



# City of Santa Barbara California

## PLANNING COMMISSION STAFF REPORT

**REPORT DATE:** September 11, 2008  
**AGENDA DATE:** September 18, 2008  
**PROJECT ADDRESS:** Mission Creek from U.S. Highway 101 to the Beach (MST2008-000360/CDP2008-00012)  
 Lower Mission Creek Flood Control Project  
**TO:** Planning Commission  
**FROM:** Planning Division, (805) 564-5470  
 Jan Hubbell, AICP, Senior Planner *JAH*  
 Michael Berman, Project Planner/Environmental Analyst *MB*

### I. PROJECT DESCRIPTION

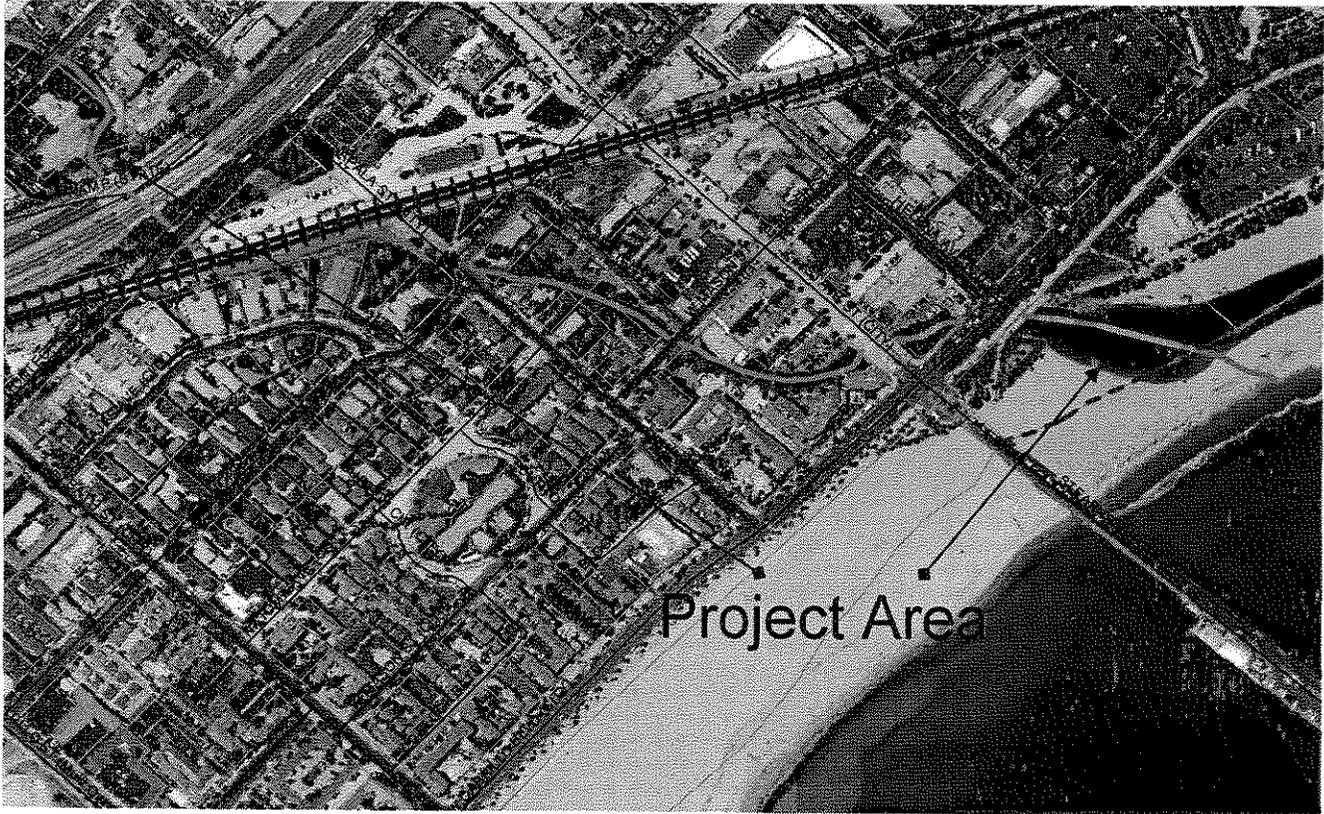
The project consists of improvements to increase hydraulic capacity of Mission Creek. A culvert would be installed to provide additional hydraulic capacity from just north of U.S. Highway 101 to near Yanonali Street. However, the culvert will not be activated until work is completed above Highway 101, in a later phase. Downstream of Yanonali Street, the creek would be widened to 60 feet to increase hydraulic capacity. This would be accomplished by a combination of vertical walls and vegetated slopes. The project includes expansion of riparian areas and installation of vegetation at the lagoon south of Cabrillo Boulevard. Kimberley Avenue would be realigned near Mason Street and the Mason Street Bridge would be replaced.

