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Staff:	SLB-SF
Staff Report:	May 22, 2003
Hearing Date:	June 12, 2003

STAFF REPORT: CONSENT CALENDAR

APPLICATION FILE NO: 2-02-021

APPLICANTS: **California Department of Transportation**

PROJECT DESCRIPTION: Removal of a metal beam guard-rail (MBGR) and approximately 98 cubic yards of slide debris, installation of a new MBGR and 647 cubic yards of riprap, and planting of 200 willow cuttings under the Route 1, Russian River Bridge, Jenner, Sonoma County.

PROJECT LOCATION: Route 1, Russian River Bridge, Jenner, Sonoma County.

1.0 EXECUTIVE SUMMARY

The California Department of Transportation seeks after-the-fact authorization for: (1) the removal of a metal beam guard-rail (MBGR) and approximately 98 cubic yards of slide debris; (2) the installation of a new MBGR and 647 cubic yards of riprap on a 118-foot-long section of the bank of the Russian River, adjacent to the southern Route 1 Russian River Bridge abutment; and (3) the planting of 200 willow cuttings in approximately 1,200 square feet of area under and adjacent to the bridge on the northern side of the Russian River, in Jenner, Sonoma County. Caltrans completed the work between March 20, 2002 and April 2, 2002, in response to a slide caused by high water levels and heavy rainfall in December 2001 without obtaining a regular or emergency coastal development permit. The proposed project is located within the tidally-influenced reach of the Russian River and is within the retained jurisdiction of the Coastal Commission.

To minimize adverse impacts to coastal resources from the riprap armoring, Commission staff recommends that the Commission impose **Special Condition 1** requiring the applicant to maintain the revetment for the life of the development which includes removing, repositioning, or replacing any rock that becomes dislodged or displaced from the revetment as soon as possible after such displacement occurs and consistent with the permit requirements of **Special Condition 1**. Commission staff also recommends **Special Condition 2**, which requires the submission of biannual monitoring reports to evaluate the condition and performance of the revetment and identify the need for repair and maintenance.

In order to ensure the success of the willow plantings, Commission staff recommends that the Commission impose **Special Condition 3**, which requires Caltrans to submit a final Mitigation and Monitoring Plan that includes specific measures to achieve the required performance standards for the willow plantings, and a mechanism for making adjustments to the restoration if it is determined through monitoring, or other means that the restoration techniques are not working.

Staff have determined that the proposed project, as conditioned, will comply with the Chapter 3 policies of the Coastal Act.

2.0 STAFF RECOMMENDATION

The staff recommends conditional approval of Coastal Development Permit Application No. 2-02-021.

Motion: *I move that the Commission approve Coastal Development Permit Application No. 2-02-021, subject to the conditions specified below.*

Staff Recommendation of Approval

The staff recommends a YES vote. To pass the motion, a majority of the Commissioners present is required. Approval of the motion will result in the adoption of the following resolution and findings.

Resolution

The Coastal Commission hereby **grants** permit No. 2-02-021, subject to the conditions below, for the proposed development on the grounds that (1) the development is in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and (2) there are no feasible alternatives or feasible mitigation measures other than those specified in this permit that would substantially lessen any significant adverse impact that the activity may have on the environment.

2.1 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.

2.2 Special Conditions

1. Maintenance Activities and Future Alterations

   A. The permittee shall maintain the riprap armoring for the life of the permitted structure.

   B. This coastal development permit authorizes repair and maintenance activities for a period of 6 years from the date of this approval only if carried out in accordance with all of the following conditions:

      1. Maintenance and repairs shall be limited to removal, repositioning, or replacement of rock within the footprint of the approved structure. The permittee shall be responsible for removing or redepositing any debris, rock or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs.

      2. No expansion or enlargement of the approved structure is permitted.

      3. No materials or construction equipment shall be placed or operated on or within any area other than the footprint of the approved structure and the improved portions of the existing maintenance road.

      4. Vehicular and equipment access to the structure shall be via the existing maintenance road only.

   C. Repair and maintenance activities described in subsection B can be carried out beyond the 6 year period provided in subsection B if the Executive Director extends the 6 year authorization specified in subsection B in writing for a period not to exceed 10 years, or 16 total years from the date of this approval.

   D. If any required repair and maintenance activities are those repair and maintenance identified in subsection B, the permittee shall complete any such repair and maintenance activities as soon as possible but no later than 30 days after the discovery of the need for the repair and maintenance activity.

   E. If any required repair and maintenance activities are not those repair and maintenance activities identified in subsection B, the Permittee shall apply for a permit amendment for the repair and maintenance activities as soon as possible but no later than 30 days after the discovery of the need for the repair and maintenance activity.

2. Shoreline Protection Monitoring Plan

A. By no later than December 31 of every other year after the approval of the riprap armoring for the life of the structure, the permittee shall submit a monitoring report that has been prepared by a licensed geologist, or civil or geotechnical engineer. Each monitoring report shall contain the following:

1. An evaluation of the condition and performance of the approved riprap armoring, including an assessment of whether any weathering or damage has occurred that could adversely impact future performance of the structure,

2. Plans and/or photographs showing any weak or potential failure areas,

3. An analysis of erosion trends, including identification of exactly where measurements had been taken, e.g. by reference to benchmarks, survey positions, points shown on an exhibit, etc.

