

## CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST AREA  
89 SOUTH CALIFORNIA ST., SUITE 200  
VENTURA, CA 93001  
(805) 641-0142

**TU 15.5a**

Page 1 of 2  
Permit Application No. 4-95-219  
Date November 1, 1995

ADMINISTRATIVE PERMIT

APPLICANT: California Department of Transportation

PROJECT DESCRIPTION: Replace Cabrillo Blvd. Bridge over Sycamore Creek (incorporating mitigation measures for tidewater goby and riparian vegetation)

PROJECT LOCATION: Intersection of Sycamore Creek and Cabrillo Blvd. (State Route 225), City of Santa Barbara.

EXECUTIVE DIRECTOR'S DETERMINATION: The findings for this determination, and for any special conditions, appear on subsequent pages.

**NOTE:** P.R.C. Section 30624 provides that this permit shall not become effective until it is reported to the Commission at its next meeting. If one-third or more of the appointed membership of the Commission so request, the application will be removed from the administrative calendar and set for public hearing at a subsequent Commission meeting. Our office will notify you if such removal occurs.

This permit will be reported to the Commission at the following time and place:

Date: November 14-17, 1995  
Time: 9:00 a.m.  
Place: Wyndham Hotel - LAX  
6225 West Century Blvd.  
Los Angeles, CA

IMPORTANT - Before you may proceed with development, the following must occur:

Pursuant to 14 Cal. Admin. Code Sections 13150(b) and 13158, you must sign the enclosed duplicate copy acknowledging the permit's receipt and accepting its contents, including all conditions, and return it to our office. Following the Commission's meeting, and once we have received the signed acknowledgement and evidence of compliance with all special conditions, we will send you a Notice of Administrative Permit Effectiveness.

BEFORE YOU CAN OBTAIN ANY LOCAL PERMITS AND PROCEED WITH DEVELOPMENT, YOU MUST HAVE RECEIVED BOTH YOUR ADMINISTRATIVE PERMIT AND THE NOTICE OF PERMIT EFFECTIVENESS FROM THIS OFFICE.

PETER DOUGLAS  
Executive Director

By: \_\_\_\_\_

Title: \_\_\_\_\_

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 this permit is reported to the Commission. 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 or 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 project during its development, 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.

EXECUTIVE DIRECTOR'S DETERMINATION (continued):

The Executive Director hereby determines that the proposed development is a category of development which, pursuant to PRC Section 30624, qualifies for approval by the Executive Director through the issuance of an administrative permit. Subject to Standard and Special Conditions as attached, said development is in conformity with the provisions of Chapter 3 of the Coastal Act of 1976, will not prejudice the ability of the local government to prepare a Local Coastal Program that is in conformity with the provisions of Chapter 3, and will not have any significant impacts on the environment within the meaning of the California Environmental Quality Act. If located between the nearest public road and the sea, this development is in conformity with the public access and public recreation policies of Chapter 3.

FINDINGS FOR EXECUTIVE DIRECTOR'S DETERMINATION:A. Project Description

The proposed project consists of replacing the existing bridge over Sycamore Creek at Cabrillo Boulevard with a new structure on the same alignment. Ungrouted rip-rap will be placed under the bridge and around the bridge abutments. The bridge will be 27 feet long and 73 feet wide. The cross-section of the proposed structure will consist of four 12 foot lanes, and an 11-foot left turn lane, 2-foot shoulders, and a 10 foot bikeway. (Exhibits 1,2, and 3)

The Commission previously approved this project under Coastal Development Permit 4-93-23 in 1993. However, the applicant did not extend the original permit before expiration.

The length of the replacement structure will be increased to provide a greater hydraulic capacity on Sycamore Creek (50 year flood-flow). Construction of the bridge will take approximately eight months, and will occur during the dry season. Riparian vegetation will be replaced under a California Department of Fish and Game 1600 Agreement.

### B. Coastal Issues

The bridge replacement will require a the temporary removal of the curb planter located near the southwest corner of the bridge, and the removal of a 3-inch Monterey Cypress tree. The planter will be replaced upon completion of the project and the Monterey Cypress tree will be replaced on with a mixture of landscape specimens. Bicycle traffic will be detoured around the construction site for a four-month period during the first phase of construction. (Exhibit 4)

A small lagoon (less than .5 acre) exists at the mouth of Sycamore Creek which supports a population of Tidewater goby (Eucyclogobius newberryi) a federally listed species. The U.S. Fish and Wildlife Service has prepared a Biological Opinion under Section 7 of the Endangered Species Act for this species and determined that the project would not jepordize the the continued existence of the tidewater goby as a species, and that specific measures identified in the Biological Opinion would reduce the likelihood of mortality or injury to the tidewater gobies during the completion of the project, and prevent the permanent loss of tidewater goby habitat in the Sycamore Creek lagoon.

The mitigation measures identified by the U.S. Fish and Wildlife Service and incorporated into the project include translocating Tidewater gobies located within or downstream of the project area to a site immediately above the project, separating the translocation area from the construction site with temporary sheet piling, controlling sedimentation and water levels in the temporary habitat above the project site, and monitoring the conditions of the translocated gobies. Following completion of the project, the translocated gobies will be allowed to relocate in the downstream portion of the lagoon through the removal of the sheet piling separating the construction area from the upstream undisturbed area of the lagoon. Special Condition #1 ensures the implementation of these mitigation measures through the Commission's regulatory/enforcement process. (Exhibit 5)

The proposed project will not adversely impact coastal resources, or public access. The Executive Director therefore finds that the project as proposed is consistent with PRC Sections 30236, 30240, and 30210-14.

### SPECIAL CONDITIONS:

1. The mitigation measures identified in the Biological Opinion prepared by the U.S. Fish and Wildlife Service for this project dated October 21, 1994 those contained in the Department of Fish and Game's 1600 Agreement for this project shall be incorporated into the project description and all bidding documents, and shall be implemented concurrently with the construction of the project. (Exhibit 4)

1.