### II. REQUIRED APPLICATIONS

The discretionary application required for this project is a Coastal Development Permit (CDP2008-00012) to allow the proposed development in the Appealable, Non-Appealable, and Original Jurisdictions of the City's Coastal Zone (SBMC §28.44.060).

### III. RECOMMENDATION

The proposed project conforms to the City's Zoning and Building Ordinances and policies of the General Plan/Local Coastal Plan. In addition, the size and massing of the proposed bridge would be consistent with the surrounding neighborhood. Therefore, Staff recommends that the Planning Commission approve a Coastal Development Permit for the portions of the project within the City's jurisdiction and recommend that the California Coastal Commission approve a Coastal Development Permit for the portions of the project within the Coastal Commission's original jurisdiction, making the findings outlined in Section VII of this report, and subject to the conditions of approval in Exhibit A.



### Project Location Map

**APPLICATION DEEMED COMPLETE:**  
**DATE ACTION REQUIRED:**

August 19, 2008  
October 18, 2008

**IV. SITE INFORMATION AND PROJECT STATISTICS**

**A. SITE INFORMATION**

Applicants: City of Santa Barbara, Public Works Department and Santa Barbara County Flood Control and Water Conservation District	Property Owner: Various owners – project in easement
Parcel Numbers: 033-010-014; 033-102-002, -003, -017, & -018; 033-074-001, -005, -009, -010, -011, -012, -019, & -020; 033-042-014, -017, & -018; 033-041-012, -012, & -013; 037-245-012; 033-120-015; 033-075-006; AND 033-074-021	Lot Area: Not applicable
General Plan: Recreation and Open Space, Commerce/Hotel, and Residential	Zoning: P-R/S-D-3, HRC-1 & 2/S-D-3, and C-2/S-D-3
Existing Use: Creek	Topography: Sloping slightly to the ocean
Adjacent Land Uses: North – U.S. Highway 101/Commercial East – Railroad Depot, Hostel, Residential, Hotel South - Recreation West – Residential, Hotel, Recreation	

**V. ZONING ORDINANCE CONSISTENCY**

The proposed project would meet the requirements of the P-R/S-D-3, HRC-1 & 2/S-D-3, and C-2/S-D-3 Zones, because it is a project to improve flood control that would be allowed in any zone in the City.

**VI. ISSUES**

**A. DESIGN REVIEW**

The design of the project is still in the conceptual stage and construction details have not yet been developed. However, the Lower Mission Creek Design Subcommittee has reviewed the project in concept. The Subcommittee includes representatives of the Historic Landmarks Commission (HLC), Architectural Board of Review and the Planning Commission. At this point, a conceptual design has not been developed for the Mason Street bridge. The proposed conditions of approval require HLC review and approval and subcommittee review, as well as participation by neighboring properties in the final design of bridges, wall and habitat restoration areas.

**B. COMPLIANCE WITH THE GENERAL PLAN/LOCAL COASTAL PLAN**

The project site is within the West Beach and Lower State Street neighborhoods. West Beach is characterized by a combination of Spanish-style motels along the ocean frontage that merge into a residential area of single and multi-family dwelling units to the north. The Lower State Street area includes a mixture of commercial and industrial uses with some retirement homes and semi-residential hotels. The proposed project is a flood control improvement project that

would facilitate safer use of both these areas and upstream of these areas within the Mission Creek watershed. Applicable General Plan and Coastal Plan Policies are attached in Exhibit B.

