box girder bridge was built in 1955.

The proposed project is located immediately east of Greenwood Creek Beach State Park. The northbound side of the bridge forms the gateway to the picturesque village of Elk (with fewer than 300 residents), where Highway One is the town's "Main Street." The certified Mendocino County Local Coastal Program (LCP) notes that Elk attracts many coastal visitors because of the community's unique character, the sweeping coastal views available from the bluff tops of the town, and the easy access to parking, trails to the beach and picnic areas available at the adjacent state beach.

The County's LCP designates the project area (both east and west of Highway One) as "Highly Scenic." The Greenwood Creek Bridge area can be described as truly rural. Bordered by riparian woodlands, pasturelands, ocean bluffs, and beaches, Highway One near Elk is one of the least-traveled stretches of the coastal route. The California Coastal Trail and the Pacific Coast Bike Route run within the Highway One right-of-way along this section of the coast.

Sensitive species known to occur within or near the project area include the northern spotted owl, foothill yellow-legged frog, California red tree vole, purple martin, northern California steelhead, and tidewater goby. Of these, Caltrans indicates that only the California red tree vole and the purple martin will be unavoidably affected by the project's construction. Caltrans proposes to install the bridge support structure in a manner that does not require pile-driving, thus avoiding potential hydroacoustic impacts on fish species.

The Greenwood Creek corridor contains numerous plant communities, including coastal wetlands. Caltrans estimates that approximately 3.5 acres of vegetation surrounding the project site will be disturbed temporarily or permanently, including approximately 2.5 acres of wetlands. In addition to restoring vegetation in areas disturbed by project construction, Caltrans proposes an off-site mitigation project in collaboration with the California Department of Parks and Recreation (State Parks) on lands at Mendocino Headlands State Park (Big River Unit). Caltrans estimates that the new or enhanced wetland habitat that will result from the Big River project will produce the equivalent of a 4:1 wetland mitigation to impact ratio. (See Exhibits 6-8)

The new bridge design is an alternative that was developed by Caltrans during the past three years to replace a previous alternative that was first proposed in 2002 but was withdrawn in 2005. Staff believes that the new project design submitted by Caltrans resolves the significant issues that had been previously raised by the earlier version of the bridge plan. For example, the previous proposal required that the new bridge be built along a fully separate eastward alignment that, while eliminating the need for one-way traffic control, would have required massive cut and fill slopes, the removal of at least 23 mature fir trees that showed evidence of use by the California red tree vole, a California species of special concern. The previous proposal allowed pile-driving within the stream corridor, required the construction of concrete retaining walls up to 30 feet in height, proposed less visually permeable ST-80 or ST-20 guard rails, permanently filled more wetland habitat than the present proposal, and placed more than 100 linear feet of natural stream channel in culverts, including almost 50 linear feet of Bonee Gulch Creek, a blueline stream. The previous proposal relied on the placement of massive conventional fill slopes on the east side of the highway. In contrast, the present proposal includes vertical concrete tie-back walls to limit the placement of fill on the eastward side of the highway where the walls will not be publicly visible.

The previous proposal also lacked provisions for the Coastal Trail, which runs with the Caltrans right-of-way on this stretch of Highway One. The new project provides a 5-ft.-

wide, Americans with Disabilities Act-compliant, guard-rail separated Coastal Trail corridor on the coastal side of the proposed bridge.

Caltrans proposes to install a uniquely designed new bridge rail combination that is similar to the rail developed for the new Ten Mile River Bridge north of Ft. Bragg, on Highway One. Like the Ten Mile rail, the proposed Greenwood Creek Bridge rail is based on the ST-10 guard rail (first utilized in coastal California on the Noyo River Bridge in Ft. Bragg) with the addition of the lowest possible bicycle safety rail, for a 42-inch total height. The bicycle rail Caltrans proposes for the new Greenwood Creek Bridge has a different design than the Ten Mile rail, but both rails fit attractively into the landscape context of the respective bridges. (See Exhibit 4).

The Commission's Road's Edge Subcommittee, which convenes specifically to consider the aesthetic concerns raised by transportation infrastructure projects, has reviewed the Greenwood Creek Bridge rail in two meetings (May and August, 2009) this year. The subcommittee conveyed support for the final bridge rail design presented by Caltrans staff at the August meeting.

The remaining significant adverse impacts of the proposed project that cannot be avoided have, with one relatively minor exception (concerning the total extent of allowable vegetation clearance), been reduced to the maximum extent feasible. These impacts include the removal of two mature fir trees that have shown evidence of occupation by California red tree voles in the past, temporary dislocation of purple martin bridge nesting habitat (the bridge would be netted to exclude the birds during construction and demolition activities), some long-term (albeit ultimately temporary) impacts to wetland habitat, as well as permanent fill of wetland habitat (primarily for the construction of wider bridge abutments and the easterly alignment shift). The wetland impacts of the project, if constructed as presently proposed, total approximately 2.5 acres.

Caltrans has entered into a conceptual agreement with the California Department of Parks and Recreation ("State Parks") to implement a riparian wetland enhancement project for which State Parks has already secured plans, performed environmental review and secured the necessary permits. State Parks has not, however, had funding to implement the project. Caltrans proposes to fully fund the project on behalf of State Parks, in exchange for wetland mitigation credit to satisfy Caltrans' mitigation requirements for the Greenwood Creek Bridge project. The project will be located within the Mendocino Headlands State Park (Big River Unit) and will be implemented by State Parks staff and contractors under State Park's direction, but would be fully funded by Caltrans. (See Exhibits 8 and 9)

As noted above, environmentally sensitive habitat for two sensitive species will be unavoidably impacted by the proposed project: the purple martin and the California red

tree vole (Exhibit 6). The impacts to these species would be mitigated to the extent possible through the installation of temporary nesting features and through verified final plans that show equivalent features to offer nesting habitat on the new bridge, the planting of Douglas fir seedlings at a 30:1 ratio utilizing on-site areas where consistent with the restoration of the habitat mosaic now present in the Greenwood Creek corridor, and by planting additional trees at the State Parks mitigation site if more space is necessary to ensure that the spacing would allow the seedlings to reach maturity without overcrowding. Even with these mitigation measures, however, the project would not be consistent with the requirements of Coastal Act Section 30240 (environmentally sensitive habitat). Denial of the project to avoid these impacts would result in the eventual failure of the aging bridge, posing a hazard to travelers and significantly impairing public access to the coastal recreational opportunities of the Mendocino coast.

For these reasons, staff believes that the proposed project presents a true conflict between Sections 30240 and the Coastal Act sections that are protective of public coastal access and coastal recreation. Staff also believes that it is appropriate for the Commission to invoke the conflict resolution policies of Section 30007.5 of the Coastal Act. Staff believes that the impacts on coastal resources from not constructing the project would be more significant than the project's environmentally sensitive habitat impacts and would be inconsistent with the mandates of the Coastal Act to protect public coastal access and recreation. In addition, staff recommends measures set forth in the Special Conditions below to ensure that purple martin and red tree vole impacts are mitigated to the extent feasible. Staff believes that as conditioned, the proposed project is consistent with all applicable policies of Chapter 3 of the Coastal Act.

1.0 STAFF RECOMMENDATION

Motion: *I move that the Commission **approve** Coastal Development Permit No. 1-09-027 subject to conditions set forth in the staff recommendation specified below*.

Recommendation**:** Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of the majority of the Commissioners present.

Resolution to Approve Permit:

The Commission hereby **approves** a Coastal Development Permit for the proposed project, subject to the conditions specified below, on the grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or

alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgement:** This permit is not valid until a copy of the permit is signed by the Permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration:** Construction activities for the proposed project must be initiated within two years of issuance of this permit. This permit will expire two years from the date on which the Commission approved the proposed project if development has not begun.

3. **Interpretation:** Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission (hereinafter, "Executive Director") or the Commission.

4. **Assignment:** The permit may be assigned to any qualified person, provided the assignee files with the Commission the affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land:** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3.0 SPECIAL CONDITIONS

1. FINAL STATE & FEDERAL AUTHORIZATIONS; RESPONSIBILITY.

A. PRIOR TO ISSUANCE OF CDP 1-09-027, Caltrans shall submit evidence to the satisfaction of the Executive Director (including copies of the pertinent final documents) that final approvals or authorizations of all state and federal agencies with review authority over the subject project have been received by Caltrans. Caltrans may, however, submit evidence of final authorization from the Army Corps of Engineers prior to commencement of construction, after CDP 1-09-027 has been issued. The applicant shall inform the Executive Director of any changes to the project required by any state or federal agency at any time during the life of the project. No changes shall be incorporated into the project unless the applicant obtains a coastal development permit

amendment unless the Executive Director determines no amendment is legally required.

B. Responsibility**:** This permit authorization requires, and by accepting the benefits of CDP 1-09-027, Caltrans agrees to and accepts the following:

1) Caltrans shall ensure that the relevant bidding documents and eventual contract and construction oversight by Caltrans include: a) sufficient and accurate provisions for Caltrans to ensure the obligation of the winning bidder to comply with all of the conditions of CDP 1-09-027 and to construct the project in accordance with the approved project description, including all measures protective of coastal resources imposed by all state and federal agencies with review authority over the subject project; and b) the specific legal requirement that the contractor and any employees, subcontractors, agents, or other representatives of the contractor or contractors who are responsible for constructing any portion of the project, shall undertake all related activities in full compliance with the project approved pursuant to CDP 1-09-027, including all terms and conditions imposed by the Commission in approving the permit, and the requirements of other state and federal agencies.

2) It shall be Caltrans' responsibility to ensure that the bidding documents contain general and special provisions necessary to fully and accurately incorporate all requirements imposed by the Commission or other state or federal agencies with regulatory authority over the project, including timelines for review of documents and other potentially limiting measures that may affect construction scheduling and the timing of construction. Further, before awarding the project contract, Caltrans shall verify that the apparent winning bid is adequate to ensure that the contractor has taken into consideration and provided for the full cost of compliance with the requirements set forth herein.

3) After the contract is awarded, Caltrans shall ensure that the contractor(s), subcontractor(s), and other parties selected by Caltrans or otherwise designated to implement any portion of the project approved pursuant to CDP No. 1-09-027, are fully informed of, and continuously comply with, the obligations set forth in the findings and special conditions adopted and imposed by the Coastal Commission in approving CDP No. 1-09-027. Nothing in these provisions shall prevent the Commission from taking enforcement action against the contractor or subcontractor(s) for non-compliance with the terms and conditions of CDP 1-09-027, either individually or in addition to enforcement action against Caltrans in any instance of non-compliance.

4) All activities associated with performing the development authorized pursuant to CDP 1-09-027 shall at all times be undertaken in full accordance with the terms and conditions imposed by the Commission in conditionally approving CDP 1-09-027. It shall be Caltrans' responsibility to ensure such compliance by any party to whom Caltrans assigns the right to construct or undertake any part of the activities authorized herein; this requirement does not relieve other parties of responsibility for compliance

with the permit or immunize such parties from enforcement action by the Coastal Commission's enforcement program.

5) Caltrans shall ensure that any contractor, subcontractor, or other representative of Caltrans, and Caltrans employees, understand and accept the terms and conditions of CDP 1-09-027 and all other applicable permits and authorizations imposed or granted by other state and federal agencies, and shall submit evidence to the satisfaction of the Executive Director, prior to commencement of construction by any selected contractor, that all of the above-referenced parties have received and reviewed the applicable permits, agreements, and authorizations and understand and agree to comply with the requirements set forth therein.

2. CONSTRUCTION RESPONSIBILITIES.

A. This permit authorization requires, and by accepting the benefits of CDP 1-09-027 Caltrans agrees to and accepts the following:

1) No construction materials, debris, graded soils, waste, concrete washout residues, chemicals, fuels, drilling muds or additives thereto, or non-compliant dewatering effluent (effluent with turbidity, pH, or other water quality measure that does not comply with the requirements of the Regional Water Quality Control Board or other state or federal agencies), or any other substance or material capable of degrading coastal waters, shall be stored, placed, or discharged within the Greenwood Creek Corridor or within the corridor of any stream, seep, or tributary thereto whether flowing or intermittent, or adjacent riparian or other sensitive habitat areas, or other areas where such releases may reach Greenwood Creek, or nearby tributaries and other coastal waters, whether directly or indirectly, unless specifically and affirmatively authorized by CDP 1-09-027 including by reference in these special conditions; and

2) No machinery shall be allowed at any time within the wetted channel of Greenwood Creek Bridge or other surface waters or wetlands/seeps, except as may be specifically authorized in the temporary stream crossing plan required herein and through other provisions of CDP 1-09-027; and

3) No work within 30 feet of the top of the bank of any stream channel shall be undertaken outside of the June 1 through October 15 work window, annually, except as may be specifically authorized by the Executive Director in accordance with the applicable special conditions set forth in this permit, such as for limited vegetation removal for site preparation before the onset of nesting season in a specific year; and

4) Vehicles, equipment and materials allowed on the gravel bars in the river channel during the authorized annual low water flow construction season of July 10 through October 15, annually, shall be limited to the minimum necessary to perform essential project activities. If the Caltrans site supervisor determines that this requirement is not

being met, the supervisor shall direct that the excess be immediately re-located outside of the river channel. No vehicles, equipment or materials, except as specifically authorized in the annual river access plan, shall be allowed within the ambulatory wetted channel of the river. Fueling on the dry gravel bars of the channel shall be subject to all BMPs and over-water fueling procedures that set the highest possible standards for fuel containment and spill response readiness, and shall be limited to major tracked vehicles such as cranes that cannot feasibly be relocated outside of the corridor for fueling, with full containment of any potential fuel spill in place prior to commencement of any re-fueling operation, and verified by the biological monitor. Other fueling requirements shall be as further specified in Subparagraph 10, below. All hydraulic fuels used within the river corridor shall be vegetable-based. Generators and other potential sources of fuel or oil spills shall be fully contained to prevent spills or leakage onto the gravel bar and shall be inspected at least twice per day for evidence of leaks or spills. No fuels shall be stored closer to the channel than the area defined as a minimum of one hundred (100) feet landward of the top-of-bank of the Greenwood Creek, and all fuels, oils or other potential contaminants shall be stored within areas protected by berms and other containment structures sufficient to contain the maximum spill that could occur within the bermed area and authorized for such placement, and in a manner that prevents spills or leaks from reaching the river corridor. The adequacy of such containment and preventative structures shall be determined by the Caltrans supervisor in consultation with Caltrans' water quality specialists and the biological monitor. Any leaks or spills anywhere on the subject site shall be cleaned up immediately and noted in the SWPPP reports and pertinent biological monitoring reports retained by Caltrans as part of the permanent files. Caltrans shall ensure that the biological monitor reviews and verifies the contractor's self-monitoring SWPPP reports during the contractor's site review and report preparation, notes the results of such review in the monitoring logs, and that copies of the SWPPP reports are provided with the monitor's logs, or, during the season or activities when biological monitoring is not required daily, the Supervising Engineer shall ensure that a qualified member of Caltrans staff with water quality assurance expertise shall perform the SWPPP report review in a similar manner on a weekly or monthly basis and shall confirm each report's accuracy and provide a copy of the verified SWPPP report to the Executive Director within 24 hours of the review of each such report; and

5) Staging and storage areas for construction machinery, materials, equipment, fuel, or any other material, or storage of debris or graded material, shall be field marked in a manner that shall remain in place for the duration of the job (or be relocated under the supervision of the biological monitor as needed) and the biological monitor shall verify in the field that such authorized locations are not sited within sensitive habitat areas or within the pertinent setbacks from top of bank (except as specifically provided in these special conditions), and that the perimeters of sensitive habitat areas near authorized construction activities, but not authorized for trimming or clearance, shall be adequately identified and marked in the field prior to commencement of construction and re-identified as often as needed thereafter to continuously maintain the identification and protection of sensitive habitat areas during construction; and

6) Demolition of the existing bridge or roadbed shall not be undertaken through the use of explosives, and no portion of the existing bridge or roadbed may be removed in a manner that allows debris to fall into any area of the stream channel (from top of bank to top of bank) of Greenwood Creek or other watercourses, streams, and seeps within the project area, whether or not surface water is present in the subject locations at the time of demolition. Construction debris shall be captured by rigging methods undertaken from the top of the bridge deck or by crane, and the resultant debris shall be removed without relying on dropping the material to the ground for collection. Visible amounts of concrete dust and small rubble shall not be released into the air or water during construction and dust suppression measures shall be implemented. Dust control via water spray shall be implemented cautiously and monitored by the biological monitor, and all measures necessary to ensure that excessive water contaminated by concrete dust does not drain into the banks, channel, or waters within the project area. All demolition debris shall be recycled, and concrete debris shall be recycled at a licensed facility qualified to accept such wastes, and shall be reduced to constituents necessary to produce new wet concrete product rather than resold in a manner that could allow the subject debris to be used as fill. Caltrans shall require the subject contractor to provide evidence that the demolition debris has been properly processed in this manner and shall provide written evidence of such disposal to the satisfaction of the Executive Director within thirty (30) days after completion of demolition activities in each year that demolition is undertaken during the life of the project. If feasible without adding a fourth year of project construction within the stream corridor, demolition activities shall be undertaken after the end of bridge-nesting season for migratory birds and before the onset of rainy season (September 1 – October 15) in the year or years that such demolition activities are scheduled; where this would add another year of construction to the project schedule or otherwise substantially delay the project as demonstrated to the satisfaction of the Executive Director, netting of the bridge prior to the onset of the nesting season, annually, may be undertaken under the direction of the biological monitor, after the monitor verifies that alternative nesting facilities have been placed in the nearest location to the subject bridge that is likely to offer a viable alternative nesting site for the purple martins. In addition, not less than five (5) days prior to active demolition activities, the Caltrans biological monitor shall inspect the bridge areas that would be affected to verify that no nesting birds or roosting migratory bats are present, and the results of this inspection shall be logged into the biological monitoring notes and reports. Demolition shall not commence if nesting birds or roosting bats are present unless a rescue/removal plan authorized by the Executive Director has been implemented; and

7) All debris, materials, equipment, vehicles, staging and storage features, concrete washout areas, de-watering facilities, the bermed fueling/fuel storage location, and any other material or temporary feature associated with project construction shall be removed immediately after project completion and the affected areas returned to pre-construction conditions and restored in accordance with other special conditions set forth herein; and

8) All waste material, including demolition debris as noted in subparagraph 6 above, or excess graded material generated by demolition or construction, shall be removed from the construction site and disposed of at a facility that is: a) located outside of the Coastal Zone, with necessary permits and approvals to accept the material for disposal or recycling, or b) inside the Coastal Zone at a facility demonstrated by Caltrans to the satisfaction of the Executive Director to have all necessary permits and approvals, including a coastal development permit where applicable, for such use. The location and volume of project wastes so disposed shall be documented by the resident engineer and verified in monitoring reports submitted to the Executive Director. The disposal records shall additionally be retained by Caltrans as part of the permanent project files and such project files shall promptly be made available at the request of any state or federal agency with review authority over the subject project; and

9) All lead-contaminated soils that will be disturbed within the project area shall be excavated, managed, and disposed of in a manner that is authorized by and compliant with the requirements of the California Department of Toxic Substances Control as being protective of coastal waters and resources, and the Caltrans resident engineer shall note the manner in which such compliance is achieved and such records shall additionally be retained by Caltrans as part of the permanent project files. The permanent project files shall be made available at the request of any state or federal agency with review authority over the subject project; and

10) Fueling, except for large tracked equipment such as cranes that cannot be feasibly relocated for each re-fueling, shall take place in a single designated offsite area that is bermed and otherwise set up to fully contain any potential spill without release outside of the designated area, and the designated area shall be continuously equipped with all materials necessary to control and cleanup any spill that may occur. The integrity of the containment berm and the readiness of control and cleanup materials and equipment shall be periodically verified by the Caltrans resident engineer/supervisor and noted in the permanent project records and additionally verified by the biological monitor and noted in the monitoring reports. The designated fueling/fuel storage area may not be located closer to the Greenwood Creek corridor, or the corridor of any other streamcourse or seep, than a minimum of 100 feet landward from the top of bank. Only equipment that cannot be readily relocated to the designated offsite fueling location (such as cranes, large tracked vehicles) may be fueled in other areas of the site and these shall be re-fueled only by a California Department of Fish and Game-certified over-water re-fueler, in a manner authorized in accordance with all requirements of the Department of Fish and Game and the Regional Water Quality Control Board, including but not limited to the requirement that such re-fueling be undertaken by a minimum of two crew members certified for such operations, with one on standby to shut off the flow of fuel and the other at the delivery point, in constant communication with each other, with full deployment of absorbent pads with sufficient capacity to absorb the maximum amount of fuel that could escape from the fueling hose before shutoff occurs in the event of equipment failure. No fueling of any kind may take

place anywhere on site except during daylight hours and when visibility is sufficient for the re-fueling crew to maintain visual contact; and

11) Sufficient oil absorbent booms and/or pads shall be on site at all times during project construction to ensure an immediate, effective response to any spill that may reach coastal waters or sensitive habitat areas. Site personnel shall be verified as fully trained to deploy such equipment and the presence of the booms/pads/equipment and the adequacy of personnel training shall be periodically verified by the Caltrans site supervisor and noted in the permanent project records retained by Caltrans. All equipment used during construction shall be free of oil and fuel leaks at all times, and where parked or operated within or over the river channel from top of bank to top of bank, oil pans or other containment materials or devices shall be continuously placed beneath such equipment to ensure that leaks that do arise will not enter the river environment. Vehicles or machinery cleared to enter the wetted channel, such as for construction of temporary crossings, shall be fully steam-cleaned, including the undercarriage, and inspected and verified to be free of leaks by the Caltrans site supervisor or designated representative before the subject vehicles or machinery are allowed to enter the wetted channel. No vehicles or machinery shall enter the wetted channel at any time unless under the constant supervision of the monitoring fisheries biologist and the Caltrans site supervisor; and

12) Cement/concrete shall be prepared and poured or placed in a manner that will prevent discharges of wet cement, or waters that have been in contact with cement/concrete, into coastal waters. Such measures include but are not limited to placement of measures such as catch basins, mats or tarps beneath the construction area to prevent spills or overpours from entering coastal waters, and use of Baker Tanks to collect, treat and test potentially contaminated de-watering effluent. De-watering of effluent that has been in contact with cement/concrete or other potential contaminants shall not be de-watered into coffer dams or sediment basins within the project area, and shall be fully captured and taken to a licensed disposal facility offsite. Disposal of such effluent shall be documented by the Caltrans resident engineer and noted by the biological monitor in the monitoring reports to be retained by Caltrans as part of the permanent files; and

13) Rinsate from the cleaning of equipment, including cement mixing equipment, shall be contained and handled only in upland areas where drainage to coastal waters is fully prevented and otherwise outside of any environmentally sensitive habitat area or wetland or buffers thereto as generally depicted on Exhibits 6 and 7. No concrete washout areas shall be authorized except as specifically shown in final pre-construction staging plans submitted for the review and approval of the Executive Director not less than ninety (90) days prior to commencement of construction, and such facilities shall in no case be located above, or upgradient of, coastal waters; and

14) Reporting protocols and contact information for the appropriate public and emergency services/agencies in the event of a spill shall be prominently posted on site at all times; and

15) All forms that may be utilized for wet concrete/cement pours shall be grout-sealed, or the equivalent to prevent release of concrete/cement, and the grout shall be allowed to cure adequately and be water-tested under the supervision of the fisheries or general biological monitor and the resident engineer to ensure complete seal before any wet concrete/cement or other chemical treatments may be applied to the forms. No placement/pour of concrete/cement within or above the river channel from top of bank to top of bank, including within de-watered coffer dams, shall occur unless the biological monitor is present; and

16) No vegetation removal, including clearing, grubbing, limbing, trimming, or other disturbance of existing vegetation may occur between March 1 and August 31 of any year of construction unless a qualified biologist provides a survey undertaken to the satisfaction of the Executive Director not less than ten (10) days prior to proposed commencement of such activities, demonstrating conclusively that no birds are nesting in the area that would be affected, and the results of the survey have been provided to the Executive Director's satisfaction not less than five (5) days prior to proposed commencement of such activities, and the vegetation removal has additionally been authorized by a California Department of Fish and Game biologist familiar with the bird species likely to nest in the subject area; and

17) Exclusionary netting against bird nesting shall not be used unless installed prior to March 1 but not earlier than February 1 of any pertinent year in which exclusion of nesting birds is required, under the immediate supervision of the Caltrans biological monitor in accordance with the requirements of these special conditions. Bridge netting that is installed, shall be removed at the end of the nesting season and disposed. New netting without tears or holes shall be required for each subsequent installation. The biological monitor shall inspect the netting prior to installation to ensure that it is of the kind, and size necessary to exclude bridge nesting species with no risk of trapping birds. The biological monitor shall inspect the bridge netting daily between March 15 and August 31 every year of construction, or until the nets are removed, if the nets are removed at an earlier date, to ensure that the nets are fully secured and have not trapped birds. If trapped birds are observed, project activities shall be interrupted for as long as necessary to allow the biological monitor and others under her supervision to rescue and release net-trapped birds of any species. The biological monitor shall also ensure that the openings that have allowed any birds into the netted areas are secured against repeat occurrences. The biological monitor shall log all daily observations, inspections, and interventions to release trapped birds, noting the number and species of birds affected by the nets. These logs shall be included in the monitoring reports and shall be included in the permanent project files retained by Caltrans. The biological monitor shall ensure that the netting is fully removed not later than August 31 of any

year, or within three (3) days after cessation of any annual construction activities that require the exclusion of nesting birds, whichever occurs first; and

18) Placement of temporary Rock Slope Protection and other slope stabilization measures prior to October 15 may be authorized annually by the Executive Director if no more effective method of erosion control is available. The preferred method of erosion control shall be the anchored placement of geotextiles and mulch provided these would be stable and would not contribute to discharge into the river waters during the rainy season. If RSP is used, the RSP must be placed, removed, and stored annually in compliance with the other provisions of CDP 1-09-027 and must be finally removed and disposed of in accordance with the waste disposal provisions of this Special Condition, prior to October 15 of the final year of construction. No new RSP may be placed permanently within the bed and banks, from top-of- bank to top -of -bank of the river channel, except as specifically shown on the proposed project plans for the areas of the new bridge abutments that are located above the 100-year flood plain. No permanent placement of RSP below the limits of the 100-year flood plain is authorized by CDP 1-09-027; and

19) No night work is authorized in this permit except between August 31 – October 15, inclusive, annually, if the Caltrans resident engineer in charge of the project determines that night work is necessary to maintain the proposed construction schedule. Night work shall not be authorized if the purpose of the work is to accelerate the project schedule. Work within the project area shall otherwise be limited to one hour after sunrise through one hour before sunset. To the extent that night lighting is authorized by these provisions, no artificial lighting within the project area that could illuminate habitat within the stream channel beyond the area necessary for a safe work area shall be allowed, and no lighting shall be directed into the surrounding wooded areas or canyons or toward the Greenwood Beach State Park. The Executive Director may authorize specific, limited extensions to the six-week night lighting window upon a showing of good cause to the Executive Director's satisfaction and in consultation with the biologists of pertinent resource agencies if it can be shown that such exception would significantly correct the project construction schedule if the schedule has fallen significantly behind, and that no nesting migratory birds would be adversely affected. Such an exception is limited to a period of not more than two consecutive weeks immediately before or after the night work window otherwise applicable; and

20) All project activities shall be undertaken at all times in full compliance with these requirements. Any proposed project changes or procedures that are not consistent with these requirements shall require an amendment to CDP 1-09-027 to become effective, unless the Executive Director determines that no amendment is legally required.