### ACKNOWLEDGMENT OF PERMIT RECEIPT/ACCEPTANCE OF CONTENTS:

I/We acknowledge that I/we have received a copy of this permit and have accepted its contents including all conditions.

\_\_\_\_\_  
Applicant's Signature

6952A

\_\_\_\_\_  
Date of Signing

INDEX OF SHEETS

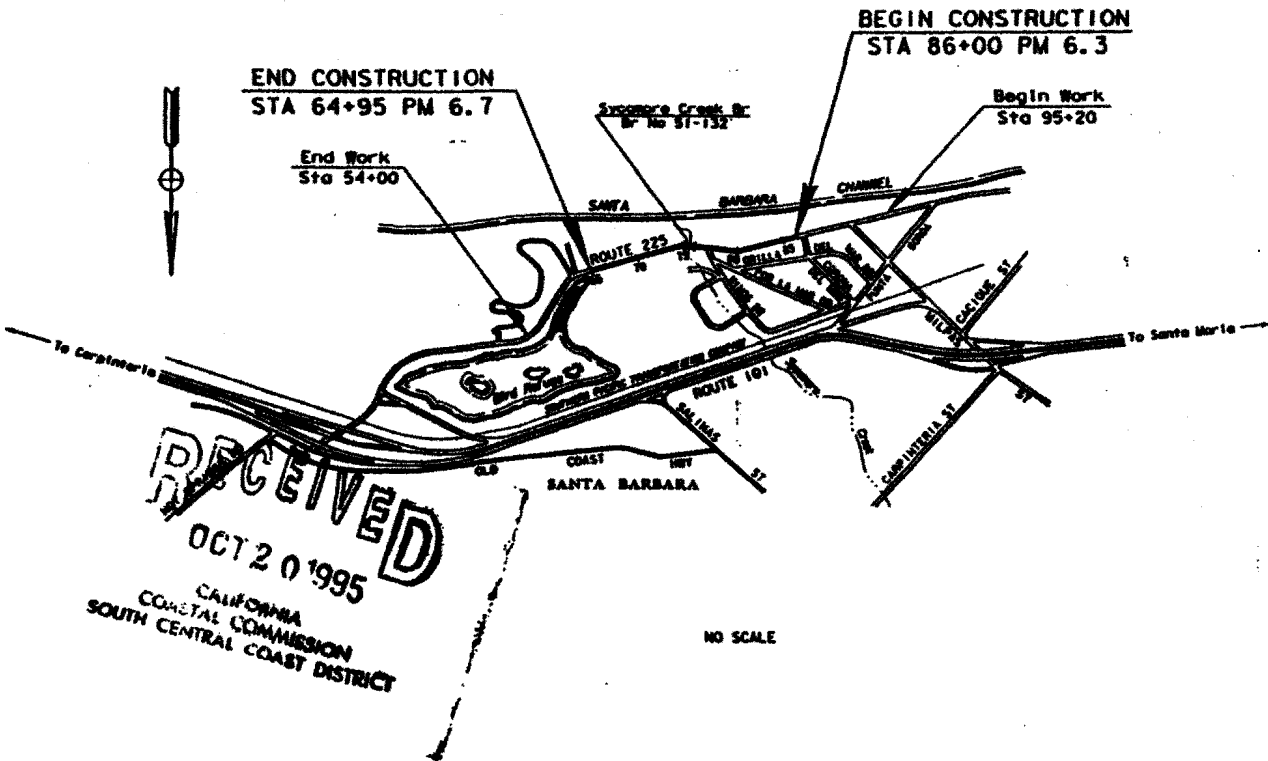
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN SANTA BARBARA COUNTY IN SANTA BARBARA  
FROM 0.2 MILE WEST OF NINOS DRIVE  
TO 0.2 MILE EAST OF SYCAMORE CREEK BRIDGE

To be supplemented by Standard Plans dated July, 1992

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	58	225	6.3/6.7		

**Caltrans**



4-95-219

**RECEIVED**  
OCT 20 1995  
CALIFORNIA  
COASTAL COMMISSION  
SOUTH CENTRAL COAST DISTRICT

NO SCALE

The Contractor shall possess the Class for Classes of license as specified in the "Notice to Contractors".

EXHIBIT NO. 1
APPLICATION NO.
4-95-219
Caltrans

*Lincoln*  
N. Goblin  
Professional Engineer  
11-21-95  
47658  
12-31-95  
Civil  
STATE OF CALIFORNIA