4. A description and documentation of any migration or movement of rock that has occurred on the site, and

5. Recommendations for repair, maintenance, modifications, or other work to the riprap armoring needed to correct any damage, structural failures or weaknesses, including methods and materials to be used.

If a monitoring report contains recommendations for repair, maintenance, or other work, the permittee shall implement such activities consistent with the requirements of Special Condition 1.

B. Within 30 days after completion of construction, the Permittee shall provide, "as built" plans showing the location of the permitted structure in relation to existing topography in plan view and cross section using the California coordinate system.

3. Final Riparian Mitigation and Monitoring Program

A. Prior to issuance of the coastal development permit, the applicant shall submit for review and written approval of the Executive Director, a final mitigation and monitoring program for all riparian habit impacts associated with the proposed project. The program shall include at a minimum:

1. A detailed final site plan of the mitigation site.

2. The following goals, objectives, and performance standards for the mitigation site:

a. Willow plantings shall cover 90% of the 1,200-square-foot mitigation area in 3 years.

3. The final design and construction methods that will be used to ensure the mitigation site achieves the defined goals, objectives, and performance standards.

4. Provisions for submittal, within 30 days of completion of initial mitigation work, of "as built" plans demonstrating that the riparian mitigation site has been established in accordance with the approved design and construction methods.

5. Provisions for submission of annual reports of monitoring results to the Executive Director for the duration of the required monitoring period, beginning the first year after submission of the "as-built" assessment. Each report shall include copies of all previous reports as appendices. Each report shall also include a "Performance Evaluation" section where information and results from the monitoring program are used to evaluate the status of the riparian mitigation project in relation to the performance standards.

6. Provisions for submission of a final monitoring report to the Executive Director at the end of the three-year reporting period. The final report must be prepared in conjunction with a qualified biologist. The report must evaluate whether the mitigation site conforms with the goals, objectives, and performance standards set forth in the approved final mitigation program. The report must address all of the monitoring data collected over the three-year period.

B. 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 shall submit a revised or supplemental mitigation program to compensate for those portions of the original program which did not meet the approved performance standards. The revised mitigation program, if necessary, shall be processed as an amendment to this coastal development permit.

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

4. Condition Compliance

Within 90 days of Commission action on this CDP, or within such additional time as the Executive Director may grant for good cause, the applicant shall satisfy all requirements specified in the conditions hereto that the applicant is required to satisfy prior to issuance of this permit. Failure to comply with this requirement may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act.

3.0 FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

3.1 Project Location

The project site is located on the southern bank of the Russian River, directly under the Route 1 Russian River Bridge and adjacent to the southern bridge abutment in Jenner, Sonoma County (Exhibit 1, Regional Map & Exhibit 2, Vicinity Map). The Russian River drains a large area of Sonoma and Mendocino Counties before discharging to the ocean at Jenner. The estuarine portion of the river extends approximately six to seven miles upstream to a point between Duncans Mills and Austin Creek, which is upriver of the project site. The project site consists of a steep eroded section of the riverbank approximately 118 feet wide and 20 feet deep. Along the top of the embankment and at the base of the southern bridge abutment is a road used for bridge maintenance and access to adjacent properties on the east side of the bridge (Exhibit 3, Assessors Parcel Map & Exhibit 4, Site Photographs of Slide). Riparian vegetation is located along the bank of the river on both sides of the eroded area.

3.2 Project Background

In December 2001, high water levels and heavy rainfall saturated the soil and caused a section of the riverbank adjacent to the Route 1 Russian River southern bridge abutment to slide. The erosion compromised the integrity of the access/maintenance road above the bank. In addition, a metal beam guard-rail (MBGR) installed on the edge of the maintenance road collapsed due to the loss of supporting soil. Between March 20, 2002 and April 2, 2002, California Department of Transportation (Caltrans) repaired the embankment with riprap to prevent further erosion of the bank, restore the access/maintenance road, and protect the southern bridge abutment without obtaining a coastal development permit or emergency permit (Exhibit 5, Site Photographs of Revetment). In addition, Caltrans replaced the MBGR.

3.3 Project Description

Caltrans requests after-the-fact authorization for: (1) the removal of a metal beam guard-rail (MBGR) and approximately 98 cubic yards of slide debris; (2) the installation of a new MBGR and 647 cubic yards of riprap in the same location; and (3) the planting of 200 willow cuttings in approximately 1,200 square feet of area under and adjacent to the bridge on the northern side of the Russian River (Exhibit 6, Site Plan and Elevations). Caltrans proposes to use an excavator and a dump truck to remove the loose soil and excavate to the necessary depth to properly install the riprap. The approximately 98 cubic yards of soil and debris would be removed and disposed of at Bohan Canelis, a permitted disposal site. The excavated area would then be covered with approximately 2,799 square feet of RSP fabric. No equipment would be located in the riverbed nor does the applicant propose to conduct any work in the riverbed.

3.4 Coastal Act Issues

3.4.1 Riverbank Protection

Coastal Act Section 30236 states:

> *Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Heavy rainfall and flooding caused a 118-foot-long section of the Russian River bank to slide. The slide threatened the stability of an access/maintenance road and undermined a metal beam guardrail. If the erosion continues, it will not only further damage the road, but also undermine the southern bridge abutment adjacent to the road. Thus, in order to stabilize the embankment, repair the road, and preserve the integrity of the bridge abutment, it is necessary to prevent future heavy rains and flooding from eroding the embankment further. To fix and protect the eroded bank, Caltrans proposes to armor a 118-foot-long section of riverbank.

