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Staff:	T. S. Tauber
Staff Report:	March 1, 2000
Hearing Date:	March 15, 2000
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-99-074**
APPLICANT:	**California Department of Transportation, North Region**
PROJECT LOCATION:	State Route 101 southbound Eureka Slough Bridge, at the north end of the City of Eureka, Post Mile 79.8/80.0, Humboldt County.
PROJECT DESCRIPTION:	Remove existing bridge railings and maintenance walkways on the southbound Eureka Slough Bridge, install Type 27 solid concrete railings with tubular bicycle railings and exterior cathedral stamping, and restripe the bridge deck to create a shoulder for motorists and bicyclists.
SUBSTANTIVE FILE DOCUMENTS:	1) City of Eureka Local Coastal Program 2) "Caltrans Bridge Rail Workshop" presented to the California Coastal Commission, dated December, 1999

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval with special conditions of the proposed project to remove the existing see-through railing and maintenance walkways on the southbound Eureka Slough Bridge, install Type 27 solid concrete bridge railing, and restripe the bridge deck to create a shoulder for bicyclists and motorists.

The proposed project would limit existing coastal views by replacing the see-through bridge rail with a solid concrete rail. However, the structural deficiencies of the existing bridge deck preclude the use of any less-visually-intrusive rail design at this time. Due to the design of the see-through railings, impact forces are transferred to the supporting posts and then to the bridge deck. The existing bridge deck on the southbound bridge was constructed in 1941 and is structurally unable to withstand the concentrated forces that crash impacts would exert at the posts. Upon impact, the bridge deck and railing would fail to retain the vehicle, creating an unsafe and potentially fatal situation for passing motorists. The existing southbound bridge is nearing the end of its planned life expectancy and Caltrans will likely be applying for a permit to repair and/or replace the bridge in the next ten years. Therefore, the visual impact of the proposed railing will be of temporary duration. Because the impact is anticipated to be short term, staff is not recommending that off-site mitigation be required. However, staff is recommending that a condition be imposed that would require Caltrans to submit a feasibility analysis for installing see-through railings with any future permit application to modify or replace the bridge. This condition would ensure that modifications are not made in the future that would extend the life of the bridge without replacing the railings with a more see-through design.

The proposed project would benefit public access by creating a shoulder adjacent to the lanes of traffic for safer passage by bicyclists. Furthermore, the proposed project would not result in any adverse impacts to water quality or sensitive habitat areas, as all of the proposed construction would be conducted from the bridge decks. Staff is recommending a condition to ensure that no construction debris be stored or placed where it may be subject to entering the slough or adjacent wetland areas. Staff is also recommending a condition requiring the applicant to submit for review and approval, a plan for the disposal of construction-related debris. This condition will ensure that debris is not disposed of in the slough or wetlands below the bridge, or in any other area where it may have significant adverse impacts to coastal resources.

STAFF NOTES:

1. Standard of Review

The proposed project is located at the Highway 101 Eureka Slough Bridge at the north end of the City of Eureka. The City of Eureka has a certified LCP, but the project site is located over tidal areas within the Commission's retained jurisdiction. Therefore, the standard of review 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. 1-99-074 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 Permit Amendment:

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. Construction Responsibilities

The permittee shall comply with the following construction-related requirements:

(a) No construction materials, debris, or waste shall be placed or stored where it may be subject to entering the Eureka Slough or adjacent wetland areas.

(b) No machinery shall be allowed at any time in the Eureka Slough or the adjacent wetland areas; and

(c) Staging and storage of construction machinery and storage of debris shall not take place on the wetland areas adjacent to the Eureka Slough below the bridges.

2. Construction Debris Removal

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 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 permit unless the Executive Director determines that no amendment is required.

3. Future Improvements to Southbound Bridge

If in the future the permittee seeks a coastal development permit to modify or replace the bridge, the permittee will be required to include in the permit application information concerning alternatives to the Type 27 railing that could eliminate or significantly reduce impacts to scenic visual resources. Alternatives shall include but are not limited to various types of bridge railings identified in the document entitled, "Caltrans Bridge Rail Workshop, Presented to the California Coastal Commission," dated December, 1999, including the Type 80 Rail, Wyoming Rail, Alaska Multi-State Rail, and Minnesota Combination Rail. The information concerning these alternatives must be sufficiently detailed to enable the Coastal Commission to evaluate the feasibility of each alternative and the degree to which the railing would eliminate or significantly reduce impacts to scenic visual resources.

IV. Findings and Declarations

The Commission hereby finds and declares:

1. Site Description & Project Description

The proposed project is located at the north end of the City of Eureka at the southbound Eureka Slough Bridge on State Route 101. State Route 101 is the most heavily traveled highway in Humboldt County and the Eureka Slough Bridge is part of the main northbound and southbound corridor entering and leaving the City of Eureka for both motorists and bicyclists. The Eureka Slough is an arm of Arcata Bay and flows under the bridges into the Bay adjacent to a portion of the Humboldt Bay National Wildlife Refuge. In addition to views of developed portions of the City, the southbound bridge provides views to and along the Eureka Slough, Humboldt Bay, and surrounding wetland and riparian areas (see Exhibit Nos. 1- 4).

The purpose of the project is to upgrade identified deficiencies in the bridge railings and width of the bridge roadway. These upgrades would be accomplished by removing the existing 43-inch-high bridge railings and 7.25-inch-high maintenance walkway, installing new bridge railings, and restriping the bridge deck to create shoulders level with the lanes of traffic. Caltrans is proposing to replace the existing see-through style railings on both sides of the southbound bridge with 33-inch-high, Type 27, or "New Jersey" solid concrete railings without sidewalks for the entire 890 feet of bridge span. The Type 27 solid concrete railings would be stamped on their outboard sides with an architectural cathedral design that would give the allusion of an open-style bridge. A minimum 54-inch-high tubular bicycle railing would be installed on top of each railing as a required safety measure for passing bicyclists. The bridge decks would be restriped to create an outside shoulder adjacent to and level with the existing road to provide sufficient room for safe usage by motorists and bicyclists. The shoulders would be approximately 1.6-meters-wide adjacent to the outside lane of traffic where bicycles cross and 1-meter-wide adjacent to the inside lane of traffic (see Exhibit Nos. 5, 6, and 7).