Plans Approved Here

J. R. Parsons 0  
N. Goblin 0

5339104

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

Contract No. 05-339104

CU 05245

EA 339101

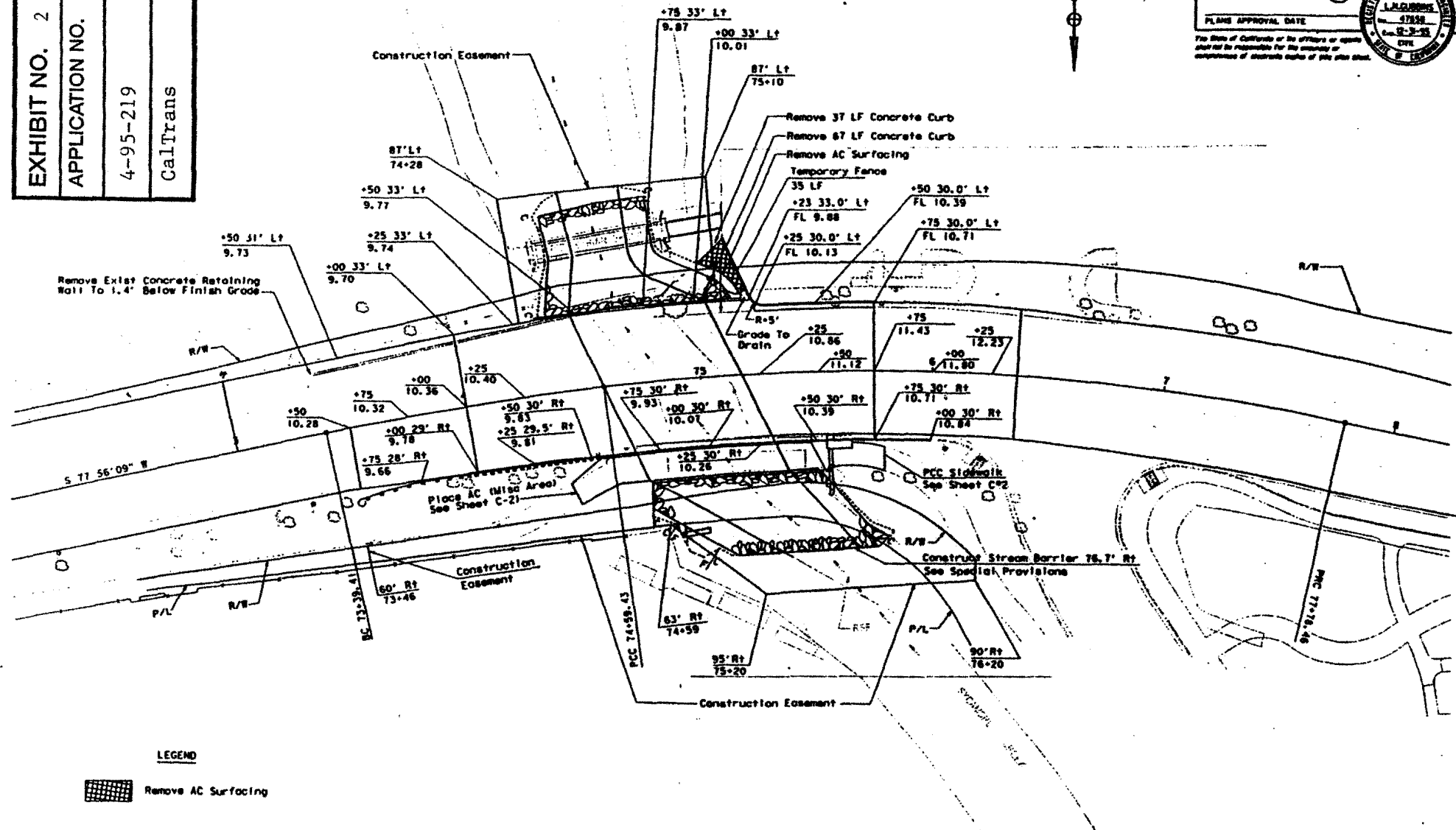
CHECKED BY LNC DATE REVISED 09/3

LEN H. GIBBINS PROJECT DEVELOPMENT

EXHIBIT NO. 2  
 APPLICATION NO.  
 4-95-219  
 CalTrans

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL
05	SB	225	6.3/6.7	20/21

*Len H. Gibbins*  
 REGISTERED CIVIL ENGINEER  
 1-21-94  
 LICENSE NO. 47958  
 EXPIRES 12-31-95  
 STATE OF CALIFORNIA  
 BOARD OF EXAMINERS  
 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.



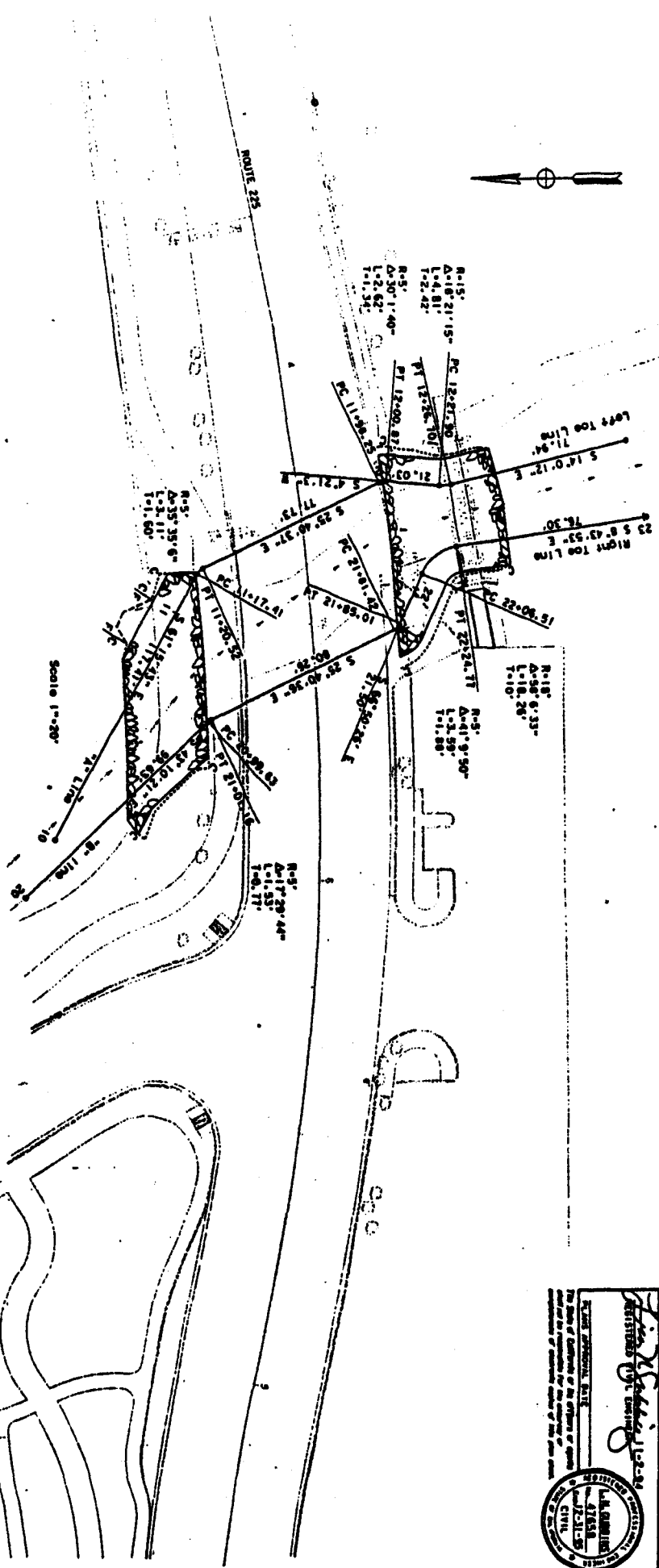
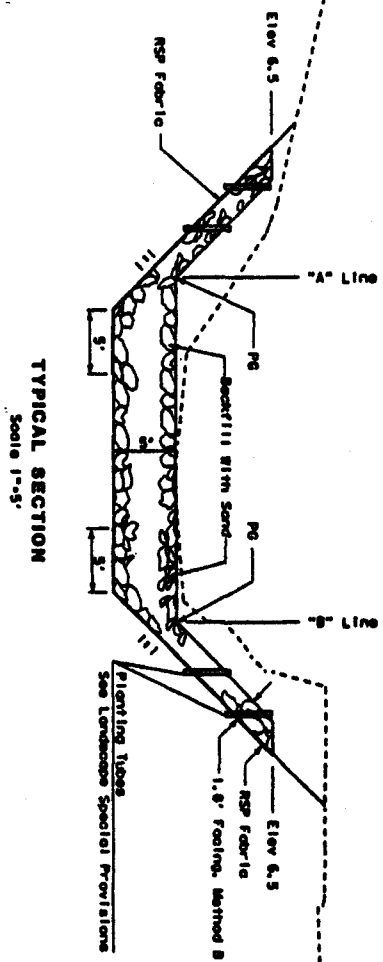
**LEGEND**  
 Remove AC Surfacing