Coastal Act Section 30236 limit channelizations, dams, or other substantial alternations of rivers to necessary flood control project where: (1) no other method for protecting existing structures is feasible; (2) such protection is necessary for public safety or to protect existing development; and (3) the best mitigation measures feasible are incorporated.

As discussed above, the proposed development is necessary to protect an existing access/maintenance road and the Russian River/Route 1 Bridge. Under Coastal Act Section 30236, flood control projects may only be permitted where no other method of protecting existing structures is feasible. Potential alternatives to the proposed armoring include soft erosion control measures and a concrete, steel or wooden retaining wall. Of these alternatives, the only method that would not substantially alter the riverbank is soft erosion control measures such as revegetating the riverbank with riparian vegetation. While this method is appropriate for some riverbank areas, given the steepness of this section, the close proximity of the slide to the access/maintenance road and bridge abutment, and the severity of erosion that has already occurred, using soft erosion control measures would not achieve the project purpose of stabilizing the embankment to protect the road and bridge abutment. The two remaining options, a retaining wall and riprap armoring, both involve hardening of the riverbank.

Between the two types of hard structures, riprap armoring would be the less environmentally damaging method. While riprap armoring would occupy more space, it would maintain the slope of the embankment, dissipate river flow energy, and minimize scouring. A retaining wall would reflect almost all of the incoming river energy and would exacerbate erosion on areas in front of the wall and unprotected, adjacent portions of riverbank. A vertical retaining wall is accordingly not a less environmentally damaging alternative to the proposed riprap armoring. Therefore, the proposed riprap armoring is the least environmentally damaging method that would achieve the project objective to protect the road and bridge abutment.

Under Coastal Act Section 30236, the project must incorporate the best mitigation measures feasible. In order to minimize adverse impacts of the proposed development, **Special Condition 1** requires that Caltrans maintain the revetment for the life of the development which includes removing, repositioning, or replacing any rock that becomes dislodged or displaced from the revetment as soon as possible after such displacement occurs and consistent with the permit requirements of **Special Condition 1**. **Special Condition 1** also authorizes repair and maintenance activities which are limited to removal, repositioning, or replacement of rock within the footprint of the revetment for a period of 6 years from the date of permit approval only if carried out in accordance with all of the following conditions: (1) no expansion or enlargement of the revetment is permitted; (2) no materials or construction equipment shall be placed or operated on or within any area other than the footprint of the revetment and the improved portions of the existing maintenance road; and (3) vehicular and

equipment access to the revetment shall be via the existing maintenance road only. **Special Condition 1** specifies that repair and maintenance activities can be carried out beyond the 6 year period if the Executive Director extends the authorization in writing. **Special Condition 1** further states that if any required repair and maintenance activities are not those repair and maintenance activities authorized under the condition, Caltrans shall apply for a permit amendment for the repair and maintenance activities as soon as possible, but no later than 30 days after the discovery of the need for the repair and maintenance activity. Through **Special Condition 1,** Caltrans is required to repair and maintain the revetment, thereby ensuring that the proposed project would not cause significant impacts to coastal resources. Furthermore, **Special Condition 2** requires Caltrans to submit biannual monitoring reports for the life of the structure to evaluate the condition and performance of the revetment, analyze erosion trends of the bluff, and recommend repair, maintenance, modifications, or other work to the revetment. Pursuant to **Special Condition 2,** Caltrans shall implement recommendations for repair, maintenance, or other work in accordance with the requirements of **Special Condition 1.**

Although the embankment was minimally vegetated and already disturbed prior to the slide, Caltrans planted 200 willow cuttings in approximately 1,200 square feet of area on the northern side of the Russian River, adjacent to and underneath the bridge to mitigate for project impacts. Caltrans completed planting March 12, 2003. Caltrans proposes to monitor the site on a quarterly basis for a period of three years and prepare annual reports as to the success of the revegetation. **Special Condition 3** requires Caltrans to submit a final mitigation and monitoring program for all riparian habit impacts associated with the proposed project. **Special Condition 3** requires the plan to include: (1) a detailed final site plan of the mitigation site; (2) goals, objectives, and performance standards for the mitigation site, including the requirement that the willow plantings cover 90% of the 1,200-square-foot mitigation area in 3 years; (3) measures that will be used to ensure the mitigation site achieves the defined goals, objectives, and performance standards; (4) provisions for submission of annual reports of monitoring results to the Executive Director for the duration of the required monitoring period; and (5) provisions for a revised or supplemental mitigation program to compensate for any portions of the original program which did not meet the approved performance standards during the monitoring. As conditioned, planting of 200 willow cuttings would adequately mitigate for the impacts to riverbank habitat.

In this eroded section of riverbank, it is necessary, in order to protect the access/maintenance road and the bridge abutment, to alter the shoreline with a hard protective structure. An analysis of the proposed revetment and alternative protective methods demonstrates that soft erosion control measures at this location would not protect the structures. The proposed riprap armoring is the least environmentally damaging alternative that would achieve the project goals and, as conditioned, would incorporate the best mitigation measures feasible. Therefore, the Commission finds that as conditioned the proposed project is consistent with Coastal Act Section 30236.