3. TEMPORARY BRIDGE CROSSING PLAN

A. Prior to commencement of construction, but in not less than ninety (90) days prior to Caltrans' proposed commencement of work to install the subject temporary bridge crossing of Greenwood Creek, Caltrans shall submit a Temporary Bridge Crossing Plan (TBCP) for the review and approval of the Executive Director. Work requiring the use of such temporary bridge crossing shall not commence until Caltrans provides a revised copy of the TBCP incorporating any changes required by the Executive Director subject to the Executive Director's final review and approval. Caltrans shall additionally provide copies of the TBCP to any requesting agency, state department, or local government requesting a review copy at the same time the TBCP is submitted to the Executive Director. The TBCP shall include at a minimum:

1) a complete set of to-scale construction plans, including elevations and site plan views of the proposed temporary crossing bridge, including the bridge support structures; and
2) detailed construction/installation plan for the bridge installation, including schedule that limits installation and removal of the temporary bridge to the season from June 1 through October 15 of any pertinent year;
3) a vegetation impact survey prepared by a qualified Caltrans botanist based on the proposed TBCP and conducted not more than thirty (30) days prior to submittal of the TBCP for Executive Director approval, showing the location and limits of all vegetation that will be affected, including the extent and duration of such impacts and verification that the identified impacts are within the footprint of the approved project limits; and
4) a complete proposal for the final removal and disposal of the temporary crossing, including timing, any restorative grading or channel contouring necessary to return the site to pre-construction condition under the supervision of the Caltrans supervisor and biologists, and plans for revegetation of any disturbed areas (or evidence from the Caltrans botanist that the affected area has been fully considered and included in the approved site restoration plans).

B. The Plan shall specify the kinds of equipment that would be authorized to install the temporary bridge crossing, and the maximum number of stream crossings necessary to install the temporary bridge crossing. The Plan shall include provisions to require the inspection of equipment that may enter the waters of Greenwood Creek during installation of the crossing to ensure that no fuel leaks are present and that the undercarriage of such equipment has been steam cleaned prior to use. The Plan shall provide Best Management Practices (BMPs) specifically designed for implementation during the installation of the bridged crossing to ensure that the release of sediment downstream of the immediate construction area is prevented or at a minimum fully contained.

C. No impact-driven piles shall be installed to support the bridged crossing (pile-driving is not authorized for any portion of the Greenwood Creek Bridge construction proposal, including the installation of the temporary bridge crossing, nor is pile-driving by impact hammer authorized for "proofing" the adequacy of the "set" of piles installed by vibratory hammer).

D. No fuel, hydraulic oil, or other chemicals, materials, or wastes shall be placed or stored on the temporary bridge crossing.

E. If requested, Caltrans shall stake the proposed location and limits of the proposed crossing in the field for the purpose of the Executive Director's review of the proposed TBCP, and the stakes shall remain in place until post-installation monitoring has been undertaken to the satisfaction of the Executive Director.

F. If Caltrans determines that the temporary bridge crossing must be installed and removed annually during project construction, Caltrans shall, at the Executive Director's discretion, submit an annual installation and crossing plan not less than sixty (60) days prior to the onset of the pending construction season requiring the use of the crossing, subject to the Executive Director's review and approval before the annual installation and use of such crossing may commence, each year after the first TBCP is implemented.

G. The temporary bridge crossing shall be installed on the west side of the existing bridge, within the limits of project disturbance that have been authorized by CDP 1-09-027 and shall not expand the limits of authorized site disturbance, require clearance of additional vegetation, or call for the removal or encroachment into the root zones of any additional trees. The temporary bridge crossing of Greenwood Creek shall not be installed on the eastward side of the existing bridge.

H. The temporary bridge crossing shall be installed, operated, and removed in full accordance with the TBCP(s) approved by the Executive Director. Any proposed changes to the approved TBCP that are inconsistent with the requirements set forth herein shall require an amendment of CDP 1-09-027 unless the Executive Director determines that no amendment is legally required.

4. FINAL EROSION CONTROL and REVEGETATION PLAN

The applicant shall undertake all final landscaping and erosion control measures in accordance with the plan titled "Greenwood Creek Bridge Replacement Erosion Control and Revegetation Plan," prepared by Caltrans North Region Office of Landscape Architecture, dated April 27, 2009, and as supplemented by the site-specific planting plan dated August 17, 2009.

A) In addition, the following requirements shall apply:

1) The boundaries of the adjacent State Department of Parks and Recreation property shall be clearly identified on the Landscape Plan, and the boundaries of these lands shall be staked, flagged and clearly labeled in the field, prior to commencement of construction, and maintained during the construction of the subject project, to the satisfaction of the California State Parks and Recreation Department staff. A copy of the final approved Plan shall be provided to the California State Parks and Recreation Department and a copy of the Plan shall be maintained on the site at all times during construction activities; and

2) The planting of at least 60 Douglas fir seedlings proposed by Caltrans to mitigate the project's adverse impacts on California red tree vole habitat shall be installed east of the proposed new bridge and where there is sufficient space for the seedlings to reach maturity, in proximity to the other red tree vole habitat identified in that area, and where such plantings would not limit the restoration of the complex mosaic of vegetation communities documented in the project area. The seedlings shall not be installed on the west side of the proposed bridge where coastal views of travelers on the bridge would eventually be blocked by the trees. If there is insufficient area within the disturbed area east of the bridge to accommodate the seedlings without limiting the plantings of other plant communities representing a similar pattern of native species presence and abundance in the mosaic of plant communities documented as present prior to construction, Caltrans shall ensure that the supplemental Douglas fir plantings are installed on the off-site wetlands mitigation site at Big River Unit under the supervision of State Parks, in an area appropriate to establish or enhance habitat for the California red tree vole. Caltrans shall include provisions to ensure that the seedlings are monitored and re-planted as necessary until all sixty (or more) seedlings are at least ten (10) years old and no longer required exclosure fencing or any supplemental water or care. All planted seedlings shall be given a unique identifying number and shall be shown on a supplemental map provided to the satisfaction of the Executive Director not less than sixty (60) days after Commission approval of CDP 1-09-027. Caltrans shall report to the Executive Director annually on the progress of the seedling establishment and/or adaptive management measures undertaken by Caltrans or State Parks.

3) Within sixty (60) days after Commission approval of CDP 1-09-027, Caltrans shall submit a detailed, supplemental revegetation and planting plan and map prepared by a qualified botanist with experience in site restoration and the local flora showing how the pre-construction mosaic of native plant communities will be re-established by the plan. The plan shall include measurable ecological goals, invasive plant control measures, and an implementation and reporting schedule. The plan shall show how the proposed Douglas fir plantings will be incorporated within the long-term habitat mosaic. The preparing botanist shall be identified in the plan, and the plan shall be submitted to the supervising State Parks biologist for Greenwood Creek Beach State Park and to the Executive Director for review and approval in consultation with State Parks staff.

4) All revegetation activities, including planting, monitoring, adaptive management, and reporting, shall be undertaken or directly supervised by a qualified botanist familiar with the flora of Mendocino County.

5) Caltrans shall, during the three-year construction period, annually remove all invasive non-native plant species from the right-of-way area surrounding and including the entire project area that is subject to the development authorized by CDP 1-09-027, with particular attention to the eradication of pampas grass. Caltrans shall thereafter remove invasive species within the revegetation area quarterly during the first two years of revegetation, and annually thereafter until the revegetation goals have been achieved to the satisfaction of the Executive Director.

6) All plantings shall be maintained in good condition for the life of the development approved by CDP 1-09-027, and shall be watered, weeded, replaced, and otherwise maintained by Caltrans as necessary to achieve and maintain this standard. It shall be the responsibility of Caltrans to repair and remediate any erosion that occurs in any area disturbed during the construction or operation of the development approved by CDP 1-09-027 for the life of the approved project.

B) Temporary Erosion Control Measures:

Should an unscheduled interruption in the construction schedule arise and be expected to last more than thirty (30) days, Caltrans shall ensure that all Best Management Practices to prevent the erosion of disturbed areas of the subject site shall be implemented and maintained as necessary until construction resumes. If an extended delay arises, and construction will be delayed for more than six (6) months, Caltrans shall immediately submit a complete application for an amendment to CDP 1-09-027 for the purpose of identifying interim or permanent restoration measures necessary to protect coastal resources, including water quality, in and adjacent to the subject site.

C) Monitoring and Reporting; Final Compliance Determination.

The applicant shall submit annual monitoring reports and photographs documenting the progress of revegetation of the site in accordance with the approved plan. The applicant's obligations for achieving final landscaping and revegetation success criteria shall continue until the Executive Director determines that final compliance requirements have been satisfied.

D) Development in Conformance With Approved Plans

The applicant shall undertake development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the approved plans shall occur without a Coastal Commission -

approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

5. PROTECTION OF FUTURE PUBLIC ACCESS.

A. By acceptance of Commission approval of CDP 1-09-027, Caltrans acknowledges and agrees that continued public access for bicyclists and pedestrians to the paved shoulder and bridge crossing provided within the bounds of the portion of the Highway One right-of-way subject to this coastal development permit shall be provided by Caltrans upon completion of construction of the bridge. No signage shall be installed within the bounds of the project approved pursuant to CDP 1-09-027 that would restrict pedestrians or bicyclists from the use of these transportation facilities. Any proposed change to these access amenities shall require an amendment to CDP 1-09-027 and such amendment shall not be accepted for processing unless accompanied by a proposal to provide equivalent or superior access alternatives within the same corridor.

B. PRIOR OF ISSUANCE OF CDP 1-09-027, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of subsection A.

6. WETLAND MITIGATION.

PRIOR TO ISSUANCE OF CDP 1-09-027:

A. An authorized representative of Caltrans and State Parks shall submit for the review and approval of the Executive Director a written agreement, in a form and content acceptable to the Executive Director, evidencing both Caltrans' and State Park's agreement to be bound by the terms of a Memorandum of Understanding (MOU) executed by State Parks and Caltrans, including a copy of the proposed MOU, which incorporates all of the requirements of the wetland mitigation program required by CDP 1-09-027, including the requirements of this special condition. In addition the agreement between Caltrans and State Parks shall demonstrate that it contains adequate provisions to ensure the implementation of the wetland mitigation program required by CDP 1-09-027, including the requirements of Special Condition 6 below.

1) A wetland mitigation fee consistent with the requirements of subsection C below, The subject wetland mitigation fee must be deposited in a separate and independent interest bearing account created solely to provide for the management and disbursal of the funds for the assigned purpose;

2) State Parks shall provide a report to the Executive Director annually describing the financial status of the fund and all expenditures from the fund during the year, as well as a summary of progress toward the completion of the overall mitigation project goals;

3) The Agreement shall include provisions to address failure by State Parks to implement the Agreement, including but not limited to Caltrans' and State Park's obligations to transfer the funds to an alternate entity able to implement the Agreement, subject to the authorization of the Executive Director, or, if approved by an amendment to this coastal development permit, to apply the nonrefundable funds to alternative wetland mitigation. The Agreement shall also include the requirement that upon request of the Executive Director, Caltrans shall submit a complete application for an amendment of CDP 1-09-027 for the purpose of authorizing such alternative wetland mitigation and/or State Parks shall transfer the funds to an Alternate Entity approved by the Executive Director that is able to implement the wetland mitigation requirements of CDP 1-09-027 or any amendment thereto.

B. Caltrans shall submit a revised wetland mitigation plan prepared in consultation with the biologists of the California Department of Parks and Recreation, for the review and approval of the Executive Director. The revised plan shall provide a site-specific wetland mitigation plan that will be funded by Caltrans and implemented by State Parks, based on the draft wetland mitigation plan titled "Conceptual Mitigation Plan, Greenwood Creek Bridge Replacement Study" dated May, 2009, prepared by URS Corporation, Oakland, California. The offsite wetland mitigation will be performed at the Mendocino Headlands State Park (Big River Unit). The compensatory wetland mitigation at the Big River Unit shall be designed to mitigate the wetland impacts caused by the construction of the development authorized by CDP 1-09-027 to the Executive Director's satisfaction, creating or restoring wetland acreage and enhancing existing wetland habitat at an overall minimum 4:1 ratio of mitigation to impact, of which, at least 0.17 acres of new wetland area shall be provided through creation of a new wetland habitat or restoration of former wetland habitat.

C. PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT AUTHORIZED BY CDP 1-09-027, Caltrans shall provide to State Parks, through a financial instrument subject to the review and approval of the Executive Director, a non-refundable mitigation fee in the amount deemed necessary by State Parks to successfully undertake and complete the final mitigation plan approved by the Executive Director pursuant to the provisions of this Special Condition. In addition, Caltrans shall provide evidence to the satisfaction of the Executive Director that an additional amount equal to not less than twenty percent (20%) of the mitigation fee paid to State Parks shall be held in a reserve account by Caltrans for the purpose of ensuring that adequate funds are available for adaptive management and further monitoring that may be necessary to address unforeseen problems in meeting the milestones and goals of either the on-- or off-site restoration components necessary to comply with the terms of the special conditions set forth herein. The funds shall be reserved until the Executive Director notifies Caltrans in writing that the wetland mitigation requirement has been fully satisfied. The term for this review shall be not less than five (5) years, but may be

longer if adaptive management and further monitoring are required. The Executive Director shall determine when the final success criteria have been achieved.

D. Amendment. Caltrans shall undertake development in accordance with the approved final plan and with all approved terms and conditions of CDP 1-09-027. Any proposed changes to the approved final plan or the approved terms and conditions of CDP 1-09-027 shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

7. ASSUMPTION OF RISK.

A. By acceptance of Commission approval of CDP 1-09-027, Caltrans acknowledges and agrees: (i) that the site of the proposed Greenwood Creek Bridge replacement and associated roadway improvements may be subject to hazards from seismic events, tsunamis, liquefaction, storms, floods and erosion; (ii) to assume the risks to employees and assigns of Caltrans, including contractors and subcontractors and their officers, agents, and employees, and to the public utilizing the proposed project during and after construction, and to the property that is the subject of this permit of injury and/or damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense against such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

B. PRIOR TO ISSUANCE OF CDP 1-09-027, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of Subsection A.

8. WATER QUALITY PROTECTION.

A. Not less than (90) ninety days prior to commencement of construction covered by the subject Storm Water Pollution Prevention Plan (SWPPP) that shall be prepared subsequent to Commission approval of CDP 1-09-027 by the construction contractor eventually selected by Caltrans, the SWPPP shall be submitted for the review and approval of the Executive Director, in consultation with Caltrans environmental engineering/water quality protection staff. The SWPPP shall provide adequate measures to prevent contamination of the waters of Greenwood Creek and other watercourses that may be affected by the proposed construction activities authorized by CDP 1-09-027. If the Executive Director determines that the SWPPP is not adequate for this purpose, project activities other than those specifically authorized by

Subparagraph A above shall not commence until all changes required by the Executive Director have been made and published in a revised SWPPP to the satisfaction of the Executive Director.

B. It shall be Caltrans' responsibility and the responsibility of the pertinent contractor to ensure that the draft SWPPP is prepared and submitted on a pre-construction timeline that allows for the review of the SWPPP required by subsection A above, which could require at least ninety (90) days, or longer if substantial changes to the draft SWPPP are necessary. The Executive Director may request copies of any SWPPP reporting documents prepared during project construction.

C. Upon request by Caltrans, the Executive Director may separately review a limited water quality protection plan prepared by Caltrans for site preparation activities that may be deemed necessary to implement the construction schedule prior to selecting a contractor. This review shall be undertaken at the discretion of the Executive Director and shall apply only to the minimum vegetation removal necessary to undertake site preparation in the year that construction is scheduled to commence, consistent with all applicable work windows and other limitations. The plan shall include all measures necessary to protect coastal water quality and restrict site disturbance to the minimum necessary, and shall be consistent with the applicable requirements of other state and federal agencies with review authority over the project. Caltrans shall provide all information deemed necessary by the Executive Director to complete this review.

D. Caltrans shall undertake development in accordance with the approved final plans. Any proposed changes to the approved final SWPPP shall be reported to the Executive Director. No changes to the approved final SWPPP shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

9. BIOLOGICAL MONITORING

In accepting the Commission's authorization of CDP 1-09-027, Caltrans accepts responsibility for ensuring compliance with all terms and conditions imposed by the Commission. Not less than ninety (90) days prior to commencement of construction, Caltrans shall provide for the review and approval of the Executive Director, a Biological Monitoring Plan that includes at a minimum the following requirements and provisions:

A. Monitoring:

Caltrans shall provide qualified biological monitoring staff to observe and report on the compliance of the subject construction activities that are undertaken within, above, or that may drain into the Greenwood Creek channel or be undertaken within fifty (50) feet from the top-of-bank of the pertinent stream channel(s) within the project limits, or affect either other watercourses within the project limits or the sensitive habitat areas within the project limits generally depicted on Exhibits 6 and 7. The monitor shall be on site

daily between March 1 and August 31, at least weekly through October 15, annually, and as otherwise deemed necessary by the Executive Director to ensure compliance with the requirements of CDP 1-09-027. No demolition, pouring or placement of concrete or other substances that may spill or drain into coastal waters, de-watering activities, temporary crossing installation or other similar activities with the potential to directly affect coastal waters shall be undertaken unless a qualified biological monitor is present; and

B. Qualifications, areas of duty of monitor:

Caltrans shall ensure that a qualified biologist or botanist, depending on the specific monitoring tasks (hereinafter "monitor") with significant pertinent field experience and familiar with the identification of wetlands and other sensitive habitats or species that may occur within or adjacent to the project area, approved by the Executive Director, shall monitor project activities as set forth in CDP 1-09-027, to the satisfaction of the Executive Director. Caltrans shall consult with the Executive Director, and the Executive Director shall resolve, any questions that may arise during project construction as to whether specific project activities require the presence of the biological monitor; and

C. Education of on-site personnel:

Prior to commencement of construction, the monitor shall provide copies of, and brief all on-site personnel on, all the requirements of CDP 1-09-027, including requirements related to the protection of sensitive habitat and species, and of water quality, and shall provide additional copies and conduct additional briefings as new field personnel join the project, and as the monitor may otherwise determine to be additionally necessary, to ensure that all personnel understand and fully implement the applicable requirements of CDP 1-09-027; and

D. Reporting:

The monitor shall keep a detailed daily log and monitoring reports and shall submit copies to the Executive Director and any other local government, state department, or other agency as frequently as may be requested, and shall immediately report any suspected non-compliance with permit conditions to the Resident Engineer or other designated site supervisor, in addition to entering detailed accounts of any such incidents into both the daily log and monitoring reports to be retained by Caltrans as part of the permanent project file.

Within 24 hours following such a report, Caltrans shall report any observed or reported potential non-compliance with permit conditions or with requirements of the approved Stormwater Pollution Prevention Program Plan (SWPPP), to the Executive Director; and

E. Further Notification and Remedial Action:

The biological monitor shall also notify Caltrans' designated District 1 Environmental Unit Construction Liaison ("liaison") or the liaison's designated representative of any incident of non-compliance with the requirements of this permit or with the requirements of the approved SWPPP. In addition, if for any reason the usual Caltrans site supervisor is unavailable, Caltrans shall ensure that the liaison has the authority to order the immediate cessation of any activity identified by the liaison or the monitor as potentially non-compliant with the construction of the project as permitted, or with the special conditions of CDP 1-09-027 or the approved SWPPP. If work is stopped due to potential non-compliance, the assigned Caltrans supervisor shall not allow the project activities of concern to re-commence until the state and federal regulatory agencies (which may include: California Department of Fish and Game, California Department of Parks and Recreation, Regional Water Quality Control Board, Coastal Commission – North Coast District Office, NOAA National Marine Fisheries Service, U.S. Fish and Wildlife Service, and Army Corps of Engineers) with applicable authority have been notified and have had an opportunity to advise Caltrans of, and Caltrans has implemented, any remedial action(s) that may be necessary, and Caltrans has obtained any additional authorizations that may be deemed necessary by the Executive Director or other regulatory agencies; and

F. Monitor to verify SWPPP compliance reports:

The monitor shall evaluate for accuracy and completeness all Storm Water Prevention Plan (SWPPP) Best Management Practices compliance reports, prepared by the contractor chosen by Caltrans. When the monitor is unavailable, the Caltrans site supervisor shall perform the evaluation. The results shall be recorded in the engineer's daily records, and transmitted to the Executive Director and to any other agency requesting copies, along with a copy of the SWPPP report reviewed, with the biological monitor's reports. During periods when project construction does not require direct biological monitoring on a daily basis, the SWPPP report reviews may be undertaken instead by the Caltrans site supervisor or a designated water quality specialist from the Caltrans environmental engineering staff, and shall be submitted to the Executive Director and any other state or federal agency that requests copies, together with a copy of the completed SWPPP report, within ten (10) business days after the report's completion, or more frequently if requested; and

G. Records & Reporting:

The monitor shall keep detailed field notes of all observations, including biological and physical environmental baseline observations, and shall document in writing with supporting photographs where possible - any potential incidence of non-compliance with the provisions of CDP 1-09-027, including any instance of sediment or other discharge into the Greenwood Creek or nearby watercourses that may be affected by project activities and shall include such information in the monitoring reports submitted

to the Executive Director. The monitor shall additionally record a professional estimate of the nature and degree of adverse impact on sensitive habitat, species or water quality observed by the monitor. The site supervisor shall ensure that copies of the biological monitor's notes, logs, photographs, reports or other records prepared by the biological monitor are fully preserved and retained with the permanent Caltrans project files. The monitor shall additionally ensure and document that rainy season protective measures are fully in place before the onset of rainy season, established as commencing annually on October 15, and shall verify as often as necessary throughout the rainy season that the implemented measures perform adequately to protect the coastal waters and sensitive habitat areas generally depicted on Exhibits 6 and 7.

10. SITE INSPECTIONS

Coastal commission staff, and staff of local government or other agencies that the Coastal Commission staff may coordinate site visits with, shall be authorized to enter the site at any time to observe project activities without prior notice. Caltrans shall ensure that adequate personal safety equipment is available on site at all times for site visitors. If activities are underway that could cause a hazard to site visitors, the site supervisor or designee shall require that these activities be temporarily suspended as soon as practicable, for a reasonable amount of time to allow safe site inspection and the site supervisor or designee shall accompany staff during such site visits.

11. AUTHORIZED DEVELOPMENT ONLY; PERMIT AMENDMENT REQUIRED

All activities associated with the development authorized herein shall be undertaken in continual conformance with the approved project description and with the terms and conditions of approval of the permit. Any proposed changes to the approved project shall be reported to the Executive Director. No changes to the approved project shall occur without a Coastal Commission-approved amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

12. REVISED PLANS & DESIGNS

PRIOR TO ISSUANCE OF CDP 1-09-027, Caltrans shall submit a final design plan for the review and approval of the Executive Director, for the guard rails, pedestrian rails, bicycle rails, retaining walls, off-bridge protective barriers or retaining walls, lighting, or signage proposed within the project limits, and for the requirement that Caltrans/the contractor identify and use an off-site area for construction staging, subject to the requirements set forth herein:

A. The final designs shall be consistent with the designs recommended by the Commission's Road's Edge subcommittee and as authorized by the Commission in approving CDP 1-09-027. The final designs shall incorporate the lowest profile and most visually permeable structures that may be applied to the subject project consistent

with applicable safety standards and the aesthetic requirements recommended by the Commission's Road's Edge Subcommittee, and imposed by the Commission; and

B. The protective features installed within the project limits shall not be painted or textured except as may be specifically required by the Commission in approving CDP 1-09-027. Pertinent structures shall be constructed of non-reflective matte metal, timber, natural stone, or a combination of these, or an alternate material deemed more attractive or less visually intrusive by the Executive Director, consistent with the Commission's approval of CDP 1-09-027. Timbers treated with chemical preservatives that may leach into coastal waters shall not be used within the project limits.

C. The signage, signal and lighting elements shall be shown in the final plans and shall be limited to the minimum number and profile necessary to comply with public safety requirements. No other signage or messaging displays, signs, solar installations, or other similar development may be installed within the project area. Any safety signage (such as speed limit signs) proposed in or near the project location shall be specified in the final plans as to the proposed size, color, design, content and location of such features. No architectural lighting shall be included in the final bridge plans and designs.

D. The protective barriers and retaining walls shall be wildlife permeable for all size classes of wildlife that may utilize the subject location, except in locations on the subject bridge where wildlife would not be expected to cross a specific section of the proposed barrier structure(s).

E. The temporary bridge crossing shall be limited to placement on the western side of the existing bridge, within the approved area of construction disturbance, and the vegetation clearance and project activities that would disturb vegetation shall be limited to a corridor extending not more than forty (40) feet eastward as measured from the eastward edge of the proposed bridge, and the placement of project staging/construction yard activities such as the storage of materials and equipment, shall be located in an identified upland area outside of the stream corridors and wetlands of Greenwood Creek or other tributaries within the project limits.