**CONSTRUCTION DETAILS**  
 SCALE: 1"=20'  
 C-1

FOR REDUCED PLANS

CU 05245 EA 339101

EXHIBIT NO.	3
APPLICATION NO.	
	4-95-219
	CalTrans



FOR REDUCED PLANS IN SQUARE FEET  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CONSTRUCTION DETAILS  
 C-3

REGISTERED PROFESSIONAL ENGINEER  
 L.N. CUBBINS  
 No. 12345  
 State of California  
 Civil

DATE: 12-24-94

PROJECT: ROUTE 225

SCALE: 1"=20'

DATE: 6-29-97

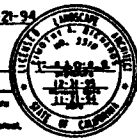
PROJECT NO.: 4-95-219

DATE: 12-24-94

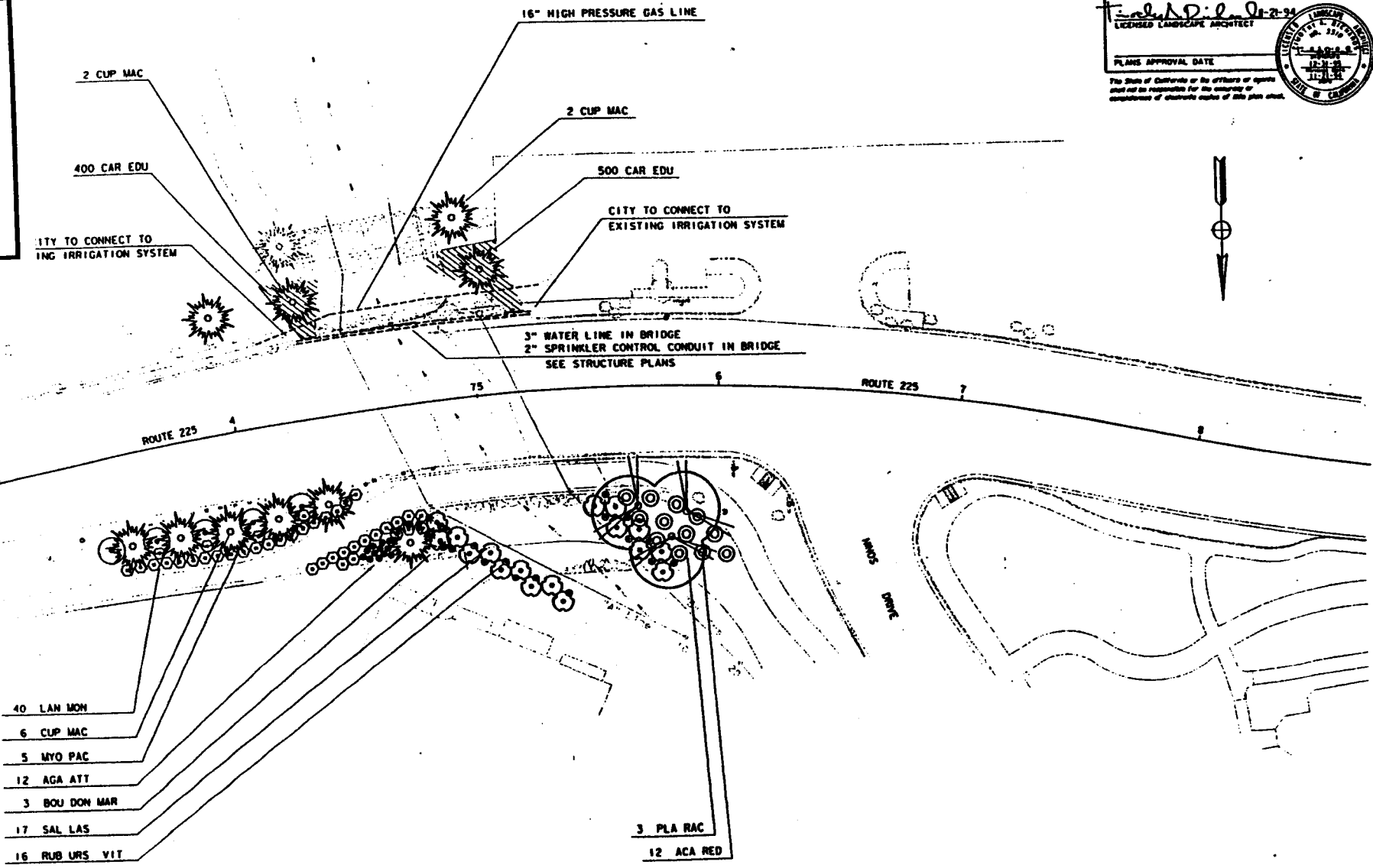
**EXHIBIT NO.** 4  
**APPLICATION NO.**  
 4-95-219  
 CalTrans