Caltrans originally proposed to replace the southbound railing with the see-through Type 80 railing. However, after review by the Caltrans Division of Structures Design, it was determined that structural limitations preclude the use of the Type 80 railing on the southbound bridge. Due to the design of the Type 80 rail, impact forces are transferred to the supporting posts and then to the bridge deck. The existing bridge deck on the southbound bridge was constructed in 1941 and is structurally unable to withstand the concentrated forces that crash impacts would exert at the posts. Upon impact, the bridge deck and railing would fail to retain the vehicle creating an unsafe and potentially fatal situation for passing motorists. The use of the Wyoming rail as an alternative was discussed with the structure designer, but it was determined that it would have the same fatal flaw on the southbound bridge as the Type 80. To use these types of see-through railings on the southbound bridge, it would be necessary to replace the entire bridge deck, which is not a part of the project proposal at this time. Therefore, Caltrans amended the project description to replace the southbound railing with the Type 27 rail rather than the Type 80 rail. The Type 27 rail is a solid, concrete rail and would be safe on the southbound bridge because it would transfer the impact forces through the entire rail connection.

All construction work would be performed from the existing bridge deck within the existing highway right-of-way and ground-disturbing activities would not impact archaeological, historic or sensitive biological resources. The project would result in the addition of a shoulder level with the lanes of traffic, but would not result in increased traffic or increased traveling capacity across the bridge.

2. Need for Permit

"Section 30601(d) of the Coastal Act exempts certain "Repair and Maintenance" activities from the need for a coastal development permit. However, these exemptions are limited to maintenance activities that "...do not result in an addition to, or enlargement or expansion of,

the object of those repair and maintenance activities." The proposed project would eliminate the existing maintenance walkways and restripe the northbound and southbound bridge decks to provide new and expanded shoulders adjacent to and even with the existing lanes of traffic. Therefore, the proposed project would result in an addition to, or enlargement or expansion of features of the existing Eureka Slough Bridges, thereby requiring a coastal development permit.

In addition, even if the proposed project did constitute an exempt repair and maintenance activity under 30610(d), Section 30610 also provides that the Commission can identify certain extraordinary methods of repair and maintenance that involve a risk of substantial adverse environmental impact that will require a permit. Section 13252 of the Coastal Act Regulations identifies a number of activities involved in this project that are extraordinary methods of repair, including:

> *Any repair or maintenance to facilities or structures or work located in an environmentally sensitive habitat area, any sand area, within 50 feet of the edge of a coastal bluff or environmentally sensitive habitat area, or within 20 feet of coastal waters or streams that include:*
>
> *(A) The placement or removal, whether temporary or permanent, of rip-rap, rocks, sand or other beach materials or any other forms of solid materials;*
>
> *(B) The presence, whether temporary or permanent of mechanized equipment or construction materials.*

As the bridge is located within an environmentally sensitive habitat area and coastal waterway and the proposed development would involve the use of mechanized equipment and construction materials, even if the proposed project had preliminarily qualified as a 30610(d) exemption, the provisions of Section 13252 of the regulations indicate that the development involves an extraordinary method of repair involving a risk of substantial adverse environmental impact for which a permit is required pursuant to Section 30610(d) of the Coastal Act.

The document entitled "Repair, Maintenance, and Utility Hookups," adopted by the Commission on September 5, 1978, provides guidelines that indicate certain kinds of repair and maintenance projects are exempt from coastal development permit requirements. Bridge railings are discussed in that document. However, the guidelines are intended for use in implementing Section 30610 of the Coastal Act and do not exempt a development from permit requirements that is not exempt under Section 30610 of the Coastal Act. As discussed above, the proposed development is not exempt pursuant to Section 30610. Furthermore, Section 13252(a)(3)(B) of the Commission's regulations states the following:

> *"All repair and maintenance activities governed by the above provisions shall be subject to the permit regulations promulgated pursuant to the Coastal Act... The provisions of this section* [which identifies extraordinary methods of repair that require a CDP] *shall not be applicable to those activities specifically described in the document entitled Repair, Maintenance and Utility Hookups, adopted by the Commission on September 5, 1978 unless a proposed activity will have a risk of substantial adverse impact on public access, environmentally sensitive habitat area, wetlands, or public view to the ocean."*

The proposed project would have a risk of substantial adverse impact on public views to the ocean (Eureka Slough and Humboldt Bay), and therefore, the project is also not exempt from permit requirements pursuant to Section 13252(a)(3)(B) of the Commission's Regulations.

2. 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.

The existing Eureka Slough Bridge railing is a see-through design that provides coastal views to passing motorists and bicyclists. The southbound bridge provides views to and along the Eureka Slough and Humboldt Bay. The Eureka Slough, a portion of Humboldt Bay and the Humboldt Bay National Wildlife Refuge and associated wetland and riparian areas comprise the view from the bridge to the northwest. An old railroad bridge that runs across the Eureka Slough also makes up a major part of the view to the northwest. Views to the south are somewhat obstructed by the northbound bridge, but the "viewing windows" in the existing bridge railing provide views looking up Eureka Slough as well as views of the surrounding wetland and wildlife areas. Looking over the bridge rail on the southbound bridge provides views of the inland coast range to the south and southwest. The view from the bridge to the west, as motorists and bicyclists enter the City of Eureka, is dominated by a Montgomery Wards department store and surrounding commercial development along 4th Street. Views *to* the bridge are limited by the lack of publicly accessible vantage points. The bridge can be seen from behind the Montgomery Wards department store located to the northwest of the bridge, but this is not a popular or designated coastal viewing location and the bridge is not visible from the more commonly used parking area in front of the store. The southbound bridge can also be viewed from the water by boaters and other recreationists on Eureka Slough.

The visual character of the area is defined primarily by Eureka Slough, Humboldt Bay, and the surrounding wetlands and wildlife areas. The visual character is also dominated by the Montgomery Wards department store located just off the end of the southbound bridge on the

northwest of Highway 101 entering the north end of Eureka. In addition, the bridge itself is a significant part of the character of the area.

One of the requirements of Section 30251 is that permitted development be designed to protect views to and along the coast. The Coastal Commission and Caltrans have recognized there are competing policy priorities over projects involving the replacement or modification of bridge railings in scenic coastal areas. As a matter of policy, safety is Caltrans' priority. Often the safest bridge design may not be the most protective of visual resources and therefore, is often inconsistent with visual resource policies of the Coastal Act. During the Coastal Commission meetings of March and July 1998, when the proposed replacement of the Noyo Bridge in Fort Bragg was considered by the Commission, the Commission suggested that Caltrans present a workshop to address how Caltrans designs and selects bridge rails to address this policy conflict. Particularly, the Commission expressed interest in the alternatives available to the currently utilized concrete bridge rails. At the Commission meeting on December 7, 1999, Caltrans staff presented information on the design and selection of bridge railings in the coastal zone. During the workshop, Caltrans staff presented a document entitled "Caltrans Bridge Rail Workshop" and showed a PowerPoint presentation and video clips of the crash testing process utilized by Caltrans for the design and selection of bridge railings.