Caltrans shall undertake and maintain development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

13. <u>FINAL DISPOSAL PLAN</u>

NOT LESS THAN SIXTY (60) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION, Caltrans shall submit a Demolition Debris and Excess Graded Material Disposal Plan for the review and approval of the Executive Director. The Plan

shall be consistent with the requirements of the special conditions of CDP 1-09-027. Project wastes, including demolition debris shall be recycled to the maximum extent feasible and as may otherwise be specified in the terms and conditions of this permit. The Plan shall identify recycling plans for all materials, unless recycling cannot be undertaken for some types of wastes. For wastes that cannot be recycled, the proposed disposal site(s) for residual debris, wastes, or excess graded material that may be generated by the subject project shall be identified, Caltrans shall ensure that all necessary permits for use of the pertinent site for such purposes have been obtained. Waste materials may not be placed where coastal waters may be affected, either directly or indirectly, or where the waste materials will displace or otherwise adversely affect designated or zoned for agriculture, or where such disposal may adversely affect sensitive species or habitats, or be visible from any public viewing area. Caltrans shall additionally provide evidence that all necessary permits, including coastal development permits, for such disposal, have been obtained not less than thirty (30) days prior to commencement of disposal, and shall provide copies of the applicable permits to the Executive Director. Caltrans shall maintain records of the final disposal of any debris, wastes, other materials or excessive graded soils generated during the construction of the project authorized herein and submit a copy of such records to the Executive Director within sixty (60) days after project completion.

14. FUTURE DEBRIS EXPOSURE DUE TO RIVER SCOUR OR EROSION

A. In accepting the Commission's approval of Coastal Development Permit 1-09-027, Caltrans agrees that if any subsurface debris, such as remnant pilings, footings, or abutments that are not fully excavated and removed should become exposed in the future for any reason, Caltrans accepts responsibility for undertaking timely removal of such debris, which may pose hazards to coastal visitors, increase streambank erosion, or cause adverse visual impacts in the Highly Scenic river corridor. Removal of such debris shall require a new coastal development permit.

B. PRIOR TO ISSUANCE OF CDP 1-09-027, Caltrans shall submit a written agreement, in a form and content acceptable to the Executive Director, evidencing Caltrans' agreement to be bound by the requirements of Subsection A.

15. PURPLE MARTIN MITIGATION

A. Within ninety (90) days following Commission approval of CDP 1-09-927 and prior to commencement of construction, Caltrans shall submit final project plans for the review and approval of the Executive Director demonstrating the manner in which the new bridge design will incorporate species-appropriate bird nesting habitat that is the equivalent of the habitat provided by the existing bridge. In addition, Caltrans shall submit plans, specifications, and timing for the installation of temporary nesting habitat for the purple martin population that will be displaced during the three-year bridge construction project, for the review and approval of the Executive Director. Construction

shall not commence until the approved temporary nesting structure has been installed as verified by the Caltrans biologist and biological monitor. The biological monitor shall include observations of the use of the temporary structure by purple martins and shall coordinate such observations with the daily evaluation of the bridge netting. The biological monitor's notes shall include any suggested changes or improvements to the temporary habitat that may be implemented in subsequent years, in consultation with other avian specialists, and if authorized by the Executive Director, Caltrans shall ensure that these adjustments are made during the appropriate seasonal window. The final project plans (including the bridge plans and the temporary nesting structure plans) shall be accompanied by evidence that the plans have been reviewed by an identified Caltrans biologist with expertise in the subject area.

B. Caltrans shall undertake and maintain development in accordance with the approved final plans. Any proposed changes to the approved final plans shall be reported to the Executive Director. No changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

4.0 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

4.1 BACKGROUND

Project Location & Setting

The California Department of Transportation (hereinafter "Caltrans" or "applicant") proposes to replace the two-lane Greenwood Creek Bridge on Highway One, just south of the village of Elk, in southern Mendocino County. (See Exhibits 1-3) The existing concrete box girder bridge was built in 1955.

The proposed project is located immediately east of Greenwood Creek Beach State Park. The northbound side of the bridge forms the gateway to the picturesque village of Elk (with fewer than 300 residents), where Highway One is the town's "Main Street." Despite the rural and relatively isolated location of Elk, the certified Mendocino County Local Coastal Program (LCP) notes that Elk attracts many coastal visitors because of the community's unique character, the sweeping coastal views available from the bluff tops of the town, and the easy access to parking, trails to the beach and picnic areas available at Greenwood Creek Beach State Park.

The certified Mendocino County Local Coastal Program (LCP) designates the project area (both east and west of Highway One) as "Highly Scenic." The Greenwood Creek Bridge area can be described as truly rural. Bordered by riparian woodlands,

pasturelands, ocean bluffs, and beaches, Highway One near Elk is one of the least-traveled stretches of the coastal route. The California Coastal Trail and the Pacific Coast Bike Route run within the Highway One right-of-way along this section of the coast.

Sensitive species known to occur within the project area or vicinity or detected in the referenced surveys include the northern spotted owl, foothill yellow-legged frog, California red tree vole, purple martin, northern California steelhead, and tidewater goby. Of these, Caltrans indicates that only the California red tree vole and the purple martin will be unavoidably affected by the project's construction. One tree that has been shown to be an occasional roosting tree for the northern spotted own will also be removed immediately adjacent to the northbound highway shoulder northeast of the bridge. No nesting has been recorded in this tree during surveys and the removal of the tree is not considered an impact to environmentally sensitive habitat.

In addition, the Greenwood Creek area contains numerous plant communities, including coastal wetlands that may be affected by the proposed project. Caltrans estimates that approximately 3.5 acres of vegetation surrounding the project site will be disturbed temporarily or permanently, including approximately 2.5 acres of wetlands. In addition to undertaking re-vegetation of areas disturbed by project construction, Caltrans proposes an off-site mitigation project that would be undertaken in collaboration with the California Department of Parks and Recreation (State Parks) on lands at Mendocino Headlands State Park (Big River Unit).

Project Purpose: Public Safety Project in Primary Coastal Access Corridor

The existing Greenwood Creek Bridge was constructed in 1955. Caltrans states that bridges built in that era were designed for a service life of approximately 50 years, which the bridge has now exceeded. Caltrans has identified the bridge as structurally deficient in accordance with the Caltrans Structure Replacement and Impact Needs (STRAIN) program. Caltrans did not identify the bridge as a candidate for the seismic replacement program, but has indicated that a major earthquake could threaten the stability of the aging bridge. Caltrans has also identified the bridge as "scour critical" based on measurements that indicate that the scouring action of Greenwood Creek may, under certain conditions, destabilize one pier within the channel. In addition, the cure of the bridge must be relaxed moderately through realignment on a new centerline about 7 feet east of the existing bridge centerline to achieve the "geometrics" that Caltrans deems necessary for driver safety on a highway bridge. Finally, the bridge lacks contemporary safety design features, such as modern crash-tested guard rails, and does not have a protected pedestrian crossing for the Coastal Trail.

Highway One is widely acknowledged as the primary route used by coastal visitors who seek the panoramic coastline views and extraordinary coastal recreation opportunities available in this part of rural Mendocino County. Numerous public parks, vistas, and beach access points are available to travelers on Highway One and thus the key to

continued coastal access for many coastal visitors is the maintenance of a safe, passable highway route to these destinations. The existing bridge has reached the end of its design life, and if not replaced, it will gradually become less and less reliable. Bridge failure could eventually occur according to Caltrans, and no alternate route is available that would not require many miles of detour as well as hours of additional travel time. The existing crossing is approximately 80 feet above the streambed below, and could not be quickly re-constructed after a catastrophic failure. The continued protection and provision of safe, public coastal access in the region therefore depends on maintaining the integrity of the highway crossing at Greenwood Creek.

Previous Project Review

Caltrans previously proposed a substantially different version of the Greenwood Creek Bridge, which was approved by Mendocino County (CDP #26-03) on June 1, 2004. That bridge would have been constructed on a completely eastward alignment that required substantially greater loss of habitat, compared with the present proposal that uses half-width construction to conserve much of the existing bridge corridor for the new crossing.

The County's previous approval was appealed to the Coastal Commission on June 17, 2004 (A-1-MEN-04-036), while the Commission staff was reviewing Caltrans' CDP Application No. 1-03-038 for the portion of the bridge proposed within the area of the Commission's retained jurisdiction. Caltrans withdrew that application in January, 2005 but submitted a new application (CDP Application No. 1-05-036) for substantially the same project in August, 2005. Commission staff recommended denial of the proposed project and Caltrans withdrew the pending application prior to the Commission's September, 2005 hearing. The Commission determined, however, that the appeal of the portion of the project proposed within the area of the Commission's appellate jurisdiction raised a substantial issue with regard to the County's implementation of the certified Mendocino Local Coastal Program (LCP).

Combined Review of New CDP Application

A-1-MEN-04-036 remained pending at Caltrans' request after the September 2005 Coastal Commission hearing, while Caltrans reviewed the feasibility of alternative bridge designs. In May 2009, after Caltrans developed a new bridge design (the presently proposed project) on an alignment that reduced the impacts to coastal resources posed by the previous project, Caltrans withdrew from the Commission's de novo review A-1-MEN-04-036 for the previous project. Caltrans preferred to seek the Commission's new combined permit processing for projects that physically traverse both the Commission's retained and appellate jurisdictional boundaries. Mendocino County has also agreed to consolidated coastal development permit processing by the Coastal Commission. The Executive Director has authorized such processing on behalf

of the Coastal Commission, as all parties must agree to use the consolidated permit process.

4.2 PROJECT DESCRIPTION

Caltrans proposes to replace the Greenwood Creek Bridge on Highway One, south of Elk, in Mendocino County. The 2-lane, 5-span, 505-ft long, 31-ft wide, 80-ft high, reinforced concrete box bridge constructed in 1955 would be replaced with a 2-lane, 3-span, 520-ft long, 46-ft wide, cast-in-place pre-stressed concrete box girder bridge with a new centerline aligned approximately 7 feet east of the centerline of the existing bridge, overlapping the new bridge footprint with the existing footprint, resulting in an additional 14 feet of eastward expansion of the overall bridge deck. The new bridge design includes a 5-ft-wide Coastal Trail corridor on the west side, separated from traffic by a crash-tested ST-10 style of guard rail. The new bridge rails will share a common design theme (see Exhibits 4 through 6), which will be the exclusive design of the outer western side of the bridge (pedestrian side) and the bicycle safety rail atop the ST-10 guard rail on the traffic (east) side of the bridge, totaling 42 inches in height.

Caltrans states that project grading will include up to 5,000 cubic yards of excavation (cut), up to 3,500 cubic yards of fill, and approximately 1,400 cubic yards of export. The project includes extensions of some culverts within the right-of-way by up to 4 feet as the result of the slight realignment of the highway approaches to the new bridge.

Caltrans has completed a Final Foundation Report for the construction of the proposed bridge, dated March 2003, which recommends that the Cast-In-Drill-Hole method of pier and abutment construction be used instead of impact hammer-driven piles. The CIDH method generates substantially less noise than pile driving, and would allow work to begin on June 1 annually rather than on July 10 as impacts to fisheries would be avoided by using this alternative (no hydroacoustic impacts are anticipated).

The Caltrans documents in support of the proposed project, including the "Alternatives Analysis" dated March, 2009, indicate (page 2-2) that: "…The work window for pile driving for the bridge supports, should it be necessary would be July 10 to October 15." Commission staff contacted the project manager on September 16, 2009 and confirmed that this is no longer true, and that Caltrans does not propose <u>any</u> pile driving for the installation of the Greenwood Creek Bridge or the bridge abutments, or for any temporary structures such as falsework or the construction bridge crossing. Caltrans has not undertaken hydroacoustic impact analyses for the proposed project, and it is now well understood that pile-driving on land can cause hydroacoustic impacts in waters at a significant, and not easily predicted distance from the pile-driving location. Therefore, no pile-driving of any kind is proposed by Caltrans or approved by CDP 1-09-027.

Caltrans has obtained permission to use the existing Elk Community Water District access road for construction access. Caltrans proposes to place a layer of geomembrane and cover this with a layer of rock to minimize erosion potential on the unpaved road. The geomembrane will facilitate the removal of the rock layer upon completion of the project. Best Management Practices would be required to control erosion as the road would be heavily used over the three years of proposed construction.

Caltrans also proposes relief from a strict interpretation of setbacks that otherwise apply to some construction activities in specific locations which have been approved by NOAA Fisheries and by the California Department of Fish & Game. Caltrans proposes that the temporary bridge and falsework for the southern foundations be completed on the top of bank, while the northern foundation would still be placed within a ten foot setback from the top of bank. These limited exceptions are necessary to fit the pertinent work into the spatial limits of the stream corridor configuration. The south bank is reinforced by riprap that was previously placed by the Elk Water District.

Caltrans notes that all work would occur outside of the Greenwood Creek (active) channel and beyond the top of bank on the northern bank. Footings for the falsework and temporary bridge crossing would be placed at the top of bank to avoid placing temporary piers in Greenwood Creek. Greenwood Creek would not be dewatered or re-routed for any part of the bridge construction work. The Cast-in-Drill-Hole (CIDH) bridge support piles may require dewatering of groundwater prior to placement of concrete. The water would be pumped to a temporary sedimentation basin(s), located at a site as far from the creek as possible. The basin would allow for sediment to settle out and for the clean water to percolate back into the water table from the basin. Best Management Practices would be implemented to ensure that the basin would not fail. (Caltrans describes the settlement basins as potentially allowing the “treatment” of water. While “treatment” may properly include the settlement of sediment from the water column, Special Condition 2 does not otherwise authorize the use of sediment basins for discharge of any waters that have been in contact with wet concrete or other potential contaminants, such as oil, fuel, or solvents. Such contaminated effluent is required to be pumped into a Baker tank for further treatment and discharge at a licensed facility.) (See Special Condition 2)

Caltrans states that heavy equipment used during construction of the bridge may include a 100-to 150-ton crane, large excavators such as CAT 350 or CAT 950 with a front-end loader, and D8 bulldozers with different types of buckets. Caltrans states that a temporary construction easement along Greenwood Creek will be established “approximately 80 feet upstream to 70 feet downstream of the centerline of the existing bridge, running the length of the bridge…” (or approximately 520 linear feet). This area could, as presently proposed by Caltrans, be treated as a construction staging “yard” and construction access corridor, including a parking area for construction equipment and materials at the discretion of the contractor eventually selected by Caltrans.

Caltrans further states that "vegetation will be cleared on both sides of the creek up and downstream. It is anticipated that a bulldozer and/or backhoe will be used to remove the vegetation." Caltrans also notes that "…No provisions have been made to obtain additional easements for construction staging areas. Staging of all equipment and materials would be confined to the state right-of-way, unless the contractor chooses to rent additional property for staging operations. In this event, coordination and approval from the regulatory agencies would be required." Equipment would be stored at least 15 feet from the traveled way, unless the equipment is placed behind protective barriers (K-railing). Caltrans further states that "…below the bridge, material and equipment could be stored anywhere within the state right-of –way, excluding the stream channel and its delineated buffer areas." Caltrans states that staging for the retaining wall construction would be accommodated along the eastern side of Highway One, in the area created by the realigned roadway.

Caltrans states that equipment would be cleaned and serviced at a site outside of the Greenwood Creek riparian corridor, and that all containers with fluids, such as petroleum products, would also be stored at a site located outside the riparian corridor. Caltrans states that mobile fueling of large equipment, such as cranes, would take place inside the riparian corridor, and that some large wheeled and tracked vehicles would be stored within the Caltrans right of way under the existing bridge, in the flat area south of the creek, subject to Best Management Practices to prevent leakage from these vehicles, or other spills or debris from entering the creek.

Caltrans states that the existing bridge would be removed by use of heavy equipment; explosives would not be used. Sections of the existing bridge would be removed mechanically and taken to a designated disposal site located about 0.5 miles south of the construction site. The contractor would be required to construct a protective covering above the creek channel to contain any material that may fall during demolition. (See Special Condition 2, Construction Responsibilities, for restrictions against dropping demolition debris anywhere within the stream corridor – not just the active channel – and other requirements pertaining to demolition and disposal.)

Caltrans proposes to conduct project construction activities in accordance with the following work windows, assuming that construction commences in February of 2010:

Work Windows:

February 2010: Some clearing and trimming of trees would occur outside of the migratory bird nesting season that commences April 1.
Prior to March 15, 2010: Placement of bird netting below the existing bridge would occur before active breeding season for swallows and purple martins (April through August) to prevent establishment of nesting pairs for the season.
Between October 15 and June 1: Certain activities have been approved by NOAA Fisheries and California Department of Fish & Game, according to Caltrans. These include: work on the retaining walls above the floodplain; bridge rail work on the deck of

the new bridge at the roadway level; bridge abutment work atop each edge of the ravine and above the floodplain (after May 1); superstructure work, including falsework construction that does not disturb soil within the floodplain; form, place & finish of cast-in-place concrete for superstructure of bridge; pre-stressing and grouting of ducts within the cast-in-place concrete; removal of existing bridge; and work on roadway approaching the bridge.
June 1 through July 10: Caltrans states that construction activities would occur in areas more than 30 feet from the top of Greenwood Creek.
July 10 through October 15: Construction activities could occur in areas more than 10 feet from the top of Greenwood Creek. Caltrans states that these work windows are required to comply with NOAA Fisheries buffer requirements and the CDFG Streambed Alteration Agreement.
August 15 through October 15 : Night work – Caltrans proposes that if necessary, this eight week window would allow for night work within the floodplain. Caltrans additionally states that this window is based on U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries requirements. (Special Condition 2 restricts this window to August 31-October 15 to coordinate with the end of migratory bird nesting season, but provides an option for Executive Director authorization of an additional period of up to two consecutive weeks of night lighting if substantial savings in overall project length could be demonstrated by Caltrans.)

The overall order of work would proceed in the following way:

1. Install a temporary crossing of Greenwood Creek to allow access to the northern side of the creek. Footings for this temporary crossing would be located at the top of the bank and above the Greenwood Creek ordinary high water line. The Commission notes that on the request of staff, the Caltrans project manager for the Greenwood Creek Bridge project clarified on September 16, 2009 that none of the supports for the temporary bridge would require pile-driving (by impact or vibratory hammer). The project manager also clarified that the temporary bridge could only be located on the west side of the existing bridge, within the area already identified for site disturbance, and would not be authorized in a location that required additional tree or other vegetation removal that has not been identified in the present proposal. Further, the Caltrans project manager clarified that no pile-driving would be authorized for any temporary or permanent component of the proposed project, in any project location, thus correcting statements in the “Alternatives Analysis” dated March 2009 that stated on page 2-2 that pile-driving could be an option for the installation of the bridge abutments.
2. Work on the bridge would begin with the installation of piles and the placement of footings and abutments. The piles will be installed with drill-in-place techniques that do not rely on pile-driving methods (either by impact or vibratory hammer). The piles would be installed only by the cast-in-drill-hole (CIDH) method.
3. Work on the superstructure would begin with the dismantling of the eastern half of the existing structure and the installation of a signalized traffic control system.

4. The bridge columns would be formed and cast in place. Bridge falsework and protective platforms over the creek would then be assembled. No falsework would be placed within the creek.
5. Reinforcement steel would be placed and concrete for the superstructure would be poured.
6. Once the bridge concrete has cured, the falsework would be removed.
7. The remainder of the existing bridge structure would be dismantled and the second half of the new bridge would be constructed using the same methods.
8. The project is expected to be completed in three construction years.

Caltrans expects the construction of the project to proceed along the following overall timelines, provided the contract is awarded as anticipated in December of 2009:

Stage 1: June 1 – October 15, 2010: Stage 1 construction would primarily consist of building the bridge footings, columns, and abutments, installing the temporary signal system, dismantling the eastern half of the existing bridge, and implementing temporary erosion control measures. The construction of retaining walls and the new road alignment would also be initiated.

Stage 2: June 1 – October 15, 2011: The temporary falsework and bridge superstructure would be completed during the second year of construction. Dismantling of the remainder of the existing bridge may also occur once the eastern half of the new superstructure is complete and able to carry traffic.

Stage 3: June 1 – October 15, 2012: During the third season the remainder of the bridge superstructure and roadway work would be completed.

4.3 CONFORMITY TO THE COASTAL ACT, CHAPTER 3

4.3.1 WETLAND FILL, WATER QUALITY, STREAM ALTERATION, and ENVIRONMENTALLY SENSITIVE HABITAT/SPECIES within WETLANDS

Standard of Review: Applicable Coastal Act Definitions and Policies

Chapter 2 of the Coastal Act establishes the following pertinent definitions:

Section 30106 of the Coastal Act defines development, in part, as:

> "removing, dredging, mining, or extraction of any materials."

Section 30108.2 of the Coastal Act defines fill as:

"the placement of earth or other substance or material in a submerged area."

Section 30107.5 Environmentally sensitive area

> "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Section 30108 Feasible

> "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

Chapter 3 of the Coastal Act sets forth the following pertinent policies and provisions:

Sections 30230 and 30231 of the Coastal Act address the protection of coastal water quality and marine resource:

Section 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantially interference with the surface water flow, encouraging, wastewater reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act provides as follows, in pertinent part:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division,

where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (*emphasis added)*

…

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

The Coastal Act additionally recognizes the importance of, and protects, fishing:

Section 30234.5 Economic, commercial, and recreational importance of fishing

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

Section 30240 Environmentally sensitive habitat areas; adjacent developments

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Analysis

The above policies set forth a number of different limitations on what development projects may be allowed in coastal wetlands, sensitive habitat areas, and coastal waters, or that may affect sensitive species. In situations, as here, where the impacts occur in a wetland area that is also ESHA, the more specific wetland provisions of section 30233 control over the more general ESHA provisions of 30240. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- **that the purpose of the filling, diking, or dredging is for one of the specific uses allowed (Section 30233);**
- **that the project has no feasible less environmentally damaging alternative (Section 30233);**
- **that feasible mitigation measures have been provided to minimize adverse environmental effects (Section 30233); and**

- **that the biological productivity and functional capacity of the habitat shall be maintained, enhanced and restored (Sections 30230, 30231)**.

Permissible Use for Fill of Wetlands

Caltrans proposes to install the foundations for the proposed bridge and to stage project construction, including the storage of equipment and materials, within the wetlands of the Greenwood Creek stream corridor. Therefore, the proposed project constitutes the dredging and filling of wetlands as defined by the Coastal Act and is subject to review by the Commission for consistency with the requirements of Coastal Act Section 30233 and other applicable policies and provisions of the Coastal Act.

The **first test** under Section 30233 for such a project is whether the fill/dredging is for one of the allowable uses under Section 30233(a). The relevant category of use listed under Section 30233(a) that relates to the proposed bridge replacement is subcategory (4), stated as follows:

> (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

Thus, the Commission must determine whether the fill associated with the proposed project is for a use allowable under Section 30233(a)(5), i.e., that it is for a public purpose, and in addition, that it is for an “incidental” public purpose.

The Commission has in the past determined that the fill for certain highway safety improvement projects that did not increase vehicular capacity was considered to be for an "incidental public service” pursuant to the requirements of Coastal Act Section 30233(a)(4). In reaching such conclusion, the Commission has typically determined that a bridge replacement is a public safety project – and thus is undertaken for a public purpose -- and further, that the project is incidental to "something else as primary." That is, the project is a public safety project incidental to the primary transportation service provided overall by the existing highway. This finding is supported in part on the basis that the subject bridge project is not part of a new route or highway expansion.

As such, the proposed project – the replacement of the existing bridge crossing of Greenwood Creek on Highway One – is for an incidental public purpose within the meaning of Section 30233(a)(4).

Conclusion: first test under 30233 (allowable use)

Therefore, for the reasons set forth above, the Commission finds that the proposed fill is for an incidental public service, and thus **is an allowable use** for placement of fill within a wetland, pursuant to Section 30233(a)(4) of the Coastal Act.

Feasible, Less Environmentally Damaging Alternatives to the Proposed Project

The **second test** of Section 30233(a) is whether there are **feasible less environmentally damaging alternatives** to the proposed project. Coastal Act Section 30108 set forth above defines "feasible" as follows:

> 'Feasible' means capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, social, and technological factors.'

The Coastal Act requires, and widely accepted principles of sound environmental planning, including those principles incorporated into the California Environmental Quality Act (CEQA), require that adverse impacts on the environment be avoided if possible as a first priority when considering a proposed project.

Where a searching analysis determines that significant adverse impacts on the environment posed by the proposed project cannot be feasibly avoided through the selection of a different alternative, the Coastal Act, CEQA, and environmental planning principles require the further consideration of alternatives that would reduce the unavoidable adverse impacts on the environment posed by the subject project. Such alternatives may include a modified version of the proposed project that is weighed in the analysis.

Only after determining that a proposed project's adverse impacts on the environment cannot be feasibly avoided or further reduced does the consideration of mitigation for permissible adverse impacts arise, as discussed below.

Therefore, the Commission must undertake a hierarchal alternatives analysis that would: a) avoid significant adverse impacts on the environment, and b) reduce adverse impacts to a level of insignificance. If the requisite analysis does not lead the Commission to conclude that the proposed project is one for which "there is no feasible less environmentally damaging alternative" then the Commission must deny the proposed coastal development permit application: further review under Coastal Act Section 30233 is terminated.

If, however, the Commission analyzes the alternatives to the project and determines that there is no feasible less environmentally damaging alternative, then the Commission review of the subject project proceeds through the remaining tests of Section 30233 and the other applicable policies and provisions of the Coastal Act.

Thus, the second test of Coastal Act Section 30233 – the alternatives analysis -- requires that the Commission examine all feasible alternatives to the proposed project to determine whether an alternative exists that would avoid or reduce the project's significant adverse impacts on coastal resources, as set forth below.

Proposed Project: The applicant proposes to construct a new bridge at the existing Greenwood Creek Bridge crossing on Highway One in Mendocino County, south of the village of Elk. The present proposal has revised an earlier proposal that posed a greater degree of impact on coastal resources. The new bridge design and the revised bridge alignment have substantially reduced the extent of the adverse impacts previously identified for the alternative formerly proposed. (See Exhibits 3, 7, and 8)

The present proposal would replace the existing bridge with a new, wider bridge on an alignment approximately seven feet east of the existing bridge centerline, for an overall expansion of the bridge deck to include the area covered by the existing bridge with an additional 14-ft.-lateral expansion running the 520-ft. length of the proposed new bridge.

While the bridge deck location has reduced the permanent expansion of massive cut and fill slopes eastward into pristine riparian canyons such as Bonee Gulch, the applicant still proposes the removal of a significant amount of wetland vegetation within the Greenwood Creek riparian wetlands. Caltrans proposes to remove almost all vegetation in the riparian corridor for a distance of 80 feet upgradient of the existing bridge, 70 feet downgradient of the existing bridge, and running along the bridge corridor for 520 linear feet. This represents the removal of wetland vegetation in an area approaching 100,000 square feet or about 2.5 acres.