**1. General Plan Policies**

Cultural and historic resources goals call for preservation and enhancement of significant archaeological and historic resources and avoidance of damage to these resources. The project would result in the removal of the structure at 15 West Mason Street, which is a designated Structure of Merit, a significant historic resource. The loss of this structure cannot be avoided because there is insufficient room to construct the project if this structure were to remain. A range of alternatives was considered, but no alternative was identified that achieved the basic project objective of widening the creek in order to increase hydraulic capacity. The City Council recognized that this loss would occur and found that this loss is acceptable when weighed against the benefits of reduced flooding in a larger area. The City Council made these findings recognizing that reduced flooding would increase people and property safety, increase property values, reduce flood insurance costs and increase property tax revenue to the City. Additionally, alternatives that preserved this structure would have resulted in the loss of structures in the 100 block of Chapala Street. Most of the structures adjacent to Mission Creek along this block of Chapala Street are eligible to be designated Landmarks and for inclusion in both the California and National Register of Historic Resources. Their loss would be even more significant than the loss of 15 West Mason Street. The project would be as consistent with this policy as possible while addressing the need to reduce flooding in the area.

Visual resources goals seek to protect and enhance the scenic character of the City and restore, maintain, enhance, and manage the creekside environments within the City as visual amenities, where consistent with sound flood control management and soil conservation techniques. Development shall not degrade the creeks or their riparian environments. The proposed project would degrade the visual appearance temporarily in a sequence of segments of the creek during construction, but when construction is completed and vegetation has matured, the visual appearance of the area would be improved or restored. The project would be consistent with the visual resources policies of the City.

Air Quality goals require the City to maintain air quality above Federal and State ambient air quality standards. The project would not result in substantial operational air emissions because it would only create minor emissions during routine maintenance. Construction emissions would not exceed the annual threshold and would be reduced by proposed mitigation measures and standard conditions of approval. Therefore, the project would be consistent with the air quality goals.

Biological resources goals seek to enhance and preserve the City's critical ecological resources, including intertidal and marine resources. The project would include mitigation measures designed to ensure that impacts on sensitive fish species are not substantial by avoiding certain periods of construction and using construction techniques that exclude sensitive species from the construction area. Also, maintenance techniques require that precautions be taken to minimize silt releases into the creek. The project also includes elements designed to enhance fish habitat including boulder clusters, fish ledges, enhanced riparian habitat, expansion of the lagoon, and provision of grout lines. Therefore, the project is consistent with these goals.

Drainage and flood control goals ensure that human habitation of the City's floodplains does not adversely affect public health, safety, and welfare. The proposed project would contribute to improving drainage in the area, reducing the exposure of people and structures to flooding. Therefore, the project is consistent with these goals.

Transportation goals require that the City provide a major street system adequate to serve the City's projected population at a level of service that would allow the free flow of peak hour traffic. While the project would have short term traffic construction impacts, it would ultimately ensure that the existing street system is subject to reduced flooding and would improve the Mason Street Bridge consistent with transportation goals. The project includes conditions of approval designed to minimize impacts associated with construction traffic including avoidance of peak traffic hours, use of approved routes, provision of parking/storage spaces, and use of traffic controls. Therefore, the project is consistent with these goals.

The Scenic Highways Element includes goals intended to protect and enhance of the natural scenic resources of potential scenic highway corridors, including Cabrillo Boulevard, and assure that scenic highways incorporate not only safety, utility and economy, but also beauty. The Scenic Highways Element specifically calls for improvement of Mission Creek at Cabrillo Boulevard. The project would ultimately improve the visual quality of Mission Creek by providing expanded riparian areas, an improved Mason Street Bridge, and more visually pleasing creek bank improvements. Vegetation would be added on the periphery of the lagoon below Cabrillo Boulevard. Therefore, the project is consistent with these goals.

Noise Element goals seek to ensure that the City is free from excessive noise and abusive sounds and includes strategies that are developed for abatement of excessive noise levels and existing low noise levels are maintained and protected. Project construction would increase area noise levels temporarily. Most noise would be restricted to weekday daytime hours when fewer residents would be present and people are less sensitive to noise exposure. Noise levels would be minimized by requiring shielding of pile driving equipment, notice to warn the public, and temporary exclusion of the public from high noise exposure areas. Therefore, the project is consistent with these goals.