3.5 Alleged Violation

Between March 20, 2002 and April 2, 2002, without benefit of a coastal permit, the applicant undertook development consisting of: (1) the removal of a metal beam guard-rail (MBGR) and approximately 98 cubic yards of slide debris and (2) installation of a new MBGR and 647 cubic yards of riprap at the south abutment under Route 1, Russian River Bridge, Jenner, Sonoma County (Exhibit 4, Site Photographs). In September of 2002, the applicant applied for after-the-fact authorization of the above mentioned development.

Although development has taken place prior to submission of this permit application, consideration of the application by the Commission has been based solely upon the policies of the LCP and the public access and public recreation policies of Chapter 3 of the Coastal Act. Approval of the permit does not constitute a waiver of any legal action with regard to the alleged violation, nor does it constitute an admission as to the legality of any development undertaken on the site without a coastal permit.

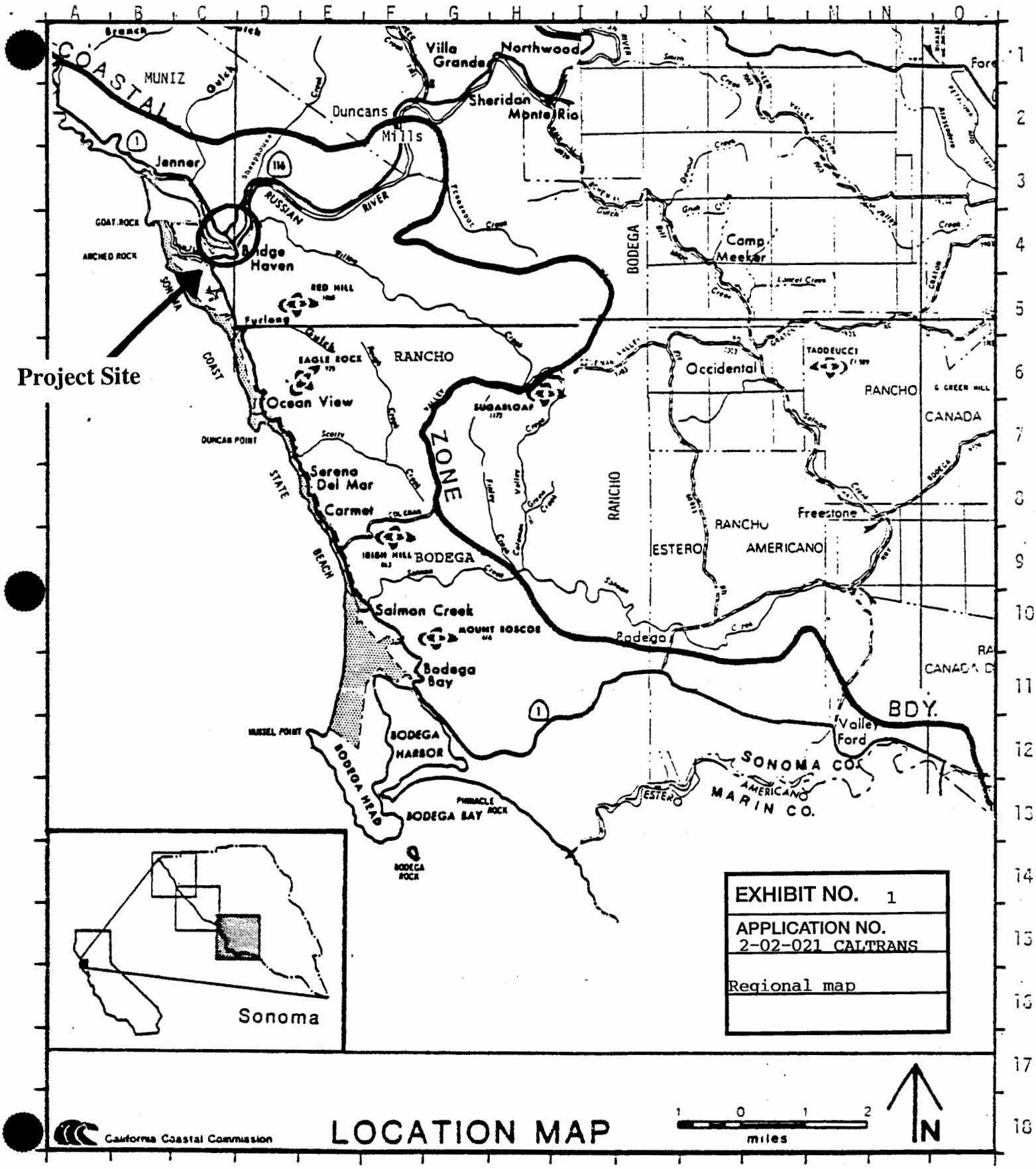
3.6 California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of Coastal Development Permit applications to be supported by a finding showing the application, as conditioned 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 effects, which the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. The proposed project has been conditioned to be found consistent with the policies of the Coastal Act and to minimize or eliminate all significant adverse environmental effects. Mitigation measures have been imposed to ensure the revetment is maintained to prevent impacts to coastal resources from rock migration and mitigate for impacts to riparian habitat. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impacts, which the development may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with Coastal Act requirements to conform to CEQA.