Caltrans indicates that the extensive vegetation clearance is necessary to offer the eventually-selected contractor a range of choices, such as which side of the bridge to use for the temporary, 20-ft.-wide construction bridge crossing and whether to build a staging area for the storage of materials and equipment within the stream corridor. By preparing a potential staging area within the stream corridor within the Caltrans right-of-way, Caltrans could offer a contractor a free area for staging that would help to keep down project costs. If the contractor rented an offsite area out of the corridor for the staging site, project costs would obviously have to be added and would be passed along to Caltrans. Nevertheless, there is clearly an option to locate one or more areas outside of the stream corridor for the storage of vehicles, equipment and construction materials during the three-year project.

Caltrans has already identified a ranch located approximately one-half mile south of the project, inland of Highway One, which, according to Caltrans has already secured the necessary local permits for the disposal of the debris generated by the demolition of the old bridge and roadway. Therefore it appears feasible to locate nearby sites that would accept temporary staging activities on a rental basis during project construction.

The option to stage outside of the corridor could potentially reduce the need for clearance of riparian wetland vegetation, and thus reduce the total extent of vegetation clearance required. Thus, there is a modified alternative to the presently proposed project that would reduce the project's impacts on sensitive wetland habitat. (See Special Conditions 3 and 12.)

The question of the **second test** under Coastal Act Section 30233 arises: that is, **Is there a feasible alternative to the proposed project that would avoid or reduce the project's adverse impacts on coastal resources?**

Evaluation of Potential Alternatives

Caltrans has identified four primary alternatives, including the proposed project. These include:

1) The "no project" alternative: As discussed above, this alternative would retain the existing, aging bridge which has already outlived its 50-year design life. The old bridge would continue to deteriorate, and the scour of one pier in the stream corridor would continue during peak flow events. The weakening bridge would become more vulnerable to damage during an earthquake. Caltrans indicates that eventually, under this scenario, the bridge would fail. Such an event would create a serious disruption of local and coastal visitor travel, adversely impact public coastal access opportunities, and would result in the need for emergency replacement of the bridge. The emergency construction would almost certainly take place within the sensitive Greenwood Creek corridor without the benefit of advanced planning and mitigation that would otherwise occur through the customary regular permitting process. The "no project" alternative would eventually have significant adverse consequences for coastal public access.

The "no project" alternative also fails to provide the safety improvements Caltrans seeks through a modified realignment of the geometrics of the highway crossing. Therefore, this alternative is not a less environmentally damaging feasible alternative to the proposed project as conditioned.

2) Separate Eastward Alignment: Constructing the proposed bridge on a separate, eastward alignment while retaining the use of the existing bridge, thus avoiding signalized, one-way traffic during construction. This alternative would extend the permanent impacts of the project footprint further eastward compared with the proposed project and would thus fill portions of pristine riparian canyons and would require substantially more grading, the removal of two dozen mature fir trees that surveyed positive for use by the California red tree vole, and the construction of massive concrete retaining walls up to 30 feet in height within the public view corridor on the bridge. This was the project alternative preferred by Caltrans in the CDP application that was withdrawn in 2005, but as noted previously, this alternative is not a less environmentally damaging feasible alternative to the proposed project as conditioned.

3) Separate Western Alignment: Constructing the proposed bridge along a westward alignment. Caltrans indicated that this option would permanently convert lands belonging to the Greenwood Creek Beach State Park to highway use, which Caltrans deemed impermissible if other feasible options were available. In addition, Caltrans stated that the geometrics of the tighter bridge curve necessary to conform the western alignment to the highway footprint would not meet contemporary traffic safety

design standards. Because of the conversion of State Parks lands, and because this alternative would not achieve the safety improvements Caltrans seeks, this alternative is not a less environmentally damaging feasible alternative to the proposed project as conditioned.

4) Proposed Project: Eastern Alignment 7 feet east of Existing Centerline: Constructing the bridge on a new alignment approximately 7 feet east of the centerline of the existing bridge, recycling most of the existing bridge deck area but extending it about 14 feet further east for the length of the 520-foot new bridge. This is the alternative that is presently proposed, however Caltrans includes the clearance of approximately 2.5 acres of riparian wetland vegetation with bulldozers to allow construction disturbance throughout most of the stream corridor on both sides of the bridge (other than the active channel) for the duration of construction, including staging activities (mostly the storage of materials and equipment that could be stored off site). Therefore, this alternative is not a less environmentally damaging feasible alternative to the proposed project as conditioned.

5) Proposed Project: Modified to Require Off-site Staging and West Side Location for Temporary Bridge Crossing: Constructing the previous alternative but reducing the disturbance footprint by reducing the 80-ft.-wide riparian wetland vegetation clearance on the east side of the proposed project down to a maximum of 40 feet east as measured from the eastward edge of the new bridge, and requiring the placement of the temporary bridge crossing on the western side of the existing bridge. This alternative is discussed in more detail under the "second test" discussion above, and would reduce the significant adverse impacts of the proposed project on wetland habitat by reducing the total extent of riparian wetland vegetation that must be cleared on the east side of the proposed new bridge. Thus, the Commission has identified a feasible, less environmentally damaging alternative to the proposed project.

Conclusion: second test (alternatives)

Therefore, as discussed extensively above, the Commission has considered five basic project alternatives, including the "no--project alternative" and the proposed project. The Commission finds for the reasons set forth above that the no--project alternative is not a feasible, less environmentally damaging alternative to the proposed amendment. Alternative 5 outlined above, however, would accomplish the project purpose and would include modifications that don't change the basic project, but do conserve wetland habitat through modified construction management and site access requirements. **Thus, the Commission has identified a feasible, less environmentally damaging alternative to the proposed project.** Therefore, the Commission imposes Special Condition 3 and 12.

Feasible Mitigation Measures

The **third test** set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize significant adverse environmental impacts.

The Greenwood Creek Bridge was constructed in 1955 and has now exceeded its 50-year design life; in addition Caltrans has determined that the aging bridge is structurally deficient for a variety of reasons explained in Section 4.1 above. Replacement of the bridge is necessary to prevent further deterioration of the structure and to improve and protect highway safety in the project area. Moreover, maintaining a safe crossing of Highway One at Greenwood Creek preserves the overall integrity of the public coastal access route provided by the highway.

The proposed project is located within the floodplain of Greenwood Creek, adjacent to Greenwood Creek Beach State Park and just south of the village of Elk, on rural Highway One. The area is marked by scattered forests, riparian canyons, pasturelands, and sweeping views of the coastal bluffs. The Pacific Ocean is less than half of a mile west of the bridge.

The riparian corridor of Green Creek contains habitat for tidewater goby, Northern steelhead trout, and the potential habitat of numerous sensitive species that were not seen during area surveys performed by Caltrans biologists. The purple martin, a migratory bird, is a California species of special concern that nests under the Greenwood Creek Bridge. The California red tree vole, also a California species of special concern, nests and lives almost exclusively in the branches of the Douglas fir and grand fir trees near the project site, feeding off the tree needles and rarely leaving the canopy of the trees. Spotted owls have been known to roost and hunt in the area, particularly near the red tree vole habitat on the east side of the bridge. One tree adjacent to the northeasterly highway shoulder that has been used in the past for roosting by the northern spotted owl would be removed. Because this tree has never shown nesting activity during biological surveys of the site, the removal of the single roosting tree is not considered an impact to environmentally sensitive habitat. The replanting of Douglas fir seedlings proposed by Caltrans to mitigate impacts to the California red tree vole will additionally benefit the spotted owl populations in the long-term, providing additional roosting sites, and prey (the owls prey on voles, among other food sources).

Depending on the manner in which the proposed project is undertaken, as discussed above, the project may have significant adverse impacts on a variety of coastal resources, including but not limited to wetlands/riparian habitat, water quality, anadromous fish, tidewater goby, purple martin, and California red tree vole. The potential impacts have been generally identified and discussed in this staff report and where potential impacts have not been fully identified due to the need to collect baseline information or mitigation has been deferred to await collection of pertinent impact data necessary to appropriately scope eventual mitigation, the attached Special Conditions have provided the means to evaluate the adequacy of mitigation measures through condition compliance.

The 15 attached Special Conditions, if fully implemented by Caltrans, will ensure that: the project is undertaken in a manner consistent with a full range of measures to avoid or minimize significant adverse impacts on wetlands, water quality, sensitive species & habitat, public coastal access, and visual resources:

Special Condition 1: Final State and Federal Authority, Responsibility: this condition requires Caltrans to construct the proposed project in accordance with the requirements of all applicable state and federal requirements and authorizations and to ensure that the contractors bidding on the project understand and comply with these requirements and with the requirements of CDP 1-09-027.

Special Condition 2: Construction Responsibilities: establishes detailed requirements for undertaking the proposed project in a manner that protects coastal water quality, habitat, and visual resources.

Special Condition 3: Temporary Bridge Crossing Plan: requires contractor to establish a temporary crossing on the west side of the bridge, and requires Caltrans to submit plans for the subject crossing to the satisfaction of the Executive Director. Restricts heavy equipment in the active stream channel.

Special Condition 4: Final Erosion Control and Revegetation Plan: requires a range of measures to ensure the protection of water quality and visual resources through the restoration of areas disturbed by construction, and requires an ecologically sound restoration plan as well as a specific plan for planting the 60 or more Douglas fir trees that would help to mitigate the loss of two mature fir trees with evidence of use by the California red tree vole.

Special Condition 5: Future Public Access: protects the Coastal Trail corridor established on the bridge for the future.

Special Condition 6: Wetland Mitigation: requires offsite compensatory wetland mitigation at the Mendocino Headlands State Park (Big River Unit) through a combination of wetland creation or restoration and enhancement implemented under the supervision of State Parks biologists. The Big River Unit includes 1,500 acres of wetlands and the longest undeveloped estuary in Northern California. The Big River Unit of MHSP was created in 2002 after a group of donors, nonprofit organizations, and agencies, led by the Mendocino Land Trust, collected more than $25 million to purchase the property from the Campbell-Hawthorne Timber Company and transferred the property to State Parks.

State Parks has already performed the underlying planning studies and has obtained the necessary permits for the project, but does not have funding. Caltrans would completely fund the work required as mitigation for this CDP 1-09-027. Specifically, State Parks plans to remove a failing culvert and its associated fill material from an

intermittent drainage that crosses a logging road and replace it with a railroad car bridge. The culvert restoration area will be revegetated with appropriate local native riparian species, and the combination of the restored hydrology, fill removal, and revegetation will provide approximately 38 acres of new and restored riparian habitat.

Special Condition 8: Water Quality Protection: requires review of storm water management and other measures protective of coastal waters that could be impacted by nearby construction.

Special Condition 9: Biological Monitoring: provides for oversight and on-site education of construction personnel by a qualified biologist familiar with the resources of the Greenwood Creek area and with the requirements of the CDP 1-09-027.

Special Condition 10: Site Inspection: provides for unannounced site visits by staff or other regulatory agencies for the purpose of ensuring compliance with the requirements of CDP 1-09-027 that are protective of coastal resources.

Special Condition 11: Authorized Development: requires that the development be undertaken in conformance with the approved project description and with the terms and conditions of the permit, and clarifies that changes would require an amendment to the permit.

Special Condition 12: Revised Plans: requires the final plans for the bridge rails and other features, specifies that no architectural lighting shall be installed on the bridge, requires that construction staging be undertaken at an appropriate offsite location instead of within the riparian wetlands of the Greenwood Creek corridor.

Special Condition 13: Final Disposal Plan: requires appropriate disposal and tracking of demolition debris generated by the proposed project to ensure that material is not dumped illegally as wetland fill.

Special Condition 14: Future Debris Exposure Responsibility: the existing bridge piers would be cut off a few feet below the mudline of the stream channel; this condition requires that if future conditions expose the buried remnants, Caltrans must remove the debris to prevent hazardous conditions in the stream channel.

Special Condition 15: Requires the implementation of mitigation measures to reduce the adverse impacts of bridge construction and demolition on the purple martin, a bridge nesting species of special concern.

Conclusion

For all of the reasons set forth above, the Commission finds that the proposed project is an allowable use for wetland fill, that although the applicant asserts that there is no feasible less environmentally damaging alternative to the subject proposed project,

there is an alternative (See Alternative 5 above) that would reduce the project's potentially significant adverse impacts on riparian wetland habitat by reducing by approximately half the amount of vegetation removal within the Greenwood Creek corridor that would be allowed on the east side of the bridge ; that feasible mitigation is required to minimize all significant adverse impacts associated with the implementation of the project as proposed by the applicant (see discussion of special conditions, above, including discussion of Special Conditions 3 and 12), and that coastal water quality will be protected against degradation as the result of the proposed project (see applicable special conditions protective of water quality, above), provided the project is constructed in full accordance with the approved project description, and in accordance with all standard and special conditions imposed by the Commission. Therefore, the Commission finds that the proposed project, if implemented in full compliance with the standard and special conditions set forth above, and discussed in this section of the Commission's findings and other pertinent sections by reference, will be consistent with the applicable sections of the Coastal Act.

4.3.2 GEOLOGIC STABILITY; HAZARDS

Standard of Review: Applicable Coastal Act Policies and Standards

The Coastal Act contains policies to assure that new development provides structural integrity, minimizes risks to life and property in areas of high geologic, flood, and fire hazard, and does not create or contribute to erosion. Section 30253 of the Coastal Act states in pertinent part that:

New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Analysis

Caltrans proposes to construct a new bridge over Greenwood Creek, on Highway One, south of Elk in Mendocino County. As part of the proposed project, the applicant would demolish the existing bridge that was constructed in 1955. Caltrans acknowledges that the project is located in an area of high geologic hazard, and states that the "purpose and need" for the replacement of the existing bridges is to address scour activity in the river that has exposed the footing of a bridge piers in the channel and to improve the ability of the bridge to withstand seismic events, among other safety improvements.

Seismic Hazards

Caltrans states that the proposed project is located in an area near the southern end of the Cascadia Subduction Zone and near a location known as the "Mendocino Triple Junction" where three crustal plates converge – the Pacific Plate to the south; the Gorda Plate and its extension, the Juan de Fuca Plate to the north, and the North American Plate to the east. The project area, like all areas of the north coast, is subject to very large earthquakes of a magnitude of about 9.0 that occur roughly every 300 to 400 years and usually result in large tsunamis. The last such earthquake occurred in 1700. Caltrans states that the proposed bridge will be designed to stand the maximum credible seismic event for the Greenwood Creek Bridge project location, taking into account the potential for a great Cascadia Subduction Zone earthquake that may be caused by a rupture of the zone offshore from the project site.

The new bridge will also be designed to withstand peak streamflows without risk of scour to the bridge piers, adding further stability to the new design. The bridge will also be designed to withstand the effects of coastal flooding that may arise when peak runoff of Greenwood Creek meets high tide or a storm surge, increasing flood potential in the stream corridor.

Assumption of Risk

As stated above, Caltrans acknowledges that the proposed bridge location is subject to potential seismic risks, which may include liquefaction, and that the bridge location could be subject to tsunami hazards as well. Further, the location of the bridge renders it subject to the additional natural hazards posed by storms, floods, and erosion, as is true of any bridge located over a river that drains a substantial watershed and is additionally subject to tidal influence due to the bridge's proximity to the Pacific Ocean.

Caltrans has performed geotechnical testing of the Greenwood Creek Bridge area and states that the proposed bridge is designed to withstand the predictable hazards associated with its location to the maximum extent feasible. Nevertheless, it is not possible to remove all associated risk associated with the uncertainties of natural hazards. Residual risks remain.

For these reasons, the Commission finds that even though Caltrans has mitigated predictable risks by engineering the proposed bridge to withstand the associated forces, a degree of risk from natural hazards will remain and cannot be fully mitigated. To protect the Commission and its employees from liability for the hazards posed by the subject structures and project features designed and managed by Caltrans, the Commission requires Special Condition 7 (Assumption of Risk).

Conclusion: Coastal Act Consistency

Therefore, for all of the reasons set forth above, the Commission finds that the

proposed project, as conditioned, is consistent with the pertinent requirements of Coastal Act Section 30253.

4.3.3 PUBLIC COASTAL ACCESS & RECREATION

Standard of Review: Applicable Coastal Act Policies and Standards

Section 30210. In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Section 30212.

(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:

(1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,
(2) Adequate access exists nearby, or, …

(c) Nothing in this division shall restrict public access nor shall it excuse the performance of duties and responsibilities of public agencies which are required by Sections 66478.1 to 66478.14, inclusive, of the Government Code and by Section 4 of Article X of the California Constitution.

Section 30213. Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. . . .

Section 30214.

(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:

(1) Topographic and geologic site characteristics.
(2) The capacity of the site to sustain use and at what level of intensity.
(3) The appropriateness of limiting public access to the right to pass and repass

depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.
(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.

(b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution . . .

Analysis: Coastal Act Consistency

Caltrans proposes to replace the existing bridge that carries traffic across the Greenwood Creek on Highway One in Mendocino County. The aging bridge has outlived its design life and must be replaced for safety reasons discussed in detail in Section 4.1 above. The bridge has outlived its design life, is structurally and possibly seismically deficient, and one pier in the stream channel is being undermined by scour. Caltrans has explained that if the bridge is not replaced, it will ultimately fail. Loss of the bridge would severely impair the ability of the traveling public, including coastal visitors, to access this section of the Mendocino coast; detours around the Greenwood Creek area would require significant inland travel on alternate routes, and would add hours of travel time for drivers. It is clear therefore that public access to coastal recreational opportunities would be severely compromised if the bridge replacement did not occur and the bridge was allowed to fail.

In addition to protecting the integrity of the coastal highway link provided by the bridge, the proposed project would include significant public coastal access amenities. The Coastal Trail runs with the Highway One right-of-way in this location, which is also designated as the Pacific Coast Bike Route. The existing bridge is 505 feet long (the new bridge would be 520 feet long) and approximately 80 feet above grade—pedestrians have no way to escape errant traffic while traversing the bridge. The highway approaches to the bridge are bordered by paved shoulders ranging from 1 to 4 feet in width. Bicycles and pedestrians must share the narrow paved shoulder (there is a raised concrete curb approximately 2 feet wide on the bridge) and there is no location where a disabled car could pull safely over to a shoulder without blocking part of a traffic lane and forcing pedestrians and bicyclists into traffic.

The proposed improvements include a 5-ft-wide trail corridor on the west side of the bridge separated from traffic by a crash-tested ST-10 guard rail. The new design would include a safe pedestrian crossing on the bridge for the first time. The design also includes 6-ft.-wide paved shoulders for traffic, and bicyclists could use the wider shoulder or the separated corridor on the bridge. The safe corridor would provide the

opportunity for Coastal Trail travelers to stop on the bridge and enjoy the views toward Greenwood Creek Beach State Park, below, and the Pacific Ocean half a mile away, without worrying about vehicles drifting into the trail. (See Exhibits 3 and 4)

Caltrans proposes to complete the pedestrian walkway, and to install the guard rail separating pedestrians from the paved shoulder and traffic lanes, outer pedestrian rails, and other safety features, by the end of the construction period. Caltrans staff has indicated that Caltrans proposes to construct the bridge corridor in a manner that will be fully compliant with the requirements of the Americans with Disabilities Act. Caltrans states that the ADA requires that the pedestrian corridor on the bridge be a minimum of five feet in width, to accommodate wheelchair access. Caltrans also confirmed on request that Caltrans will open the pedestrian corridor to the public by the end of the construction period and that the corridor would remain open permanently. Special Condition 5 (Protection of Future Public Access) requires Caltrans to permanently protect and provide public access for pedestrians and non-motorized vehicles on the proposed pedestrian crossing. The Commission finds that Special Condition 5 will ensure that public coastal access amenities included in the proposal will be permanently provided consistent with the pertinent policies and provisions of Chapter 3 of the Coastal Act.

Conclusion: Coastal Act Consistency

The Commission finds that the proposed bridge replacement project, as conditioned, will maintain a critical crossing of Greenwood Creek on Highway One, and that the crossing provides critical public coastal access to the significant coastal recreational amenities of the local area, and that the maintenance of the crossing also protects an essential link in the California Coastal Trail and the Pacific Coast Bike Route. The Commission also finds that the provision of a guard-rail separated corridor for the Coastal Trail as proposed in the project design will significantly improve safety for pedestrians on the trail and will also significantly improve the quality of the trail by providing walkers a sense of safety sufficient to allow focus on the sweeping coastal views that will be available on the new bridge. The guard rail separation that will be provided on the new bridge will also provide an opportunity for mobility-impaired coastal visitors to try out the trail corridor without the risks presently posed by adjacent vehicle traffic at highway speed separated only by narrow paved shoulders without the guard rail protection that will be provided on the new bridge. For all of these reasons, the Commission finds that the proposed project, as conditioned, is consistent with the Chapter 3 policies of the Coastal Act concerning public coastal access and recreation.

4.3.4 VISUAL RESOURCES

Standard of Review: Applicable Coastal Act Policies

Section 30251.

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30253 states in pertinent part:

New development shall:

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

(5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

Analysis

The Highway One corridor near Elk, in Mendocino County, is one of the most scenic, rural drives along the northern California coast. The certified Mendocino County Local Coast Program (LCP) designates the area as Highly Scenic on both sides of the highway. (See Exhibit 5 for views of the existing bridge)

Caltrans proposes to replace the aging Greenwood Creek crossing of Highway One, just south of Elk, and adjacent to Greenwood Creek Beach State Park, west of the project site. The existing bridge is approximately half a mile from the Pacific Ocean, and an access road owned by the Elk Water District leads to the stream corridor beneath the bridge (Caltrans proposes to use the road for construction access).

The proposed project will replace the existing concrete box bridge with a slightly longer bridge along a wider “arc” of alignment extending the new bridge further east from the existing bridge and realigning a stretch of the connecting portions of the highway back to the point of conformity . The new bridge will be very similar in appearance to the old bridge, but the concrete guard rails of the old bridge will not reappear. Instead, Caltrans proposes the use of the most visually-permeable rail presently available, which is the ST-10 metal beam guard rail, topped by a bicycle safety rail with a matching design that

blends with the pedestrian corridor rail (see Exhibit 4).

The Commission's "Road's Edge" Subcommittee has favorably reviewed the new rail designs, which Caltrans presented in August 2009. The final details of the bridge rail design and placement, the finish of the retraining walls at the foot of adjacent cut slopes, signage and lighting plans, etc., were still being resolved as of the preparation of the staff report. Caltrans does not propose architectural lighting of the bridge, in part because the bridge traverses a sensitive habitat area and also to avoid creating unnecessary intrusion into the night sky or to create a visual impact by adding lighting that is visible from the adjacent Greenwood Creek Beach State Park. Therefore, to ensure that the project plans are finalized in this manner, Special Condition 12 requires that final plans be submitted for the review and approval of the Executive Director.

Temporary visual resource impacts will occur during construction due to cut and fill earthwork, vegetation removal, and the presence of equipment in the construction and staging areas. These impacts would be significant and adverse in the short-term, but long term restoration will occur through re-planting the disturbed area with locally native plant materials as required by Special Condition 4 (Landscape and Erosion Control). Implementation of the final approved landscape and erosion control plan prepared in accordance with the requirements of Special Condition 4 will restore the visual character of the stream corridor after construction ends, thus limiting the adverse impacts of the proposed project on the visual resources of the Greenwood Creek crossing. Special Condition 12 includes the requirement that the final plans limit the clearance of stream channel vegetation east of the existing bridge to not more than 40 feet eastward as measured from the eastward edge of the existing bridge, along the right of way. Caltrans had proposed a clearance area up to 80 feet eastward along this corridor so that a construction staging area (storage of equipment and materials) could be installed within the stream corridor. As addressed in Section 4.3.1, this additional disturbance of vegetation would be avoided by requiring the contractor to locate a staging area outside of the riparian corridor. Relocation of staging would also reduce the adverse visual impacts of construction materials and equipment lining the stream corridor in place of the natural riparian vegetation. Special Condition 14 (final disposal plan for excess graded material and demolition debris) ensures that the disposal of excess cut material and project wastes will be undertaken in an appropriate manner and that the highly scenic area of the subject project is not adversely impacted by dumping the materials on roadsides or in other stream corridors.

Conclusion: Coastal Act Consistency

The Commission finds that the proposed project, conditioned to (a) utilize a rail design that maximizes views through the railing; (b) replant construction areas with native plants; (c) minimize the illumination of habitat areas and the night sky; d) limit the methods of disposal, and (e) limit the clearance of stream channel vegetation, is consistent with the Chapter 3 policies of the Coastal Act concerning visual resources.

4.3.5 ENVIRONMENTALLY SENSITIVE HABITAT (Non-Wetland)

Section 30240: Environmentally sensitive habitat areas; adjacent developments

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas

Analysis:

The proposed bridge and highway development will adversely affect the habitat of two California species of special concern: the purple martin (through the exclusionary netting and demolition of the existing bridge that is utilized by the bridge-nesting species) and the California red tree vole (through the removal of two mature fir trees identified as nesting trees in past surveys). Surveys for bat species that may be utilizing the existing bridge have been negative. Other sensitive species and habitats that may be affected by the proposed project, such as wetland vegetation, tidewater goby, and steelhead trout are addressed in Section 4.3.1. This section only addresses non-wetland ESHA.

As discussed above, a detailed analysis of the alternatives for the construction of the proposed project concludes that the proposed project, modified to reduce riparian wetland vegetation removal, is the least damaging option for replacement of the aging Greenwood Creek Bridge. However, the project would still remove habitat that supports two locally rare species, for a highway development, a use that is not dependent on the resources of the ESHA.

The purple martin (*Progne subis*) is a state species of special concern. Purple martins are an uncommon to rare, local summer resident in a variety of wooded, low-elevation habitats throughout the state. Purple martins often nest in tree woodpecker cavities, and in structures such as bridges and culverts, from April to August (the migratory bird nesting season in Mendocino coastal areas is April 1 – August 31, inclusive).

Purple martins have been observed by Caltrans biologists surveying the project site. The birds were observed flying into and out of access plate cavities under the south half of the bridge where at least two nests were observed in 2005.

Caltrans proposes to net off the existing bridge prior to nesting season each year during construction to prevent purple martins (and other bridge nesting species, such as swallows) from establishing nests on the bridge. The half-width construction technique

Caltrans must use to construct the bridge on the proposed alignment combines active construction with periods of demolition within relatively close proximity to any nests that could be established in the work area, and thus would potentially slow the construction schedule by months, possibly causing as much as a year of construction delay under some circumstances.