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	225	6.3/6.7		

[Signature]  
 LICENSED LANDSCAPE ARCHITECT  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the carrying or abandonment of contracts under of this plan sheet.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** LANDSCAPE ARCHITECTURE  
 PROJECT LANDSCAPE ARCHITECT  
 T.A. RICHARDSON  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 DATE  
 CCL B/S  
 TAR B/S



**PLANTING PLAN**  
 SCALE: 1" = 20'  
**HP-2**

FOR REDUCED PLANS



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services  
Ventura Field Office  
2140 Eastman Avenue, Suite 100  
Ventura, California 93003

EXHIBIT NO.	5
APPLICATION NO.	
	4-94-219
	CalTrans pp 1-13

October 21, 1994.

Peter C. Markle, Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
980 9th Street, Suite 400  
Sacramento, California 95814-2724

Subject: Biological Opinion for the Replacement of Sycamore  
Creek Bridge 05-252-339100 in the City of Santa  
Barbara, Santa Barbara County, California (1-8-94-F-33)

Dear Mr. Markle:

This biological opinion responds to your request for formal consultation with the U.S. Fish and Wildlife Service (Service) pursuant to section 7 of the Endangered Species Act of 1973, as amended (Act). Your request was dated June 3, 1994 and received by the Service on June 13, 1994. At issue are the impacts that the proposed bridge replacement project on State Route 225 on Sycamore Creek, Santa Barbara county may have on the tidewater goby (*Eucyclogobius newberryi*), a federally listed endangered species.

This biological opinion was prepared using the following sources of information: your June 13, 1994 request for consultation, informal discussions between our staffs, and the Service's files.

Biological Opinion

It is the opinion of the Service that the proposed action is not likely to jeopardize the continued existence of the tidewater goby. Critical habitat has not been designated for this species. Therefore, the proposed action would not result in the adverse modification of critical habitat.

Description of the Proposed Action

The Federal Highway Administration (FHWA) or Caltrans (as the agent for the FHWA) proposes to replace two sub-standard bridges on State Route 225, Santa Barbara County, California. The FHWA will be providing funding to Caltrans for the proposed action. Bridge 05-252-338901 crosses Laguna Creek at postmile 5.4. The

4-95-219



Biological Assessment prepared by Caltrans concluded that tidewater gobies will not be adversely affected by construction in this area. The Service concurs with Caltrans's assessment, therefore, the assessment of Bridge 05-252-338901 will not be discussed further in this Biological Opinion. Bridge 05-252-339100 crosses Sycamore Creek at postmile 6.5. The FHWA or Caltrans (as the agent for the FHWA) proposes to replace the existing bridge with a new structure on the same horizontal and vertical alignment. No improvements to the adjacent roadway are proposed except for minor modifications to the bridge approaches. Construction of the bridges will require the use of stage construction to facilitate vehicular traffic.

The Sycamore Creek bridge cross-section will consist of four 12-foot lanes, an 11-foot left turn lane, 2-foot shoulders, and a 10-foot separate bikeway. The proposed structure will be striped for the same configuration as the existing roadway (four 10-foot lanes, one 10-foot left turn lane, and 2-foot shoulders). An additional 9 feet of unused width on the structure may be used for future widening. The inlet and outlet of the structure will have rock slope protection to protect the abutments. Stage construction will necessitate the removal of the curbed planter located near the southwest corner of the bridge. Construction is planned for spring 1995.

The FHWA or Caltrans (as the agent for the FHWA) proposes specific measures to minimize negative impacts to the tidewater goby at Sycamore Creek. The replacement of bridge abutments at Sycamore Creek would necessitate de-watering of 70 meters (m) of the lagoon in which tidewater gobies are known to exist. Tidewater gobies that occur in the project area will be translocated upstream from the proposed structure and retained above a proposed barrier for the duration of the 8-month construction period. Habitat is apparently suitable based on observations of adult tidewater gobies 65 m upstream from the proposed project area on February 20, 1994.

The specific measures proposed by the FHWA or Caltrans (as the agent for the FHWA) are:

1. Translocation shall be completed prior to the onset of the breeding season to avoid harassment or mortality of juvenile tidewater gobies, and to avoid disruption of the breeding season. Juvenile tidewater gobies are less likely to survive capture and handling than adults.
2. Prior to lagoon de-watering, water and salinity level will be documented by the Caltrans biologist, or designee. Metal sheet pilings and a water-level marker will be installed 10 m upstream from the proposed structure. The pilings will serve to dam the flow of incoming water and prevent downstream movement of tidewater gobies. Water and salinity

levels will be monitored above the barrier to match pre-pumping conditions of the lagoon. Sufficient water and salinity levels will be monitored and maintained upstream of the barrier to allow favorable conditions for maintenance and breeding activities of tidewater gobies.

3. Water will be pumped from the ocean side of the lagoon and released upstream of the barrier. The pump will be fitted with a tee to direct water upstream or to the ocean. Any excess water will be pumped to the ocean. To prevent tidewater gobies from entering the pump system, pump intake(s) will be completely screened with wire with no greater than 5 millimeter (mm) mesh diameter.
4. Following partial de-watering from the ocean side of the lagoon, vertebrates will be captured with a beach seine, identified, transported in buckets, and released upstream of the barrier. Tidewater gobies will be counted prior to release. The translocation will be conducted or supervised by a Caltrans' biologist (or another qualified biologist with appropriate permits). De-watering and translocation activities are expected to be completed in one day.
5. During construction, the area downstream of the sheet piling may require daily de-watering because of sub-surface flows. Prior to daily commencement of construction activities, water not contaminated with wet concrete will be pumped upstream of the sheet piling to replace any water lost from seepage in the prior 24 hours. Any additional de-watering throughout the day should be pumped to the ocean.
6. During construction, the Caltrans biologist, or designee, will monitor the tidewater goby population on a biweekly basis. Monitoring will consist of assessing tidewater goby numbers and activities by conducting snorkel surveys from the mouth of the lagoon to the first bridge upstream of the new structure.
7. Prior to removal of sheet piling, the rock slope protection will be backfilled with sand. The channel will be graded to approximate pre-construction conditions and a sand berm will be constructed at the terminus of the outlet rock slope protection.

