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Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 1-02-016

**APPLICANT: CALIFORNIA DEPARTMENT OF
TRANSPORTATION**

PROJECT LOCATION: Approximately one-half mile north of Eureka on Highway 101 at Airport Road and Cole Avenue from Post Mile 80.1 to 81.2 in Humboldt County

PROJECT DESCRIPTION: Highway safety improvements including (1) permanent closure of the existing southbound Highway 101 median access from Cole Avenue, (2) construction of an emergency vehicle crossover south of Cole Avenue, and (3) extension of the Highway 101 northbound and southbound acceleration and deceleration lanes at Airport Road.

LOCAL APPROVALS RECEIVED: None Required

OTHER APPROVALS RECEIVED: (1) Department of Fish and Game Streambed Alteration Agreement; (2) Army Corps of Engineers Nationwide Permit

OTHER APPROVALS REQUIRED: (1) Regional Water Quality Control Board Section 401 Water Quality Certification

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with special conditions of the proposed highway safety improvement project proposed by Caltrans to improve traffic safety at the intersections of Cole Avenue and Airport Road with Highway 101. The proposed project is located approximately one-half mile north of Eureka on Highway 101 at Airport Road and Cole Avenue between Post Mile 80.1 to 81.2 in Humboldt County. The proposed project involves highway safety improvements including (1) permanent closure of the existing southbound Highway 101 median access from Cole Avenue, (2) construction of a graveled emergency vehicle crossover south of Cole Avenue, and (3) extending and widening the Highway 101 northbound and southbound acceleration and deceleration lanes at Airport Road.

The proposed highway safety improvement project involves permanently filling approximately 0.26 acres of freshwater wetlands. Therefore, the project is subject to the development limitations set forth in Section 30233 of the Coastal Act. Construction of the gravel emergency vehicle crossover would fill approximately 222-square-feet (21 sq m) of seasonal wetland in the highway median. The extension of the acceleration and deceleration lanes at Airport Road would require approximately 7,800-square-feet of wetland fill within the highway median. Additionally, a portion of the Jacobs Avenue drainage channel would be converted into a culvert to construct the northbound 101 deceleration lane at Airport Road and would result in 3,324-square-feet of wetland fill.

Caltrans proposes to use a portion of a 3.11-acre property located within the Caltrans right of way at the corner of V Street and 6th Street in Eureka as a wetland mitigation site for the proposed highway improvement project. Caltrans proposes to mitigate for the loss of wetlands at a 1:1 ratio by creating approximately 0.08 acres of standing water to compensate for the loss of the drainage feature that would be converted to a culvert, and enhancing 0.18 acres of freshwater wetlands to compensate for impacts to freshwater wetlands within the highway median.

Following review of the project by the Commission's staff biologist, it was determined that the Caltrans wetland delineation was based on the Corps' 1987 Wetland Delineation Manual and that wetlands present at the proposed mitigation area that meet the Coastal Act wetland definition are more extensive by some unknown amount than reported. As a result, the proposed mitigation does not constitute wetland creation at a 1:1 ratio, but rather, involves enhancing existing wetlands. Although the proposed enhancement would significantly improve wetland values at the mitigation site to a level greater than the values provided by the wetlands to be filled, the proposed development would still result in a net loss of wetland area. Staff believes that because of the temporal loss of wetland values, the net loss of wetland area, and the loss of existing transitional wetland values at

the mitigation site, the mitigation proposal does not provide adequate mitigation and must be supplemented by providing greater mitigation. To provide this greater mitigation, staff recommends Special Condition No. 4 requiring that 1/8-acre be debited from the Caltrans Elk River mitigation bank. The 17-acre mitigation bank is located along Highway 101 at the Elk River approximately 3.5 miles south of the project site (see Exhibit No. 7). The mitigation bank was established in 1980 pursuant to a Memorandum of Understanding (MOU) between Caltrans, the Commission, and the California Department of Fish and Game.

Special Condition No. 4 requires submittal of a revised wetland mitigation plan that would include provisions for the debit of at least 1/8-acre of wetland habitat from the Elk River mitigation bank provided that (a) the owner of the mitigation bank property agrees to use of the property for this purpose, (b) the owner of the mitigation bank property certifies that there is credit remaining pursuant to the April 9, 1980 Memorandum of Understanding, and (c) a current survey is provided to the Executive Director showing that the mitigation bank property continues to exhibit the biological functions anticipated by the MOU. To ensure that the proposed mitigation is completed as proposed and is successful at meeting the mitigation objectives, Special Condition No. 4 also requires the mitigation plan be revised to provide provisions for (a) submittal within 30 days of completion of the wetland mitigation work at the corner of V Street and 6th Street of "as built" plans and elevations, (b) a description of the number, types, location, and condition of vegetation planted at the mitigation site, (c) a description of monitoring methods and a monitoring schedule, (d) provisions for achieving 100% vegetative cover within five years, and (e) provisions for submittal of annual monitoring reports to the Executive Director by November 1 of each of the five years of monitoring following completion of the mitigation site.

To further address impacts to wetlands and water quality, and to ensure consistency with Sections 30231 and 30233 of the Coastal Act, staff is recommending several special conditions that would minimize significant adverse impacts to coastal resources. To ensure that construction of the proposed project does not occur during the rainy season when the wetlands are most sensitive to disturbance and result in adverse wetland impacts from sedimentation and compaction, Special Condition No. 1 requires project construction to be completed between May 1 and October 15. To ensure that all construction related debris is adequately disposed of, staff recommends Special Condition No. 2 that requires submittal of a debris disposal plan. Lastly, to ensure protection of coastal water quality, staff recommends Special Condition No. 3 that requires submittal of a Final Stormwater Pollution Prevention Plan that provides for the implementation of Best Management Practices to control and contain erosion and sedimentation.

As conditioned, staff believes that the project is fully consistent with the Chapter 3 policies of the Coastal Act.

STAFF NOTES:

1. Standard of Review

The proposed project is located within the Commission's area of retained permit jurisdiction. Therefore, the standard of review that the Commission must apply to the project is the Chapter 3 policies of the Coastal Act.

I. MOTION, STAFF RECOMMENDATION AND RESOLUTION:

The staff recommends that the Commission adopt the following resolution:

Motion:

I move that the Commission approve Coastal Development Permit No. 1-02-016 pursuant to the staff recommendation.

Staff Recommendation Of Approval:

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 a majority of the Commissioners present.

Resolution To Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on 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.

II. **STANDARD CONDITIONS:** See Attachment A.

III. **SPECIAL CONDITIONS:**

1. **Timing of Construction**

All work must be performed and completed during the non-rainy season between May 1 and October 15.

2. **Debris Disposal Plan**

- A. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the permittee shall submit, for the review and approval of the Executive Director, a plan for the disposal of construction related debris. The plan shall describe the manner by which the material will be removed from the construction site and shall identify a disposal site that is in an upland area where materials may be lawfully disposed.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development.

3. **Final Storm Water Pollution Prevention Plan**

- A. PRIOR TO COMMENCMENT OF CONSTRUCTION, Caltrans shall submit for the review and approval of the Executive Director, a Final Stormwater Pollution Prevention Plan that provides for the implementation of Best Management Practices including, but not limited to:
 - 1. The storm water pollution prevention plan shall demonstrate that:
 - (a) Run-off from the project excavation and fill sites, and the wetland mitigation area shall not increase sedimentation in coastal waters;
 - (b) Run-off from the project excavation and fill sites, and the wetland mitigation area shall not result in pollutants entering coastal waters;
 - (c) Best Management Practices (BMPs) shall be used to prevent entry of stormwater runoff into the excavation and fill sites, the entrainment of excavated contaminated materials leaving the site, and to prevent the entry of polluted stormwater runoff into coastal waters, including but not limited to the following:

- (i) At least one of the following measures for temporary soil stabilization: hydraulic mulch, hydroseeding, geotextiles/blankets/mats, straw mulch, and/or soil binders; and
 - (ii) At least one of the following measures for temporary sediment control: silt fences, sweeping/vacuuming, and/or storm drain inlet protection.
- 2. The plan shall include, at a minimum, the following components:
 - (a) A schedule for installation and maintenance of appropriate construction source control best management practices (BMPs) to prevent entry of stormwater run-off into coastal waters from the excavation and fill sites and mitigation sites and the entrainment of sediment into run-off leaving these sites; and
 - (b) A schedule for installation, use and maintenance of appropriate construction materials handling and storage best management practices (BMPs) to prevent the entry of polluted stormwater run-off into coastal waters during the transportation and/or storage of excavated contaminated materials, or during construction.
- B. The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan 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.
- 4. **Revised Wetland Mitigation Plan**
 - A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit, for review and written approval of the Executive Director, a final revised wetland mitigation plan that substantially conforms with the mitigation plan submitted to the Commission entitled "*Restoration Plan to Compensate for Impacts Related to the Proposed Acceleration/Deceleration Lane Extension and Emergency Vehicle Crossover Addition Project on Route 101 in Humboldt County*" dated May 2002 and prepared by Caltrans biologist Susan Taylor except that it shall be revised to include the following provisions:
 - (1) The mitigation plan shall include provisions for the debit of at least 1/8-acre of wetland habitat from the Elk River mitigation bank as described in the Memorandum of Understanding signed by Caltrans, the Department of

Fish and Game, and the Coastal Commission on April 9, 1980, provided that (a) the owner of the mitigation bank property agrees to use of the property for this purpose, (b) the owner of the mitigation bank property certifies that there is credit remaining pursuant to the April 9, 1980 Memorandum of Understanding, and (c) a current survey is provided to the Executive Director showing that the mitigation bank property continues to exhibit the biological functions anticipated by the MOU.

(2) Submittal within 30 days of completion of the wetland mitigation work at the corner of V Street and 6th Street of the following:

(a) "as built" plans shall be submitted demonstrating that the wetland mitigation work has been completed in accordance with the approved mitigation plan including site elevations;

(b) a description of the number, types, location, and condition of vegetation planted at the mitigation site,

(c) a description of monitoring methods and a monitoring schedule;

(d) provisions for achieving 100% vegetative cover within five years;

(e) provisions for submittal of annual monitoring reports to the Executive Director by November 1 of each of the five years of monitoring following completion of the mitigation site.

B. If the final report indicates that the mitigation project has been unsuccessful, in part, or in whole, based on the performance standard of achieving 100% ground cover of the wetland plant species composing the surrounding vegetation within five years, the applicant shall submit a revised or supplemental mitigation program to compensate for those portions of the original program which did not meet the performance standard. The revised mitigation program shall be processed as an amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

C. The permittee shall monitor and remediate the wetland mitigation site in accordance with the approved monitoring program. Any proposed changes from the approved monitoring program shall be reported to the Executive Director. No changes to the approved monitoring program shall occur without a Commission amendment to this coastal development permit.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

1. Site & Project Description

The proposed project is located approximately one-half mile north of Eureka on Highway 101 at Airport Road and Cole Avenue between Post Mile 80.1 to 81.2 in Humboldt County. The proposed project involves highway safety improvements including (1) permanent closure of the existing southbound Highway 101 median access from Cole Avenue, (2) construction of a graveled emergency vehicle crossover south of Cole Avenue, and (3) extending and widening the Highway 101 northbound and southbound acceleration and deceleration lanes at Airport Road. (See Exhibit Nos. 1-5).

Cole Avenue is located approximately 0.2 miles north of the Eureka Slough Bridge and provides access to and from Highway 101 and Jacobs Avenue, a frontage road paralleling the highway. Airport Road is located at the northern terminus of Jacobs Avenue and approximately 0.4 miles north of Cole Avenue. The project is located adjacent to and west of the Murray Field Airport. At the project location, Highway 101 consists of a four-lane, paved divided roadway aligned in a general north/south direction.

Prior to the initial highway construction in the early 1900's, numerous small sloughs extended from Humboldt Bay eastward beyond what are now Eureka Slough and Fay Slough. Construction of the highway resulted in most of these sloughs being cut off from the bay. The majority of the area adjacent to the highway to the east was diked off from tidal action in the early 1900's for agricultural use and now functions as grazed seasonal wetlands.

The highway median between the northbound and southbound traffic lanes functions as a swale to capture roadside runoff from both directions of traffic. Seasonal wetlands dominated by rushes (*Juncus* sp.) are found at two locations within the median at the project site. The wetland vegetation is narrowly constrained by the paved northbound and southbound lanes of Highway 101. The wetland area within the median functions to retain organic nutrients and sediments and to slow discharge and stormwater flow. The median wetlands provide limited foraging habitat for birds, particularly snowy egrets. The wetlands also provide habitat for amphibians, but provide minimal habitat for other wildlife. The median wetlands are degraded by trash and debris, highway maintenance (i.e. mowing), and polluted highway runoff.

Drop inlets located in the median carry the highway runoff to small drains that empty into a drainage ditch referred to as the Jacobs Avenue ditch located on the south side of Airport Road. The 2,910-foot-long Jacobs Avenue drainage ditch is connected to a man-made slough via three culverts and two smaller ditches, which connect to the Eureka Slough via two tide gates. Dominant vegetation in and around the Jacobs Avenue ditch

includes cattail (*Typha latifolia*) and rush (*Juncus sp.*). The Jacobs Avenue ditch is the only drainage that would be affected by the proposed project.