The use of bridge netting can cause bird mortality. Bridge-nesting species attempt to defeat the netting to reach favored nesting areas, and may become trapped. Caltrans has reported such outcomes on many bridge projects and seeks alternatives to netting where feasible. In addition, if netting is not carefully installed, or if netting is torn or left up long enough to begin to sag or deteriorate, birds may become entangled in the material. The Commission typically avoids authorizing netting on bridge projects for these reasons, but in this case there is no alternative because of the half-width construction requirements and scheduling limitations. To ensure that bird mortality is prevented, Special Condition15 requires Caltrans to plan and install alternative nesting structures near the project site so that purple martins may find an acceptable alternative upon discovering the netted bridge. In addition, Special Condition 15 requires that the netting be installed under the supervision of the biological monitor (Special Condition 9) and the biological monitor is required to routinely check the netting to ensure the continued performance of the netting as set forth in the special conditions, and to observe and release any trapped birds. In addition, Special Condition 15 requires Caltrans to submit final plans that have been reviewed by a qualified biologist to verify that the new bridge design features will support purple martin nesting at least as well as the old bridge.

The California red tree vole is listed as a state species of special concern. This species is found along the Pacific coastal lowlands in Oregon and Northern California, and occurs only in coastal coniferous forests consisting of Douglas fir, Grand fir, Western hemlock and/or Sitka spruce. Generally, large trees are preferred, but the voles will inhabit smaller trees when large trees are not available. The voles live above ground within the forest canopy, and feed almost exclusively on the resin ducts of Douglas fir needles, but will also feed on needles, buds, and tender bark of grand fir, hemlock, and spruce. The California red tree vole is known to occupy timber habitat adjacent to and within the project boundaries and the greater vicinity of Greenwood Creek and Bonee Gulch drainages.

The revised bridge design has reduced the number of vole trees that must be removed from 23 or 24 to only 2. Nevertheless, the two trees that must be removed have shown evidence of nesting during past surveys. Caltrans proposes to remove the two trees prior to the most active nesting season (voles may nest throughout the year), and will first have a tree climber remove any visible remnant nests and place the nests at the base of nearby trees suitable for voles.

Caltrans biologists conferred with U.S. Fish and Wildlife Service biologists regarding methods to minimize vole impacts when the subject trees are removed. USFWS

biologists advised that if any voles remain in the trees after the removal of the any nests that are located, the voles will likely survive the tree-fall. However, because the trees that the California red tree voles rely on for habitat are long lived species that take many years to reach optimum size for vole habitat, the loss of two mature vole nesting trees is a significant impact on ESHA.

Caltrans proposes to plant Douglas fir seedlings at a 30:1 ratio within the Greenwood Creek corridor, east of the bridge after construction is completed. The high replacement ratio significantly exceeds the 3:1 replacement ratio for the loss of trees that Caltrans ordinarily proposes. Caltrans has, in this case, taken into consideration the long life of the affected tree species, and the length of time required for an individual seedling to reach the stature required to function as vole habitat. The planting and maintenance of the seedlings is addressed in Special Condition 4 (Final Landscape and Erosion Control Plan). Caltrans has further agreed that if sufficient space is not available to accommodate all of the seedlings at projected size of maturity while still replanting an ecologically appropriate mosaic of native species in the restored areas, then the remainder of the seedlings will be planted in the offsite wetland mitigation project, which State Parks staff has indicated could be accommodated.

Conclusion: Coastal Act Consistency

Even with the proposed mitigation, the loss of environmentally sensitive habitat resulting from the development for a non-resource dependent use is inconsistent with Coastal Act Section 30240. However, as discussed further in the following section of this report, although the project proposes to impermissibly remove environmentally sensitive habitat by netting off and demolishing the existing Greenwood Creek Bridge that provides nesting sites for a migratory purple martin population, and by removing two mature fir trees that have provided nesting habitat for the California red tree vole, the project assures and enhances continued public access and recreation that would be cut off if the Greenwood Creek Bridge were not replaced and eventually failed. In addition, the new bridge provides for the first time, a safe, all-weather, ADA-compliant crossing of Greenwood Creek for the California Coastal Trail, as well as improved paved shoulders for the benefit of bicyclists on the Pacific Coast Bike Route. The eventual failure of the existing bridge that Caltrans states will inevitably occur if the existing bridge is not replaced would severely impede public coastal access and recreation, in conflict with the policies of the Coastal Act protective of these public coastal resources.

4.3.6 RESOLVING POLICY CONFLICTS

Standard of Review: Coastal Act

Coastal Act Section 30007.5 states:

> The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out

> the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

Coastal Act Section 30200(b) states:

> Where the commission or any local government in implementing the provisions of this division identifies a conflict between the policies of this chapter, Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts.

Analysis

As noted previously in this report, the proposed project is inconsistent with pertinent provisions of Sections 30240 of the Coastal Act. However, as explained below, denying or modifying the proposed project to eliminate these inconsistencies would lead to nonconformity to other Coastal Act policies, namely policies protective of public coastal access and recreation.

Regarding its inconsistency with Section 30240, even though the new Greenwood Creek Bridge replacement proposed location and design is the most suitable of the feasible and available options for reducing operational hazards of existing traffic and for reducing seismic and scour risks that have affected, or may affect the existing, aging bridge presently in use for the highway crossing of the stream corridor, approving the construction of the new bridge at the proposed location would not be fully consistent with the requirements of Sections 30240 for the reasons explained in the previous section of this report.

However, denying the proposed Greenwood Creek Bridge replacement project on the basis of these inconsistencies would result in the continued presence of the existing bridge, which Caltrans states has outlived its 50-year design life. Caltrans has determined the bridge to be substandard and unsafe for a variety of reasons explained in Section 4.2 above. Caltrans has concluded that if the bridge is not replaced, it will eventually fail. Should the bridge fail, it is possible that the 80-ft.-high structure could collapse, limiting safe and effective public access to the coast for a significant period of time. Failure of the bridge would require an emergency replacement that would have greater impacts on coastal resources than would the construction of the bridge in the careful manner planned and proposed in the course of the regular planning and permitting process.

For all of these reasons, denial of the proposed project would be inconsistent with the requirements of the policies of Chapter 3 of the Coastal Act that protect public coastal access and recreation. In such a situation, when a proposed project is inconsistent with a Chapter 3 policy, and denial or modification of the project would be inconsistent with another policy, Section 30007.5 of the Coastal Act provides for resolution of such a policy conflict.

Applying Section 30007.5

As indicated previously, the standard of review for the Commission's decision on a coastal development permit in the Commission's retained jurisdiction is whether the proposed project is consistent with the Chapter 3 policies of the Coastal Act. In general, a proposal must be consistent with all relevant policies in order to be approved. If a proposal is inconsistent with one or more policies, it must normally be denied or conditioned to make it consistent with all relevant policies.

However, the Legislature recognized through Sections 30007.5 and 30200(b) that conflicts can occur among those policies. It therefore declared that when the Commission identifies a conflict among the policies of Chapter 3, the conflict is to be resolved "in a manner which on balance is the most protective of significant coastal resources", pursuant to Coastal Act Section 30007.5.

That approach is generally referred to as the "balancing approach to conflict resolution." Balancing allows the Commission to approve proposals that conflict with one or more Chapter 3 policies, based on a conflict among the Chapter 3 policies as applied to the proposal before the Commission. Thus, the first step in invoking the balancing approach is to identify a conflict among the Chapter 3 policies.

1) **The project, as proposed, is inconsistent with at least one Chapter 3 policy:**

   For the Commission to apply Section 30007.5, a proposed project must be inconsistent with an applicable Chapter 3 policy. In the case of this proposed project, the inconsistency is with Sections 30240 of the Coastal Act as discussed previously.

2) **The project, if denied or modified to eliminate the inconsistency, would affect coastal resources in a manner inconsistent with at least one other Chapter 3 policy that affirmatively requires protection or enhancement of those resources:**

   A true conflict between Chapter 3 policies results from a proposed project which is inconsistent with one or more policies, and for which denial or modification of the project would be inconsistent with at least one other Chapter 3 policy. Further, the policy inconsistency that would be caused by denial or modification must be with a

policy that affirmatively mandates protection or enhancement of certain coastal resources. Denial of the proposed replacement of the Greenwood Creek Bridge on Highway One would be inconsistent with Section 30210 of the Coastal Act.

Section 30210, which requires, in part, that "maximum access shall be provided for all the people." The Greenwood Creek Bridge is a critical part of the Highway One corridor that provides the primary access route along coastal Mendocino County. If the Greenwood Creek Bridge is not replaced and fails, coastal recreation opportunities would be cut off for a substantial period of time while the bridges are eventually rebuilt under emergency conditions.

In most cases, denying a proposed project will not cause adverse effects on coastal resources for which the Coastal Act mandates protection or enhancement, but will simply maintain the status quo. Where denial of a project would result in adverse effects, as would denial of this proposed highway bridge replacement project and its resulting disruption of public access, a conflict between or among two or more Coastal Act policies is presented.

3) The project, if approved, would be fully consistent with the policy that affirmatively mandates resource protection or enhancement:

For denial of a project to be inconsistent with a Chapter 3 policy, the proposed project would have to protect or enhance the resource values for which the applicable Coastal Act policy includes an affirmative mandate. That is, if denial of a project would conflict with an affirmatively mandated Coastal Act policy, approval of the project would have to conform to that policy. If the Commission were to interpret this conflict resolution provision otherwise, then any proposal, no matter how inconsistent with Chapter 3 that offered a slight incremental improvement over existing conditions could result in a conflict that would allow the use of Section 30007.5. The Commission concludes that the conflict resolution provisions were not intended to apply to such minor incremental improvements.

Because the proposed highway bridge is designed, according to Caltrans, to be safe for the "maximum credible earthquake" and to prevent future bridge collapse due to river scour, the proposed Greenwood Creek Bridge is designed, according to Caltrans, to protect against the collapse or other harm to highway users that may otherwise arise if the existing substandard bridge is not replaced. Thus, the project as proposed and conditioned, is therefore fully consistent with Coastal Act Sections 30210 as maximum access would continue to be provided to all the people.

4) The project, if approved, would result in tangible resource enhancement over existing conditions:

This aspect of the conflict between policies may be looked at from two perspectives – either approval of the project would result in improved conditions for a coastal

resource subject to an affirmative mandate, or denial or modification of the project would result in continued degradation of that resource.

Approval of the proposed Greenwood Creek Bridge replacement project would result in replacement of an existing, aging, substandard bridge that Caltrans states is presently affected by scour in the river channel and which provides inadequate protection against seismic risks. Caltrans asserts that if the bridges are not replaced, and replaced in the manner prescribed by Caltrans, the existing bridge will eventually collapse. If a bridge collapse were to occur, safe and effective public access to the coast, and particularly to areas of coastal recreation, including areas that offer lower cost visitor services and recreational opportunities, would be cut off for a significant period of time. This would significantly affect public coastal access and recreation opportunities on the Mendocino coast and beyond because Highway One is a primary transportation route for the region.

Denial of the proposed bridges project would result in the continued operation of the existing bridge and the continued higher risks associated with the response of these bridge to the "maximum credible earthquake" that may affect the subject location according to Caltrans, as well as the continued higher risks associated with the reduced foundation strength that Caltrans asserts has resulted from the exposure of the concrete footings of the existing bridge due to scour in the river channel. The existing bridge may also be subject to tsunamis (with or without earthquakes) and generalized flooding and erosion that may affect the Greenwood Creek channel due to storm conditions. But for the proposed project to replace the aging bridge with a bridge designed to the safety standards that Caltrans asserts are contemporary for such bridges, the existing inadequate at-risk bridge would be expected to remain in service for the foreseeable future. During that time, it is possible that an earthquake with or without tsunami, a tsunami that may occur with or without an earthquake in the area, flooding or storm surges or a combination of these hazards, may affect the existing bridge. Any of these events would likely result in damage or destruction of the existing bridge in excess of the damage that would be expected to occur if the proposed new bridge were in place instead, according to Caltrans. Therefore, approval of the project would result in improved conditions for public access and denial would result in continued degradation of that resource.

5) The benefits of the project must result from the main purpose of the project, rather than from an ancillary component appended to the project to "create a conflict":

A project's benefits to coastal resources must be integral to the project purpose. If a project is inconsistent with a Chapter 3 policy, and the main elements of the project do not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the project proponent cannot "create a conflict" by adding to the project an independent component to remedy the resource

degradation. The benefits of a project must be inherent in the purpose of the project. If this provision were otherwise, project proponents could regularly "create conflicts" and then request that the Commission use Section 30007.5 to approve otherwise unapprovable projects. The balancing provisions of the Coastal Act could not have been intended to foster such an artificial and easily manipulated process, and were not designed to barter amenities in exchange for project approval.

The proposed Greenwood Creek Bridge replacement project is designed to be more stable and to better withstand seismic hazards than the existing highway bridge at this river crossing. The project as proposed by Caltrans consists of structures designed to resist river scour and to withstand the forces of the "maximum credible earthquake" as defined by Caltrans for the subject project site. Therefore, the benefits to public access along the coast are integral to the project purpose.

6) There are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies:

Finally, a project does not present a conflict among Chapter 3 policies if at least one feasible alternative would meet the project's objectives without violating any Chapter 3 policy. Thus, an alternatives analysis is a condition precedent to invocation of the balancing approach. If there are alternatives available that are consistent with all of the relevant Chapter 3 policies, then the proposed project does not create a true conflict among those policies.

As noted above, over the past few years Caltrans evaluated a variety of general project alternatives to determine the best feasible location and design for the proposed Greenwood Creek Bridge replacement project. The analysis evaluated the "no project" and onsite alternatives. No offsite alternative was evaluated because the bridge must be constructed in a location proximate to the existing highway corridor and the bridge must tie in to the point of conformity north and south of the existing bridge within a reasonable distance from the footprint of the new bridge. The "no project" alternative would have Caltrans maintain and require the public to use the current, aging substandard highway bridge that presently comprises the river crossing of Highway One at this location. While this system meets current minimum requirements according to Caltrans, and thus the existing bridge is not subject to being shutdown due to safety deficiencies, denial of the project proposed by Caltrans would result in continued operation of the existing bridge that, as noted above, is not designed and strengthened in accordance with contemporary safety and design standards that Caltrans now applies to such structures in locations subject to the natural hazards that affect the Greenwood Creek Bridge Bridges project location and that thereby, according to Caltrans minimizes the applicable geologic risks. This situation would, as discussed above, result in eventual loss of safe and effective public coastal access and coastal recreation. Therefore, denial of the proposed project would result in a development inconsistent with the requirements of Coastal Act Section 30210. For the reasons set forth above, the

Commission finds that there are no feasible alternatives (other than the modified alternative discussed above that reduces the extent of riparian wetland vegetation removal, but does not change the adverse impacts of the project on environmentally sensitive habitat and therefore does not represent another alternative for the purposes of this conflict resolution analysis) available within the general project area that could be safely implemented consistent with the public coastal access and recreation policies of the Coastal Act, that would reduce the proposed project's adverse impacts on non-wetland environmentally sensitive habitat.

Existence of a Conflict between Chapter 3 Policies:

Based on the above, the Commission finds that the proposed project presents a conflict between Sections 30240 on the one hand, and Sections 30210 and 30214, on the other, that must be resolved through application of Section 30007.5, as described below.

Conflict Resolution*:*

After establishing a conflict among Coastal Act policies, Section 30007.5 requires the Commission to resolve the conflict in a manner that is on balance most protective of coastal resources. As noted previously, the project would impermissibly and permanently convert environmentally sensitive habitat to highway use, thus making the project as proposed by Caltrans inconsistent with Section 30240 of the Coastal Act. However, denying the project because of its inconsistency with these policies would result in significant adverse effects on coastal public access and recreation resources due to the probability of a future compromise or collapse of the existing, aging bridge.

As stated, the conflict resolution provisions require that the conflict be resolved in a manner which on balance is the most protective of significant coastal resources. To meet this test, it is necessary that adverse impacts on environmentally sensitive habitat be mitigated to the maximum extent feasible. Caltrans proposes to undertake mitigation of the adverse impacts the Greenwood Creek Bridge project will have on environmentally sensitive habitat resources through the netting off of the existing bridge to avoid impacts to nesting purple martins (by preventing nesting in the first place). As discussed in section 4.3.5 above, however, Special Conditions 12 and 15 require final plans to ensure that the new bridge will offer equivalent nesting habitat, that alternative temporary nesting structure be designed and placed near the project site, and that netting activities be supervised and routinely checked for integrity, and to release any birds that may become entrapped, annually while the netting is in place, among other measures. Caltrans proposes to remove the trees that provide habitat for the California red tree vole during the season least likely to have active vole nesting, to have the trees inspected before removal and to place any observed nests near the base of other suitable trees nearby, and to plant Douglas fir seedlings at a 30:1 ratio on site and if necessary to achieve adequate space, off site at the wetland mitigation site that will be

overseen by State Parks. Special Condition 4 (Final Landscape and Erosion Control Plan) includes this requirement.

The Commissions find that on balance, therefore, approval of the bridge replacement to provide continued safe and enhanced public coastal access together with the provision of environmentally sensitive habitat mitigation as proposed by Caltrans and as required by the Commission as explained and as set forth above is more protective of coastal resources than denial of the project. The Commission further finds that the mitigation measures described herein are such that with the mitigation, approving the proposed project will resolve the conflict in a manner which on balance is most protective of significant coastal resources.

To ensure that the environmentally sensitive habitat mitigation benefits of the project that would enable the Commission to use the balancing provision of Section 3007.5 are achieved, the Commission attaches Special Conditions 4, 9 (Biological Monitoring to ensure mitigation performance), 12, and 15. The Commission finds that without these special conditions, the proposed project could not be approved pursuant to Section 30007.5 of the Coastal Act.

Conclusion: Consistency with the Coastal Act

In sum, the Commission finds that while the construction of the new bridge at the Greenwood Creek highway crossing as proposed by Caltrans would cause adverse impacts on environmentally sensitive habitat resources, the new bridge would be sited and designed in a manner that will vastly improve public safety and long term coastal access and recreation due to the more reliable "lifeline" highway status of Highway One at this location that will result from the replacement of the old bridge with a new bridge of a modern design consistent with Caltrans' current safety requirements. The Special Conditions of this report are necessary to ensure that the proposed Greenwood Creek Bridge replacement project's adverse impacts are minimized and to the extent feasible, mitigated, and that the benefits of the proposed project are thus fully realized. Therefore, the Commission finds that approval of the proposed project notwithstanding its inconsistencies with al Coastal Act policy is "most protective of coastal resources" for purposes of the conflict resolution provisions of Coastal Act Section 30007.5.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

On January 12, 2004, Caltrans as lead agency certified Mitigated Subsequent Negative Declaration (SCH 2002052090) for the subject "*Greenwood Creek Bridge Replacement Project" Route 1, Kilometer Posts 53.1/54.7 (Post Miles 33.0/34.0) Mendocino County EA 310100*, and on May 1, 2009, Caltrans as lead agency certified "*Addendum to the Greenwood Creek Bridge Replacement Negative Declaration"* which included Caltrans' further alternatives analysis and identified the present project proposal as the preferred alternative.

Section 13906 of the Commission's administrative regulation requires Coastal Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, is consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are any feasible alternatives or feasible mitigation measures available, which would substantially lessen any significant adverse effect the proposed development may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. No public comments regarding potential significant adverse environmental effects of the project were received prior to preparation of the staff report. As specifically discussed in these above findings, which are hereby incorporated by reference, mitigation measures that will minimize or avoid all significant adverse environmental impacts have been required. As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the Coastal Act to conform to CEQA.

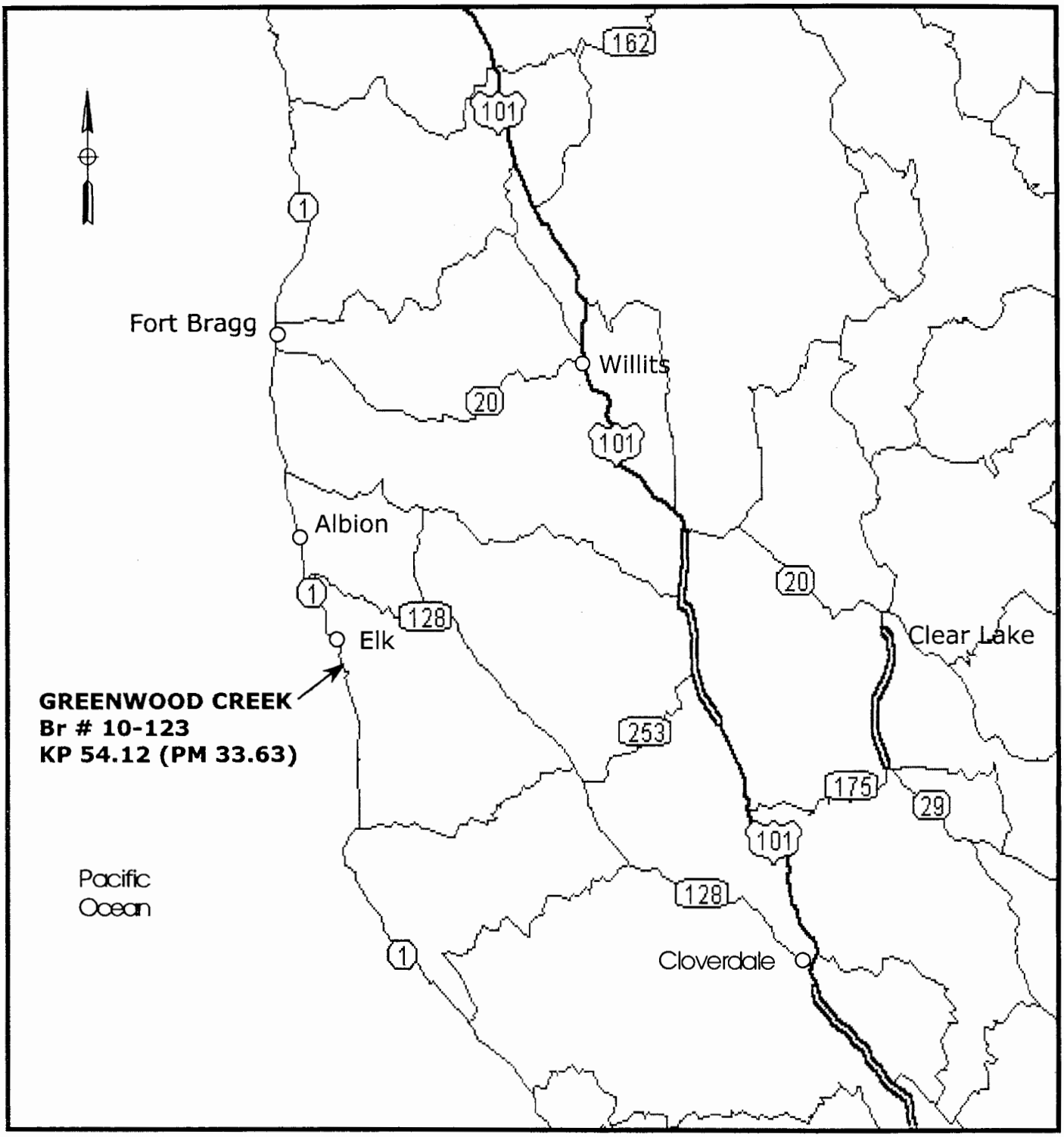


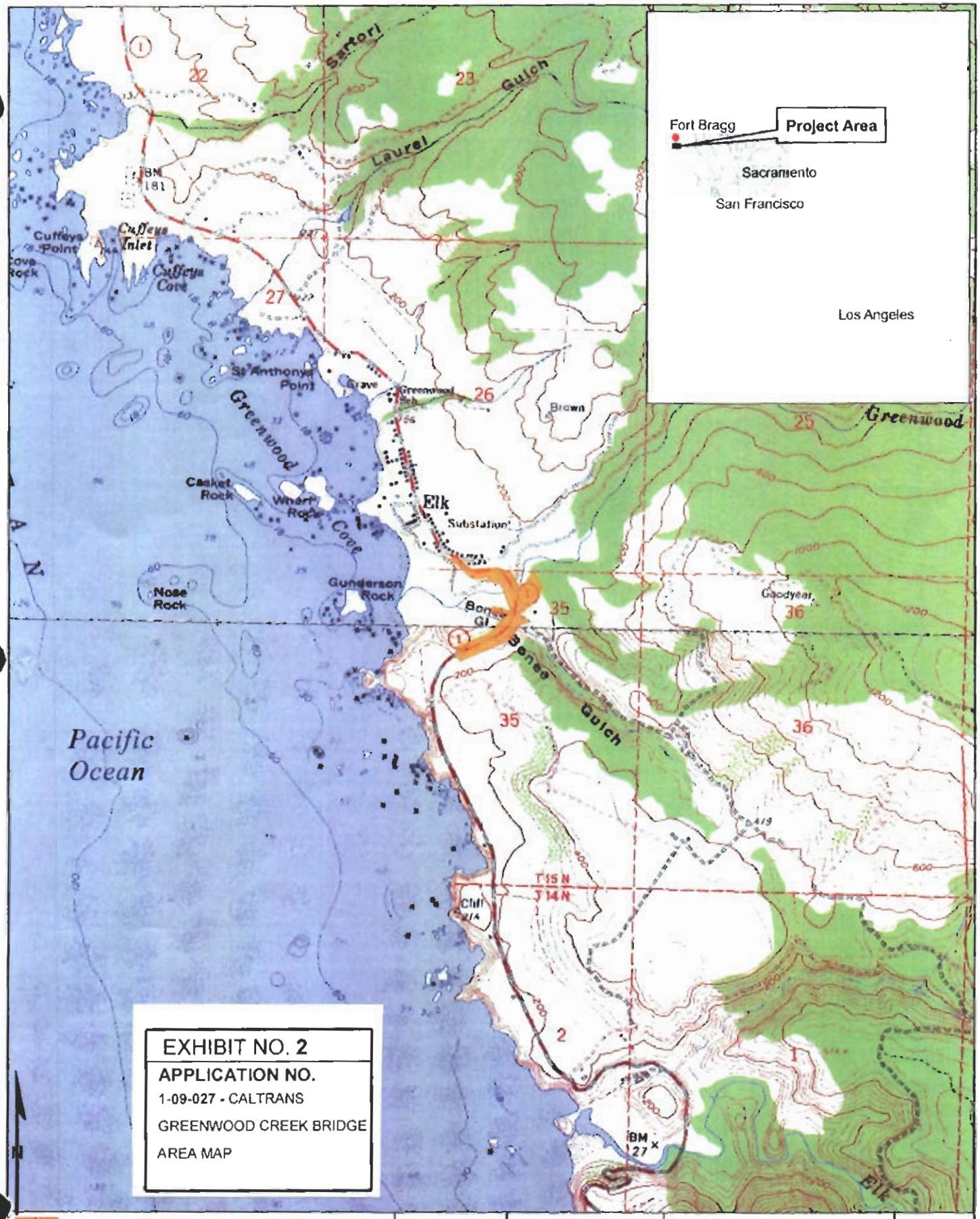
EXHIBIT NO. 1
APPLICATION NO.
1-09-027 - CALTRANS
GREENWOOD CREEK BRIDGE
REGIONAL MAP