## **2. Local Coastal Plan**

Policies 6.3 through 6.7 do not permit seawalls, revetments and bulkheads unless the City has determined that they are necessary and that there are not less environmentally or aesthetically damaging alternatives such as relocation of structures, sand augmentation, groins, drainage improvements, etc. The certified EIS/EIR evaluated a range of alternatives and found the proposed project alternative (Alternative 12) to be the only feasible alternative that could provide the needed flood control improvements. No construction other than installation of vegetation would occur on the sandy beach. Therefore, the project is consistent with these policies.

Policy 6.8 seeks to maintain, preserve, enhance, and restore riparian resources, biological productivity, and water quality. The proposed project would include measures to protect sensitive biological resources and water quality during construction. Measures include avoidance of construction in the water during sensitive periods and dewatering with precautions

to relocate fish from the construction area and monitoring construction to ensure fish are not harmed. Both during construction and maintenance the project would include precautions including installation of silt fences and dewatering the construction area to avoid sediments being released into surface water. Once constructed, the project would expand the estuary providing additional sensitive species habitat and enhance the areas around the creek by repairing damaged creek banks and installing new vegetation in expanded riparian areas and above creek banks. Therefore, the project is consistent with this policy.

Policy 6.11-A requires new highway bridges to be designed to provide clear spans of the stream or creek, to avoid the use of pilings within the stream or creek corridor and prohibits putting creek channels in culverts. The Mason Street bridge would be designed to span Mission Creek without the need for pilings in the creek bed. The culvert would only bypass high flows around the existing oxbow in Mission Creek and so would not result in putting an existing creek into a culvert. Therefore, the project is consistent with this policy.

Policies 6.11-B and C require new highway structures be designed to protect stream and creek environments from non-point pollutants (such as oil and rubber residues from the road surface) and from accidental spills of toxic materials and an emergency response and cleanup plan to address accidental releases of toxic materials. The proposed bridge would be the only highway structure associated with the project. The drainage from the new bridge would be filtered to ensure that contaminants from the road surface are minimized. The project applicant is required to prepare and implement a Stormwater Pollution Prevention Program as a part of the project construction. Therefore, the project is consistent with this policy.

Policy 9.1 requires that existing views to, from, and along the ocean and scenic coastal areas be protected, preserved, and enhanced. The proposed project would not block any views and would enhance the visual appearance of the area in the long term. Therefore, the project is consistent with this policy.

Policy 9.17 requires that materials, colors, and textures used in new highway structures be appropriate to the Santa Barbara region. The project would use colored concrete cast in forms to resemble sandstone walls. Mason Street Bridge design would be reviewed by the Lower Mission Creek Design Subcommittee and the HLC to ensure that the design fits in with the neighborhood. Therefore, the project is consistent with this policy.

### **C. ENVIRONMENTAL REVIEW**

The Final Lower Mission Creek Flood Control Project Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was certified by the Planning Commission on June 28, 2001. The certified Final EIS/EIR included an environmental analysis of the impacts of the construction and operation of the proposed bypass culvert, Mason Street Bridge replacement, creek bank restoration, and creek widening. Since an EIR is being relied upon for the environmental review for the project, environmental findings must be made (CEQA Guidelines Section 15091) and a Mitigation Monitoring and Reporting Program (MMRP) adopted that includes the measures designed to reduce any environmental effect.

The Final EIS/EIR for the larger project (i.e. including the segment above U.S. Highway 101 to Canon Perdido Street) identified significant unavoidable adverse impacts for short-term

aesthetics, cultural resources, and short-term traffic. The construction of the portion of the project south of U.S. Highway 101 would result in impacts in the areas of cultural resources, construction noise, and short-term traffic that could rise to the level of significant impact. However, these impacts (except for Cultural Resource impacts) would be reduced to less than significant levels by applicable mitigation measures required in the EIS/EIR and provided in the attached MMRP.

Several of the impacts identified as significant mitigable and unavoidable in the Final EIS/EIR are not applicable to this project because it is in a geographical area that is not associated with the impact identified. These impacts include those to specific land uses north of Highway 101, and specific identified cultural resources. The Addendum attached as Exhibit E provides additional information regarding project impacts and mitigation measures.