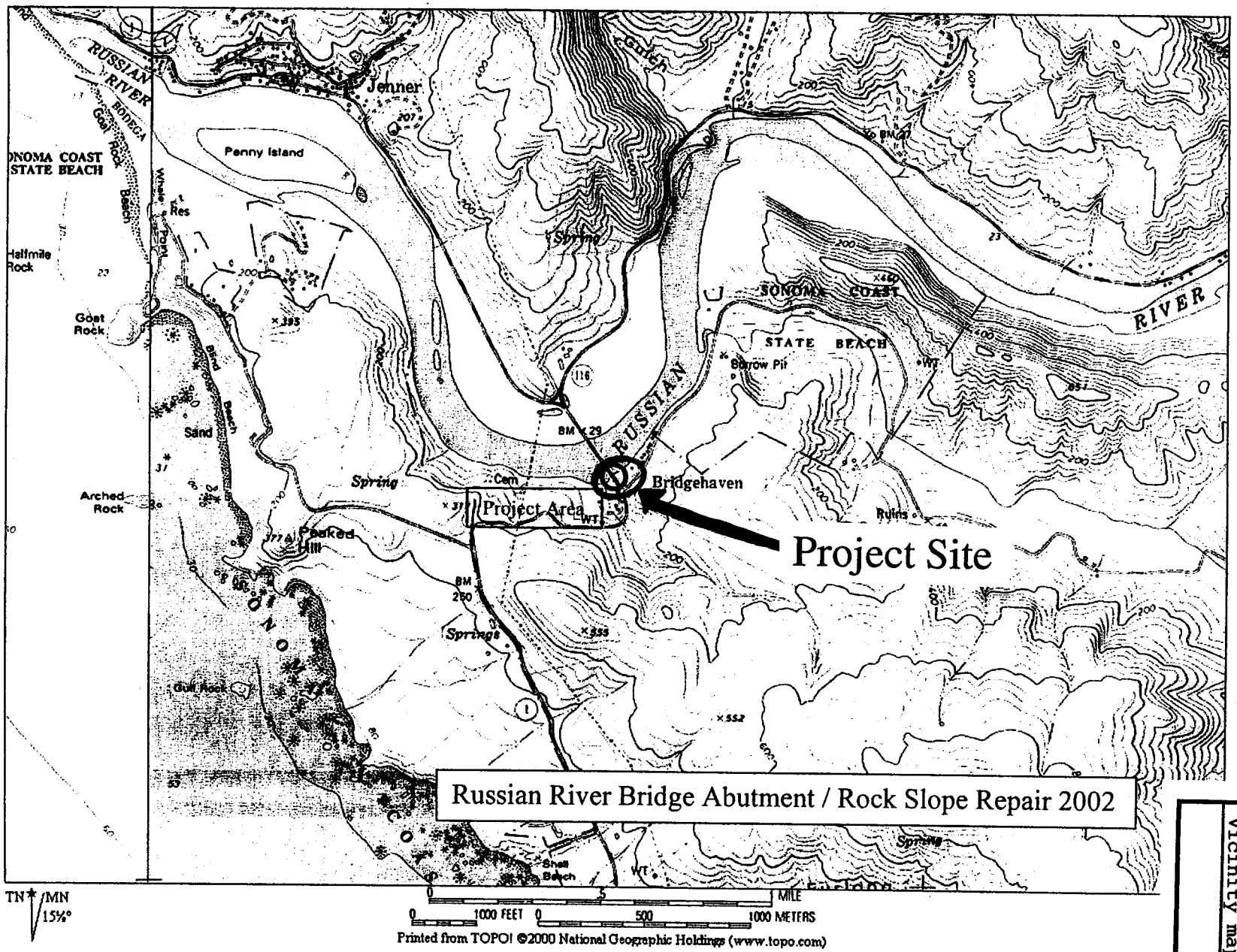
EXHIBITS:

1. Regional map
2. Vicinity map
3. Assessors Parcel Map
4. Site Photographs of Slide
5. Site Photographs of Revetment
6. Site plans and elevations