FIGURE A

PROJECT LOCATION

Greenwood Creek Bridge Replacement

Caltrans


Fort Bragg
Project Area
Sacramento
San Francisco
Los Angeles
Sartori
Gulch
Laurel
Cuffeys Point
Cuffeys Inlet
Cuffeys Cove
Cove Rock
St Anthonys Point
Greenwood
Casket Rock
Wheel Rock
Cove
Elk
Substation
Nose Rock
Gunderson Rock
Brown
Greenwood
Goodyear
Benee
Gulch
Pacific Ocean
T15N
T14N
Cliff
BM 27
Elk
EXHIBIT NO. 2
APPLICATION NO.
1-09-027 - CALTRANS
GREENWOOD CREEK BRIDGE
AREA MAP
Study Area
0
0.25
0.5
Miles
Base map source: USGS 7.5-minute topographic quadrangles
GREENWOOD CREEK
Project Location Map
Figure 1
Feb 2009

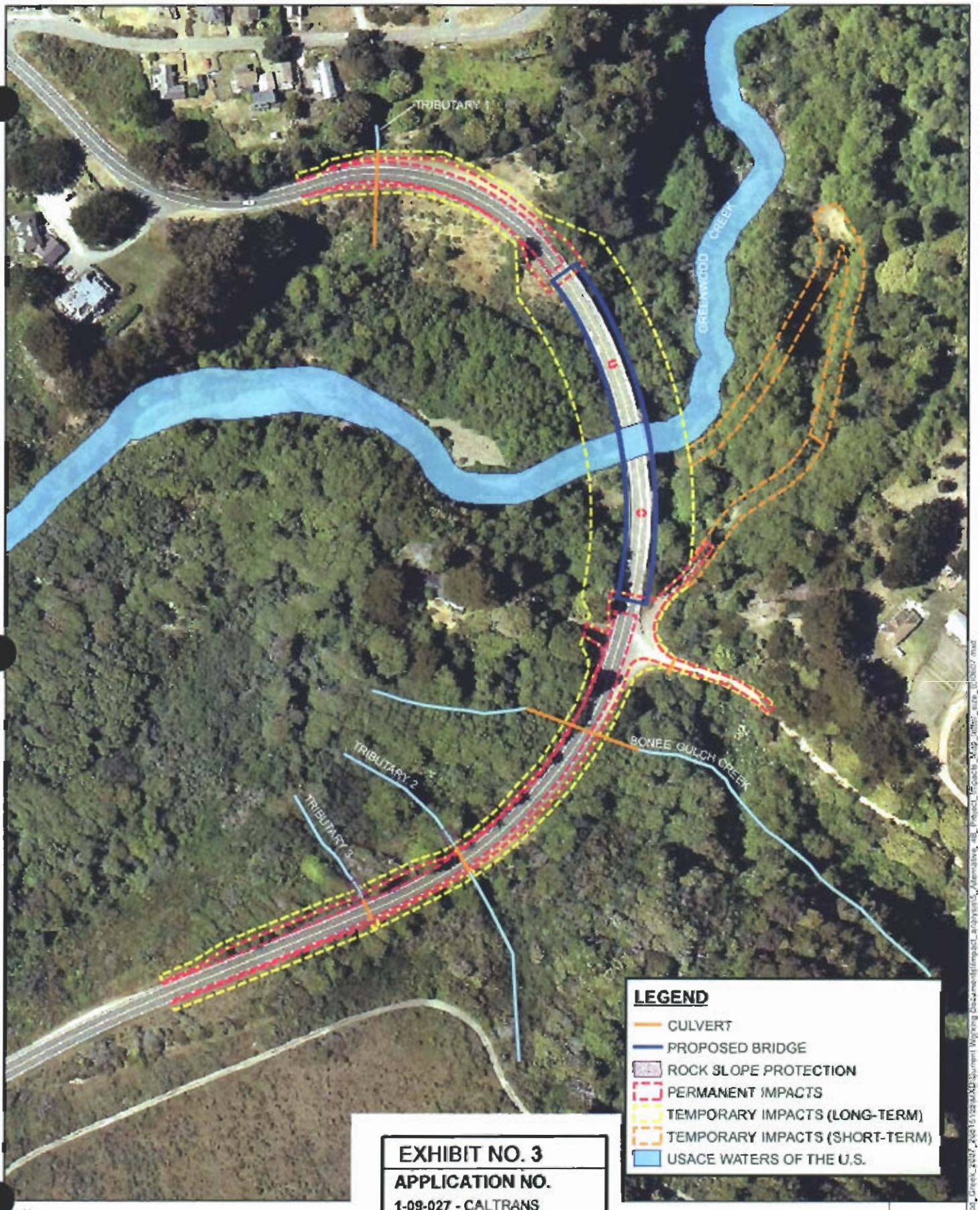


EXHIBIT NO. 3

APPLICATION NO.

1-09-027 - CALTRANS

GREENWOOD CREEK BRIDGE

PROJECT AERIAL PLAN VIEW AND PLAN DETAILS (1 of 5)

ALTERNATIVE 4B
EASTERN ALIGNMENT-
6.7 ft CENTERLINE OFFSET
PROJECT IMPACT AREAS

Figure 5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	1	33.4/33.8	X	X

REGISTERED CIVIL ENGINEER 00/00/00 DATE

FOR DESIGN STUDY ONLY

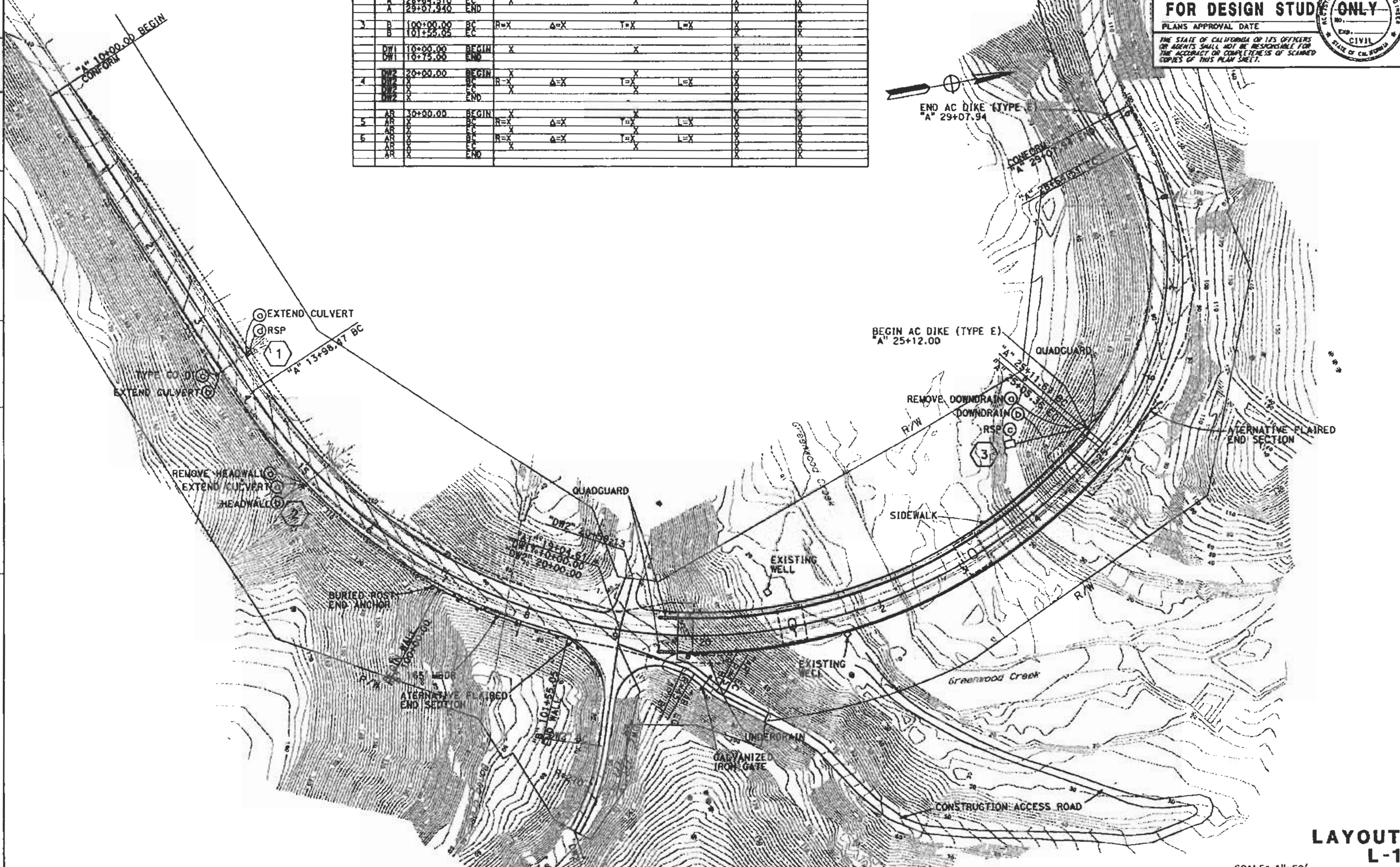
PLANS APPROVAL DATE

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.

REGISTERED PROFESSIONAL ENGINEER · No. · Exp. · CIVIL · STATE OF CALIFORNIA

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

No	LINE	STATION		CURVE OR TANGENT DATA				COORDINATES NORTH	COORDINATES EAST
	A	10+00.000	BEGIN	X		X		X	X
1	A	13+98.470	BC	R=X	Δ=X	T=X	L=X	X	X
	A	25+05.360	EC	X		X		X	X
2	A	25+11.670	BC	R=X	Δ=X	T=X	L=X	X	X
	A	28+64.510	EC	X		X		X	X
	A	29+07.940	END					X	X
3	B	100+00.00	BC	R=X	Δ=X	T=X	L=X	X	X
	B	101+55.05	EC					X	X
	DW1	10+00.00	BEGIN	X		X		X	X
	DW1	10+75.00	END					X	X
	DW2	20+00.00	BEGIN	X		X		X	X
4	DW2	X	BC	R=X	Δ=X	T=X	L=X	X	X
	DW2	X	EC	X		X		X	X
	DW2	X	END					X	X
	AR	30+00.00	BEGIN	X		X		X	X
5	AR	X	BC	R=X	Δ=X	T=X	L=X	X	X
	AR	X	EC	X		X		X	X
6	AR	X	BC	R=X	Δ=X	T=X	L=X	X	X
	AR	X	EC	X		X		X	X
	AR	X	END					X	X



LAYOUT
L-1

SCALE: 1"=50'

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

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

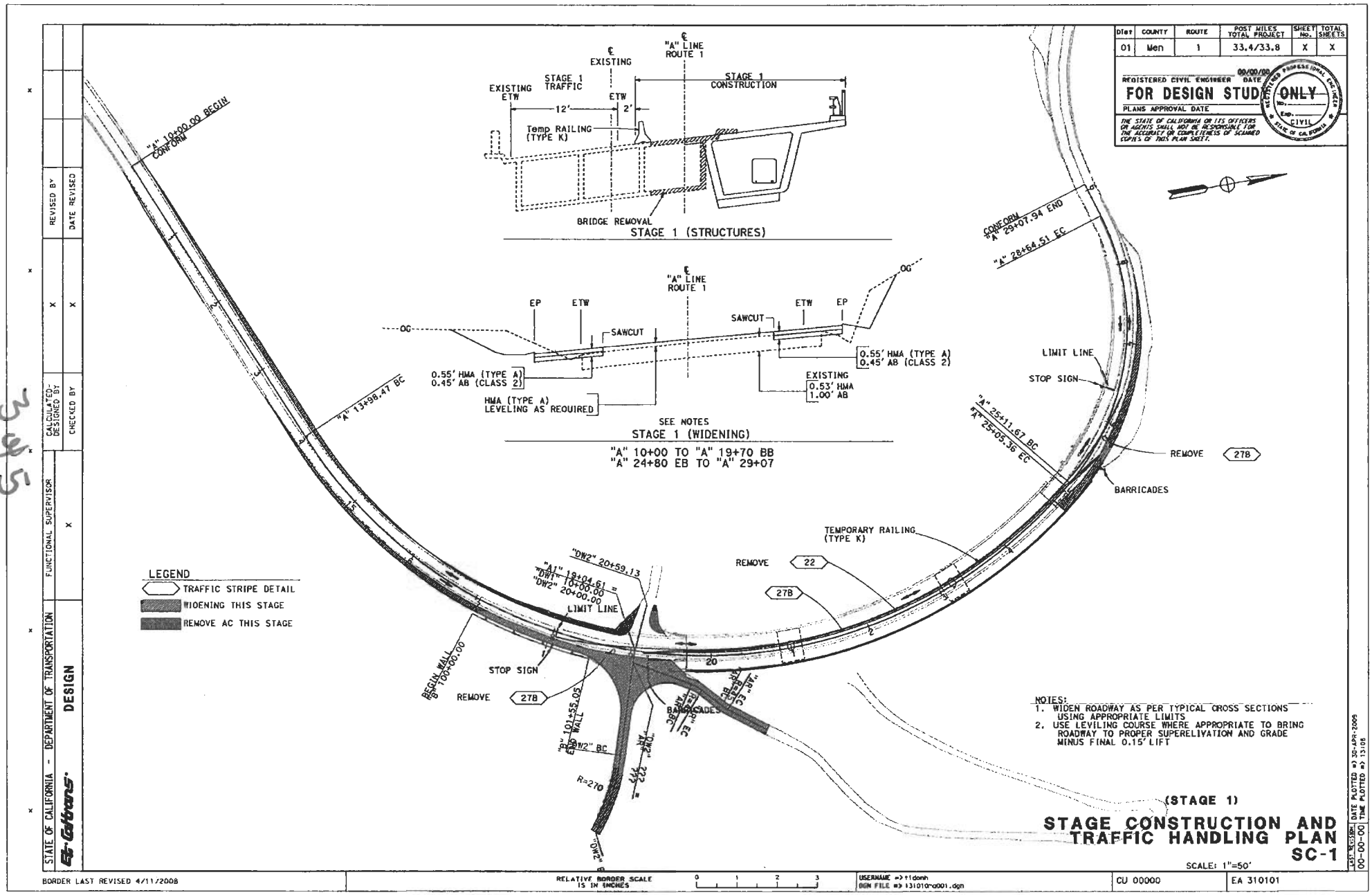
USERNAME => t1donh
DGN FILE => 131010ea001.dgn

CU 00000

EA 310101

LAST REVISION 00-00-00 DATE PLOTTED => 30-APR-2009 TIME PLOTTED => 13:08

245



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	1	33.4/33.8	X	X

09/00/00
REGISTERED CIVIL ENGINEER DATE
FOR DESIGN STUDY ONLY
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.
REGISTERED PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA

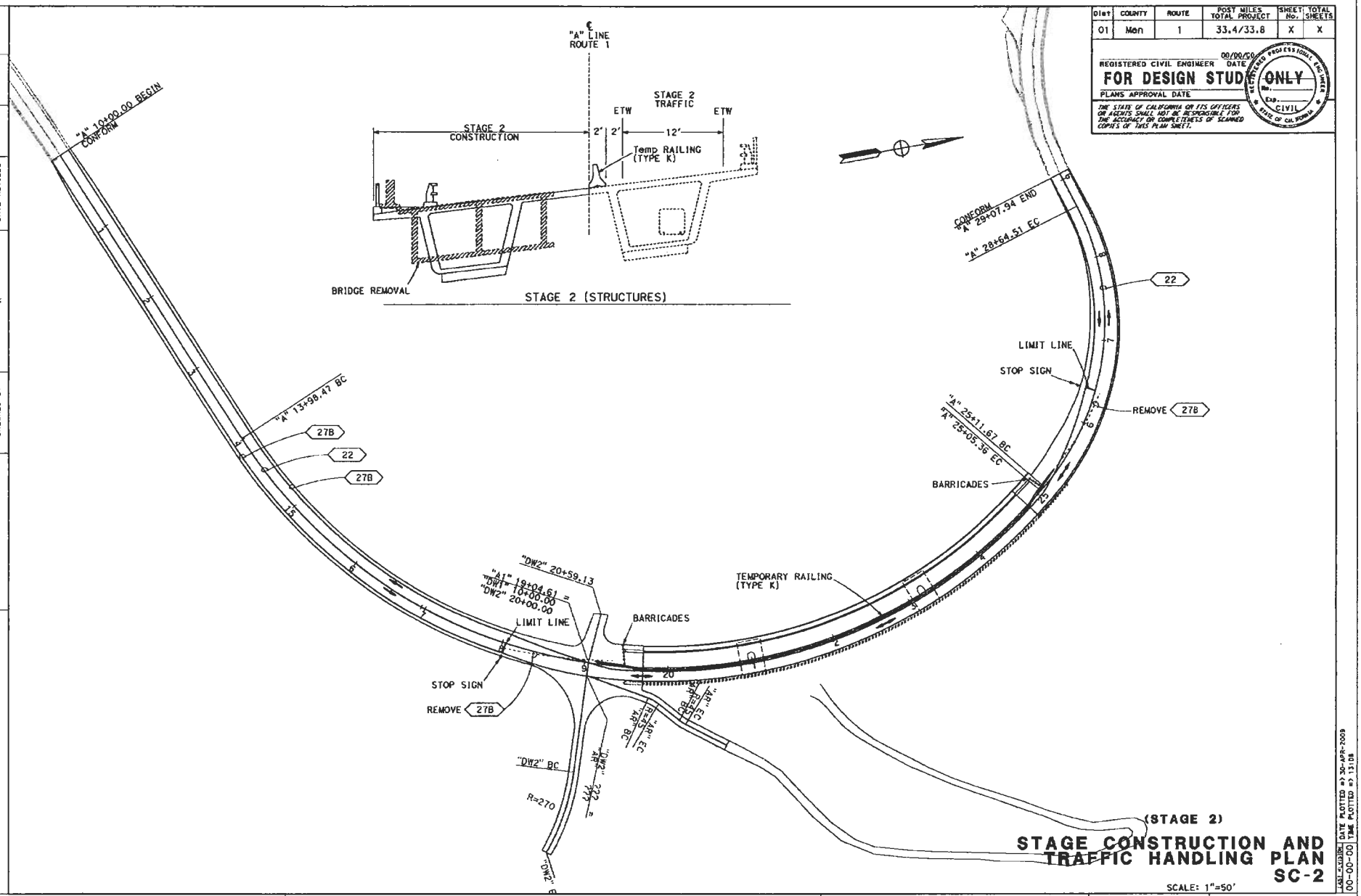
REVISED BY	DATE REVISED
X	X

CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
X

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST PLOTTED => 30-APR-2009
00-00-00 TIME PLOTTED => 13:08

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => tldonh
DGN FILE => 131010-s001.dgn
CU 00000
EA 310101



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	1	33.4/33.8	X	X

REGISTERED CIVIL ENGINEER — DATE 00/00/00

FOR DESIGN STUDY ONLY

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.

REGISTERED PROFESSIONAL ENGINEER — EXP. — CIVIL — STATE OF CALIFORNIA

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION — DESIGN

Caltrans

FUNCTIONAL SUPERVISOR: X

CALCULATED-DESIGNED BY: X

CHECKED BY: X

REVISED BY	DATE REVISED

LAST PLOTTED => 30-APR-2009
00-00-00 TIME PLOTTED => 13:08

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => rldonh
DGN FILE => 131010m0002.dgn

CU 00000

EA 310101

4 of 5

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE
4. SEE LAYOUT AND QUANTITIES FOR BARRIER PLACEMENT

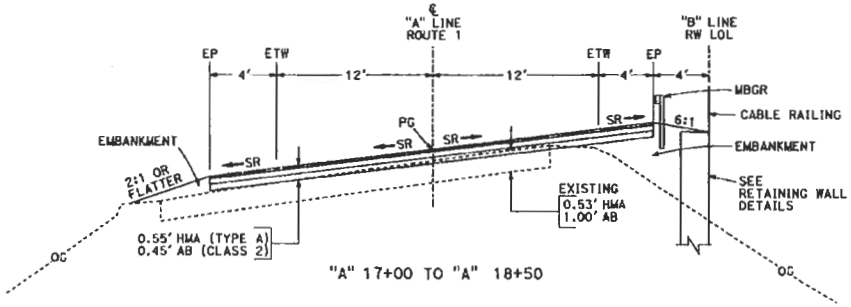
LEGEND
SR = SUPERELEVATION RATE

DESIGN DESIGNATION (ROUTE 299)

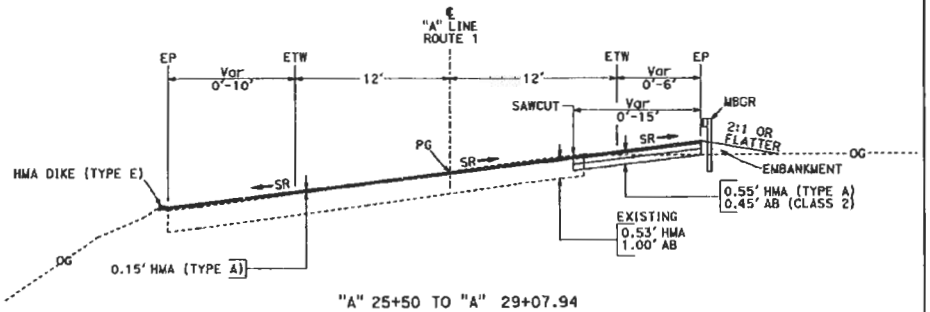
(2007) AADT= 3950		D= 60%
(2027) AADT= 5470		T= 10%
DHV= 560		V= 55 MPH

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	1	33.4/33.8	X	X

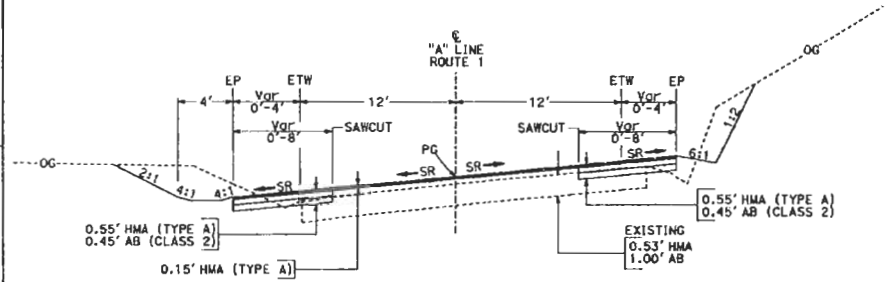
REGISTERED CIVIL ENGINEER — DATE 00/00/00
FOR DESIGN STUDY ONLY
PLANS APPROVAL DATE
Rev. Exp. CIVIL
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



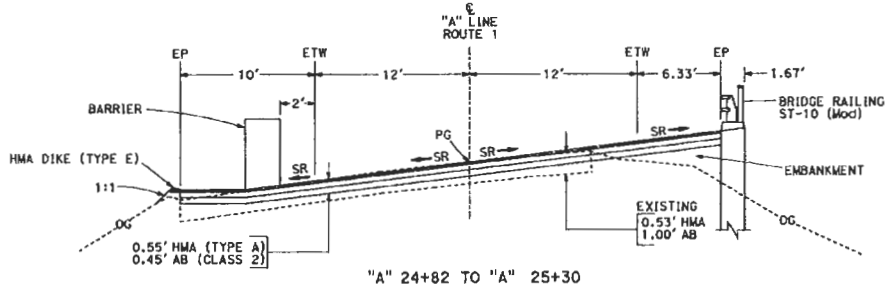
"A" 17+00 TO "A" 18+50



"A" 25+50 TO "A" 29+07.94



"A" 10+00 TO "A" 17+00
"A" 18+50 TO "A" 19+70



"A" 24+82 TO "A" 25+30

TYPICAL CROSS SECTIONS X-1

NO SCALE

5 of 5

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

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => tidonh
DGN FILE => 1310100c001.dgn
CU 00000
EA 310101
LAST REVISED DATE PLOTTED => 30-APR-2009
TIME PLOTTED => 13:08

EXHIBIT NO. 4

APPLICATION NO.