Detailed Project Description

The project is proposed to improve the operation and safety of the highway by closing the Cole Avenue median to southbound cross-traffic, redirecting traffic to Airport Road, and creating longer northbound and southbound acceleration and deceleration lanes at Airport Road and wider outside shoulders to provide improved vehicle recovery areas. In analyzing the collision history for Cole Avenue, Caltrans determined that the predominant type of collision was northbound broadside of "failure to yield" cross traffic. According to information submitted by Caltrans, during a five-year period between July 1, 1995 to June 30, 2000, there were eight collisions at Cole Avenue that were identified as "failure to yield" cross traffic. This section of northbound Highway 101 is an acceleration zone, which adds a variable component to the driver's decision to cross oncoming traffic. In addition, the sight line at the Cole Avenue intersection is poor due to the highway alignment and large trees adjacent to the east shoulder of the roadway.

To improve the safety of this segment of highway, Caltrans proposes to close the median to turn movements at Cole Avenue. Approximately 1,480 cubic meters of pavement would be removed and sloped to match the adjacent median. An approximately 222-square-foot gravel median crossing for emergency vehicles would be constructed slightly south of Cole Avenue. No improvements would be made to the northbound acceleration and deceleration lanes at Cole Avenue. The southbound cross traffic from Cole Avenue would be redirected to Airport Road located approximately 0.4 miles to the north, which has greater sight distance and more consistent highway vehicle speed. To improve the operation and safety of the Airport Road intersection, Caltrans proposes to extend and widen the northbound and southbound acceleration and deceleration lanes.

The southbound Route 101 acceleration and deceleration lanes would be extended to create a 3.6 m wide lane and 1.5 m wide inside shoulder. The acceleration lane would be 250 m in length with a 180 m transition taper. The deceleration lane would be 170 m in length with a 36 m transition taper and 45 meters for storage. A 1.0 m wide embankment choker is proposed with the southbound Route 101 acceleration and deceleration lanes. The northbound acceleration and deceleration lanes at Airport Road would be extended to create a 3.6 m wide lane and a 3.0 m wide outside shoulder. The acceleration lane would be 160 m in length with a 180 m transition taper. The deceleration lane would be 170 m in length with a 36 m transition taper. A 0.4 m wide embankment choker is proposed with the northbound Route 101 acceleration and deceleration lane to keep the new embankment slope within the existing right of way. All improvements at Airport Road are required to meet airport clearance requirements and thus, the length of the northbound acceleration lane is less than the length of the southbound acceleration lane to avoid the flight path prism of the Murray Field Airport. Construction of the

acceleration/deceleration lane expansions would involve placement of 1,280 cubic meters of material at a slope ratio of 1:2 or flatter.

The installation of the emergency vehicle crossover and the extension of the acceleration/deceleration lanes would require extending pavement and fill slopes into currently unpaved median strips that function as seasonal wetlands. Widening of the southbound acceleration and deceleration lanes would result in approximately 7,800-square-feet of permanent wetland fill (167 sq m) within the highway median. The emergency vehicle crossover would result in 222-square-feet of wetland fill. Additionally, a 554-foot-long segment of the Jacobs Avenue ditch, a man-made drainage channel that parallels the highway and Jacobs Avenue to the east, would be converted into a culvert to construct the northbound 101 deceleration lane at Airport Road. This would result in approximately 3,324-square-feet (310 sq m) of wetland fill. In total, the project would result in the permanent fill of 0.26 acres of freshwater wetlands.

Caltrans proposes to use a portion of a 3.11-acre property located within the Caltrans right of way at the corner of V Street and 6th Street in Eureka as a wetland mitigation site for the proposed highway improvement project (see Exhibit No. 6). Caltrans proposes to mitigate for the loss of wetlands at a 1:1 ratio by creating approximately 0.08 acres of standing water to compensate for the loss of the drainage feature that would be converted to a culvert, and enhancing 0.18 acres of freshwater wetlands to compensate for impacts to freshwater wetlands within the highway median. A large portion of the parcel currently functions as freshwater wetland. Dominate wetland species include *Scirpus microcarpus*, *Juncus effuses*, *Potentilla anserine* spp. *Pacifica*, *Oenanthé sarmentosa*, *Typha latifolia*, and *Salix* sp. Other wetland species present include *Ranunculus californicum*, *Triglochin* sp., *Alnus rubra*, *Sambucus* sp., *Lysichiton americanum*, and *Rhamnus pershiana*. The remainder of the parcel is historic fill and is largely vegetated with alders, cascara, and fruit trees with minimal understory. The western half of the upland portion of the site is dominated by grass and contains some huckleberry, alder, holly trees, and two beach pines. No threatened or endangered species were identified at the site.

Several existing Monterey pine trees ranging from 500 mm to 1600 mm in diameter and brush along the south side of Route 101 would be removed with the extension of the northbound deceleration lane at Airport Road. New trees would not be planted to replace them to maintain sight distance and the necessary airport clear zone. Lighting would be modified at the Cole Avenue/Jacobs Avenue intersection and new lighting would be installed at the Airport Road intersection and at the acceleration lane merge points.

Equipment that may be used during project construction includes an excavator, bulldozer, backhoe, and grader. All site access would occur from Highway 101, Cole Avenue, and Airport Avenue. Staging areas would be located at one or more of the businesses on Jacobs Avenue, pending agreements between the contractor and the property owners.

All work would be confined to the dry season between May 1 and October 15. Caltrans proposes to implement Best Management Practices to minimize impacts to wetlands downstream or downslope of the work area. Temporary linear sediment control practices that may be employed during construction of the project include utilizing silt fences, fiber rolls, gravel bag berms, sandbag barriers, and straw bales. Caltrans proposes to mulch exposed soils following completion of the project.

2. Filling and Dredging in Coastal Wetlands

The proposed highway safety improvement project involves permanently filling approximately 0.26 acres of freshwater wetlands. Construction of the gravel emergency vehicle crossover would fill approximately 222-square-feet (21 sq m) of seasonal wetland in the highway median. The extension of the acceleration and deceleration lanes at Airport Road would require approximately 7,800-square-feet of wetland fill within the highway median. Additionally, a portion of the Jacobs Avenue drainage channel would be converted into a culvert to construct the northbound 101 deceleration lane at Airport Road and would result in 3,324-square-feet of wetland fill.

Coastal Act Section 30233 allows filling and dredging in wetlands only where there is no feasible less environmentally damaging alternative, where feasible mitigation measures have been provided to minimize adverse environmental effects, and where the project is limited to one of eight specified uses. Additionally, Coastal Act Section 30231 addresses protection of the biological productivity and water quality of coastal wetlands from the impacts of development.

Section 30231 of the Coastal Act states:

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

Section 30233(a) of the Coastal Act states, in applicable 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:*

...

- (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.*

...

- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*

The above policies set forth a number of different limitations on what development projects may be allowed in coastal wetlands. For analysis purposes, the limitations can be grouped into four general categories or tests. These tests are:

- a. that the purpose of the filling, diking, or dredging is for one of the eight uses allowed under Section 30233;
- b. that feasible mitigation measures have been provided to minimize adverse environmental effects;
- c. that the project has no feasible less environmentally damaging alternative; and
- d. that the biological productivity and functional capacity of the habitat shall be maintained and enhanced where feasible.

(a) Allowable Use for Dredging and Filling of Wetlands

The first test for a proposed wetland fill/dredging project is whether the fill/dredging is for one of the eight allowable uses under Section 30233(a). The relevant category of use listed under Section 30233(a) that relates to the proposed highway safety improvement project is subcategory (5), stated as follows:

- (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.*

To determine if the proposed fill is for an incidental public service purpose, the Commission must first determine that the proposed fill is for a public service purpose. Since the highway safety improvement project would be conducted by a public agency to improve public safety on an existing highway, the Commission finds that the fill/dredging expressly serves a public service purpose consistent with Section 30233(a)(5).

The Commission must next determine if the fill is "incidental." The Commission has in the past determined that the fill for certain highway safety improvement projects was for

"incidental" public service purposes under Section 30233(a)(5). For example, in CDP No. 1-94-78 Caltrans proposed to construct a left turn lane along Highway 255 for safety purposes requiring the placement of 0.45 acres of wetland fill. The Commission found that the fill for the safety improvement project was for an "incidental" public service purpose. In the present case, the Commission finds the public safety purpose of the proposed project is incidental to "something else as primary," that is, the transportation service provided by the existing highway. The expressed purpose and need for the project is to reduce traffic accidents on Highway 101 and involves operational and safety improvements to Cole Avenue and Airport Road. There would be no increase in traffic capacity because Airport Road, Cole Avenue, and Jacobs Avenue have no other connections to Highway 101 and thus, constitute a closed traffic system. The project is needed to maintain existing traffic capacity with a higher degree of safety for motorists.

Therefore, the Commission finds that for the reasons discussed above, the proposed fill in coastal wetlands for the proposed project constitutes an incidental public service, and thus is an allowable use pursuant to Section 30233(a)(5) of the Coastal Act.

b. Feasible Mitigation Measures

The second test set forth by Section 30233 is whether feasible mitigation measures have been provided to minimize adverse environmental impacts. Depending on the manner in which the project is conducted, the project could have potential significant adverse effects to (1) wetland habitat, (2) sensitive fish species, and (3) water quality. The potential impacts and their mitigation are discussed in the following three sections.

(1) Wetland Habitat

Proposed Mitigation

Caltrans proposes to use a portion of a property located within the Caltrans right of way at the corner of V Street and 6th Street in northern Eureka as a wetland mitigation site for the proposed highway improvement project involving approximately 0.26 acres of fill in freshwater wetlands. The parcel totals 3.11 acres, a large portion of which is comprised of existing wetlands. (see Exhibit No. 6).

Caltrans proposes to create wetlands from what it characterizes as upland areas by excavating approximately 3,361 cubic yards of historic fill material. Elevations of the area proposed for excavation range from 4.5 to 13 feet. Approximately 0.08 acres would be excavated to a level of 0.3m below the average elevation of the adjacent existing wetland to create an area of standing water to mitigate impacts to the drainage ditch adjacent to Jacobs Avenue and approximately 0.2 acres would be excavated down to the level of the adjacent existing wetland. The mitigation site would be constructed simultaneously with the highway project and the excavated material would be used to construct the acceleration and deceleration lanes of the project, provided the contractor

deems the material suitable for construction. If not, the contractor would be required to identify an appropriate disposal site.

Hydrology to support the wetland mitigation site would be provided by groundwater flow, inflow from the existing wetlands, and from a storm drain located on 6th Street. Natural recruitment of wetland vegetation would occur from the adjacent wetland and from local seed dispersal. The mitigation site was designed to retain as many existing native trees as possible, but the excavation would require removal of approximately 60 existing alders. Caltrans proposes to plant the excavated areas with bare rootstock from the adjacent wetlands including rush (*Juncus effusus*), bulrushes (*Scripus microcarpus*), silverweed (*Potentilla anserine*), willows (*Salix sp.*), and cattails (*Typha latifolia*). The plantings would be randomly spaced at a density equivalent to three-foot centers. Because the plants to be established will be from local genetic stock, Caltrans anticipates that they will proliferate quickly.

Caltrans proposes that the objective of the mitigation site is to establish greater than 80% wetland vegetation cover within five years. Caltrans proposes to monitor the site quarterly during the first year following construction to evaluate vegetation establishment and natural recruitment into the mitigation area with annual monitoring over the next four years following construction. If monitoring reports indicate a lack of success in meeting the stated plan objectives, Caltrans would prepare a supplemental planting plan.

Caltrans expects a high success rate because the site appears to be historic wetlands, the plants are adapted to local conditions, and because the site has a high soil moisture content throughout the growing season. Caltrans proposes that the creation of the wetlands at the site would provide equal if not better function and values than wetlands affected by the project. Caltrans proposes that the mitigation site would provide better habitat for wildlife because it would sustain a greater percent cover of dominant wetland vegetation, it would have wetland hydrology for longer periods of time, and it would be connected to adjacent wetlands. It is assumed that the restored wetlands would provide value to wildlife within two to three years.

In past permit actions in the Northern California coastal zone, the Commission has encouraged wetland mitigation proposals that provide (1) in-kind habitat replacement, (2) mitigation on-site whenever possible, (3) and mitigation at ratios of habitat creation to habitat loss of at least 2:1 or greater, in recognition that wetland restoration projects are difficult to implement successfully and that there is often a significant time lag between the time when the wetlands are filled and the time when wetland vegetation at the mitigation site has grown to the point where it can provide comparable habitat values. Wetland mitigation measures that fully conform to these goals are more likely to provide adequate mitigation as required by the third test of Section 30233 of the Coastal Act and better ensure that the biological productivity and the quality of coastal resources and wetlands are maintained and where feasible restored as is also required by Section 30231.