When designing and selecting a bridge rail appropriate for a particular structure, safety of the traveling public is Caltrans' main consideration. Caltrans policies generally conform to Federal Highway Administration (FHWA) and American Association of State Highway and Transit Officials (AASHTO) criteria, which establish nationwide standards. However, in cases where these standards do not satisfy California conditions, Caltrans can develop and establish policies to address the special needs and unique characteristics of the state.

Design process considerations when designing and selecting a bridge rail appropriate for particular structures include safety, aesthetics, specific site conditions, maintenance ease, crashworthiness, and liability. The primary design criteria used by Caltrans to develop and select feasible bridge rails is compliance with crash-testing criteria specified in National Cooperative Highway Research Program (NCHRP) Report 350. Crash testing evaluates crashworthiness of rails and identifies if serious vehicle damage, "snagging," vaulting, and/or rollovers, and other conditions result from collision with certain rails. The crashworthiness of a rail, or its ability to withstand damage and safely redirect a vehicle into the roadway, is evaluated based on impacts of different vehicle types at different speeds and angles of collision. At the December workshop, Caltrans indicated that four approved Caltrans bridge rails that conform to all of these evaluation factors are Types 25, 732/6, 80, and 80 SW. The Type 27 is an approved variant of the Type 25 railing. In addition, Caltrans is currently installing alternative, see-through style railings on some bridges in inland scenic areas outside the coastal zone, including the Wyoming, Alaska, Minnesota, and Type 80 rails.

During the workshop, some Commissioners commented that these three railings from other states, the Wyoming, Alaska, and Minnesota rails, offer better see-through characteristics than those now in use in California. The Commission noted that these less visually intrusive

railings would be the preferable alternative for bridge replacement projects in the coastal zone to protect visual resources. However, in this case, Caltrans determined that it is not feasible from an engineering standpoint to use any of the see-through type railings (specifically the Type 80 and the Wyoming) on the Eureka Slough southbound bridge because of structural deficiencies. According to the Structures Project Engineer:

> "At the conclusion of our investigation we have found that this barrier rail [Type 80] is not an acceptable option for the southbound structure because the existing overhang does not have enough moment capacity to resist the applied loading."

The southbound bridge was built in 1941 and does not meet current structure and safety standards. The southbound bridge presents structural deficiencies stemming from several factors stated by the Structures Project Engineer including:

1) The grade of the reinforcing steel used in the overhang (fy=40 ksi) is less than the current standard (fy=60 ksi);
2) The overhang depth (10") at the edge of the exterior girder is less than the current standard (12");
3) The concrete compressive strength used (f'c=2500 psi) is less than what the current practice allows (f'c = 3250 psi);
4) The overhang length of 4'-11.5" is considerably longer than the 3'-0" or 3'-6" overhang length which is used today.

The Structures Project Engineer concludes his analysis of the feasibility of the see-through Type 80 rail on the southbound bridge by stating:

> "Finally, because the vehicle impact load is applied at a single post on the type 80R barrier rail, the effective overhang area used to resist this load is much less than the effective overhang area that is allowed for a solid barrier. Consequently, the type-80 barrier rail cannot be used to replace the existing barrier rail for the southbound structure."

As discussed above, the proposed Type 27 railing does not fully protect views as required by Section 30251 of the Coastal Act. The bridge design as proposed would reduce motorists' views in two ways. First, the proposed design of the bridge railing would block a portion of the view provided by the present railing. The proposed Type 27 rail is 33-inches-high of solid concrete and does not have the "viewing windows" like that of the existing bridge (see Exhibit No. 5).

Second, the width of the proposed shoulder, approximately 1.6 meters adjacent to the outside lane of traffic and 1 meter on the inside lane of traffic, would place vehicle occupants further from the edge of the bridge, creating additional view blockage. Travelers would see more roadway and railing, and less of the slough and bay. To some degree this affect may be offset

by the approximately 10-inch reduction in height of the existing rail to the proposed rail which would potentially maintain coastal views over the top of the railing.

The Commission notes that the installation of a railing that would be less visually intrusive would be the most optimal alternative to the proposed project. However, because of the structural limitations and safety hazards discussed above, the more see-through design alternatives are not feasible for the southbound bridge. Caltrans indicates that the bridge and/or bridge deck is nearing the end of its design life and anticipates that the bridge and/or bridge deck will need to be replaced in the not too distant future, probably within 10 years. While there is no firm estimate of when the bridge replacement will occur, the Commission recognizes that the solid Type 27 railing is temporary until the bridge deck is replaced and able to structurally support a see-through railing design. Because the proposed railings will be in place for a period of relatively short duration, the Commission finds that the overall impact of the railing is not so substantial as to require offsite mitigation. The Commission required such off-site mitigation as a condition of approval of Coastal Development Permit No. 1-98-100 for the replacement of the Noyo Bridge in Fort Bragg which involved building a brand new bridge designed to last at least 50 years. However, the decision to not require off-site mitigation is based in part, on the assumption that the bridge would be replace or modified within a relatively short period of time in a manner that would include see-through railings. To ensure that this assumption is correct, the Commission attaches Special Condition No. 3. This condition requires that anytime the permittee seeks a coastal development permit to modify or replace the bridge, the permittee must include in the permit application information concerning the installation of alternatives to the proposed Type 27 railing as part of the project that will eliminate or significantly reduce impacts to scenic visual resources. These alternatives must include various types of bridge railings identified in the document entitled, "Caltrans Bridge Rail Workshop, Presented to the California Coastal Commission," dated December, 1999, including the Type 80 Rail, Wyoming Rail, Alaska Multi-State Rail, and Minnesota Combination Rail. The information concerning these alternative must be sufficiently detailed to enable the Coastal Commission to evaluate the feasibility of each alternative and the degree to which the railing would eliminate or significantly reduce impacts to scenic visual resources. As conditioned to ensure that the visual impacts of the project will be of short duration, the Commission finds that the proposed project is designed to protect views to and along the ocean and scenic areas as required by Section 30251.

A second requirement of Section 30251 is that new development be visually compatible with the character of the surrounding area. Caltrans proposes to include cathedral stamping on the outboard faces of the concrete railing to create the allusion of open-style viewing windows. Although the Type 27 railing does not provide the views through the open windows, the Commission finds that the stamped railing would help keep the modified bridge consistent with the character of the area which is partially defined by the existing Eureka Slough Bridge itself. The cathedral stamping would mimic the appearance of the existing open-style bridge with viewing windows to maintain consistency with the character of the area (see Exhibit No. 7).

Therefore, the Commission finds that as conditioned, the proposed project is consistent with Section 30251 of the Coastal Act.