1-09-027 - CALTRANS

GREENWOOD CREEK BRIDGE

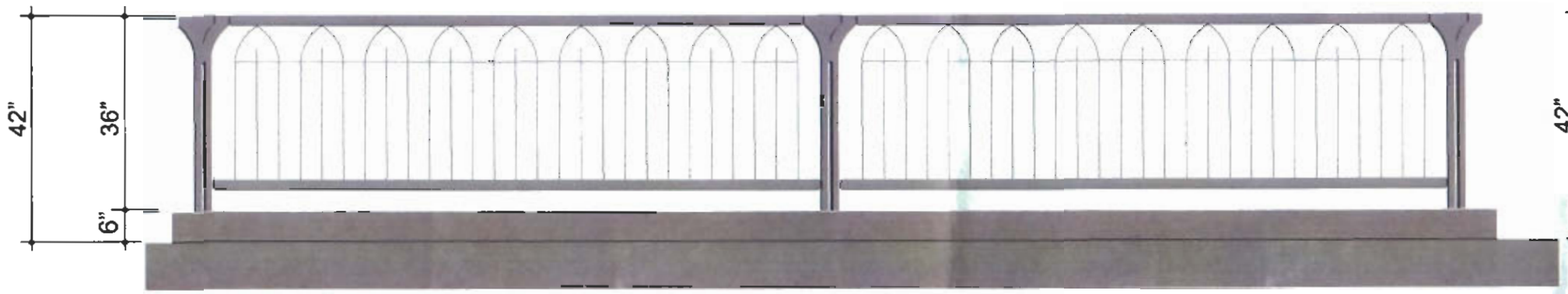
BRIDGE RAIL ILLUSTRATIONS
(1 of 3)

GREENWOOD CREEK BRIDGE REPLACEMENT

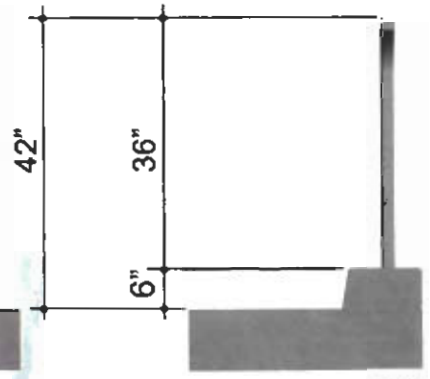
PEDESTRIAN AND ST-10 RAILS

PROPOSED RAIL DESIGN

GREENWOOD CREEK BRIDGE REPLACEMENT
42" PROPOSED RAIL DESIGN

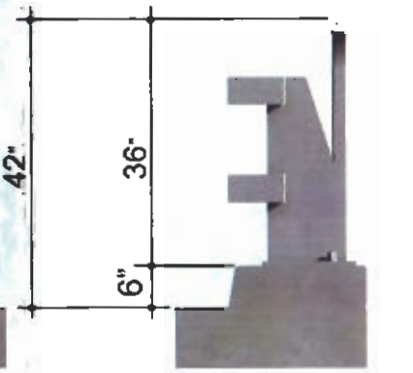


42" HIGH PEDESTRIAN RAIL

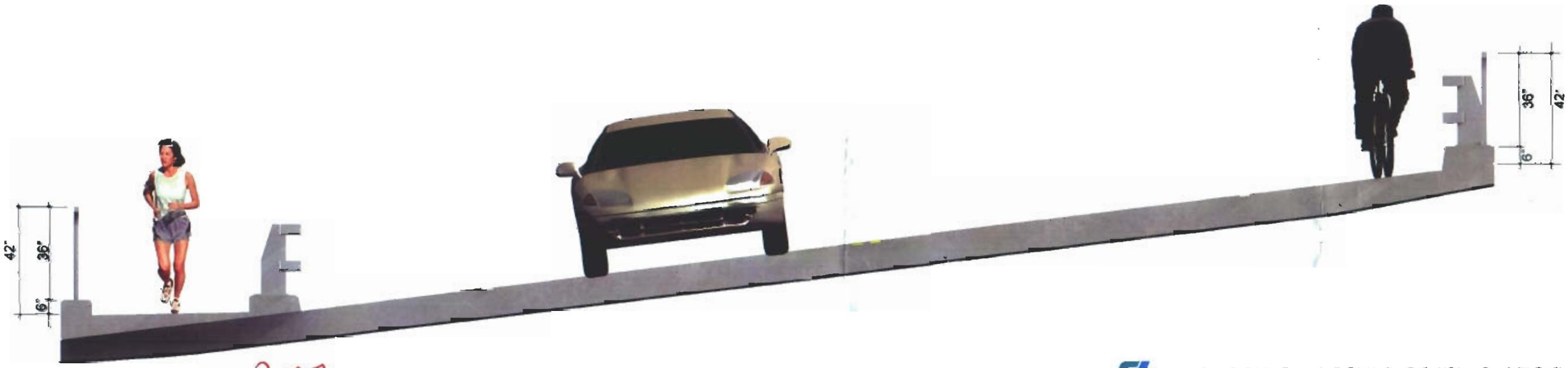


RAIL SECTION

42" HIGH ST-10 BICYCLE RAIL



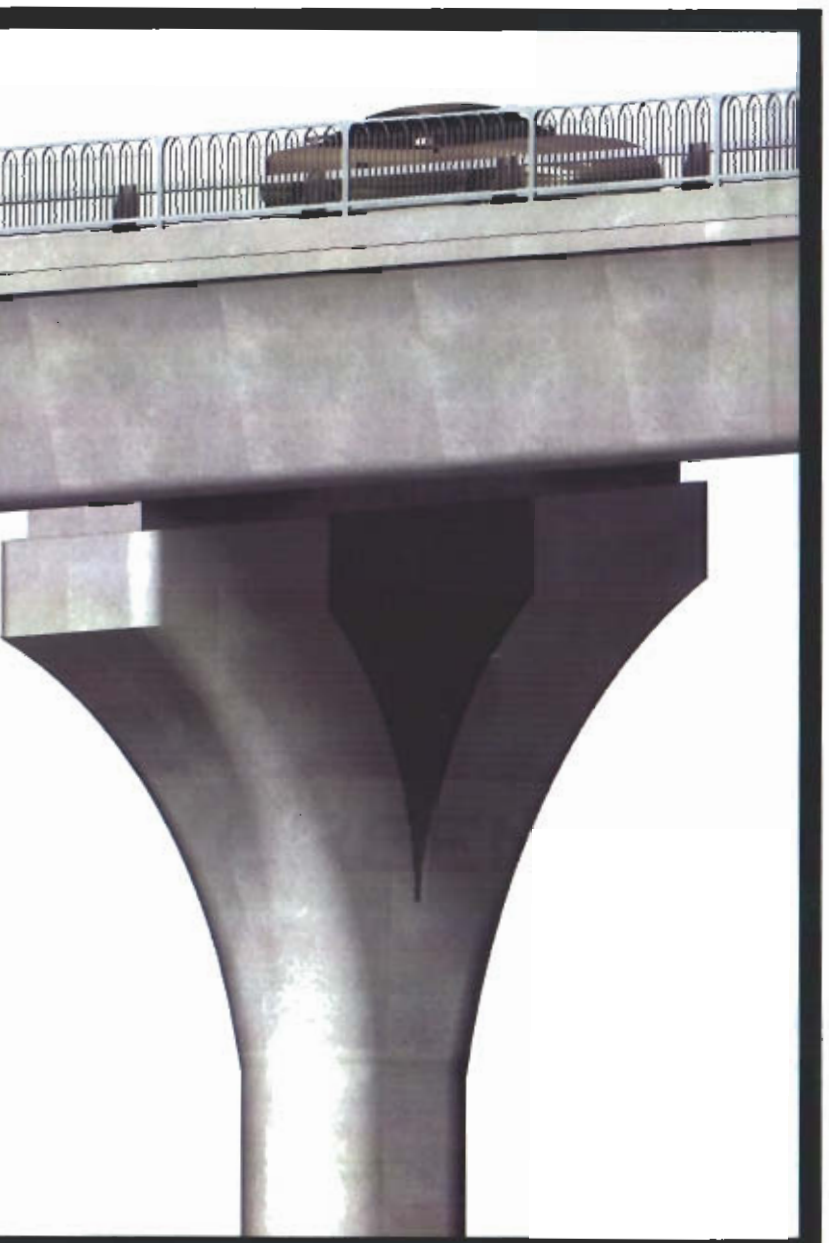
RAIL SECTION



DECK SECTION 293

DES, BRIDGE ARCHITECTURE & AESTHE

GREENWOOD CREEK BRIDGE REPLACEMENT
PROPOSED RAIL DESIGN



IAN RAIL AND COLUMN PERSPECTIVE VIEW

PEDESTRIAN RAIL PERSPECTIVE VIEW

DES, BRIDGE ARCHITECTURE & AESTHETIC

Looking upward towards existing Greenwood Creek Bridge from the east.

EXHIBIT NO. 5

APPLICATION NO.

1-09-027 - CALTRANS

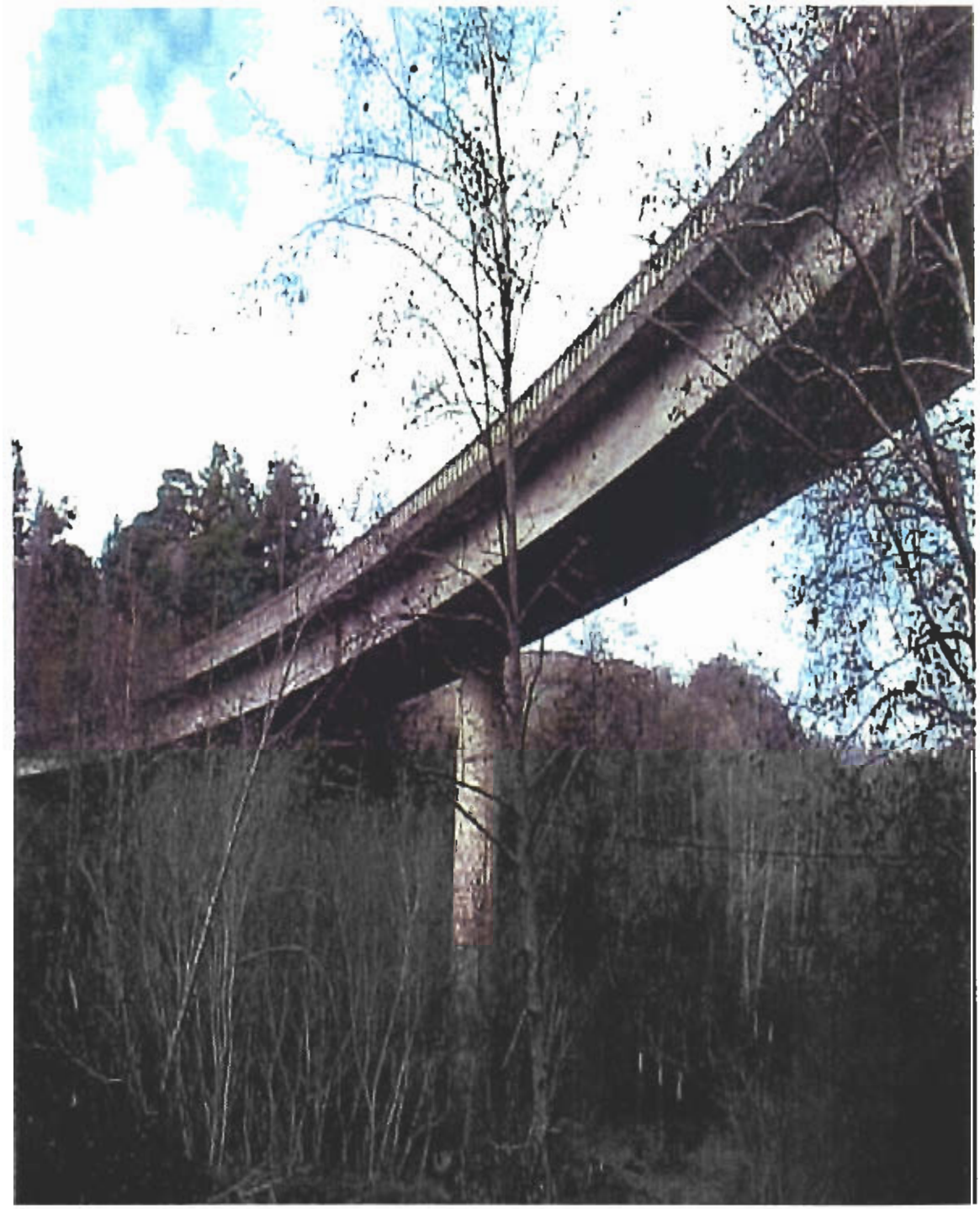
GREENWOOD CREEK BRIDGE

VIEWS OF EXISTING BRIDGE (1 of 4)

FIGURE B1

EXISTING GREENWOOD CREEK BRIDGE

Greenwood Creek Bridge Replacement



Looking north-east to existing Greenwood Creek Bridge.

FIGURE B2

EXISTING GREENWOOD CREEK BRIDGE

Looking south-east towards existing Greenwood Creek Bridge.

FIGURE B3

EXISTING GREENWOOD CREEK BRIDGE

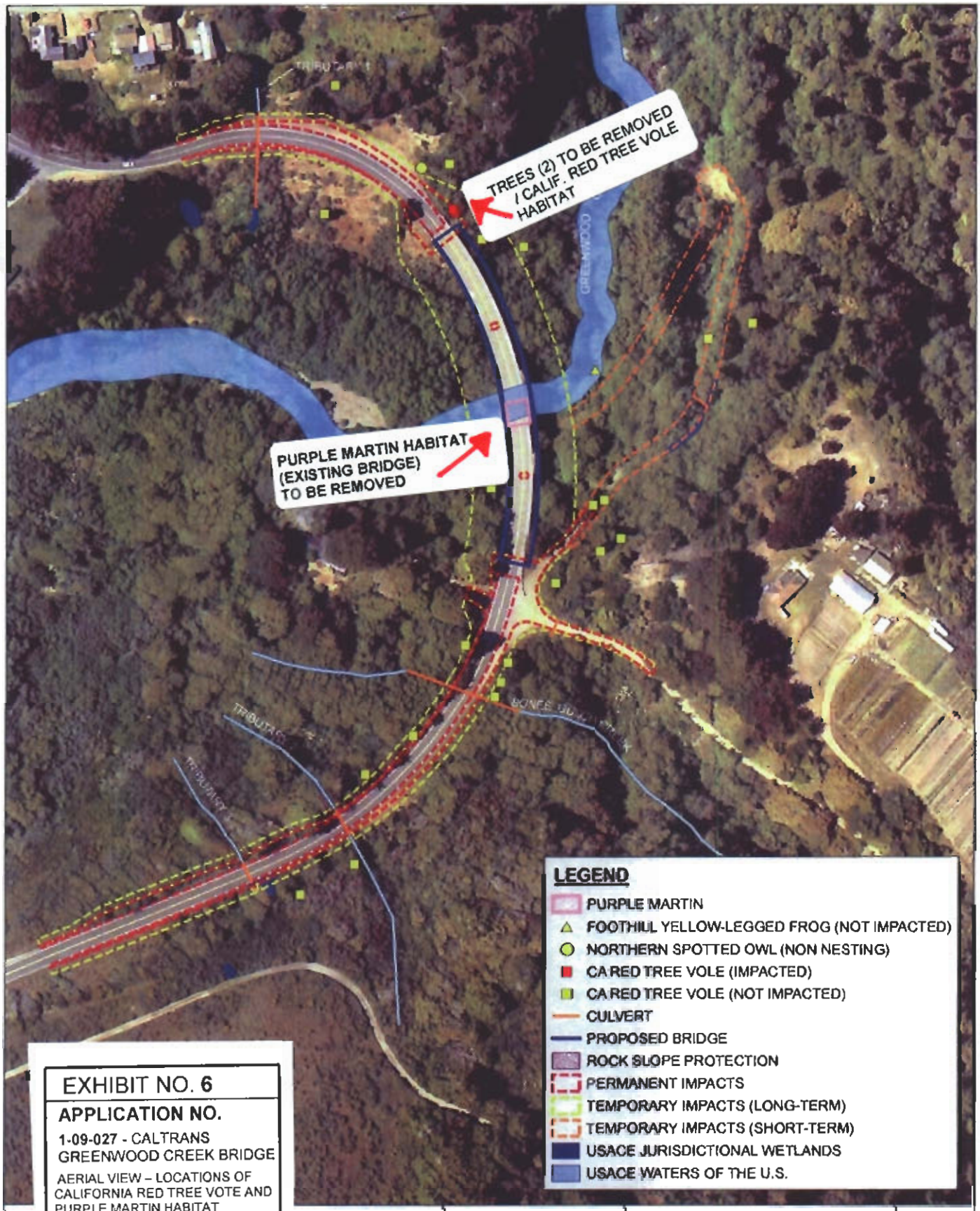
Existing rail on Greenwood Creek Bridge, looking north.

FIGURE B4

EXISTING GREENWOOD CREEK BRIDGE

Greenwood Creek Bridge Replacement

Caltrans


TREES (2) TO BE REMOVED / CALIF. RED TREE VOLE HABITAT
PURPLE MARTIN HABITAT (EXISTING BRIDGE) TO BE REMOVED
LEGEND
PURPLE MARTIN
FOOTHILL YELLOW-LEGGED FROG (NOT IMPACTED)
NORTHERN SPOTTED OWL (NON NESTING)
CA RED TREE VOLE (IMPACTED)
CA RED TREE VOLE (NOT IMPACTED)
CULVERT
PROPOSED BRIDGE
ROCK SLOPE PROTECTION
PERMANENT IMPACTS
TEMPORARY IMPACTS (LONG-TERM)
TEMPORARY IMPACTS (SHORT-TERM)
USACE JURISDICTIONAL WETLANDS
USACE WATERS OF THE U.S.
EXHIBIT NO. 6
APPLICATION NO.
1-09-027 - CALTRANS
GREENWOOD CREEK BRIDGE
AERIAL VIEW – LOCATIONS OF CALIFORNIA RED TREE VOTE AND PURPLE MARTIN HABITAT IMPACTED BY CONSTRUCTION
N
0
100
200
400
Feet
GREENWOOD CREEK BRIDGE
26815198
ALTERNATIVE 4B
EASTERN ALIGNMENT -
6.7 ft CENTERLINE OFFSET
SPECIAL STATUS SPECIES IMPACTS
Figure 6

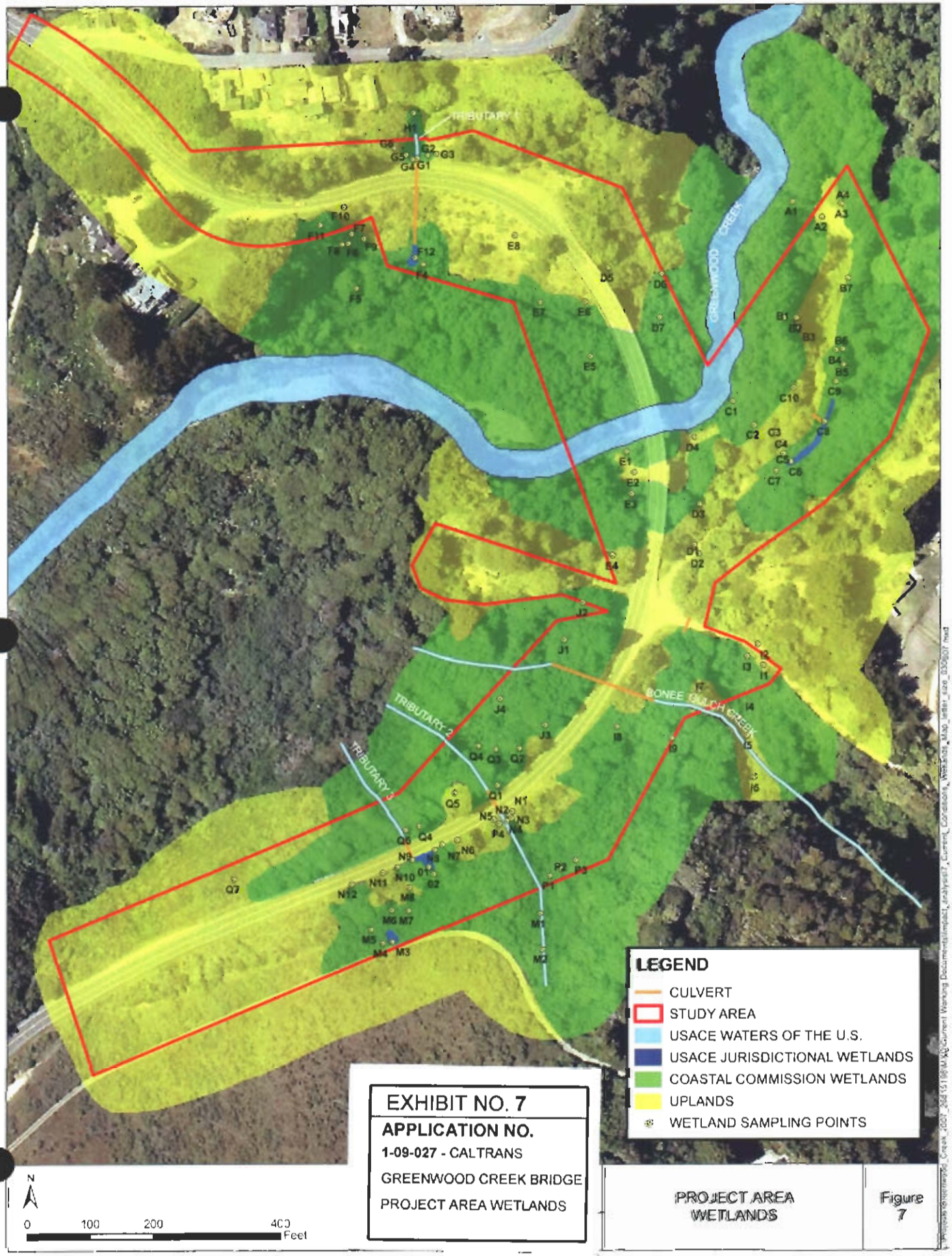


EXHIBIT NO. 7

APPLICATION NO.

1-09-027 - CALTRANS

GREENWOOD CREEK BRIDGE

PROJECT AREA WETLANDS

PROJECT AREA WETLANDS

Figure 7

Excerpt/Big River Unit off-site Mitigation (from "Conceptual Mitigation Plan" dated May 2009)

Table 3 Summary of Sites and Organizations Considered for Miti Proposed Project Site

Site/Organization	Species/ Habitat	Acres/Credits Available	Location	Description/
California Department of Parks & Recreation (California State Parks) (DPR)	Wetlands, Red Tree Vole	1,000+	Mendocino County-Big River	Several potential re: available, including wetland restoration and watershed restoration.
The Nature Conservancy	Wetlands, Waters of the U.S., Woodlands	Unknown	National	No potential sites were identified during conversation with staff.
Dolan Ranch Conservation Bank	Vernal pools; giant garter snake	Unknown	Rocklin, CA	The mitigation bank is very far from the project location and may not have appropriate habitat for our project mitigation needs.
Cleone Mitigation Parcel (Caltrans)	Wetlands, Waters of the U.S.	No longer available.	Fort Bragg, CA	Closest Caltrans Mitigation Bank. All credits have been used.

After considering the above-listed criteria and the available areas in proximity to the Project, Caltrans is pursuing collaboration with the California Department of Parks and Recreation at Big River for several reasons:

- On-site creation of wetlands is not feasible due to the large acreage requirements.
- The Mitigation Project has the best potential to create high-value wetlands of any opportunity found.
- The potential mitigation site is in relatively close proximity to the Project and the wetlands created will be in kind.
- The Mitigation Project would not occur without the financial support of Caltrans.
- The additional benefits of the mitigation project, beyond wetland creation, include removing significant amounts of potential discharge from a highly valued ecosystem. This benefit would result in a positive impact to water quality and endangered species habitat.

Figure 4, in Appendix A, shows the location of the Mendocino Headlands State Park (Big River Unit) in relation to the Greenwood Creek Bridge PSA.

3.2 PROPOSED OFF-SITE MITIGATION AT BIG RIVER UNIT OF MENDOCINO HEADLANDS STATE PARK

Caltrans proposes to compensate for long-term temporary and permanent impacts to CCC wetlands at Mendocino Headlands State Park (MHSP) (Big River Unit). The following sections provide details on the history and setting of MHSP and details of the proposed Mitigation Project

(Culvert M1-0.7 Project), which is one of several restoration projects included in the Big River Watershed Restoration Project. Culvert M1-0.7 is the proposed mitigation site for compensation of impacts to CCC wetlands from the Project.

3.2.1 Mendocino Headlands State Park (Big River Unit)

California Department of Parks and Recreation (DPR) operates the 7,332 acres that constitute the MHSP. DPR manages more than 270 park units, which contain the finest and most diverse collection of natural, cultural, and recreational resources to be found within California. DPR's mission is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

The Big River Unit of MHSP was utilized for approximately 150 years (1852 to 2002) for timber harvest and production. The Big River Unit includes 1,500 acres of wetlands and the longest undeveloped estuary in Northern California (**Figure 5, in Appendix A**). The Big River Unit of MHSP was created on July 30, 2002, after a group of donors, nonprofit organizations, and agencies, led by the Mendocino Land Trust, collected more than $25 million to purchase the property from the Campbell-Hawthorne Timber Company and transferred the property to the DPR (Mendocino Land Trust 2009).

The Big River Unit lies within the tectonically active western portion of California's North Coast Ranges; elevations range from sea level to about 1,000 feet. The property includes portions of three watersheds (Big, Little, and Albion watersheds), though approximately 93 percent lies within the Big River drainage. Smaller tributaries that drain directly into the larger Big River have cut deep, narrow canyons in the steep terrain. Geologically recent "drowning" of the historical river mouth, human activities (road building, timber operations), and sediment accumulations have been factors in the creation of a relatively broad floodplain along the 8-mile reach of the estuary.

Streamside landslides from inner gorge landforms are a major sediment source, and drainage pathways that have been altered by road construction constitute a major source of surface instability. Road-related erosion represents one of the most significant and preventable sources of sediment in the mitigation area. California Geological Survey inventories of roads and adjacent hill slope conditions indicate that most of this sediment yield is derived from three primary sources (California Geological Survey 2006):

1. Failure of road and landing sidecast fill
2. Erosion at or associated with stream crossings
3. Road surface and ditch erosion (DPR 2006)

3.2.2 Caltrans Funded Mitigation Project

The Mitigation Project area includes the removal of culvert M1-0.7 and 3,650 cubic yards of sediment. The fill was placed in this tributary of Big River to create a logging road. The culvert will be replaced with a railroad cart bridge. The Mitigation Project would enhance upstream habitat through the removal of non-native plant species and human-assisted or natural re-vegetation with native species. The Mitigation Project would restore the natural hydrology and

2 of 10

vegetation of the seasonal channel, improve drainage, and enhance stream flow in the channel. Also, the Mitigation Project would enhance 48.1 acres of upstream riparian habitat along the seasonal channel. Because most of these upstream areas would revert to riparian habitat, through a combination of restoration of the natural hydrology and revegetation, these acres would qualify as CCC jurisdictional wetlands (DPR 2006). **Figure 6, in Appendix A,** shows the location of the culvert M1-0.7 project area within the MHSP. **Appendix B** provides photos of the Mitigation Project area.

Caltrans would make a financial contribution to DPR, the lead agency responsible for the Initial Study/Mitigated Negative Declaration detailing the Mitigation Project (DPR 2006). DPR is not financially capable of completing the proposed Mitigation Project, so Caltrans' financial contribution is vital to the success of the overall project. The project has been fully permitted by the California Department of Fish and Game (Agreement No.1600-2006-0435-3), the United States Army Corps of Engineers (File No. 30376N), the ~~California Coastal Commission~~ Mendocino County (File No. CDU #11-2006) and the Regional Water Quality Control Board (WDID No. 1B06095WNME). All permits are current and no delay will occur in starting the mitigation once the contractual obligations have been completed.

In addition to restoring impacted CCC wetlands, the Mitigation Project would improve habitat conditions for fish, wildlife, and plant populations. Central California Coast coho salmon (*Oncorhynchus kisutch*), which are listed as federally endangered, would benefit from a reduction in sediment delivery to spawning and rearing habitat. The Mitigation Project would improve habitat for coho salmon and steelhead trout (*Oncorhynchus mykiss)* by restoring natural surface hydrology, eliminating streamflow impediments, and reducing runoff concentrations that cause gullies and slides and produce substantial sediment loads. Amphibians would benefit from an increase in suitable habitat and a reduction in sediment delivery to potential habitat. Also, DPR's goal of restoring natural vegetation patterns and improving conditions for natural slope processes would be aided by reestablishing natural drainage patterns, recontouring old roadways, and reducing the potential for landslides and roadway failures.