With regard to the mitigation ratio, as noted above, the Commission generally requires mitigation at ratios of habitat creation to habitat loss of at least 2:1 or greater to account for some mitigation failure and the temporal loss of habitat values that occurs before the mitigation site provides comparable function and value. The mitigation plan proposed by Caltrans describes mitigating for the 0.26 acres of wetland fill by creating 0.26 acres of wetland, or a 1:1 mitigation ratio. The Commission's staff biologist has visited the project site and the proposed mitigation site located at the corner of V and 6th Street, and has reviewed the wetland delineation prepared by Caltrans for the mitigation site. The Commission's staff biologist determined that the delineation is based upon the Army Corps of Engineer's wetland definition, which requires positive field evidence of all three wetland parameters (hydrophytic vegetation, hydric soils, and wetland hydrology). The wetland definition utilized by the California Coastal Commission is significantly different from that of the Corps. The most specific definition is found in Section 13577 of the California Code of Regulations, which defines wetland¹ as "...land where the water table is at near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent...."

Therefore, to qualify as a wetland in the Coastal Zone, land must be at least periodically inundated or saturated for sufficient duration to result in a predominance of hydrophytes or a predominance of hydric soils. There is no specific periodicity or duration of inundation or saturation required. The primacy of hydrology is implicit in the definition, but is presumed adequate if either hydrophytic cover or hydrophytic soils are predominant. However, neither the definitions of hydrophytes or hydric soils, nor field methods for their identification are provided in California law. In practice, delineators primarily rely on the definitions and technical guidelines developed by the Army Corps of Engineers.² Several other technical publications also provide useful guidance.³

The Caltrans delineation was based on the Corps' 1987 Wetland Delineation Manual. An examination of the associated data sheets indicates that several sites that were designated upland meet the wetland criteria of the Coastal Act and Regulations. For example, sample point # 3 had all wetland indicator plants and clear evidence of hydrology, but was not considered a wetland point. At sample point # 5, there was clear evidence of

¹ The definition in the Regulations was adapted from: Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRue. 1979. Classification of wetlands and deepwater habitats of the United States. Office of Biological Services, U.S. Fish and Wildlife Service, Washington, D.C.. The definitions of upland limits are identical to those of the Service.

² Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Stations, Vicksburg, Mississippi.

³ Federal Interagency Committee for Wetland Delineation. 1989. Federal manual for identifying and delineating jurisdictional wetlands. Cooperative technical publication. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and USDA Soil Conservation Service, Washington, D.C.; National Research Council. 1995. Wetlands: Characteristics and boundaries. National Academy Press, Washington, D.C.; Tiner, R.W. 1999. Wetland indicators. A guide to wetland identification, delineation, classification, and mapping. Lewis Publishers, N.Y.

hydrology and a predominance of FAC plants⁴ and evidence of hydric soils, but the point was not designated "wetland". Similarly, sample points #7, #9, #11, and #13 appear to meet the state criteria for wetlands.

It appears, therefore, that the wetlands present at the proposed mitigation area are more extensive by some unknown amount than reported. Much of this area appeared in the field to be a transitional area toward the dry end of the wetland-upland continuum and thus, would be significantly enhanced by the proposed mitigation project. However, because the proposed mitigation site currently displays wetland values in areas not identified as wetlands in the proposed mitigation report prepared by Caltrans, the proposed mitigation constitutes wetland enhancement rather than wetland creation (or, restoration of historic wetlands as characterized by Caltrans). There are some areas within the proposed area of excavation that did not delineate as wetlands that, following excavation, would become wetlands. However, there is not enough upland area within the proposed limits of the mitigation site to create 0.26 acres of new wetland to offset the 0.26 acres of wetland fill that would occur as a result of the project to ensure no net loss of wetland area.

As a result, the proposed mitigation does not constitute wetland creation at a 1:1 ratio, but rather, involves enhancing existing wetlands. Although the proposed enhancement would significantly improve wetland values at the mitigation site to a level greater than the values provided by the wetlands to be filled, the Commission finds that the proposed development would still result in a net loss of wetland area. Moreover, although the mitigation site would be constructed simultaneously with the highway improvements and has a high chance for success, it would take approximately two to three years for the site to be fully vegetated with wetland species and to provide value to wildlife. Therefore, there would be some temporal loss of habitat values associated with the project. In addition, the proposed mitigation site supports numerous mature alder trees that function as transitional habitat at the higher elevation between the two lower wetland areas adjacent on either side. Although the alder forest on the site is not known to support threatened or endangered species, it does provide habitat for passerines (songbirds) and provides habitat diversity among the wetland complex. The mitigation proposal would involve removing approximately 60 alder trees from the site. It is expected that alder trees would reestablish at the site quite readily following excavation of the mitigation site, as this species is very prolific in wet areas along the North Coast. Nonetheless, the values provided by the transitional habitat would be temporarily lost until the trees become reestablished at the site. Therefore, the Commission finds that because of the temporal loss of wetland values, the net loss of wetland area, and the loss of existing transitional wetland values at the mitigation site, the mitigation proposal does not provide adequate mitigation and must be supplemented by providing greater mitigation. To

⁴ The indicator status of California blackberry (*Rubus ursinus*; = *R. vitifolius*) was incorrectly listed as "none"; it was FACW* in the USFWS 1988 list & FAC+ in the 1996 list.

provide this greater mitigation, the Commission attaches Special Condition No. 4 requiring that 1/8-acre be debited from the Caltrans Elk River mitigation bank.

The 17-acre mitigation bank is located along Highway 101 at the Elk River approximately 3.5 miles south of the project site (see Exhibit No. 7). The mitigation bank was established in 1980 pursuant to a Memorandum of Understanding (MOU) between Caltrans, the Commission, and the California Department of Fish and Game. The bank was originally created to mitigate for two other Caltrans highway projects in the coastal zone including the construction of a bridge along Highway 255 at Mad River Slough (CDP No. 79-P-75) requiring two acres of mitigation, and a freeway project along Highway 101 at Elk River (CDP No. A-79-75) requiring nine acres of mitigation. The MOU specifies that the remaining acreage in the bank shall be available for future use as mitigation for other Caltrans projects. More recently, the bank was used to mitigate for 0.45 acres of wetland fill associated with roadway improvements along Highway 255 (CDP No. 1-94-78). The Department of Fish and Game staff has confirmed with Commission staff that there is approximately 5.5 acres of credit remaining at the 17-acre mitigation bank.

The Elk River mitigation site is composed of mostly high salt marsh that is inundated by tides on average approximately 35 times per year. The marsh was created by breaching levees surrounding what was farmed seasonal wetlands prior to 1980. Pursuant to the MOU, title to the mitigation bank property and the responsibilities for managing the site were transferred from Caltrans to the Department of Fish and Game. Caltrans conducted a 10-year monitoring program at the mitigation bank site to document the anticipated change from diked pasture and other upland habitats to salt marsh habitat. The last monitoring report prepared in 1989 indicates that breaching the dikes and allowing natural vegetative changes to occur had been effective in restoring high salt marsh habitat at the site. The site is vegetated with salt marsh species including pickleweed (*Salicornia virginica*), salt rush (*Juncus sp.*), hairgrass (*Deschampsia caespitosa*), potentilla (*Potentilla egedei*), and saltgrass (*Distichlis spicata*). Wildlife usage of the site is greatest by various bird species including Northern shoveler, Great blue heron, Great egret, Belted kingfisher, Long-billed marsh wren, Barn swallow, Osprey, and Double-crested cormorant.

Unlike most mitigation proposals the Commission reviews, the habitat improvements at the bank that will provide supplemental mitigation for the fill impacts have already been accomplished. The levees at the mitigation bank were breached in the early 1980's and salt marsh habitat has been naturally restoring at the site ever since. Thus, there will be no temporal loss of habitat values between the time when the fill is placed and when restoration of habitat values is achieved. In addition, there is no uncertainty as to whether the mitigation will be successful in creating the desired habitat values, as the ten year monitoring program for the Elk River Mitigation Bank has documented that high salt marsh habitat has been restored and wildlife is using the habitat. The fact that the bank is already established and functional suggests that a 1:1 mitigation ratio at the Elk River

mitigation bank alone would be adequate to mitigate for the proposed 0.26 acres of wetland fill associated with the proposed highway improvements. However, Caltrans has designed and proposed a mitigation plan at the enhancement at the V and 6th Street site, which as discussed above, would enhance existing freshwater wetland values, but would not fully create the 1/4-acre of wetlands to be filled. The Commission finds that it is not necessary to require that a 1/4-acre be debited from the mitigation bank because the V and 6th Street site will provide freshwater wetland habitat benefits and as the bank site is already established, a 1/8-acre debit from the bank is adequate to provide the required supplemental mitigation that together with the mitigation to be provided at the V and 6th Street site would minimize the adverse environmental effects of the proposed fill.

With regard to the Commission's general preference for mitigation to provide in-kind habitat replacement, the Commission finds that the wetland enhancement at the proposed mitigation site would provide in-kind mitigation. Caltrans' proposal would enhance approximately 0.2 acres of freshwater wetlands to mitigate for the fill impacts to the median wetlands and would create approximately 0.06 acres of standing water to mitigate for impacts to the Jacobs Avenue drainage channel. In addition, the Commission requires that 1/8-acre of wetland area be debited from the Elk River mitigation bank. As described above, the mitigation bank is comprised of high salt marsh habitat, which differs from the freshwater wetlands to be filled. However, the high salt marsh habitat at the mitigation bank provides greater functional habitat values than the freshwater wetland to be filled. Freshwater wetlands are relatively abundant around Humboldt Bay, whereas salt marsh habitat has been more extensively impacted by development around the bay and is extremely limited.

With regard to the Commission's general preference for mitigation to be provided on-site whenever possible, the Commission finds that in this case, it is not feasible to provide all of the required mitigation at the V and 6th Street location near the project site, as large portions of the 3-acre site already function as freshwater wetlands. An additional 1/8-acre of wetland mitigation would be provided at the Elk River mitigation bank, which is located adjacent to Humboldt Bay and reasonably close to the project area, approximately 3.5 miles south of Cole Avenue and Airport Road.

Therefore, to ensure that the proposed project would provide adequate mitigation, the Commission attaches Special Condition No. 4. This condition requires Caltrans to submit a revised mitigation plan that includes provisions for the debit of at least 1/8-acre of wetland area from the Elk River mitigation bank as described in the Memorandum of Understanding signed by Caltrans, the Department of Fish and Game, and the Coastal Commission on April 9, 1980. As the Elk River Mitigation Bank is now owned and managed by the Department of Fish and Game, the condition requires Caltrans to submit written evidence that Fish and Game has given permission for the bank site to be used for mitigating the wetland fill impacts of the proposed project and that mitigation credits in the amount of 1/8-acre are available for the proposed project. Additionally, the condition requires Caltrans to submit a current biological survey to the Executive Director to

demonstrate that the mitigation bank property continues to exhibit the biological functions anticipated by the MOU.

To ensure that the mitigation site is constructed as proposed, Special Condition No. 4 requires submittal of "as built" plans within 30 days of completion of the wetland mitigation work at the V and 6th Street site including "as built" elevations and a description of the number, types, location, and condition of vegetation planted at the mitigation site. The Commission finds that to ensure that the mitigation site is successful and that the area of fill removal becomes fully established, functioning wetland habitat, the area must achieve 100% vegetative cover. Therefore, Special Condition No. 4 also requires that the revised mitigation plan includes provisions for monitoring the site for five years, or until the site achieves 100% vegetative cover. Although as submitted, Caltrans' mitigation plan calls for monitoring, the plan does not provide for the submittal of monitoring reports to the Commission to ensure the mitigation site becomes established with wetland vegetation as proposed. Therefore, Special Condition No. 4 also requires the revised mitigation plan to include a schedule for monitoring and provisions for submittal of monitoring reports to the Commission by November 1 of each monitoring year following completion of mitigation at the site. If the final report indicates that the mitigation project has been unsuccessful, in part, or in whole, based on the approved performance standards, the applicant is required to submit a revised or supplemental revegetation program to compensate for those portions of the original program which did not meet the approved performance standard. The revised revegetation program shall be processed as an amendment to this coastal development permit.

The Commission further finds that construction of the proposed project during the rainy season when the wetlands are most sensitive to disturbance could result in adverse wetland impacts from sedimentation and compaction. The applicant proposes to construct the project in the dry season between May 1 and October 15. Therefore, to further minimize potential adverse impacts to wetland habitat, the Commission attaches Special Condition No. 1, which requires project construction to be completed between May 1 and October 15.

As conditioned, the Commission finds that the project would not result in significant adverse impacts to wetland habitat and is adequate to minimize significant adverse impacts to wetland habitat consistent with Section 30233 of the Coastal Act.