4. Public Access

Coastal Act Sections 30210, 30211, and 30212 require the provision of maximum public access opportunities, with limited exceptions. Section 30210 states that maximum access and recreational opportunities shall be provided 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 states that 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 states that public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where it is consistent with public safety, military security needs, or the protection of fragile coastal resources, adequate access exists nearby, or agriculture would be adversely affected.

In its application of these policies, the Commission is limited by the need to show that any denial of a permit application based on this section, or any decision to grant a permit subject to special conditions requiring public access is necessary to avoid or offset a project's adverse impact on existing or potential access.

The Highway 101 Eureka Slough Bridge is part of a heavily traveled corridor between Eureka and Arcata and receives a significant amount of vehicle and bicycle traffic. Highway 101, including the bridge, provides access in part to a variety of coastal access locations. Access points near the Eureka Slough Bridge include access along the slough itself, the Woodley Island marina and Waterfront Drive to the northwest, and other locations along Humboldt Bay including the Humboldt Bay National Wildlife Refuge. The proposed project would benefit access across the bridge for the reasons discussed below.

The existing narrow, raised "sidewalk" is intended only for maintenance purposes. However, bicyclists currently use the walkway to cross the bridge, even though the walkway is too narrow to safely use it for that purpose. The proposed project would eliminate this raised sidewalk and provide a shoulder adjacent to the outside lane that would be level with the traveling lanes of traffic. The 1.6-meter-wide, level shoulder would be wide enough to allow for motorists to pull off out of the way of moving traffic and would prevent traffic from backing up in the event of an accident on the bridge. Furthermore, the shoulder would provide safer travel across the bridge for bicyclists by being at the same level as the roadway rather than being raised above the level of moving traffic. In addition, the proposed shoulder would provide safer passage for bicyclists by providing more room between them and the moving traffic. On bridges where bicycles are allowed, Caltrans requires a minimum 54-inch-high tubular safety railing to be installed along the top of the bridge rail. The proposed bicycle safety railing provides a barrier to prevent passing bicyclists from falling over the bridge rail in the event of an accident (see Exhibit No. 6).

Caltrans proposes to keep a southbound lane of traffic open for motorists and bicyclists to cross the bridge during project construction. There may be an increase in southbound traffic congestion during construction, but any such impact to public access would be temporary. Furthermore, an alternate means of coastal access is available to the public via Route 255 which would be available to motorists or bicyclists wanting to avoid any temporary access delays across the Eureka Slough Bridge during project construction.

The proposed project would benefit public access by providing safer passage across the bridge for motorists and bicyclists and will not permanently interfere with any access or recreation opportunities available at other locations along the Eureka Slough or other nearby access points. Therefore, the Commission finds that the proposed project is consistent with Sections 30210, 30211, and 30212.

4. Protection of Biological Resources

Coastal Act Section 30231 sets forth policies to ensure the protection of water quality and biological productivity of coastal waters. 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 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.*

No work is proposed within the slough and surrounding wetland areas below the bridge and the proposed project does not involve the removal of vegetation or the alteration of the slough. However, deviation from approved project guidelines, and disposal of construction debris or stockpiling of materials or equipment in or around the slough could have adverse impacts to water quality and biological productivity of the slough environment. Caltrans is proposing to conduct all construction activities from the bridge deck. Therefore, the Commission attaches Special Condition No. 1 to ensure that construction-related activities do not impact water quality and sensitive resource areas below the bridge. Specifically, Special Condition No. 1 ensures that no construction materials, debris, or waste will be placed or stored where they may potentially enter the slough or adjacent wetlands. In addition, Special Condition No. 1 ensures that machinery or debris will not be stored below the bridge in the wetland areas adjacent to the slough.

To further protect water quality and biological productivity, the Commission attaches Special Condition No. 2. This condition requires a debris disposal plan be submitted for review and approval. This condition ensures that construction debris is not disposed of in the slough or

wetland areas below the bridge, but that it is disposed of in an appropriate location that will not have adverse impacts to coastal resources.

The Commission finds that as conditioned, the proposed project would not have adverse impacts to water quality or biological productivity of coastal waters and is therefore, consistent with Section 30231 of the Coastal Act.

5. California Environmental Quality Act (CEQA)

Section 13096 of the Commission's administrative regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be 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 feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment. 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 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 and to conform to CEQA.

Exhibits:

1. Regional Location
2. Vicinity Map
3. Site Map
4. Southbound Bridge (photos, 2 pages)
5. Type 27 Rail (photo)
6. Tubular Bike Rail Typical Plans
7. Cathedral Stamping Typical Plans

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.

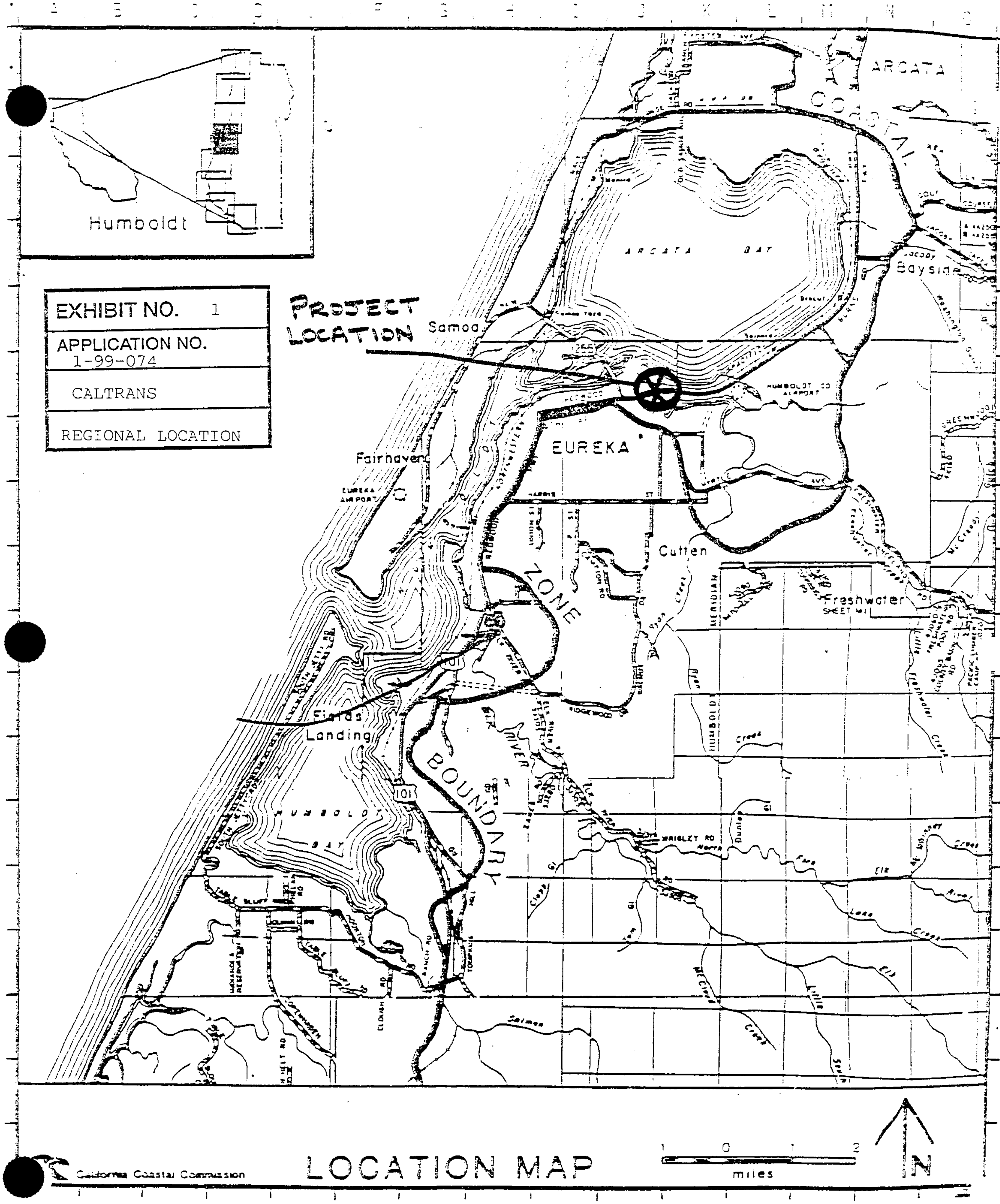
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. 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.