County of Sonoma

Sheet 3 of 3



Russian River Bridge Abutment / Rock Slope Repair 2002

EXHIBIT NO. 2
APPLICATION NO. 2-02-021 CALTRANS
Vicinity map

Attachment 1

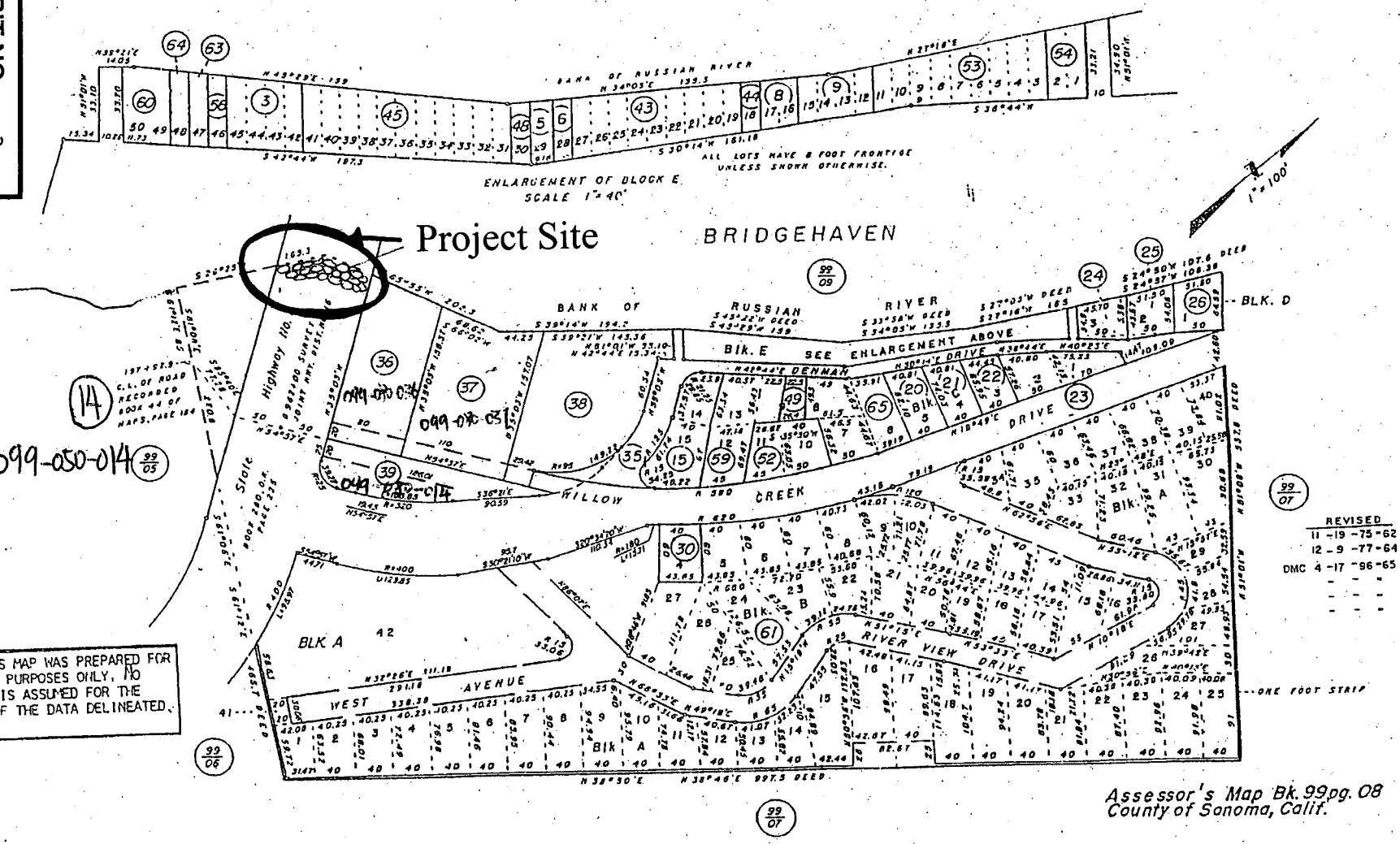
Sonoma, CA 2002-2003 - 099-080-039, Sheet: 1 of 1

EXHIBIT NO. 3
APPLICATION NO. 2-02-021 CALTRANS
Assessors Parcel Map

COUNTY ASSESSOR'S PARCEL MAP

TAX RATE AREA 156-027

99-08



NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY, NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.