(2) Sensitive Fish Species

There are four listed fish species known to occur within the limits of the project area including coho salmon, (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*), Northern California steelhead (*Oncorhynchus mykiss*), and tidewater goby (*Eucyclogobius newberryi*). All four species are listed as threatened under the federal Endangered Species Act and coho salmon are also listed as threatened under the

California Endangered Species Act. The 2,910-foot-long Jacobs Avenue drainage ditch, which captures roadside runoff, is connected to a man-made slough via three culverts and two smaller ditches. The man-made slough is connected to the Eureka Slough via two tide gates. When the tide is low and the water level in the man-made slough is higher than in Eureka Slough, the tide gates open and water from the man-made slough flows through the gates into Eureka Slough. During high tides, the tide gates are closed.

A 503-foot-long section of the roadside Jacobs Avenue drainage ditch would be converted into a culvert to construct the northbound 101 deceleration lane at Airport Road. The culvert would be placed at relatively the same elevation as the bottom of the existing Jacobs Avenue ditch. Therefore, the placement of the culvert would not alter the ditch's connectivity to the Eureka Slough and would allow for continued passage of any fish that move between Eureka Slough and the Jacobs Avenue ditch. However, to the extent the Jacobs Avenue ditch currently provides habitat, the culvert would not provide comparable habitat, as the culvert would not allow for the growth of wetland vegetation.

a) Tidewater goby

According to information from the U.S. Fish and Wildlife Service (USFWS), specific data on tidewater goby populations in the sloughs extending from Humboldt Bay is limited. The goby was likely historically present in most if not all of the sloughs that originally extended from Humboldt Bay prior to the construction of the highway in the early 1900's. However, the nearest known population of tidewater gobies in the vicinity of the project, based on survey data, is at Mad River Slough located several miles west of the proposed project.

The USFWS recently conducted surveys (October 2001) to determine if the tidewater goby is present in the Jacobs Avenue ditch. Fish species detected during the surveys include stickleback and mosquito fish. Tidewater goby was not found during any of the surveys. The USFWS indicates that protocol methods have not been established for the goby and therefore, the confidence level for detecting gobies, should they actually occur in the affected habitat, is not directly quantifiable from the methodology used in the surveys. However, the USFWS indicates that the surveys provide a reasonable professional estimate that the likelihood of the species occurring in the project area is low. This estimate is based on the intensity of sampling, the fact that two means of sampling (previously documented as effective in goby capture) were used (traps and dip nets), and the fact that other similarly sized fish species were captured in the samples taken.

The USFWS conducted an informal consultation for the proposed project with regard to potential impacts to tidewater goby and concluded that the project may affect, but is not likely to adversely affect the tidewater goby. The informal consultation states:

"The Service [USFWS] concurs with FHWA that the proposed project, as described, may affect, but is not likely to adversely affect the tidewater goby. Our concurrence is based on (1) quantity, quality (i.e., marginal), and distribution (i.e., isolated) of suitable habitat affected by the project; (2) absence of the species in the affected ditch during surveys conducted in October 2001; (3) distance (several miles) to known occupied goby habitat in the vicinity of the project; and (4) the application of Best Management Practices and other measures to protect the wetland environment during the proposed construction from significant adverse effects due to siltation or contamination of downslope habitat."

As discussed below in the section on water quality, Caltrans proposes to implement Best Management Practices at the site to minimize mobilization of sediments during project construction and to protect the water quality of the Jacobs Avenue ditch and surrounding drainages. The Commission has conditioned the project to require that the BMP's be utilized as proposed. Therefore, the Commission finds that the proposed project, as conditioned, would not have significant adverse impacts on tidewater goby.

b) Anadromous Salmonid Species

Although listed salmonid species are not known to occur in the project area, they do occur within the Eureka Slough and juveniles could potentially migrate into the project area. According to the biological assessment prepared by Caltrans, coho and steelhead typically spend one and two years respectively in freshwater streams and utilize freshwater for rearing. Chinook salmon use estuarine environments such as Humboldt Bay for juvenile rearing and as a means of moderating the parr/smolt transition. It is believed that during migration, Chinook use channels as corridors to directly migrate to the ocean. Chinook utilize the bay for rearing habitat and for smolification and they are more likely to be found near areas of the bay such as the Jacobs Avenue ditch. Therefore, the presence of coho and steelhead in the Jacobs Avenue ditch is less likely than the presence of Chinook.

As discussed above, the U.S. Fish and Wildlife Service recently (October 2001) conducted surveys to determine if the tidewater goby is present in the Jacobs Avenue ditch. Fish species detected during the surveys included stickleback and mosquito fish. Although the surveys were not conducted for salmonids, the surveys provide a reasonable estimate that the likelihood of salmonids occurring in the sampled area is low. This estimate is based on the intensity of the sampling, the fact that two previously documented means of sampling were used (traps and dip nets) and the fact that fish species smaller in size than juvenile salmonids were captured in the samples taken.

The potential for salmonids to occur within or near the proposed work area is very low due to the presence of tide gates, a jump at one of the culverts, low salinity of the water in the ditch, and the density of aquatic vegetation within the ditch. The low salinity and

dense vegetation in the two small ditches near Jacobs Avenue ditch likely discourage salmonids from migrating into the Jacobs Avenue ditch. The presence of tidegates and elevation differences at the inlet and outlet of the culverts that connect the Jacobs Avenue ditch to the man-made slough makes salmonid passage unlikely. Both the Jacobs Avenue ditch and the ditch just beyond that to the east contain freshwater plant species. This progression towards freshwater characteristics in the Jacobs Avenue ditch would indicate that the water from the man made slough rarely reaches the Jacobs Avenue ditch. The low salinity along with the dense silverweed and water parsley in the two small ditches may discourage salmonids from migrating into the Jacobs Avenue ditch.

The Department of Fish and Game has reviewed the project and has indicated that the project would not adversely affect coho salmon. In correspondence to Caltrans regarding the project, the DFG states, "*Based on our knowledge of the site and a recent U.S. Fish and Wildlife Service survey at this location, the DFG has determined that this project, as proposed, is not likely to result in take of coho salmon.*" The Department of Fish and Game has issued a Section 1603 Streambed Alteration Agreement for the proposed project.

Additionally, the National Marine Fisheries Service has reviewed the project and determined that the project would have no affect on listed salmonid species or their critical habitat due to the presence of tide gates, three culverts connecting the ditch to be affected, a jump at one of the culverts, and the density of aquatic vegetation within the ditch. As a result, NMFS has confirmed with Commission staff that there is no need for further Section 7 Endangered Species Act consultation regarding the project.

Therefore, the Commission finds that the proposed project, as conditioned, would not result in significant adverse impacts to sensitive fish species. Furthermore, the water quality mitigation measures discussed below will also ensure that significant adverse impacts to sensitive fish species are minimized.

(3) Water Quality

The potential for water quality impacts from the proposed project include mobilization of sediment and increased turbidity in drainages adjacent to the project site, and construction debris entering coastal waters and wetlands.

Caltrans has been issued National Pollution Discharge Elimination System (NPDES) permits by the State Water Resources Control Board (SWQCB) for construction projects. Under these permits and the terms of Caltrans' contract specifications, the project contractor is responsible for developing a Storm Water Pollution Prevention Plan (SWPPP) that sets forth appropriate Best Management Practices (BMPs) designed to minimize and contain stormwater runoff from the site. According to Caltrans, based upon Caltrans' SWPPP Preparation Manual, the project would require the use of at least one of the following measures for temporary soil stabilization: hydraulic mulch,

hydroseeding, geotextiles/blankets/mats, straw mulch, and/or soil binders. For temporary sediment control, silt fences, sweeping/vacuuming, and storm drain inlet protection would be required. The implementation of these types of BMPS would result in the interception and containment of sediment during the construction of the project and would also reduce potential erosion prior to the full establishment of permanent vegetation on the exposed slopes. Caltrans proposes to mulch exposed soils following completion of the project. To ensure that adverse impacts to water quality are minimized, the Commission attaches Special Condition No. 3 that requires Caltrans to submit for the review and approval of the Executive Director prior to commencement of construction, a copy of the final Storm Water Pollution Prevention Plan that demonstrates the suite of BMPs, such as those referenced above, that would be used at the project site.

To further minimize adverse impacts to water quality during project construction, Caltrans proposes to restrict all work to the dry season between May 1 and October 15 to minimize the potential for stormwater runoff from the site. To ensure that adverse impacts to water quality are minimized, the Commission attaches Special Condition No. 1 that requires the project to be constructed during the dry season, between May 1 and October, as proposed by Caltrans.

Caltrans has indicated that the excavated material from the wetland mitigation site would be used to construct the project if it was deemed to be of suitable composition for construction use. If the material is not considered suitable, then disposal of the material would be left up to the contractor. To ensure that construction debris is adequately disposed of in an approved location, the Commission attaches Special Condition No. 2 requiring that prior to commencement of construction, the applicant submit a plan for the disposal of construction-related debris for the review and approval of the Executive Director. The plan must describe the manner by which the material would be removed from the construction site, identify all debris disposal sites that would be utilized and demonstrate that all disposal sites are in upland areas where construction-related debris from the project may be lawfully disposed.

Section 30412 prevents the Commission from modifying, adopting conditions, or taking any action in conflict with any determination by the State Water Resources Control Board or any California Regional Water Quality Control Board in matters relating to water quality. The proposed project requires a Section 401 Water Quality Certification from the RWQCB. The RWQCB has not yet acted on this required approval at the time of the writing of this staff report, and therefore, conditions and/or BMPs required by the Commission to minimize adverse impacts to water quality from the proposed pipeline construction activities would not conflict with actions of the RWQCB pursuant to the requirements of Coastal Act Section 30412.

Therefore, as conditioned, the Commission finds that the biological productivity and quality of coastal waters will be maintained and the project, as conditioned, is consistent with Sections 30230, 30231, 30233, and 30412 of the Coastal Act.

c. Alternatives Analysis

The third test of Section 30233(a) is whether there are feasible less environmentally damaging alternatives to the proposed project. Caltrans and Commission staff considered several alternatives to the proposed project including (1) traffic signals and signs, (2) a highway interchange or crossover, and (3) no project. The Commission finds, as discussed below, that there is no feasible less environmentally damaging alternative to the project as conditioned.

i. Traffic Signals/Signs

Caltrans is currently reviewing several options for improving the overall safety of the Highway 101 corridor between Eureka and Arcata and has considered the use of signage and traffic signals at the locations where traffic must cross the highway. The use of signs or traffic signals would avoid the need to place fill in wetlands. However, Caltrans has determined that it would not be appropriate for 'spot use' of signs and signals at the Cole Avenue intersection and would not be effective at improving safety of the intersection. The installation of traffic signals and warning signs would not directly address the site line problems associated with the Cole Avenue location relative to the curve in the highway between the Cole Avenue intersection and points to the south. Conflicting movements of traffic from Cole Avenue onto the highway and from the highway to Cole Avenue would still need to occur if the intersection is allowed to remain, and safety would continue to be impaired by inadequate site lines. Thus, this alternative would not meet the project objective of achieving a certain level of public safety improvement. Therefore, the Commission finds that this alternative is not a feasible less environmentally damaging alternative to the proposed project.

ii. Highway Interchange or Overcrossing

Caltrans has indicated that more "traditional" highway improvements such as interchanges and overcrossings would alleviate the existing traffic hazard resulting from the at-grade intersection and poor sight lines at Cole Avenue. However, this alternative would require significantly more wetland fill than the proposed project, as the site is bordered on the west by Humboldt Bay and on the east by Eureka Slough and grazed seasonal wetlands. As a result, this alternative was not seriously considered by Caltrans although it would meet the project goals and objectives. The Commission finds that this alternative is not a feasible less environmentally damaging alternative to the proposed project.

iii. No Project

This alternative would do nothing to enhance the safety of the Cole Avenue intersection along Highway 101 and thus, would not meet the project purpose and need. In analyzing

the collision history for Cole Avenue, Caltrans determined that the predominant type of collision was northbound broadside of "failure to yield" cross traffic. According to information submitted by Caltrans, during a five-year period between July 1, 1995 to June 30, 2000, there were eight collisions at Cole Avenue that were identified as "failure to yield" cross traffic. This section of northbound Highway 101 is an acceleration zone, which adds a variable component to the driver's decision to cross oncoming traffic. In addition, the sight line at the Cole Avenue intersection is poor due to the major curve in the highway between the Cole Avenue intersection and points to the south, and large trees adjacent to the east shoulder of the roadway. As a safety project, the project is of high priority to Caltrans. Given the danger associated with use of the existing intersection, the Commission finds that this alternative is not a feasible less environmentally damaging alternative to the proposed project.

Therefore, for all of the above reasons, the Commission finds that as conditioned, the proposed project is the least environmentally damaging feasible alternative consistent with Section 30233(a).

d. Maintenance and Enhancement of Marine Habitat Values

The fourth general limitation set by Section 30233 and 30231 is that any proposed dredging or filling in coastal wetlands must maintain and enhance the biological productivity and functional capacity of the habitat, where feasible.