7. 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.



County of Humboldt

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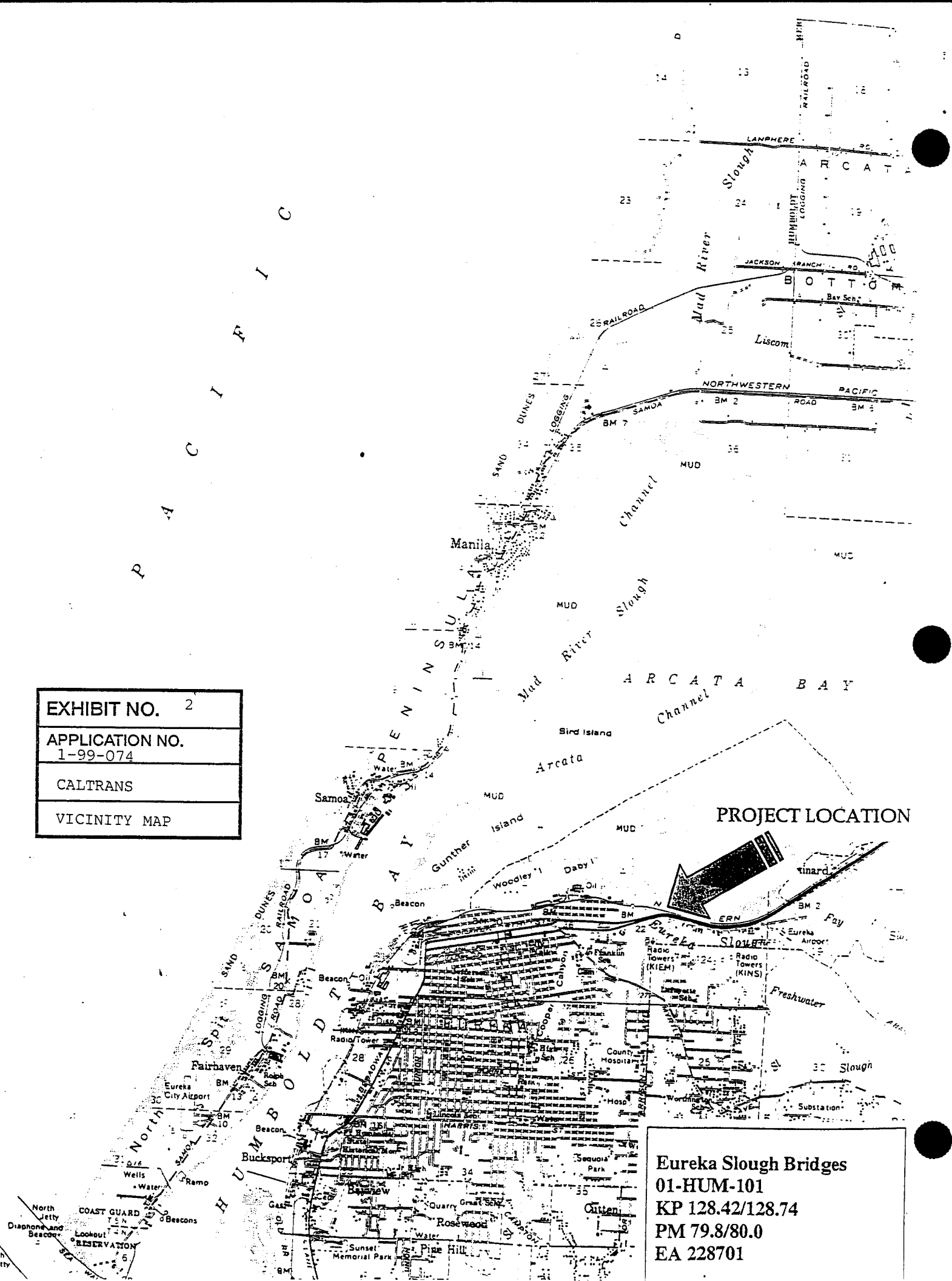