### Effects of the Proposed Action on the Listed Species

#### **Species Account**

The tidewater goby was listed by the Service as endangered on March 7, 1994. No recovery plan has been published, and critical habitat has not been proposed. Detailed information regarding

the biology of the tidewater goby can be found in Irwin and Soltz (1984), Moyle et al. (1989), and Swift et al. (1989).

The tidewater goby, a member of the Gobiidae family, is the only species in the genus *Eucyclogobius*. It is a small fish, rarely exceeding 50 millimeters standard length (mm SL), and is characterized by large pectoral fins and a ventral sucker-like disk formed by the complete fusion of the pelvic fins.

The tidewater goby, endemic to California, is almost unique among fish along the Pacific coast in its restriction to brackish waters of coastal wetlands. The tidewater goby historically occurred in at least 87 California coastal lagoons (Swift et al. 1989). Since 1900, it has disappeared from approximately 50 percent of formerly occupied habitats.

Habitat for the tidewater goby is characterized by brackish shallow lagoons and lower stream reaches where the water is fairly still but not stagnant (Miller and Lea 1972, Moyle 1976, Swift 1980, Wang 1982, Irwin and Soltz 1984). Tidewater gobies have been documented in waters with salinity levels from 0 to 40 parts per thousand, temperature levels from 8 to 23° Celsius, and water depths from 25 to 100 centimeters (Irwin and Soltz 1984, Swift et al. 1989).

The tidewater goby seems to spend all life stages in lagoons. It may enter the marine environment only when forced out of the lagoon by strong storm events. Small crustaceans, aquatic insects, and mollusks are the primary components of the tidewater goby's diet (Swift 1980, Wang 1982, Irwin and Soltz 1984). The tidewater goby seems to be an annual species although some variation has been observed (Swift 1980, Wang 1982, Irwin and Soltz 1984). Reproduction occurs year-round although distinct peaks in spawning, often in April and May, do occur (Moyle et al. 1989). When breeding, males dig vertical burrows for females to deposit eggs (Swift et al. 1989). Within nine to ten days larvae emerge and are approximately five to seven mm SL (Moyle et al. 1989). The larvae live in vegetated areas within the lagoon until they are 15 to 18 mm SL (Moyle et al. 1989).

The decline of the tidewater goby can be attributed to upstream water diversions, pollution, siltation, and urban development on surrounding lands. These threats continue to affect the remaining populations of tidewater gobies. In addition, given the lack of a marine life history stage and the high level of fragmentation between existing populations, the probability for exchange between the populations and natural colonization of suitable habitat is low.

Tidewater gobies are known to occur within Laguna and Sycamore Creek lagoons (Ambrose et al. 1994). Until recently, these

populations and those found at nearby Mission Creek, and Andrea Clark Bird Reserve were previously undocumented by Swift et al. (1989). Surveys for tidewater gobies were conducted at Laguna Creek by the Caltrans biologist on July 29 and September 18, 1994 and on February 20, 1994 at Sycamore Creek. Additional surveys were conducted on March 15-16, 1994. Tidewater gobies were found in Sycamore Creek during the February 20, 1994 surveys in the shallows 65 m upstream of the project area. A determination of tidewater goby presence in the project area for Sycamore Creek was hampered due to water turbidity and depth. Presence of tidewater gobies in Sycamore Creek is assumed based on Ambrose et al. (1994).

### **Analysis of Impacts**

Potential impacts to tidewater gobies resulting from the bridge replacement activities at Sycamore Creek include loss of 70 m of habitat; the capturing, handling, and transporting of tidewater gobies for upstream translocation; and potential loss of a breeding season if temporary habitat is unsuitable for breeding. Loss of an entire population may occur if either the temporary habitat or the restored lagoon are not suitable to sustain tidewater gobies. The type and level of the impacts would depend on the specific activity and are discussed below.

The capture and translocation of tidewater gobies involves harassment; however, the capture of tidewater gobies prior to the breeding season will avoid adverse impacts to juveniles, as juveniles would be less likely to survive translocation. The establishment of tidewater gobies upstream prior to the breeding season is less disruptive than during mid-breeding season, for example, and will allow tidewater gobies a full breeding season in the new habitat.

The noise and vibration from installing the sheet piling would separate tidewater gobies that exist above and below the installation site. Depending on the installation method, damage to the substrate could occur if installation activities require personnel or equipment to be positioned on the substrate.

The noise, vibration, or physical presence of the pump intake(s), including movement and the operation of the pump motor, may disturb tidewater gobies. However, any affected tidewater goby would likely move from the source of disturbance. For tidewater gobies that do not avoid the pump, the intake(s) will be completely screened with wire with no greater than 5 millimeter (mm) mesh diameter.

Tidewater goby harassment and mortality could occur from a number of activities during capture and translocation. Following dewatering, tidewater gobies may be concealed by vegetation or debris and left stranded on the substrate. Capture of tidewater

gobies will involve the use a mesh seine with a weighted lead line. The stress from the harassment expected from entrapment and handling could result in the deaths of tidewater gobies. Individuals could be crushed in the net by the weighted lead line if it should roll inward while being pulled in to shore. Stress from harassment may occur while tidewater gobies are held in buckets of water. Individuals could suffocate if water should become depleted of oxygen as a result in a rise in temperature, or from excessive crowding. Tidewater gobies may incur stress if released into water that drastically differs in water quality from the capture site.

Should the new area contain insufficient elements necessary to sustain the species (e.g., inadequate food and unsuitable substrate type for breeding), tidewater gobies may be subject to additional harassment and mortality. Because the tidewater goby has an annual life history, lack of necessary elements would lead to extirpation of this population. Translocated tidewater gobies might compete with resident individuals for food, breeding substrate, and space, although the effects on breeding and other behavior of introducing additional fish to the upstream area are unknown. Should lack of suitable substrate be the only limiting factor, tidewater gobies may be able to regain some breeding opportunity if released to the fully functioning restored lagoon before the end of the breeding season.