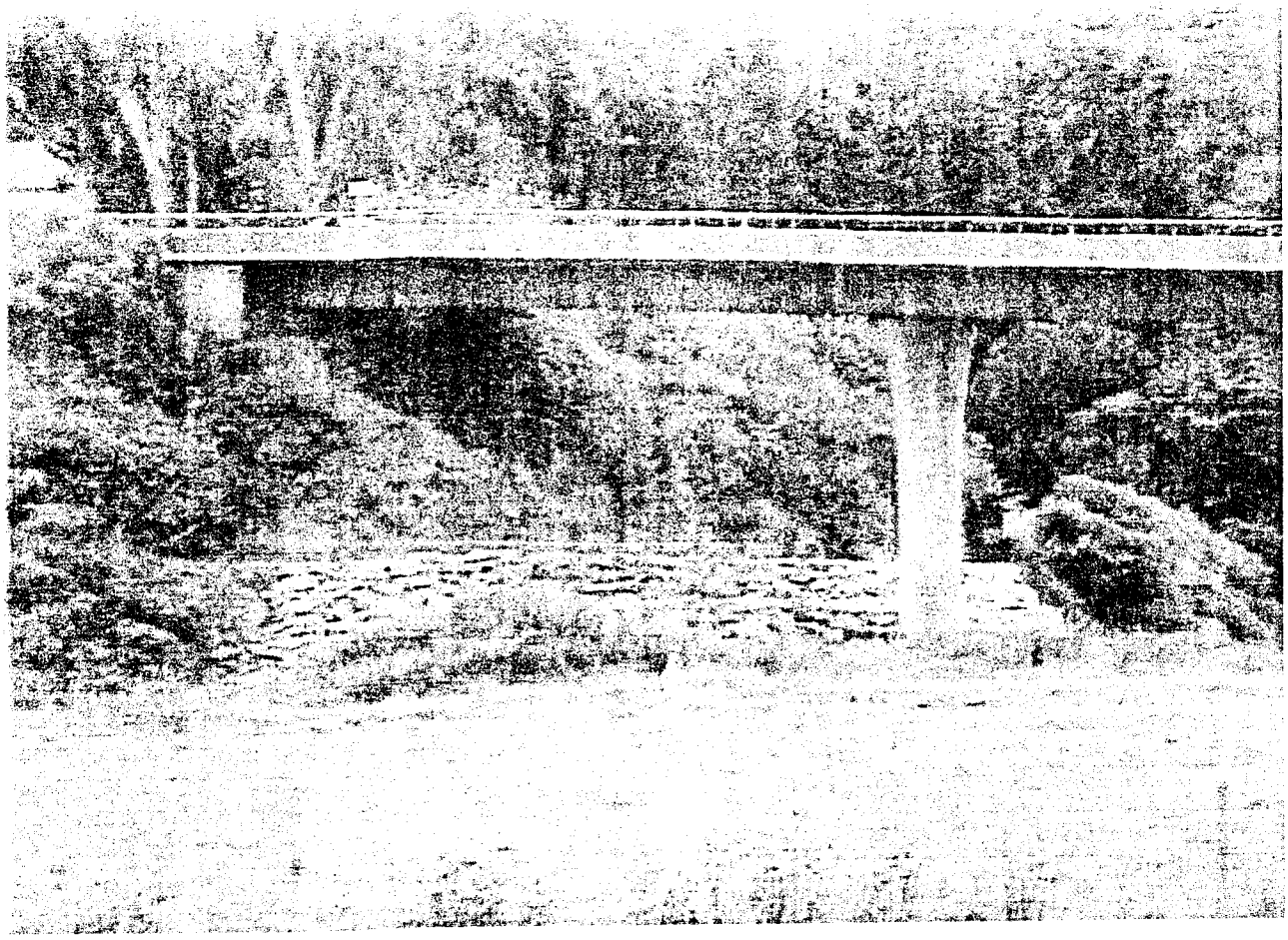
Assessor's Map Bk. 99 pg. 08
County of Sonoma, Calif.