3.3 MITIGATION PROJECT IMPLEMENTATION

The following section describes what the Mitigation Project will be recreating. A complete description of the restoration in the Big River area is available in the Big River Watershed Restoration Initial Study/Negative Declaration (DPR 2006).

3.3.1 Channel Reconstruction

The existing roadway rock surfacing would be excavated and stockpiled along adjacent sections of the road for later use. A temporary drainage diversion would be constructed. The fillslope would be brushed and the road ripped. The crossing would be excavated and all fill materials removed to expose the native debris fan deposit and stream channel. This process would proceed upstream at a 16% grade, following the native channel indicators to exhume and restore the native stream channel/corridor. The restored channel/corridor is to be 20 feet wide beneath the bridge, and adjacent side slopes are to be 1.6 horizontal to 1 vertical (1.6H:1V). All alluvial sediment behind the fill prism would be excavated and removed down to native slopes and stream channel/corridor. Sideslope excavations upstream of the bridge would only occur as necessary to unbury or restore native slopes and match grades. The estimated total earth material

3 of 10

to be excavated is 3,650 cubic yards. The newly excavated slopes would be matched to existing fillslope geometry. The excavated stream channel/corridor would be matched to existing native channel/corridor. Excavated slopes beneath the bridge would be graded to 1.6H:1V. Slope protection (e.g., riprap) aprons will be constructed on excavated slopes beneath the bridge. The bridge abutment will be embedded into competent native earth materials, as determined by a licensed engineering geologist or geotechnical engineer. A new bridge would be constructed; the new bridge would measure 75 feet long and 16 feet wide. Rock would be placed inside ditches, which would be graded to drain to riprap aprons beneath the bridge. After this construction, all disturbed slope areas would be graded and seeded under the direction of DPR before the placement of erosion control blankets. Erosion control blankets would be anchored on all disturbed slope areas. After installation of the erosion control blankets, Road M1.0 would be graded and surfaced with a minimum 4-inch-thick layer of angular gravel rock (from stockpile and imported, if necessary). Once the fill material and culvert are removed and the bridge is installed, the natural hydrology and riparian vegetation would be reestablished.

3.3.2 Planting Plan

One of the primary goals of the Mitigation Project is the re-establishment of native vegetation and a reduction in cover by non-native plant species. Riparian vegetation expected to recolonize the site would be similar to the riparian vegetation in the vicinity of the culvert: primarily alder and willow forest. The most common alder is red alder (*Alnus rubra*); various willow species, such as shining willow (*Salix lucida*) and sitka willow (*Salix sitchensis*), are also present. These species are similar to the primary type of wetland vegetation that would be impacted by the proposed Greenwood Creek Bridge Replacement project.

Reestablishment of native cover would be accomplished through the implementation of several practical measures, as follows:

- Site stabilization, through the implementation of any of several erosion-control measures, such as erosion control blankets
- Reduction in cover by invasive, non-native plant species (through manual, mechanical, and/or herbicide treatment)
- Protection of on-site native plants, wherever feasible, during restoration activities
- Salvage and re-planting of on-site native plant materials where ground-disturbing activities are unavoidable (e.g., on-road fill prisms)
- Collection of native plant propagules (e.g., rhizome divisions, stem cuttings, seeds) and nursery propagation for the purpose of planting in the Mitigation Project site.

During construction activities, DPR natural resources staff would work closely with the on-site manager and equipment operators to avoid or salvage native plant material within the Mitigation Project area. Plants will be flagged or otherwise marked for avoidance, or DPR natural resources staff (possibly including volunteers) would salvage native plants for re-planting immediately after the completion of on-site ground-disturbing activities. In the event that desirable native plants from a given site cannot be salvaged, efforts will be made to use native plant materials as propagules for nursery-grown stock to be planted in subsequent years.

4 of 10

During the monitoring period for this project, the Mitigation Project will be continually evaluated for revegetation needs, and in some areas, plant propagation and revegetation may not be necessary. In other areas, site recovery (e.g., as measured by soil stability, native plant dominance) may fail to reach restoration goals, necessitating site-specific plans for plant propagule collections and plant-rearing for revegetation. **Section 5.1** provides more details on site monitoring and maintenance.

3.3.3 Erosion Control

Site restoration will begin with all measures necessary to control erosion and sedimentation, as specified in Standard Specifications and Best Management Practices for Disturbed Lands Remediation" (California Geological Survey 2006) and a water quality monitoring program to be established for the Mitigation Project. Implementation of these measures will start during construction and ground-disturbing activities associated with the Mitigation Project site and will be sustained until soil stability has been achieved and vegetation cover is at least equivalent in extent to what it was before construction. Primary on-site erosion control methods would include the installation of organic erosion control materials (e.g., weed-free rice straw, weed-free rice straw wattles, jute) or synthetic materials (e.g., landscape fabric). Other erosion control methods implemented may include the use of slash bundles, willow wattles, or other on-site vegetative material anchored on slopes within stream corridors, along road edges, etc., to effect a reduction in movement of soil into wetlands or otherwise off-site.

3.3.4 Plant Species for Revegetation

Table 4 provides a list of potential native plant species to be used for site restoration at Big River. Depending on site conditions and species availability, other native species may be included in revegetation efforts.

Table 4 Mitigation Site Planting Options

Latin Name	Common Name	Primary Source
Abies grandis	grand fir	seed
Achillea millefolium	yarrow	seed; divisions
Adiantum aleuticum	five-finger fern	salvage
Alnus rubra	red alder	salvage
Artemisia douglasiana	Douglas's mugwort	seed; divisions
Aster chilensis	California aster	seed; divisions
Baccharis pilularis	coyote brush	seed; cuttings
Blechnum spicant	deer fern	salvage
Bromus carinatus	California brome	seed; salvage
Bromus laevipes	woodland brome	seed, salvage
Calystegia purpurata	Calif. morning-glory	seed
Carex spp.	Sedges	seed; salvage; divisions

5 of 10

Table 4 Mitigation Site Planting Options

Latin Name	Common Name	Primary Source
Ceanothus thyrsiflorus	California lilac	seed; cuttings
Elymus glaucus	blue wildrye	seed; salvage; divisions
Eschscholzia californica	California poppy	Seed
Heracleum lanatum	cow parsnip	Seed
Heuchera micrantha	alumroot	salvage
Hierchloe occidentalis	vanilla grass	seed; salvage; divisions
Iris douglasiana	Douglas's iris	seed; divisions; salvage
Juncus spp.	rushes	seed; divisions; salvage
Lonicera hispidula	hairy honeysuckle	seed; cuttings
Melica spp.	Oniongrass	seed; salvabe
Mimulus aurantiacus	sticky monkeyflower	seed; cuttings
Mitella caulescens	bishop's-cap	salvage; divisions
Myrica californica	California wax-myrtle	seed; salvage
Oxalis oregana	redwood sorrel	divisions
Plantago subnuda	marsh plantain	seed; salvage
Polystichum munitum	sword fern	salvage
Pseudotsuga menziesii	Douglas-fir	seed; salvage
Rhamnus californica	California coffeeberry	Seed; cuttings
Ribes menziesii	Menzies's gooseberry	Seed; cuttings
Rosa gymnocarpa	wood rose	Seed; salvage
Rubus parviflorus	thimbleberry	Seed; salvage
Rubus ursinus	California blackberry	salvage; divisions
Rumex salicifolius vars.	willow-leaved knotweed	salvage; divisions
Salix spp.	willows	salvage; cuttings
Sambucus racemosa	red elderberry	Seed; cuttings
Scirpus microcarpus	small-fruited bulrush	seed; divisions; salvage
Scrophularia californica	California bee plant	seed
Solanum americanum	American nightshade	seed
Tellima grandiflora	fringe-cup	salvage
Tolmiea menziesii	pig-a-back plant	salvage; divisions
Umbellularia californica	California bay	seed; salvage
Vaccinium ovatum	blue huckleberry	seed; salvage; cuttings
Whipplea modesta	modesty salvage	Divisions

3.4 CONTRIBUTION TO THE CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

The first step in implementing the Mitigation Project would be the development of an Inter-Agency Agreement between Caltrans, CCC and DPR. This agreement would specify the financial and legal responsibilities of each party, including means of payment, contracting arrangements, assurance that the work would be done and responsibilities of all parties.

DPR is in need of significant amounts of funding to replace all of the selected deteriorating culverts. Without flexible funding options in the near future, the potential for large sediment discharges into the Big River Watershed is high. If the CCC approves this mitigation option, Caltrans would provide funds to assist in the rapid removal of one of the culverts most likely to fail in the near future and recreate coastal wetland habitat along the drainage channel. Caltrans would initiate the agreement with DPR as soon as possible.

3.5 IMPACTS OF THE MITIGATION PROJECT

The Big River Watershed Restoration Project, of which the Mitigation Project is a portion, would involve the removal of sediment and the construction of bridges over sensitive riparian habitat. The construction work would result in temporary impacts to biological resources and less-than-significant impacts to air quality. All of these impacts have been fully analyzed and discussed in the Initial Study for the Big River Watershed Restoration Project (DPR 2006). DPR has obtained permits from the United States Army Corps of Engineers, the North Coast Regional Water Quality Control Board, and the California Department of Fish and Game (CDFG) to address these issues.

3.6 MITIGATION PROJECT ASSURANCES

Caltrans will work with DPR to provide the following assurances of Mitigation Project implementation to CCC before the start of the Greenwood Creek Bridge Replacement Project:

- A signed Inter-Agency Agreement between DPR, CCC and Caltrans that demonstrates the responsibilities of each party
- A monetary assurance, in the form of a check to DPR, to demonstrate Caltrans' commitment to the Mitigation Project once the agreement has been completed
- The proposed mitigation schedule, including the timeline for discussions, document signings, and finalization of the restoration project agreement
- Construction receipts and photos, which DPR is to provide to Caltrans

4.1 MONITORING AND MAINTENANCE

DPR will use an adaptive management approach to monitoring and maintenance of the Mitigation Project. This approach enables DPR staff to evaluate monitoring data to determine if site objectives will be met. If DPR determines that the site is in danger of not meeting the site objectives, then management actions within the maintenance period will be applied to meet site objectives. The following sections describe the site vegetation cover objectives, monitoring methods, erosion control strategies, site maintenance, and schedule and reporting.

4.1.1 Objectives

The following four objectives apply to vegetation cover within the Mitigation Project site:

1. Five years after initial post-construction monitoring, vegetation cover shall be equal to or exceed that existing before site construction at the Mitigation Project.
2. Five years after initial post-construction monitoring, vegetation cover shall consist of no less than 80 percent native plant species (i.e., 80 percent of all plant cover shall be native).
3. In the event of plant salvage or nursery-propagated plant introductions, survival shall be no less than 75 percent of the individuals introduced or supplied to replace initial plants that have failed.
4. Five years after initial post-construction monitoring, plant cover (native plant cover, because only native plants will be used in either salvage or propagation) at sites for which revegetation is deemed necessary shall be at least 80 percent.

4.1.2 Monitoring Methods and Schedule

After the start of restoration, vegetation, ground cover, and physical data will be collected by DPR natural resources staff to establish baselines for an array of environmental parameters. DPR will, as necessary, develop a water quality monitoring program that includes the measures of pertinent parameters for water quality both before and after the completion of this project. The water quality of the Mitigation Project will meet requirements of existing laws and regulations governing water quality. Vegetation data collection will be both quantitative (transects, plots, or relevé assessments) and qualitative (photographic). Erosion control and sediment reduction measures will remain in place for the duration of the site monitoring and maintenance period for each site (5-year minimum); removal of the devices or materials used for these purposes will be dependent on the achievement of goals and objectives for slope stability, streambed characteristics, water quality, and vegetation composition and cover. On completion of topographic re-construction activities (grading, contouring, stream channel rehabilitation, including introduction of rocks, logs, etc.), post-treatment data for the baseline parameters will be collected and analyzed. These data will be collected annually and will form the basis for assessing the efficacy of site restoration treatments and the topographic stability and vegetation recovery of each site.

DPR resources staff will monitor the Mitigation Project as follows:

- Pre-construction and rehabilitation: For each site, overall site vegetation characteristics shall be compiled through the use of a rapid plant assessment technique to capture primary plant

cover composition. Depending on site-specific dimensions, line transects or plots will be established, and quantitative monitoring will measure plant cover by species, either along the transects or on the plots within the construction area, or a combination of these. The purpose of this monitoring will be to establish pre-construction baseline vegetation with which to compare post-construction recovery of vegetation structure and composition.

- Annually (during May or June of each year) for 5 years after site construction or rehabilitation, DPR natural resources staff will monitor the preconstruction transects or plots, collecting the same information on vegetation structure and composition as was collected before the start of construction.
- At the Mitigation Project, DPR resources staff will establish a minimum of two photo-monitoring stations, from which photographs will be taken before the start of construction and annually within the same 15-day period each year to coincide with that year's quantitative monitoring. This monitoring program shall be conducted for a minimum of 5 years after the completion of construction at the Mitigation Project.
- In the event that plant salvage (transplanting) or propagation and revegetation with nursery-grown material is deemed necessary to achieve pre-construction cover equivalency, then a minimum of 20 percent of all introduced plant individuals shall be randomly selected during planting for long-term monitoring. These plants will be monitored annually for survival and overall health.
- A water quality monitoring program and schedule will be established before construction of the Mitigation Project to determine if the requirements of existing laws and regulations governing water quality regulations are met.

4.1.3 Maintenance

Depending on the results of the data analysis, the Mitigation Site may require some degree of intervention to achieve long-term objectives and goals. Modes of intervention may include any of the following:

- Replacement, repair, or fortification of established erosion and sediment control materials.
- Establishment of new materials or the use of alternative methods to effect erosion control.
- Removal of invasive, non-native plants by any of the following:
  - Manual removal (preferred)
  - Mechanical removal
  - Cultural treatments (e.g., tarping)
  - Chemical treatments
- Revegetation of disturbed areas (either exposed soil or vegetation dominated by invasive, non-native plants) with native plant species, either from seed collected and sown on-site or nursery-propagated native plant material.
- Monitoring and site maintenance of both erosion-control materials and non-native plant species will continue until any given site has achieved restoration goals or a site has achieved

9 of 10

a reasonable level of native plant cover and surface stability, as determined by DPR natural resources staff, regulatory agencies' staff, or professional scientists contracted for the purposes of assessing restoration goals.

4.2 REPORTING

4.2.1 As-Built Report

Within 30 days of the completed installation of the mitigation planting and revegetation, a report will be sent to the CDFG, CCC, U.S. Army Corps of Engineers, and the North Coast Regional Water Quality Control Board (referred to collectively as the Agencies). This report will describe field implementation of the proposed plantings, including any installation problems encountered and their resolutions. The as-built report will describe what species were planted, where they were planted, what type of material was planted, and the specifications to which they were planted. Landscape photos of the planting implementation (by vegetation type) will be included in the report. Remedial or adaptive management measures may become evident and necessary during monitoring. If these measures modify the initial species planted or their coverage, then the as-built plan will be revised to reflect the new baseline. As-built plans will be revised to show specifically how the revegetation plan was modified and will be submitted within 60 days of any adaptive management measures initiated.

4.2.2 Interim Monitoring Reports

A DPR Biologist or Revegetation Specialist will prepare interim monitoring reports for review by the Agencies years one and three after the restoration is implemented. Interim monitoring reports will be submitted to CCC by December 31 in the monitoring year. Submissions will include the following: jurisdictional agency file number(s); name(s) of person(s) who prepared report and who performed the monitoring; monitoring dates, methodology, and a data summary.

The interim monitoring report will describe the previous year's monitoring results and any corrective actions that were taken and evaluate and summarize the data for the current year compared to previous years and the pre-construction conditions. The report will specify if the success criteria are being achieved, and if not, any recommended remedial/adaptive management measures. Photo documentation will be included. The first interim monitoring report will be submitted after the Mitigation Project has experienced one full growing season.

4.2.3 Final Report

A final report will be submitted to the Agencies at the end of the final performance monitoring period (5 years). The report will evaluate how successful the Mitigation Project was with regard to the stated Mitigation Project site objectives. The report will include a compilation of all monitoring data, the as-built report (including revisions), and photo point documentation.

10 of 10

State of California • The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Mendocino District
12301 N Hwy 1, Box 1
Mendocino, CA 95460
(707) 937-5804

Arnold Schwarzenegger, *Governor*
Ruth Coleman, *Director*

September 22, 2009

RECEIVED
SEP 23 2009
CALIFORNIA
COASTAL COMMISSION

EXHIBIT NO. 9
APPLICATION NO.
1-09-027 - CALTRANS
GREENWOOD CREEK BRIDGE
LETTER FROM CALIF. DEPT.
OF PARKS & RECREATION
(1 of 2)

Steven Blair
CalTrans Project Manager
1656 Union Street
Eureka, CA 95501

Dear Mr. Blair:

CA State Parks welcomes the opportunity to work collaboratively with CalTrans to implement a project to compensate for long-term and permanent impacts to California Coastal Commission (CCC) wetlands as mitigation for the Greenwood Creek Bridge replacement project. The mitigation project consists of the removal of culvert M1-0.7 and a substantial amount of fill material (3,650 cubic yards) within an important crossing on a tributary to Big River. The culvert would be replaced with a bowstring truss steel bridge. This mitigation project would restore the natural hydrology and vegetation of the seasonal channel, as well as improving drainage and stream flow. This mitigation project has the potential to enhance 48.1 acres of upstream and downstream native habitat, including the seasonal channel. Through a combination of restoration of the natural hydrology and revegetation, approximately 6.5 acres would be riparian habitat, and these acres would qualify as CCC jurisdictional wetlands.

CA State Parks has completed environmental studies, approved a Mitigated Negative Declaration and obtained regulatory agency permits to implement the mitigation project. The project was designed by licensed engineering geologists from the California Geologic Survey and was determined to be both feasible and necessary to prevent major sediment delivery to the Big River estuary. Engineering studies have been completed for the fill removal and channel restoration, but not for bridge construction.

CA State Park staff, in cooperation with Caltrans, is the process of developing cost estimate for the mitigation project. As agreed, all funding for the mitigation project will be provided to CA State Parks by CalTrans. Costs will include engineering for the bridge footings; required on-site environmental compliance work immediately before, during, and after construction; and construction implementation. We will be pleased to collaborate with you to develop contract agreements to accomplish this work. It is anticipated that the fill removal and bridge project at Big River will be completed within two years following funding approval. It is our understanding that this will not be a reimbursement project. All funds will be given to CA State Parks once the costs have been agreed to by each agency.

Dennis McSweeney, District Maintenance Chief, will be the lead contact and representative for the mitigation project. He can be reached at (707) 937-3118 or by e-mail at dmcsw@parks.ca.gov. Renée Pasquinelli, Senior Environmental Scientist will be the representative for the environmental compliance aspect of the project. She can be reached at (707) 937-5721 or rpasquinelli@parks.ca.gov.

We look forward to the opportunity to work with CalTrans to implement this important project.

Sincerely,

Marilyn Murphy
District Superintendent

Cc: Renee Pasquinelli
Dennis McSweeney

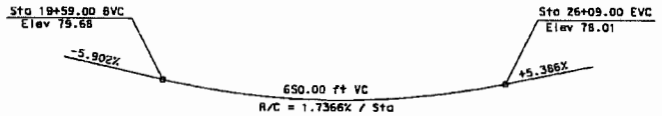
EXHIBIT NO. 10

APPLICATION NO.

1-09-027 - CALTRANS

GREENWOOD CREEK BRIDGE

PROPOSED BRIDGE PLAN



PROFILE GRADE

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	Men	1			

REGISTERED CIVIL ENGINEER — DATE

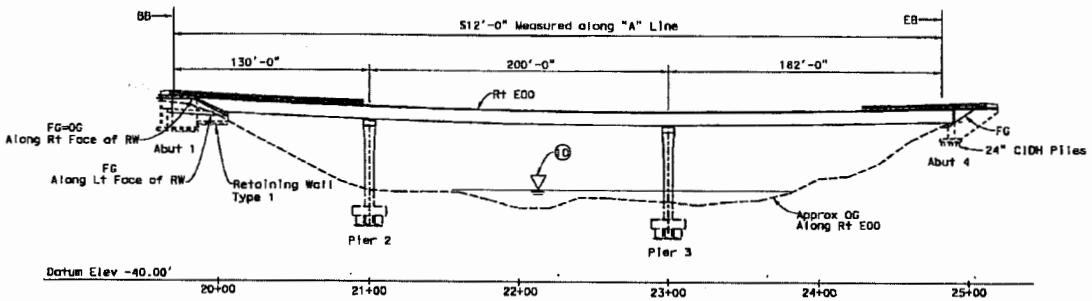
PLANS APPROVAL DATE

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

Kyoung Hyeon Lee — No. 52714 — Exp. 12/31/10 — CIVIL — STATE OF CALIFORNIA

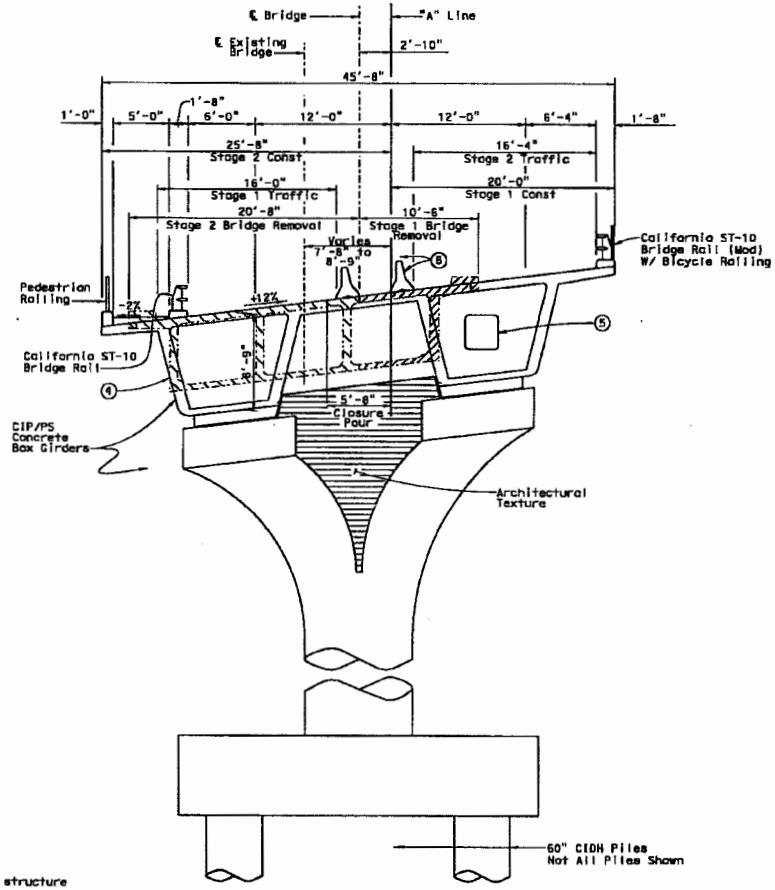
To get to the Caltrans web site, go to: http://www.dot.ca.gov

DRAFT SPS & E



DEVELOPED ELEVATION

1"=40'

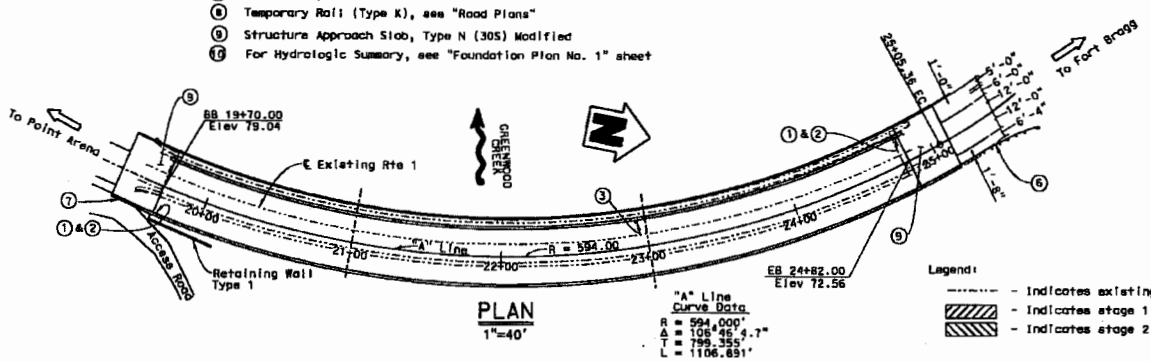


TYPICAL SECTION

3/16"=1'

Notes:

1. Paint "Greenwood Creek Bridge"
2. Paint "Br. No. 10-0156"
3. Deck Drain Type D-3 (Mod)
4. Remove Existing Bridge, Br. No. 10-0123, in 2 stages
5. Future Utility Opening
6. MBGR, see "Road Plans"
7. Quad Guard, see "Road Plans"
8. Temporary Rail (Type K), see "Road Plans"
9. Structure Approach Slab, Type N (30S) Modified
10. For Hydrologic Summary, see "Foundation Plan No. 1" sheet



PLAN

1"=40'

"A" Line Curve Data

Δ = 106°46'4.7"

T = 799.355'

L = 1106.691'

Legend:

- Indicates existing structure
- Indicates stage 1 bridge removal
- Indicates stage 2 bridge removal

DESIGN	Rizia da Cruz Ferreira	Kyoung Lee	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL-93 & "LOW-BOY" PERMIT DESIGN VEHICLE	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 1	BRIDGE NO. 10-0156	GREENWOOD CREEK BRIDGE (REPLACE)
DETAILS	Jinrong Zhou	Kyoung Lee	LAYOUT: Rizia da Cruz Ferreira	CHECKED: X			POST MILE 33.63	GENERAL PLAN
QUANTITIES	Daniel Sessions	A.Pearson/Y. Shostak	SPECIFICATIONS: X	PLANS AND SPECS COMPLIANCE: X				

X
DESIGN ENGINEER

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

CU 01
EA 310101

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES								SHEET	OF
								1	35

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 10-0156-a-gp01.dgn

USERNAME => rzhou DATE PLOTTED => 14-MAY-2009 TIME PLOTTED => 13:55