Translocated tidewater gobies may sustain harassment and mortality from predators. Should the impoundment of water behind the sheet piling inadvertently create favorable habitat for non-native predators, such as bullfrogs and centrarchid fishes, the tidewater gobies may suffer losses or extirpation by predation.

Tidewater gobies may experience mortality following re-introduction into the restored lagoon. Inadequate food source, unsuitable substrate, and unfavorable water quality parameters could induce physiological stress and mortality, as described previously.

The rock slope protection may displace some breeding habitat in the restored lagoon; however, the new bridge design allows for a wider channel thus creating potential for more habitat for the tidewater goby.

In the case of the tidewater goby, the quantification of take by harassment and mortality is difficult because of the species' small size, aquatic habitat, and annual life history. All of these factors make it difficult to detect where tidewater gobies are and if any have been affected by an action. For this project some harassment and mortality could be directly observed from those captured in the drained lagoon. However, post-translocation mortality resulting from stress would not be as easy to observe.

With the implementation of the terms and conditions of this biological opinion, the Service believes the impacts described above are not likely to jeopardize the continued existence of the tidewater goby. We present this conclusion for the following reasons.

1. The proposed action would not result in the permanent loss of tidewater goby habitat in the Sycamore Creek lagoon.
2. The FHWA or Caltrans (as the agent for the FHWA) has proposed to implement actions that would substantially reduce the likelihood of mortality or injury to tidewater gobies in the course of the project.

#### **Cumulative Effects**

Cumulative effects are those impacts of future State and private actions that are reasonably certain to occur in the project area. Future Federal actions will be subject to the consultation requirements established in section 7 of the Act and, therefore, are not considered cumulative to the proposed project. No State or private actions that would affect tidewater gobies in the project area are known at this time.

#### **Incidental Take**

Section 9 of the Act prohibits the take of listed species without special exemptions. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Under the terms of section 7(b)(4) and 7(0)(2) of the Act, taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such take is in compliance with this incidental take statement. The stipulations described as reasonable and prudent measures and terms and conditions are non-discretionary, and must be undertaken by the agency or made a binding condition of any grant or permit, as appropriate.

The Service anticipates the following forms of take:

1. All tidewater gobies within the proposed project area at Sycamore Creek in the form of mortality or harassment during capture and translocation efforts. The actual number of tidewater gobies that would be taken cannot be accurately anticipated because precise surveys of this species are not possible and the number of individuals in a population

varies greatly during the year.

2. All tidewater gobies that exist upstream of the proposed barrier prior to translocation in the form of harassment from competition with translocated tidewater gobies.

This biological opinion does not authorize any form of take that is not incidental to the completion of the proposed bridge replacement project. If take occurs outside the project area, the FHWA or Caltrans (as the agent for the FHWA) shall cease the activity resulting in the take and shall reinitiate consultation with the Service.

#### Reasonable and Prudent Measure

The Service believes that the following reasonable and prudent measure is necessary and appropriate to minimize the incidental take authorized by this biological opinion:

Worker education programs and well-defined operational procedures shall be implemented, with the cooperation of the on-site qualified biologist, to avoid the take of tidewater gobies and minimize loss of habitat during implementation of all phases of the proposed bridge replacement activities. Such activities include the capture and translocation of tidewater gobies upstream of the proposed work area, and the return of tidewater gobies to the restored lagoon following completion of the proposed project in Sycamore Creek.

#### Terms and Conditions

To be exempt from the prohibitions with section 9 of the Act, the FHWA or Caltrans (as the agent for the FHWA) is responsible for compliance with the following terms and conditions, which implement the reasonable and prudent measure described above. Terms and conditions 2 through 11\* were contained in the description of the proposed action submitted by the FHWA or Caltrans (as the agent for the FHWA) and have been modified slightly herein by the Service.

1. Conduct personnel briefings for all project personnel. At a minimum, the briefings shall discuss:
  - the presence of the tidewater goby in Sycamore Creek;
  - the general provisions of the Endangered Species Act;
  - the necessity for adhering to the provisions of the Act;
  - the penalties associated with violating the provisions of the Act;
  - the general measures that are being implemented to conserve tidewater gobies as they relate to the project;
  - the boundaries of the project within which the project

may be accomplished;

2. Capture and translocation shall be completed prior to the onset of the breeding season to avoid harassment or mortality of juvenile tidewater gobies.
3. Only qualified personnel authorized under this biological opinion shall participate in activities associated with the capture, translocation, and monitoring of tidewater gobies; and water quality sampling. Gregory Smith of Caltrans is hereby authorized to conduct these activities as described in this biological opinion. If Caltrans wishes to use other Caltrans employees or outside contractors to participate in the these activities as described, the names and credentials shall be supplied to the Service for its review and approval at least 15 days prior to the onset of the activities which they are being authorized to conduct.
4. Prior to installing the sheet piling barrier, the Caltrans biologist shall sample water quality parameters in the lagoon (e.g., salinity, temperature, dissolved oxygen). Samples shall be taken in a manner to avoid harassment to tidewater gobies. Results shall be used to maintain water quality parameters upstream of the barrier consistent with pre-construction conditions in the lagoon.
5. A barrier made of metal sheet piling and a water-level marker shall be installed 10 m upstream of the proposed structure. During the installation of the sheet pilings, any disruption to the substrate should be limited to the downstream side of the sheet pilings to the maximum extent possible.
6. Water shall be pumped upstream of the barrier from the ocean side of the lagoon. Water level shall be gradually lowered to avoid any stranding of tidewater gobies. The pump shall be fitted with a tee to direct water upstream or to the ocean. Any excess water shall be pumped to the ocean. To prevent tidewater gobies from entering the pump system, pump intake(s) shall be completely screened with wire mesh not larger than 5 mm diameter and inserted into a wire box made also with wire of similar mesh size. The mesh walls of the box shall be of sufficient distance from the intake(s) to reduce the likelihood that tidewater gobies shall be pressed against the wire mesh from the force of suction from the pump.
7. Following partial de-watering of the lagoon, vertebrates shall be captured with a beach seine, identified, transported in buckets, and released upstream of the barrier. The seine shall be pulled to shore in a deliberate manner with care being taken to avoid rolling the lead line



inward. Tidewater gobies shall be counted prior to release. Invertebrates, such as amphipods and copepods, that constitute a food source for the tidewater goby shall to be transported and live-released upstream to the maximum extent possible. All debris and aquatic and emergent vegetation in the pumped area shall be carefully inspected for tidewater gobies and other vertebrates. Handling time for tidewater gobies shall be minimal. All tidewater gobies that show signs of stress are to be immediately released upstream.