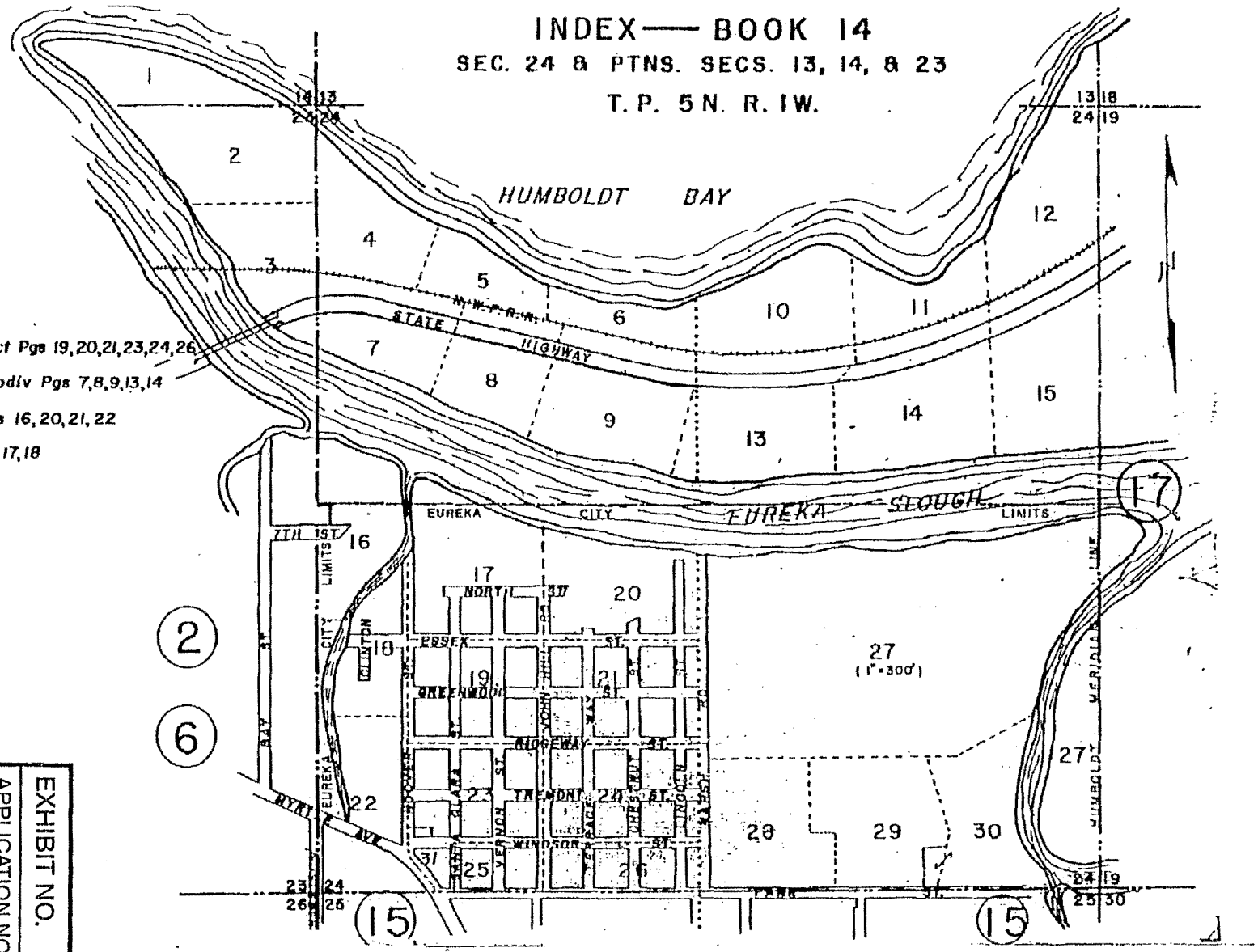
EXHIBIT NO. 2
APPLICATION NO. 1-99-074
CALTRANS
VICINITY MAP

Eureka Slough Bridges
01-HUM-101
KP 128.42/128.74
PM 79.8/80.0
EA 228701

INDEX — BOOK 14

SEC. 24 & PTNS. SECS. 13, 14, & 23

T. P. 5 N. R. 1 W.



Santa Clara Tract Pgs 19,20,21,23,24,26

East Highway Subdiv Pgs 7,8,9,13,14

Huntoon Add Pgs 16,20,21,22

Krout Tract Pgs 17,18

EXHIBIT NO. 3
APPLICATION NO. 1-99-074
CALTRANS
SITE MAP

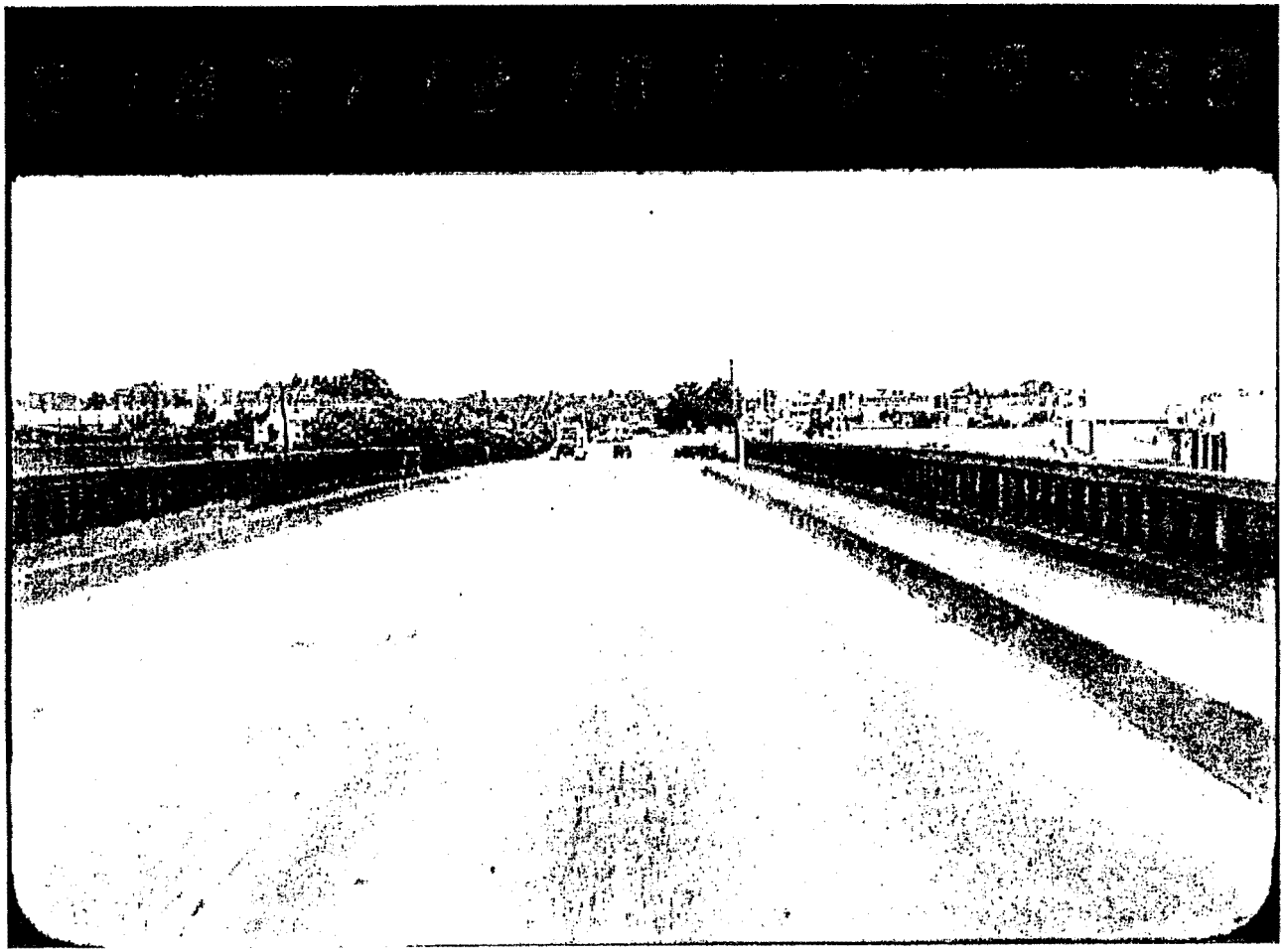


EXHIBIT NO. 4
APPLICATION NO. 1-99-074
Pg. 1 of2 CALTRANS
SOUTHBOUND BRIDGE

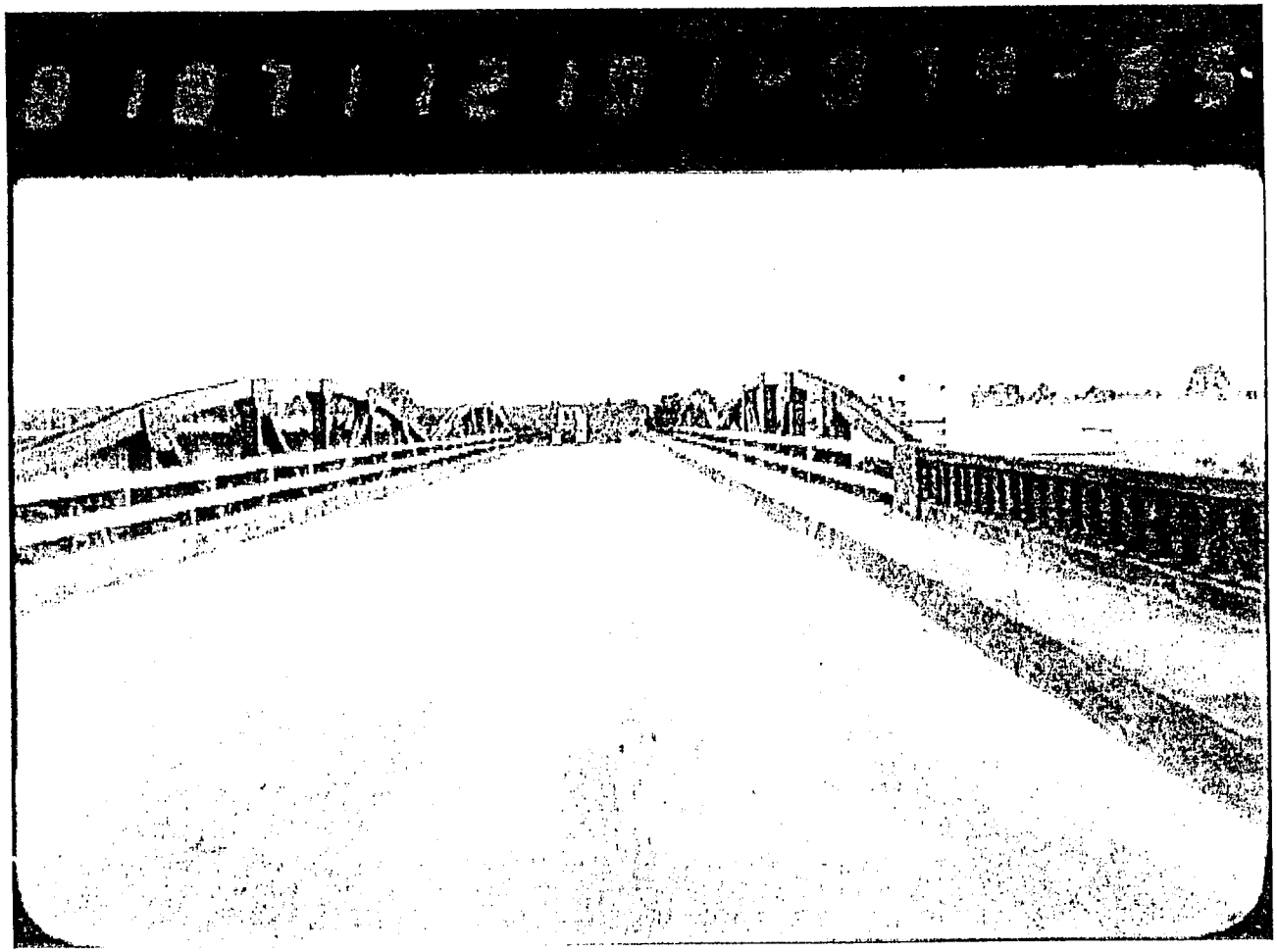


EXHIBIT NO. 4
APPLICATION NO. 1-99-074
Pg. 2 of 2 CALTRANS
SOUTHBOUND BRIDGE

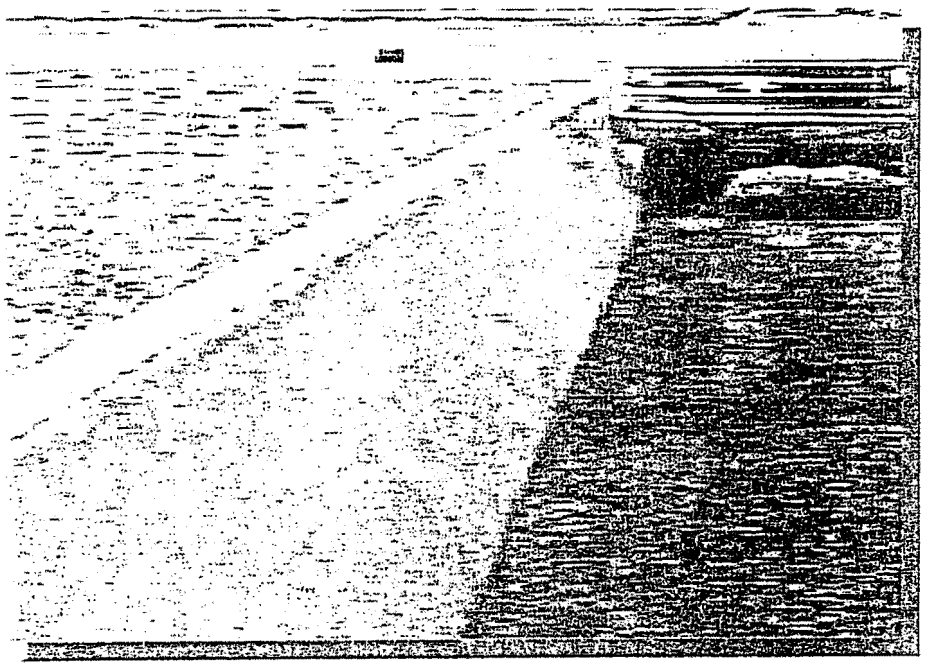


EXHIBIT NO. 5
APPLICATION NO. 1-99-074
CALTRANS
TYPE 27 RAIL

EXHIBIT NO. 6

APPLICATION NO. 1-99-074

CALTRANS