Assessor Sonoma County

Attachment 1

Site photographs of slide

EXHIBIT NO. 4
APPLICATION NO. 2-02-021 CALTRANS
Site Photographs of slide



Site photographs of revetment

EXHIBIT NO. 5
APPLICATION NO. 2-02-021 CALTRANS
Site Photographs of revetment

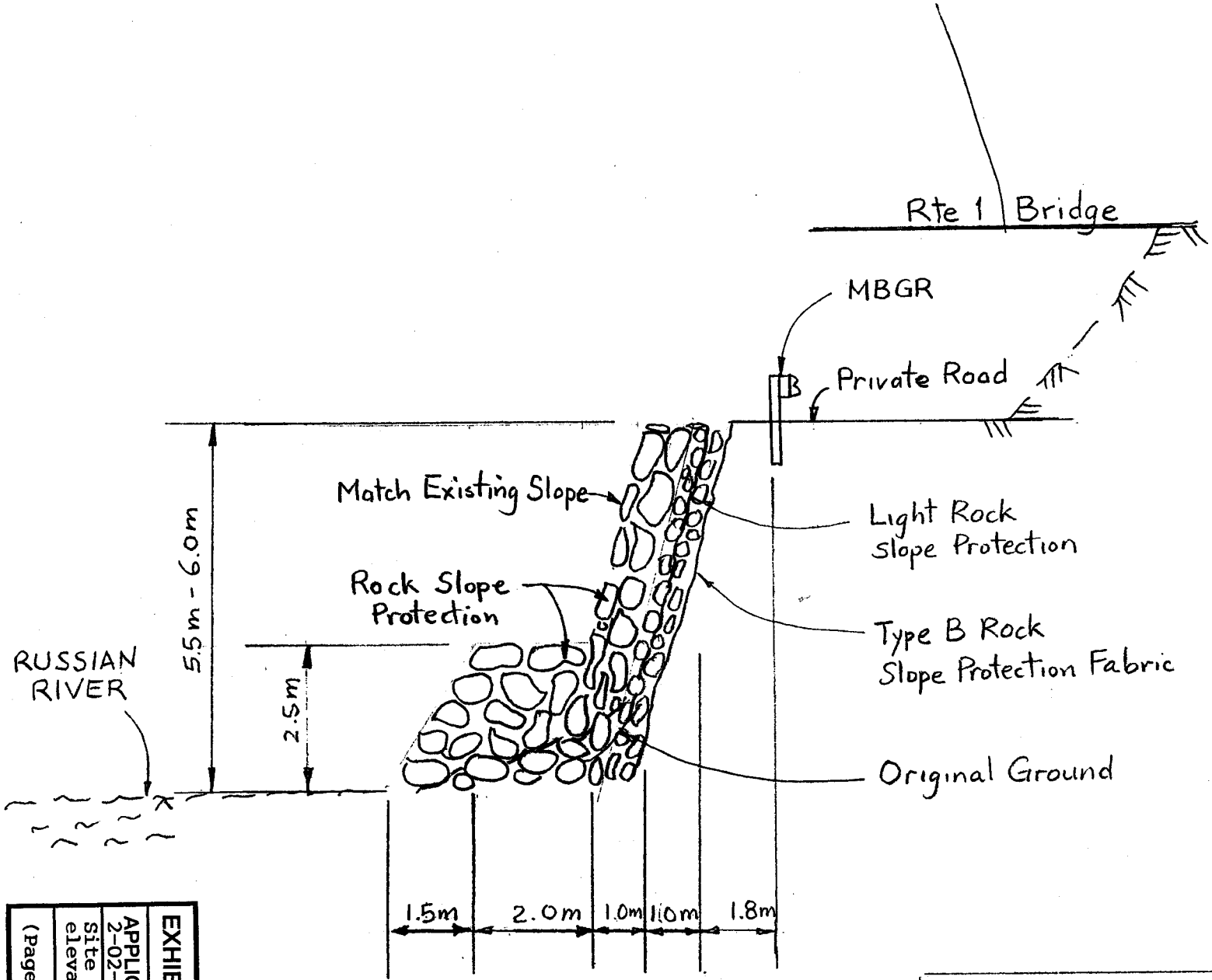
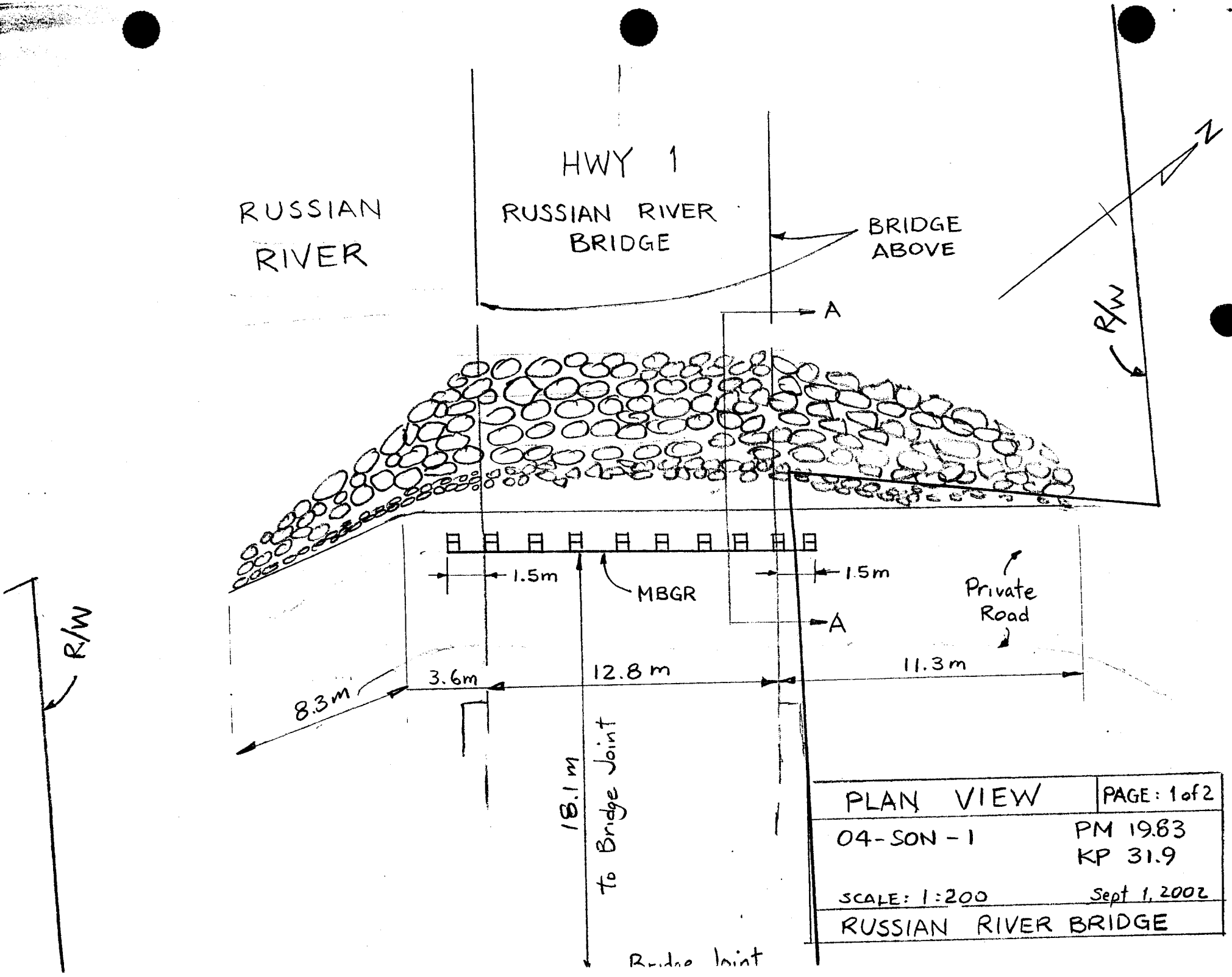


EXHIBIT NO. 6
APPLICATION NO. 2-02-021 CALTRANS
Site plans and elevations
(Page 1 of 2)

SECTION A-A	PAGE: 2 of 2
04-SON-1	PM 19.83 KP 31.9
SCALE: 1:100	Sept 1, 2002
TYPICAL CROSS SECTION	



PLAN VIEW	PAGE: 1 of 2
04-SON-1	PM 19.83 KP 31.9
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RUSSIAN RIVER BRIDGE	