As discussed above in the section of this finding on mitigation, the conditions of the permit will ensure that the project will not have significant adverse impacts on the biological productivity or water quality of coastal wetlands. The mitigation measures incorporated into the project and required by the Special Conditions discussed above will ensure that the highway safety improvement project would not adversely affect the biological productivity and functional capacity of the marine environment. Therefore, the Commission finds that the project, as conditioned, will maintain the biological productivity and functional capacity of the wetland habitat consistent with the requirements of Section 30233 and 30231 of the Coastal Act.

e. Conclusion

The Commission thus finds that the project is an allowable use, that there is no feasible less environmentally damaging alternative, that feasible mitigation is required for potential impacts associated with the dredging and filling of coastal wetlands, and that wetland habitat values will be maintained or enhanced. Therefore, the Commission finds that the proposed development, as conditioned, is consistent with Sections 30233, 30230, and 30231 of the Coastal Act.

3. Visual Resources

Section 30251 of the Coastal Act states that the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance, and requires in applicable part that permitted development be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, and to be visually compatible with the character of surrounding areas. Furthermore, Section 30240(b) of the Coastal Act states that development in areas adjacent to 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 recreation areas.

The project site is located approximately 0.5 miles north of Eureka along Highway 101 on the east side of Humboldt Bay and to the west of grazed seasonal wetlands. The existing highway in the project area is a paved, four-lane divided highway and provides views of Humboldt Bay, the coast range, and open agricultural fields between Eureka and Arcata. The project involves the removal of approximately six mature Monterey cypress trees along the eastern shoulder, which would not be replaced in order to improve sight distance at the intersection for traffic safety purposes. However, nearly the entire eastern length of the highway from Jacobs Avenue to Airport Avenue, a distance of approximately 0.5 mile, is vegetated with mature Monterey cypress trees. Therefore, the removal of approximately six trees at the northern terminus of this row of trees would not significantly alter the visual character of the area, as the majority of the trees along the highway would remain. The proposed project does not involve any above-ground improvements that would result in adverse impacts to or along the bay. Additionally, the project would not result in the alteration of any natural landforms. Although there may be temporary visual impacts associated with the project from the use of heavy equipment at the site and from soil and vegetation disturbance, the project itself would not result in any permanent change to the site that would adversely impact coastal views to or along Humboldt Bay.

Therefore, the Commission finds that the proposed development is consistent with Section 30251 of the Coastal Act as the development would not block views to and along the coast, would not involve any alteration of land forms, and the proposed pipeline would not result in any change to the visual character of the Humboldt Bay area.

4. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of a coastal development permit application to be supported by findings showing that the application, as modified by any conditions of approval, is consistent with any applicable requirement 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 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 found consistent with the policies of the Coastal Act. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. Mitigation measures that will minimize or avoid all significant adverse environmental impact have been required. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity would 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 and to conform to CEQA.

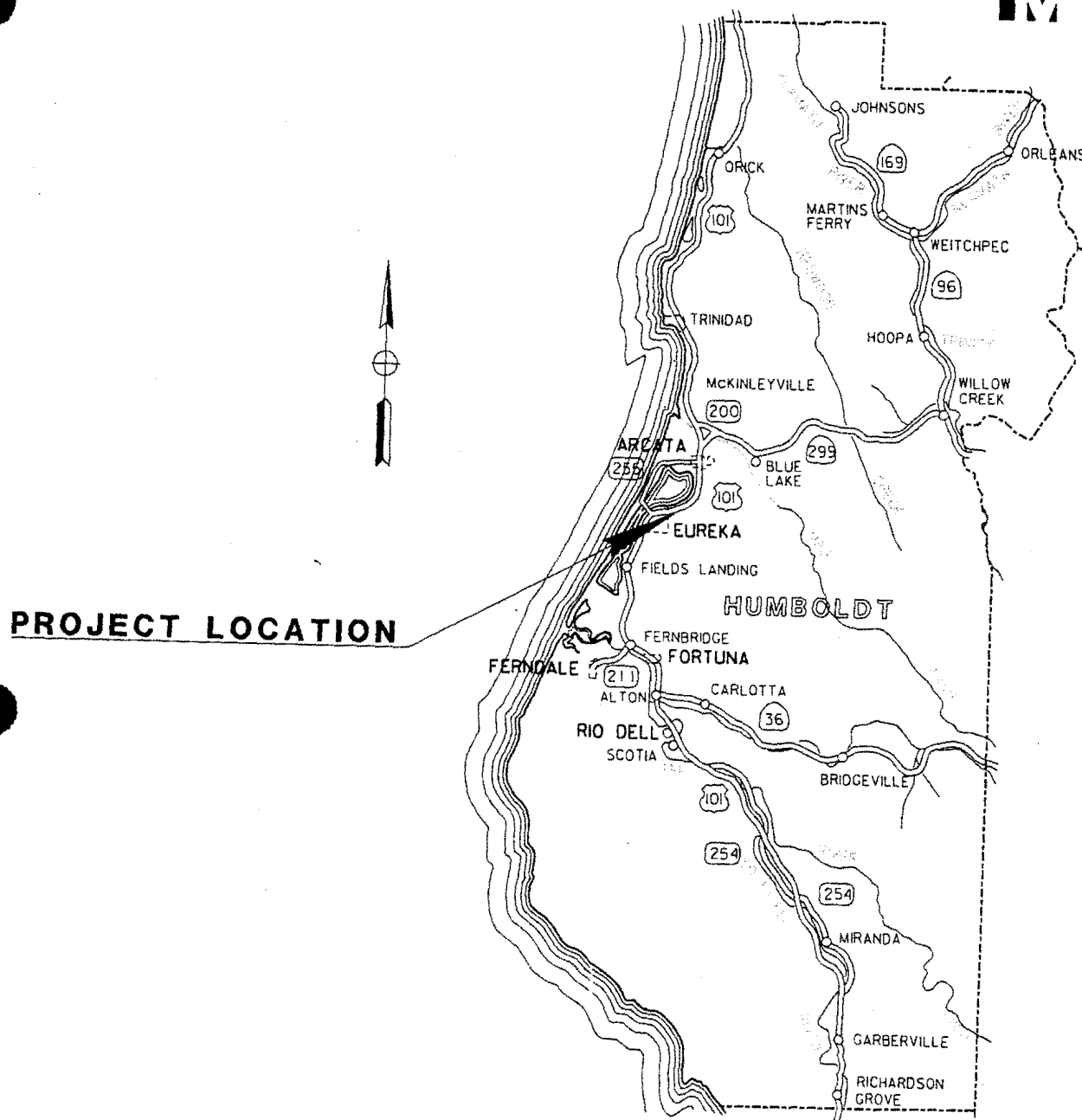
EXHIBITS:

1. Regional Location Map
2. Vicinity Map
3. Project Limits
4. Site Plans
5. Project Plans
6. Wetland Mitigation Site Plan
7. Elk River Mitigation Bank Location

ATTACHMENT A

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an 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.



PROJECT LOCATION

No Scale

LOCATION MAP

01-Hum-101-KP 128.9 / 130.7
(PM 80.1 / 81.2)

03230

423200

**Extend Acceleration/Deceleration
Lanes and Close Median**

EXHIBIT NO. **1**

APPLICATION NO.

1-02-016

CALTRANS

REGIONAL LOCATION

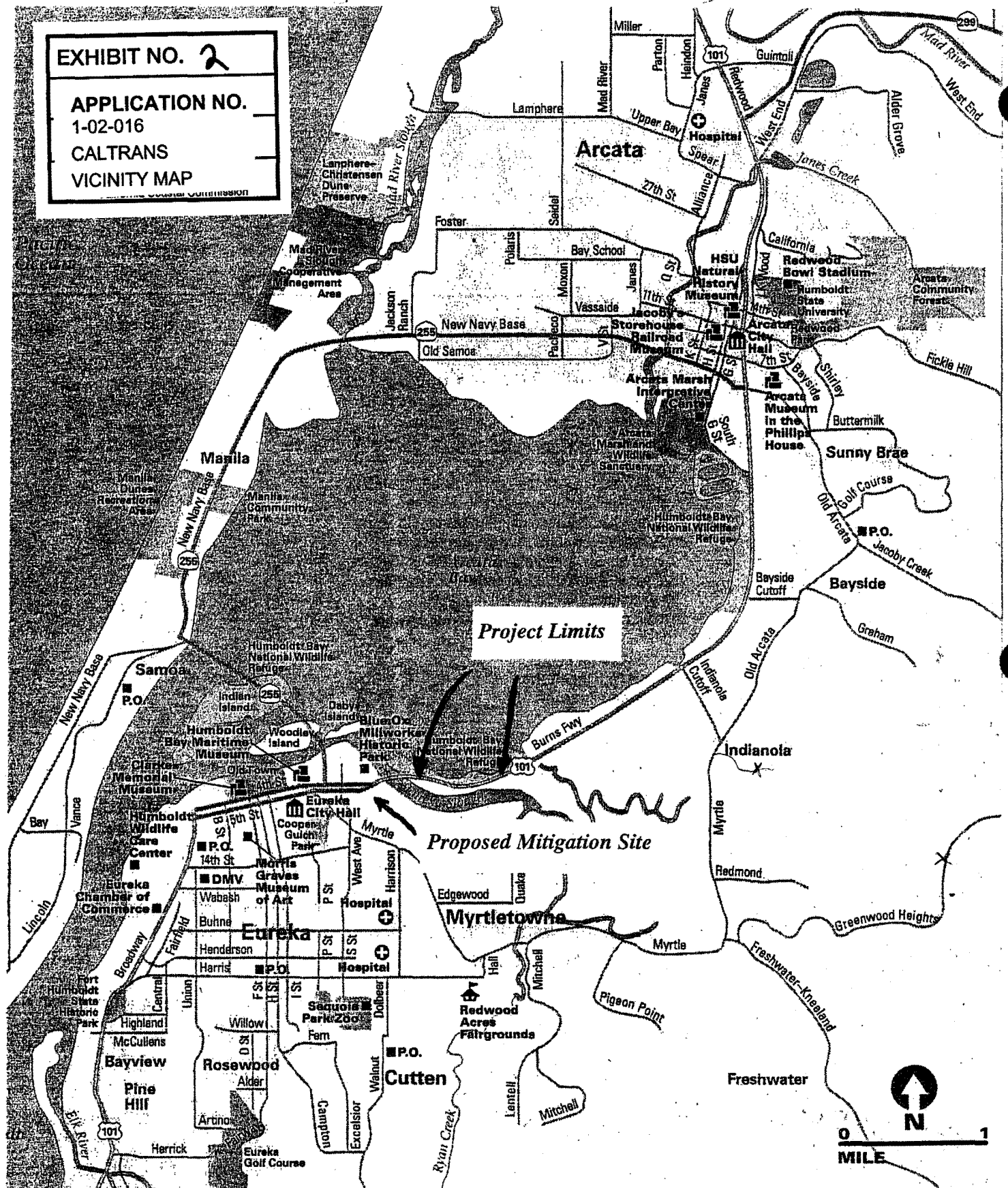
EXHIBIT NO. 2

APPLICATION NO.