8. During construction, water that is removed from the construction area downstream of the sheet piling and is not contaminated with wet concrete shall be pumped upstream of the sheet piling. Any excess water shall be pumped to the ocean. Should insufficient water quantity exist to maintain tidewater gobies, Caltrans may extract water from a nearby lagoon provided the water is 1) not contaminated; 2) does not contain tidewater gobies 3) does not contain bullfrog or centrarchid fish adults, larvae, or eggs; 4) and is of comparable quality (e.g., salinity, temperature, dissolved oxygen) to Sycamore Creek lagoon water.
9. During construction, sufficient water depth and water quality shall be maintained upstream of the barrier to allow favorable conditions for maintenance and breeding activities of tidewater gobies. Water sampling may be waived if breeding activity is occurring; water quality shall be assumed to be favorable to the tidewater goby. When selecting areas to sample water quality, tidewater goby breeding areas shall be avoided to the maximum extent possible. Breeding areas shall be identified by habitat characteristics and by direct observation when possible.
10. During and following construction activities, the Caltrans biologist shall monitor the tidewater goby population. Monitoring shall consist of assessing tidewater goby numbers and breeding activities by conducting snorkel surveys from the mouth of the lagoon to the first bridge upstream of the new structure. Monitoring shall be conducted on a weekly basis for the first 4 weeks following translocation, and then reduced to a biweekly basis until tidewater gobies are re-introduced into the restored lagoon. Monitoring shall be conducted on a weekly basis for the first 4 weeks following re-introduction to the restored lagoon.
11. The rock slope protection shall be backfilled with sand. The channel shall be graded to approximate pre-construction conditions and a sand berm shall be constructed at the terminus of the outlet rock slope protection.
12. Following construction and prior to the re-watering of the lagoon, all trash and construction debris shall be removed

from the channel and banks. Water above the barrier shall be slowly released or pumped downstream to fill the lagoon. If insufficient water quantity exists to fill the reconstructed lagoon from the upstream area, water from a nearby lagoon that meets the requirements stated in term and condition 9 may be imported to replenish the lagoon.

13. Upon completion of lagoon restoration activities, the sheet pilings shall be removed with minimal harassment of tidewater gobies or damage to the substrate, and release tidewater gobies into former habitat.
14. The FHWA or Caltrans (as the agent for the FHWA) shall provide a written report to the Service within 60 days following the re-introduction of tidewater gobies into the restored lagoon. This document shall report on the effects of the bridge replacement activities on tidewater gobies, and shall include tidewater goby population and breeding status, and response of the species to specific procedures used during this project. This document will assist the Service and Caltrans in evaluating future mitigation measures for conservation of the tidewater goby during bridge replacement projects.

#### **Disposition of Dead Tidewater Gobies**

Upon locating dead tidewater gobies, the collection date and any other pertinent information shall be recorded. Care must be taken in handling dead specimens to preserve biological material in the best possible state. The remains of intact tidewater gobies shall be placed with educational or research institutions holding the appropriate State and Federal permits.

#### **Conservation Recommendations**

In furtherance of the purposes of sections 2(c) and 7(a)(1) of the Act that mandate Federal agencies to utilize their authorities to implement programs for the conservation of listed species, we recommend that the FHWA or Caltrans (as the agent for the FHWA) implement the following actions:

1. The Service recommends that the FHWA or Caltrans (as the agent for the FHWA) implement actions that reduce sedimentation of lagoons and streams as a result of bridge and road maintenance activities. The Service also recommends that measures be identified and implemented to reduce the likelihood of contamination of tidewater goby habitat from roadway hazardous material spills.
2. The Service urges the FHWA or Caltrans (as the agent for the FHWA) to develop and employ methods to repair and replace

bridges that do not present as great a potential for adversely affecting tidewater gobies as does de-watering of lagoons.

3. The Service suggests that an additional measure be considered to conserve the tidewater goby during construction activities. This measure includes holding a portion of the affected tidewater goby population in aquaria for the duration and releasing them into the restored lagoon. This Biological Opinion may be amended and reissued to authorize this form of incidental take.

The Service requests notification of the implementation of any conservation recommendations so to keep us informed of actions that either minimize or avoid adverse effects, or that benefit listed species or their habitats.

#### Conclusion

This concludes formal consultation on two bridge replacement projects on State Route 225 at Laguna and Sycamore Creek, Santa Barbara County, California. Reinitiation of formal consultation is required if: 1) incidental take occurs outside the project area; 2) new information reveals effects of the agency action that may adversely affect listed species or critical habitat in a manner or to an extent not considered in this biological opinion; 3) the agency action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this biological opinion; and 4) a new species is listed or critical habitat is designated that may be affected by this action (50 CFR 402.16);

Any comments or questions should be directed to Kate Symonds of my staff at 805/644-1766.

Sincerely,



Jr Judy Hohman  
Acting Field Supervisor

cc: Calif. Dept. of Fish and Game, Sacramento (Dave Showers)  
Fish and Wildlife Service, Regional Office (Richard Hill)  
Fish and Wildlife Service, Sacramento (Bob Pine)  
Fish and Wildlife Service, Carlsbad (James Burns)  
Caltrans (Greg Smith, as agent for the FHWA)

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