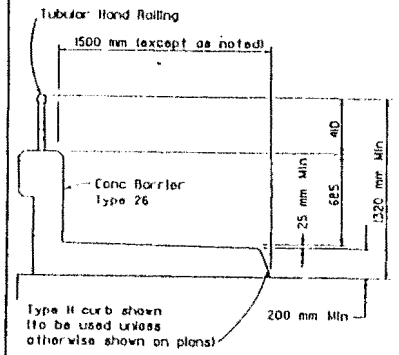
TUBULAR BIKE RAIL

Caltrans Metric

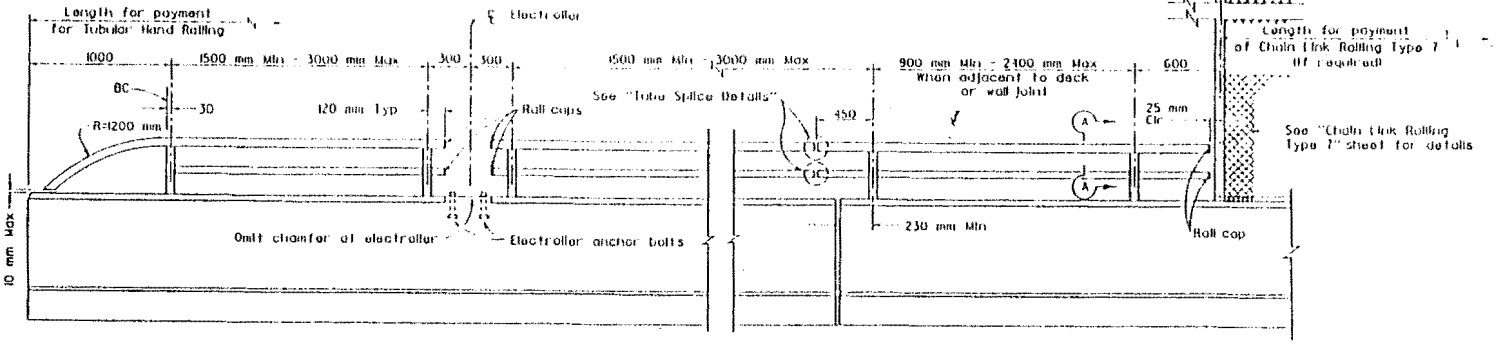
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

July 1, 1997
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.

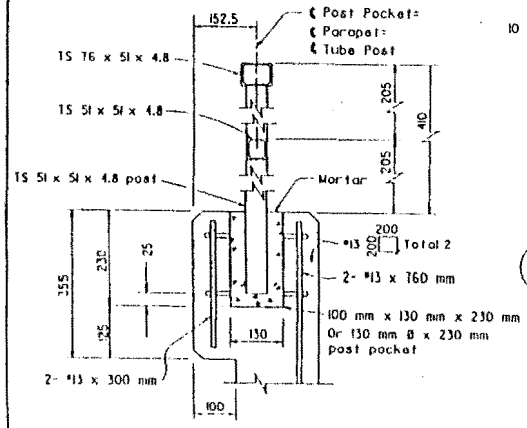


TYPICAL SECTION

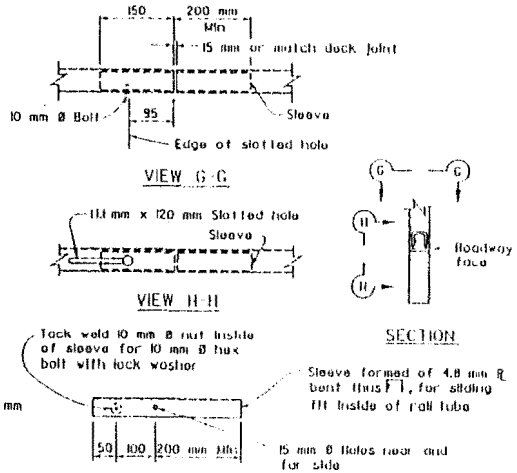


END POST | ELECTROLIER | DECK OR WALL JOINT | CHAIN LINK RAILING TYPE 7

RAIL CAP
(TS 76 x 51 x 4.8 similar)



DST ANCHORAGE DETAILS

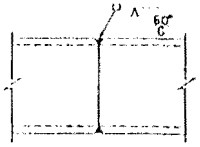


TUBE SPLICE DETAILS
(TS 76 x 51 x 4.8 similar)

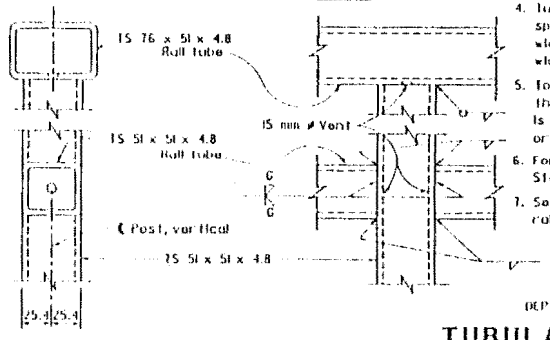
NOTES

10 mm ø Bolt welded to [illegible] to be replaced by [illegible] and tapped hole in [illegible]

ELEVATION



TUBE-WELDED SPLICE



RAIL CONNECTION DETAILS

NOTES

1. Galvanize rail assembly after fabrication.
2. Post shall be normal to railing.
3. Rail tubes shall be shop bent or fabricated to fit horizontal curve when radius is less than 300 m.
4. Tube splices shall be located in the tubes spanning deck or wall joints. Increase joint width in tubes to match expansion joint width and increase sleeve length correspondingly.
5. Top rail tube shall be continuous over not less than two posts except a short post spacing is permitted near deck or wall joints, electrollers, or other rail discontinuities as noted.
6. For details and reinforcement not shown see Standard Plan B11-54.
7. See project plans for limits of tubular hand railing.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TUBULAR HAND RAILING

NO SCALE

ALL DIMENSIONS ARE TO [illegible]

B11-51

STD. PLAN B11

177

EXHIBIT NO. 7
APPLICATION NO. 1-99-074
CALTRANS
TYPICAL CATHEDRAL STAMPING