1-02-016

CALTRANS

VICINITY MAP



VICINITY MAP
PROPOSED IMPROVEMENTS TO HIGHWAY 101 AT COLE
AVENUE AND AIRPORT ROAD, EUREKA
EA 01-423200

EX OF SHEETS

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

IN HUMBOLDT COUNTY IN EUREKA
FROM 0.2 km SOUTH OF COLE AVENUE
TO 0.3 km NORTH OF AIRPORT ROAD

To be supplemented by Standard Plans dated July, 1999

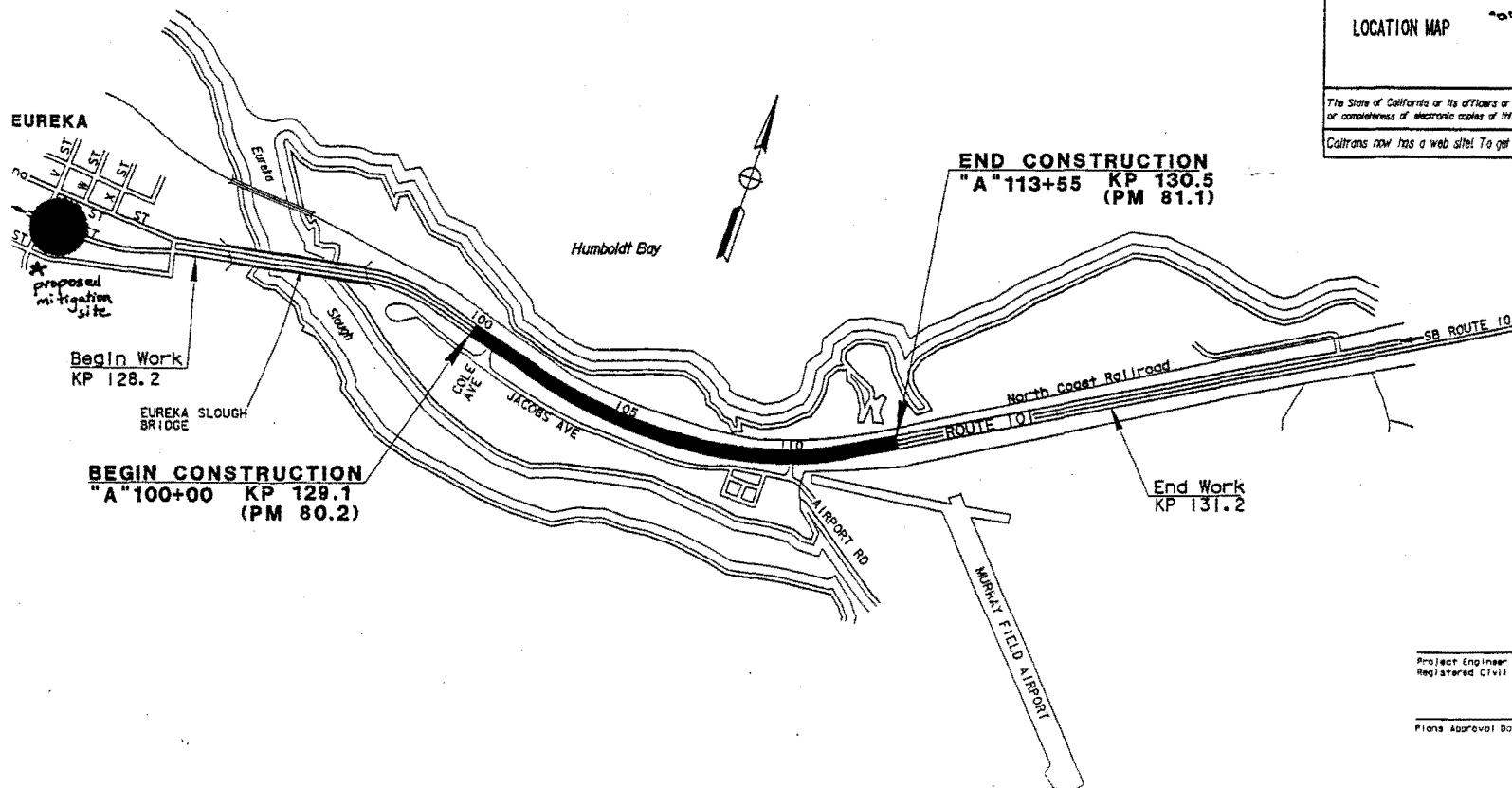
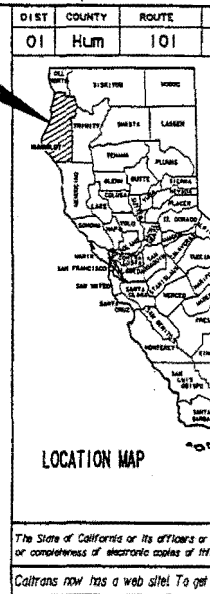


EXHIBIT NO. 3

APPLICATION NO.

1-02-016

CALTRANS

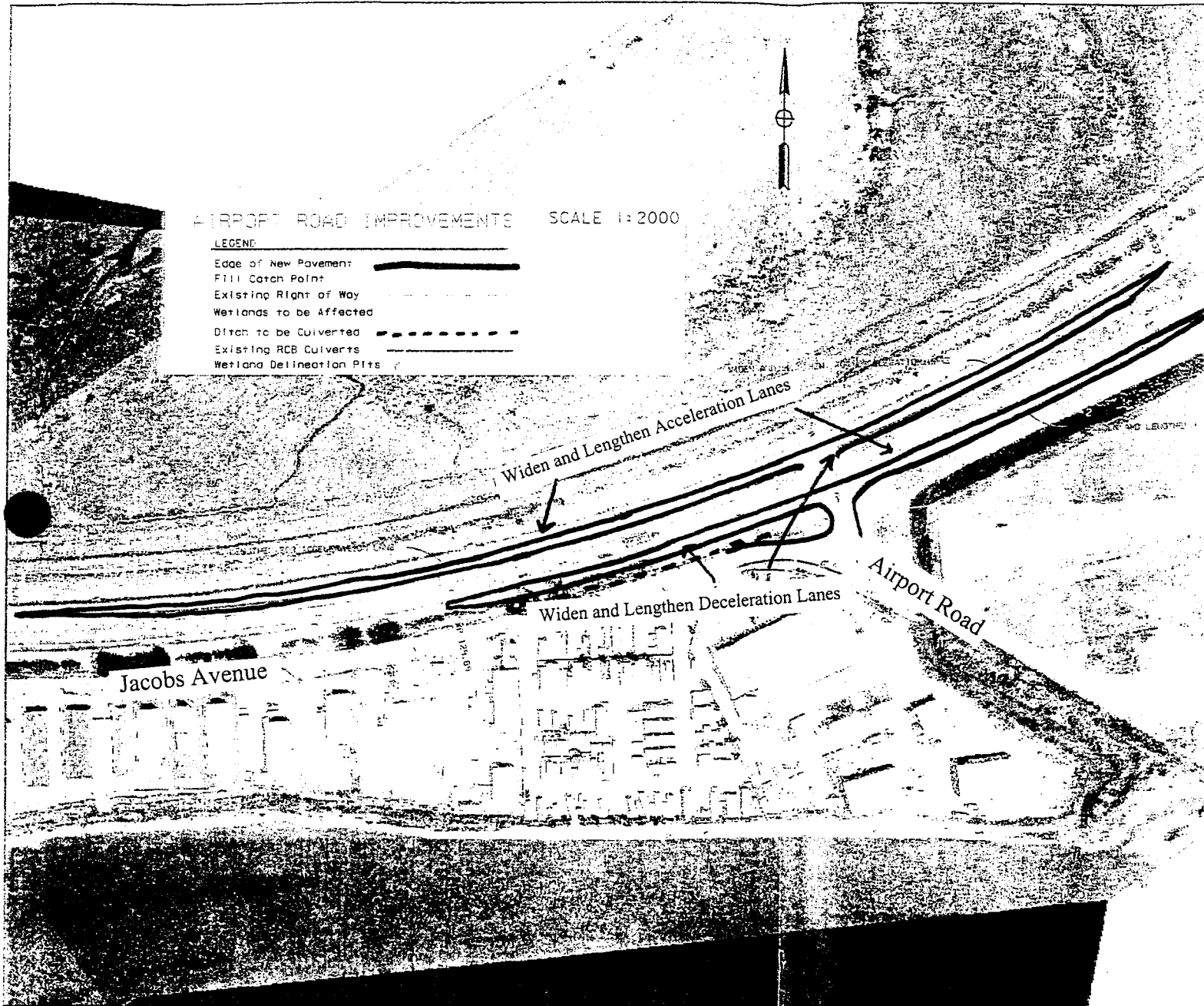
PROJECT LIMITS



ATTACHMENT C






EXHIBIT NO. 4
APPLICATION NO. 1-02-016
CALTRANS
SITE PLANS (1 of 2)



2092

NOTES:
1. THE COMPLETE RIGHT OF WAY DATA SET SHALL BE WITH
POLYMER MAPS AT THE PROJECT OFFICE.

LEGEND

-  EMERGENCY CROSSOVER
-  REMOVE AC SURFACING
-  WIDENING

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	PROJECT ENGINEER	Eric Lund	CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED

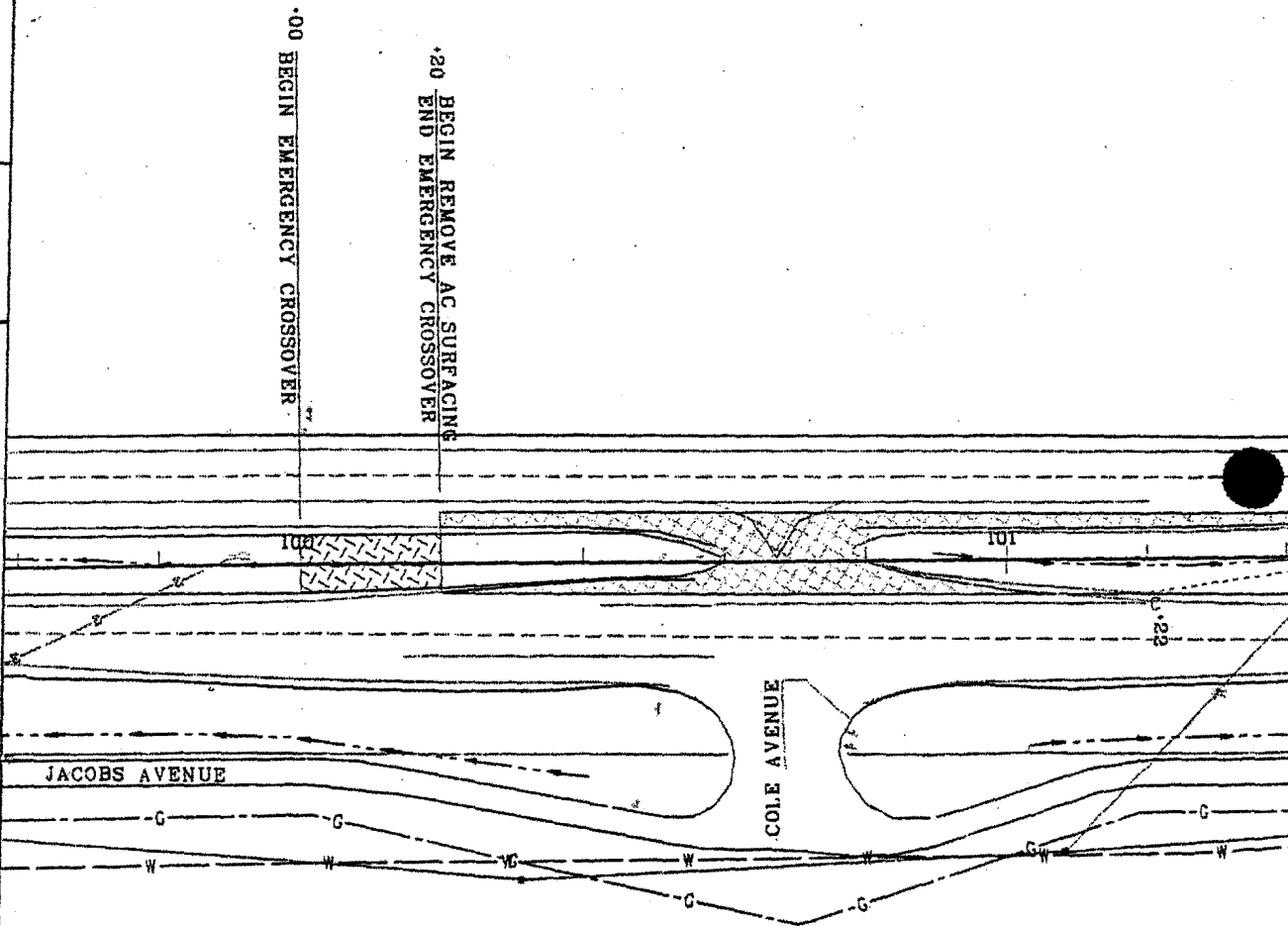


EXHIBIT NO. 5

APPLICATION NO.
1-02-016

CALTRANS
PROJECT PLANS
(1 of 8)

NOTE: ALL DIMENSIONS ARE IN MET

FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS

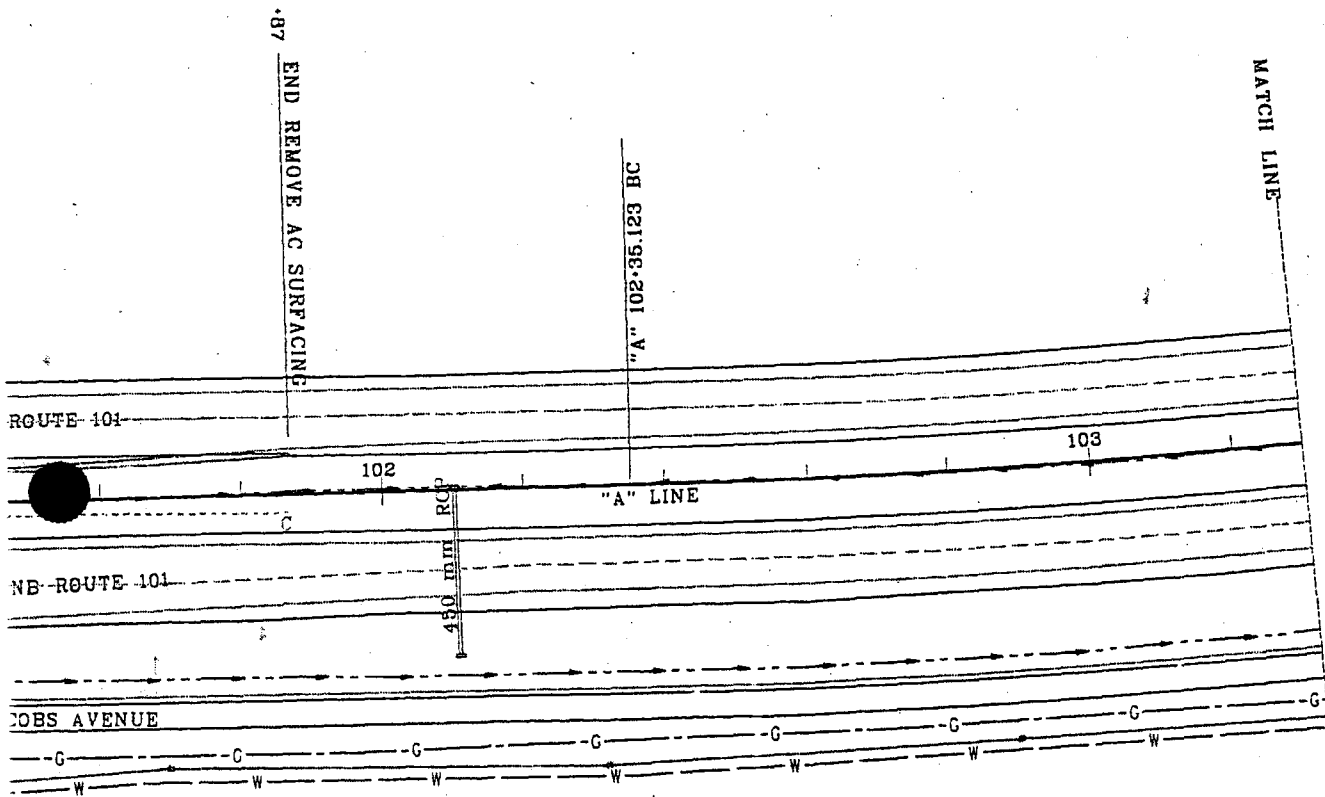


DIST	CITY	ROUTE	KILOMETER TOTAL PROJECT	POSTSHEET No	TOTAL SHEETS
01	Hum	101	128.9/130.7		

00/00/00
REGISTERED CIVIL ENGINEER
FOR DESIGN STUDY
PLANS APPROVA DATE

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Caltrans now has a web site! To get to the web site, go to: <http://www.dot.ca.gov>



UNLESS OTHERWISE SHOWN.



USERNAME --EDUSER
DCN FILE --SREQUEST

SCALE 1:500

CU 03230

EA 423201


LAYOUT

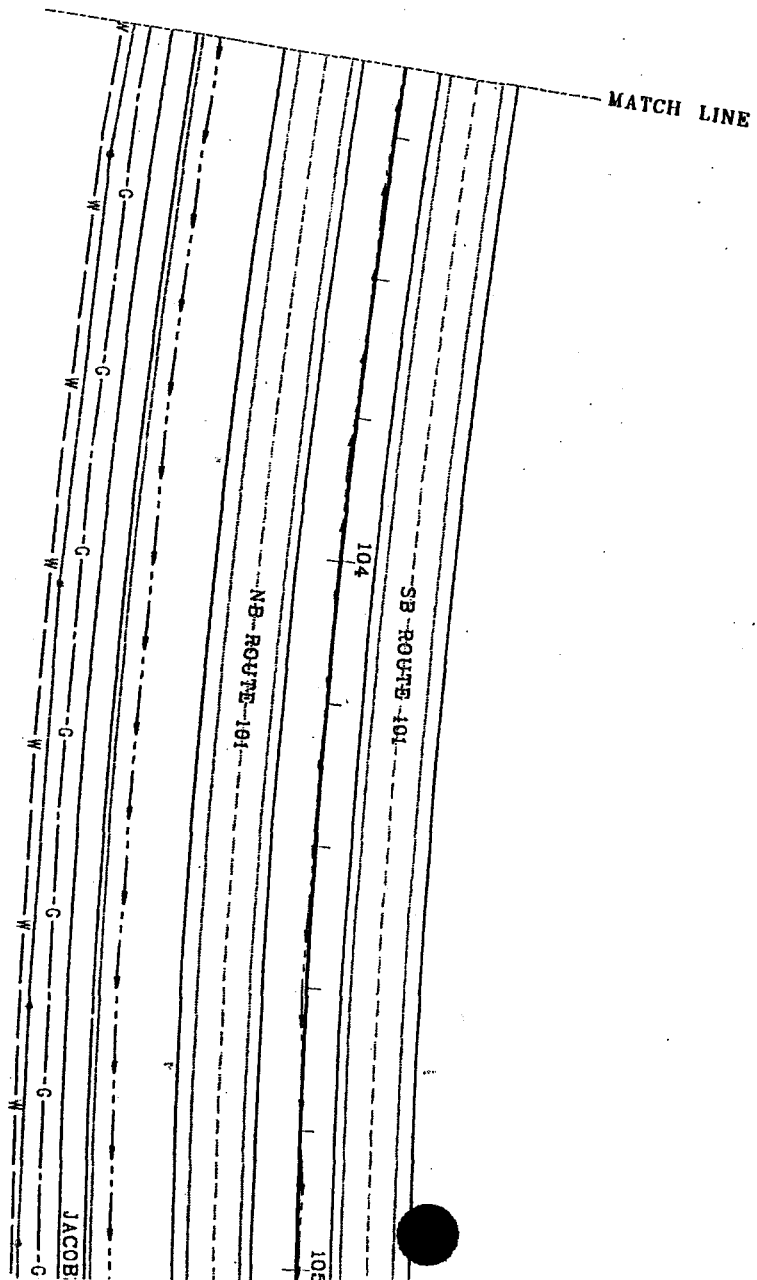
L-1

2 of 8

DATE PLOTTED --:DATE

LAST REVISION
00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	CALCULATED/DESIGNED BY	DATE	REVISED BY			
 DESIGN	Eric Lund	CHECKED BY	DATE REVISED				



L-2 Sheet A ▶

NOTE: ALL DIMENSIONS ARE IN METERS

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

3092

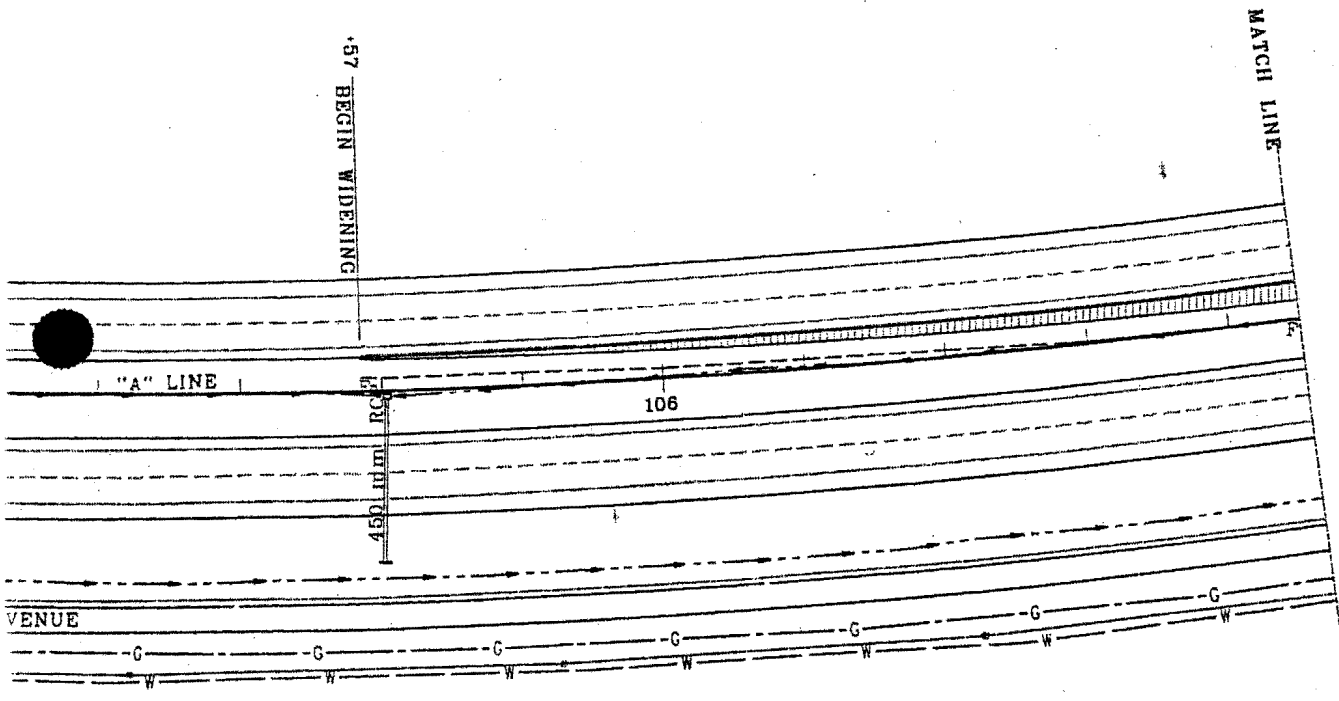


DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POSTSHEET No	TOTAL SHEETS
01	Humboldt	101	128.9/130.7		

REGISTERED CIVIL ENGINEER
 FOR DESIGN STUDY ONLY
 PLANS APPROVAL DATE: 00/00/00

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UNLESS OTHERWISE SHOWN.

SCALE 1:500

LAYOUT
L-2

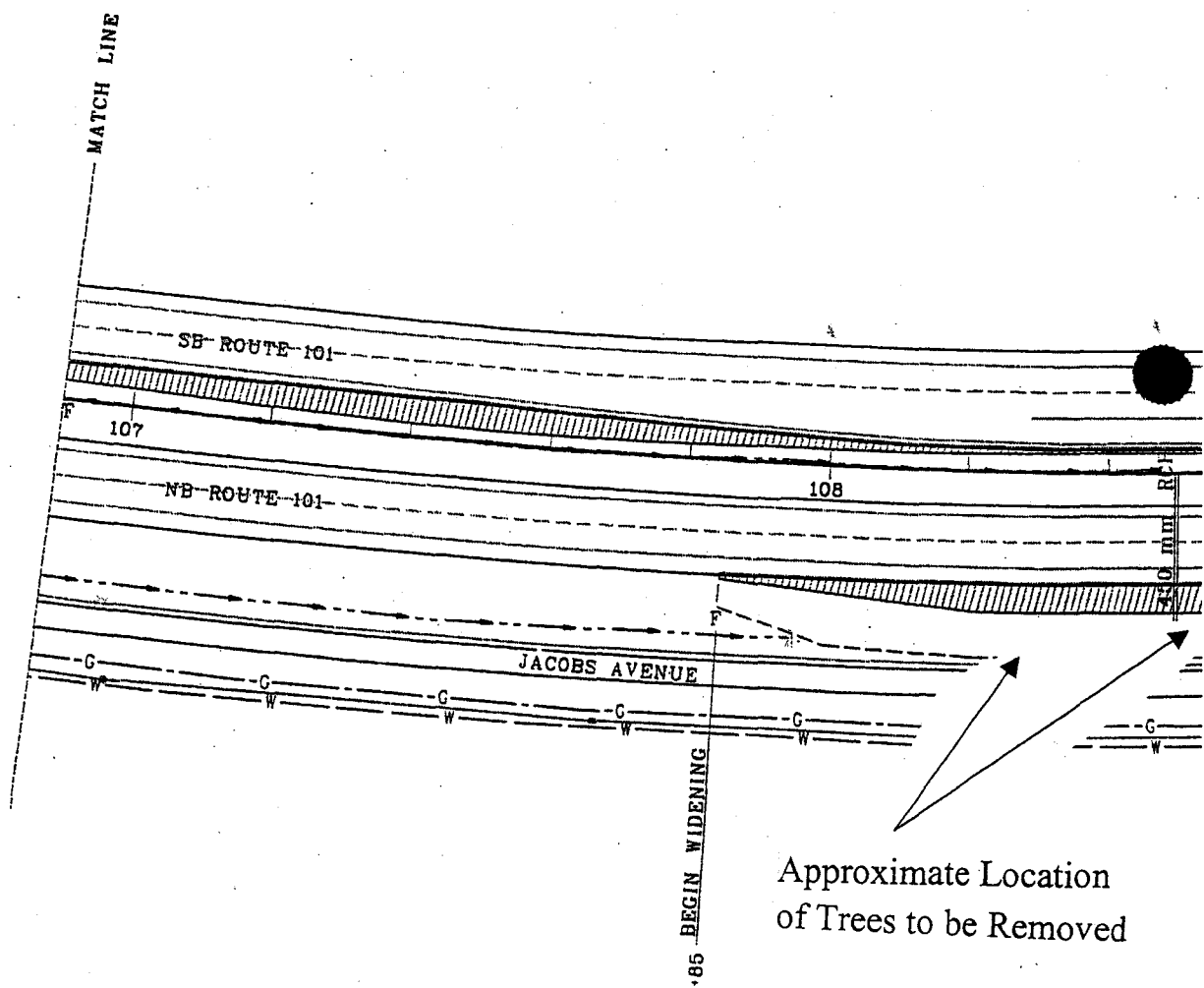
0 40 60 80	USERNAME: DEUSEN DCN FILE: AREQUEST	CU 03230	EA 423201
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4 of 8

DATE PLOTTED: 03/04/00

LAST REVISION: 00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	Elic Lind	CALCULATED/DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
Caltrans	DESIGN						



NOTE: ALL DIMENSIONS ARE IN ME

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

508

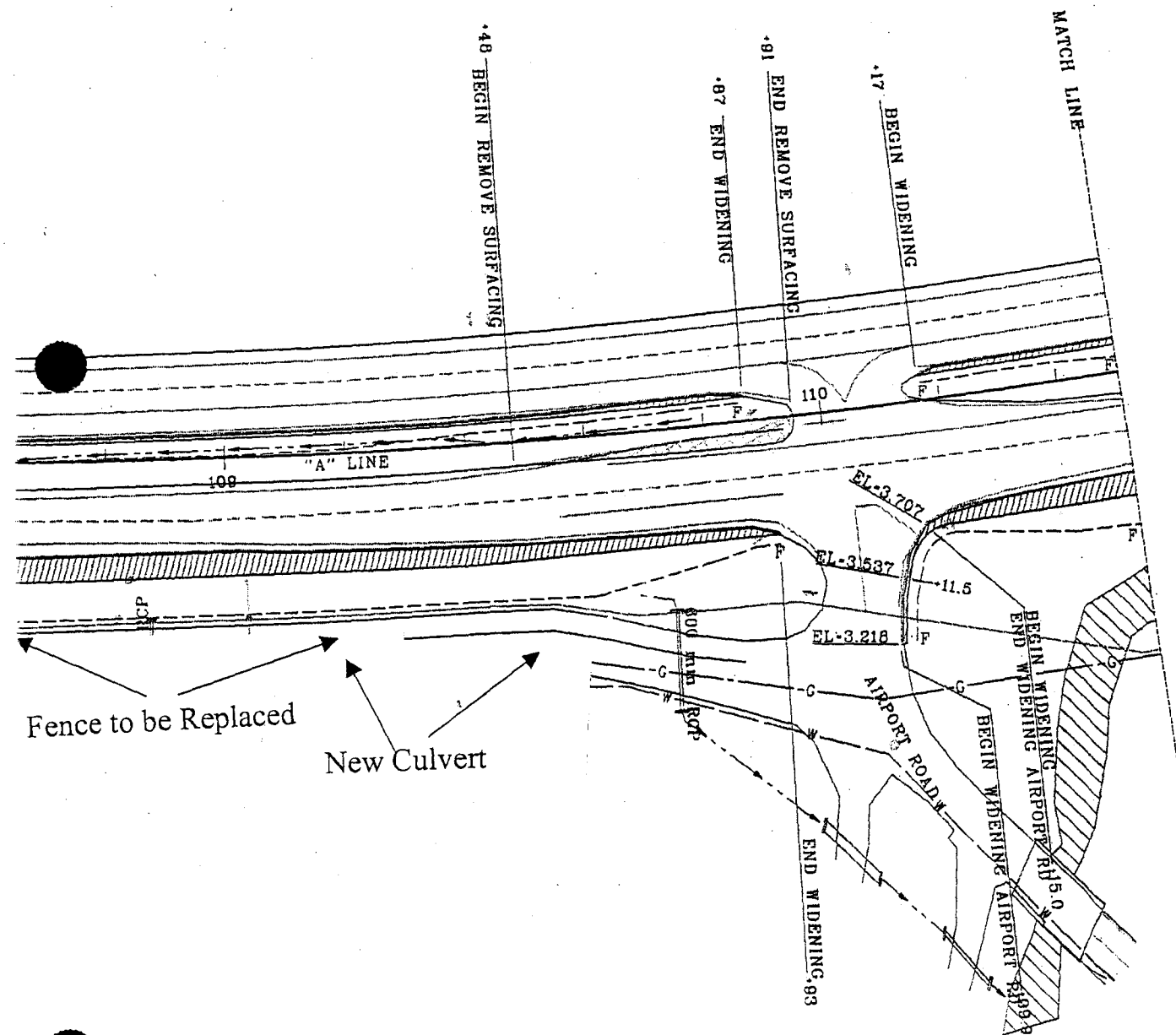


DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POSTSHEET No	TOTAL SHEETS
01	Humboldt	101	128.9/130.7		

00/00/00
 REGISTERED CIVIL ENGINEER
FOR DESIGN STUDY ONLY
 PLANS APPROVAL DATE _____
 No. _____
 Exp. _____
 CIVIL
 STATE OF CALIFORNIA

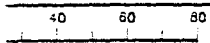
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LAYOUT
L-3

UNLESS OTHERWISE SHOWN.




USERNAME: USER
 DGN FILE: REQUEST

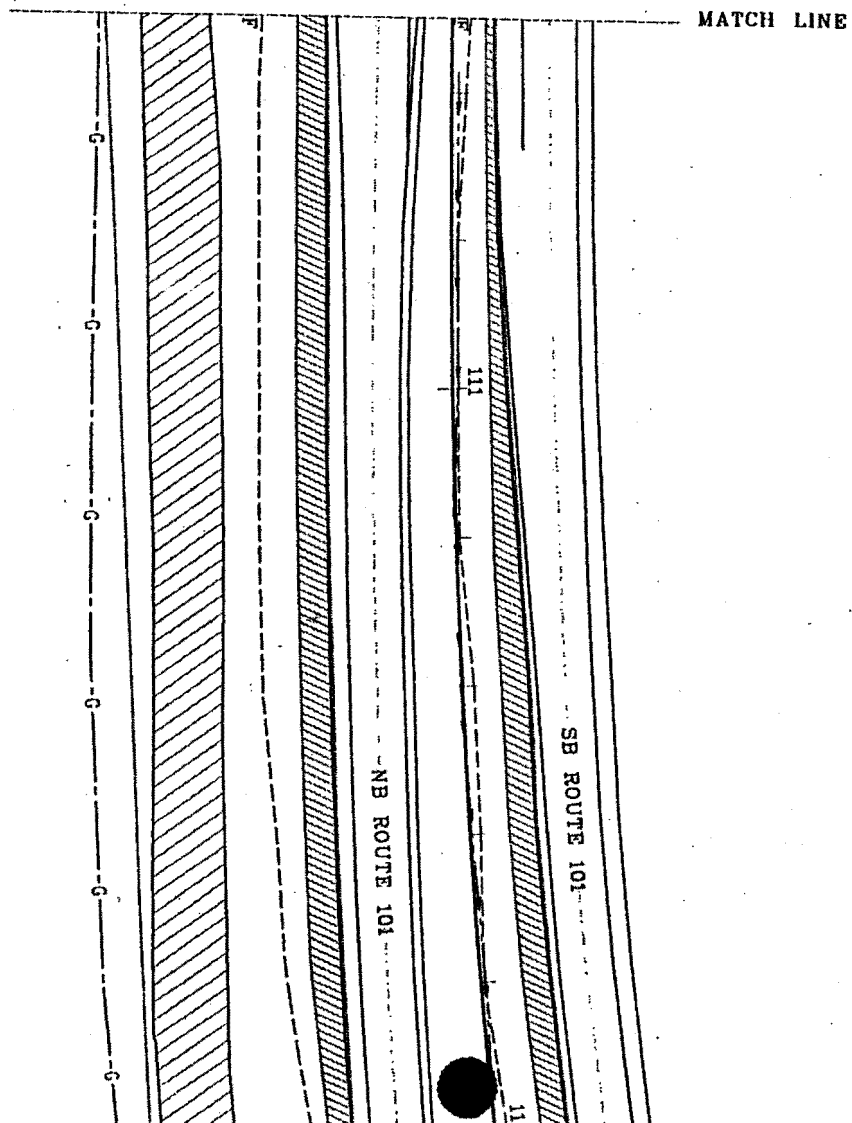
SCALE 1:500

CU 03230

EA 423201

DATE PLOTTED: 00-00-00
 DATE: 00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/DESIGNED BY		DATE		REVISED BY					
		DESIGN		Eric Lund		CHECKED BY			DATE REVISED				



MATCH LINE

SB ROUTE 101

NB ROUTE 101

6 6 6 6 6 6 6

7 of 8

NOTE: ALL DIMENSIONS ARE IN METERS
FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS



DIS	COUNTY	ROUTE	KILOMETER POSTMILE TOTAL PROJECT
01	Humboldt	101	128.9/130.7

REGISTERED CIVIL ENGINEER 00/00/00
FOR DESIGN STUDY ONLY
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL CIVIL ENGINEER
 No. _____
 Exp. _____
 STATE OF CALIFORNIA

"A" 112:34.751 EC

END WIDENING .56

"A" LINE

113

END WIDENING .55

LESS OTHERWISE SHOWN.

40 60 80

USERNAME -- USER
 DGN FILE -- REQUEST

828

SCALE 1:500

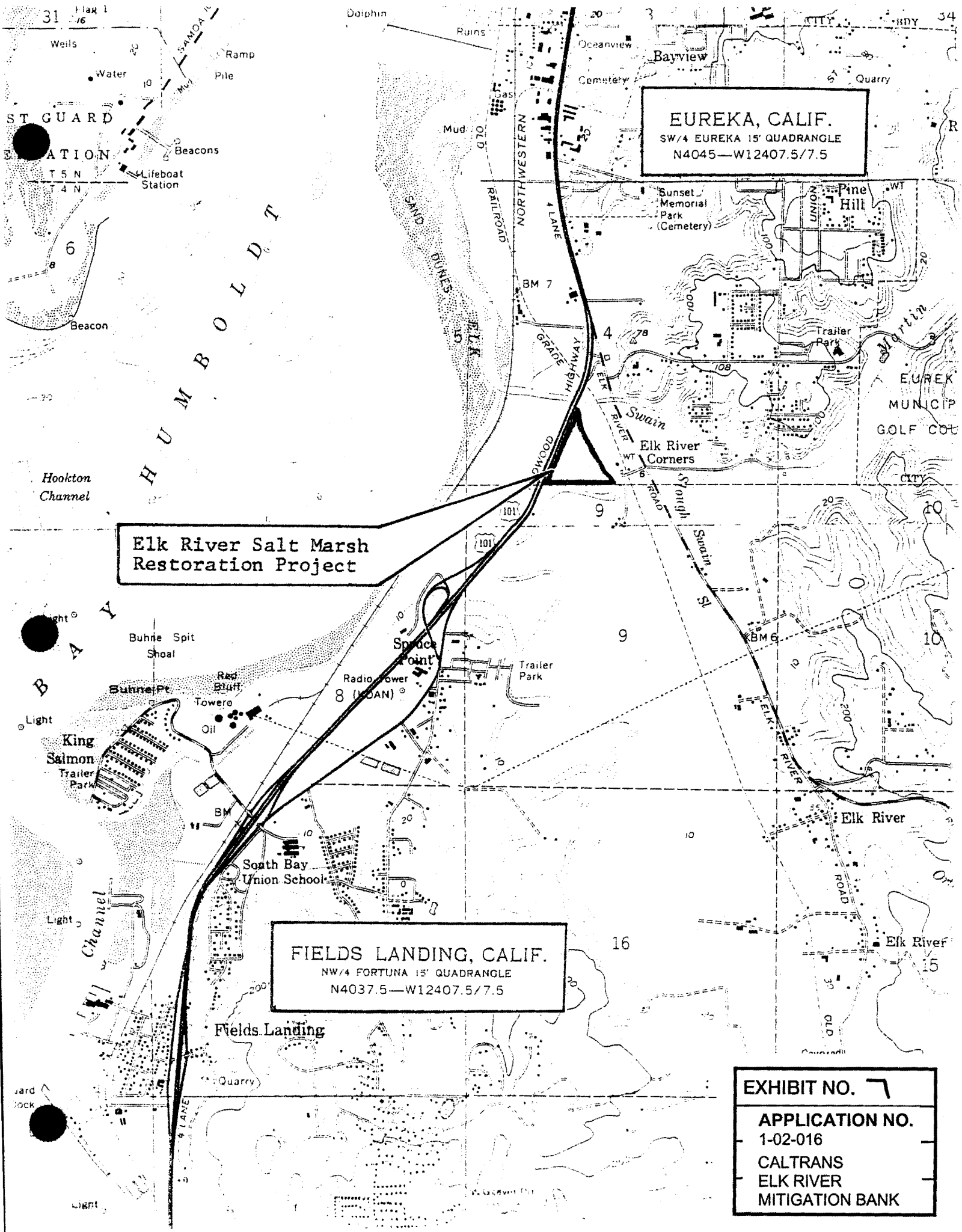
CU 03230

LAYOUT
 L-4

LAST REVISION

**CALTRANS
WETLAND MITIGATION
SITE PLAN**

5/17/2002



EUREKA, CALIF.

SW/4 EUREKA 15' QUADRANGLE
N4045—W12407.5/7.5

**Elk River Salt Marsh
Restoration Project**

FIELDS LANDING, CALIF.

NW/4 FORTUNA 15' QUADRANGLE
N4037.5—W12407.5/7.5

EXHIBIT NO. 7

APPLICATION NO.
1-02-016
CALTRANS
ELK RIVER
MITIGATION BANK