## **VII. FINDINGS**

The Planning Commission finds the following:

### **A. ENVIRONMENTAL FINDINGS:**

1. The final EIR has been completed in compliance with CEQA; and
2. The Planning Commission has read and considered the Lower Mission Creek Flood Control Project Feasibility Study and Environmental Impact Statement/Environmental Impact Report (EIS/EIR), including the following items incorporated by reference:
  - a. Biological Opinion on the Construction and Maintenance of Flood Control Channel on lower Mission Creek, Santa Barbara, County, California, prepared by National Marine Fisheries Service, August 2, 2000 (Steelhead).
  - b. Biological Opinion for Lower Mission Creek Flood Control Project, Santa Barbara County, California, prepared by the U.S. Fish and Wildlife Service, June 1, 2001 (Tidewater goby).
  - c. The Tidewater Goby Management Plan prepared by the Corps of Engineers, Los Angeles District, County of Santa Barbara, and City of Santa Barbara, April 2005.
  - d. Channel Design Recommendations, Lower Mission Creek Flood Control Project, Prepared by URS Corporation, June 2005
  - e. Conditions imposed by the California Coastal Commission on August 9, 2001 and approved on November 13, 2001, as follows:
    - (1) Tidewater Goby Studies, Management Plan and Recommendations:  
That the Applicant, with input from interested biological experts, shall conduct Tidewater Goby studies and develop a Management Plan for Tidewater Gobies in the Mission Creek Estuary. This

requirement was met in by the preparation of the report referenced in item c. above.

- (2) Maintenance Plan: The Applicant shall develop a new adaptive creek maintenance plan that includes hand clearing and that minimizes the use of herbicides and heavy equipment. The Maintenance Plan shall be submitted to the California Coastal Commission as part of the consistency determination for the design phase review of the Lower Mission Creek Flood Control Project. The draft maintenance plan was reviewed by the California Coastal Commission as part of its second approval of the Coastal Zone Consistency Determination.
  - (3) Pilot Channel Design: The Applicant shall develop a new pilot channel configuration for the Lower Mission Creek Flood Control Project. This requirement was met by the preparation of the report referenced in item d. above.
  - (4) Landscaping Plan: The Applicant shall develop a new Landscaping Plan that includes native landscaping along all reaches of the project length on both sides of the creek including segments adjacent to vertical floodwalls where vegetated rip-rap banks are not proposed. The Plan shall include provisions for planting on private property to ensure a continuous riparian corridor wherever space physically permits. The Landscaping Plan shall be submitted to the California Coastal Commission as part of the Lower Mission Creek Flood Control Project. The draft landscaping plan was reviewed by the California Coastal Commission as part of its second approval of the Coastal Zone Consistency Determination.
3. The final EIR reflects the Planning Commission's independent judgment and analysis.
  4. The Lower Mission Creek Flood Control Project EIS/EIR identifies significant unavoidable impacts to cultural resources within this project scope. No feasible mitigation measures have been identified which could reduce these impacts to a less than significant level.
  5. Changes and/or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the following significant effects identified in the EIS/EIR: geology impacts, water and air quality impacts, biological resources impacts, land use impacts, socioeconomic impacts, aesthetic impacts, recreation impacts, hazardous, toxic waste impacts and safety impacts, summarized as follows:

- a. Construction and maintenance-related water quality impacts will be mitigated to less than significance by prohibiting construction and maintenance during flowing water or heavy rains and from December 1<sup>st</sup> through April 15<sup>th</sup>. A low flow diversion channel will be established during construction and maintenance. Water Quality Certification conditions have been met. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared prior to construction and implemented. All stockpiles and equipment storage will be prohibited within the creek banks.
- b. Construction and maintenance-related air quality impacts from fugitive dust increases will be mitigated to less than significance by watering the construction and maintenance areas daily, covering material transported in trucks, limiting vehicle speeds and ceasing grading and earth movement when wind speeds exceed 15 mph or as confirmed by SBCAPCD.
- c. Construction and maintenance-related noise impacts will be mitigated to less than significance by following the City of Santa Barbara Noise Ordinance, prohibiting construction between 7:00 PM and 7:00 AM, prohibiting heavy equipment operation before 8:00 AM and after 7:00 PM, prohibiting all construction on Sundays and holidays and requiring truck traffic to follow designated routes.
- d. Construction-related impacts on the Steelhead trout will be mitigated to less than significance by prohibiting construction in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup>; prohibiting construction in the estuary between December 1<sup>st</sup> and May 31<sup>st</sup>; requiring a biologist to survey the area for steelhead prior to commencement of construction; placement of ledges, rocky side baffles, and mid-stream boulder clusters in the project area; and establishment of a natural bottom throughout the construction area. In addition, all conditions contained in the Biological Opinion, dated August 2, 2000, and prepared by the National Marine Fisheries Service, will be incorporated into the final project design.
- e. Maintenance-related impacts on the Steelhead trout will be mitigated to less than significance by prohibiting maintenance in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup>; prohibiting maintenance in the estuary; and requiring a biologist to survey the area for steelhead prior to commencement of maintenance. In addition, all maintenance-related conditions contained in the Biological Opinion, dated August 2, 2000, and prepared by the National Marine Fisheries Service, will be incorporated into the final maintenance plan.

- f. Construction-related impacts on the Tidewater goby will be mitigated to less than significance by prohibiting construction in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup>; prohibiting construction in the estuary between December 1<sup>st</sup> and May 31<sup>st</sup>; excluding gobies from half the estuary at a time and moving them to the wet side while dewatering the working area; placement of fish baffles and rocky side baffles in the estuary and substantially expanding that portion of the estuary above Cabrillo Boulevard. In addition, all conditions contained in the Biological Opinion, dated June 1, 2001, and prepared by the United States Fish and Wildlife Service, will be incorporated into the final project design.
- g. Maintenance-related impacts on the Tidewater goby will be mitigated to less than significance by prohibiting maintenance in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup> and prohibiting maintenance in the estuary. In addition, all maintenance-related conditions contained in the Biological Opinion, dated June 1, 2001, and prepared by the United States Fish and Wildlife Service, will be incorporated into the final maintenance plan.
- h. Construction and maintenance related impacts on aquatic and stream bank habitat will be mitigated to less than significance by all of the above measures outlined for construction and maintenance-related impacts on the Steelhead trout and Tidewater goby; removal of invasive weeds; installation of temporary above-ground irrigation systems on the bank; installation of native trees from local genetic stock; replacement of any native trees that die within the first five years with local genetic stock; and by preparation and implementation of a maintenance plan that will use a "mosaic" approach to removal of streambed vegetation; and all measures contained in the Biological Opinions for the Steelhead trout and Tidewater goby outlined above.
- i. Construction-related impacts on large native trees will be mitigated to less than significance by protecting as many of the trees as feasible during final design and by planting replacement trees of species native to riparian habitats from local genetic stock on the banks and habitat expansion zones. The City of Santa Barbara will also establish a program to encourage the planting of native riparian trees and other plants on private property along Mission Creek.
- j. Construction-related impacts on land use and socio-economics will be mitigated to less than significance by purchasing affected property at fair market value and providing relocation assistance as required by state and federal law.

- k. Construction-related aesthetic impacts will be partially mitigated in the short-term by planting upper banks with natural vegetation; creating habitat expansion zones with natural vegetation; planting vines on vertical walls; using concrete forms, colors and textures to enhance concrete walls; and designing bridges and fencing to fit into the neighborhood character. These impacts will be mitigated to less than significance once plantings grow five to ten years.
- l. Construction-related short-term recreation impacts will be mitigated to less than significance by planting along the upper banks of the project and by creating habitat expansion zones with recreational value.
- m. Construction-related hazardous and toxic waste impacts will be mitigated to less than significance by requiring the preparation and implementation of a SWPPP, as outlined under water quality impacts above, and requiring testing of creek sediments prior to construction. Based on the tests, a plan for reducing contamination to acceptable levels shall be prepared and implemented in coordination with the Regional Water Quality Control Board and the Santa Barbara County Department of Environmental Health Services.
- n. Construction-related traffic and parking impacts will be partially mitigated and safety impacts mitigated to less than significance by requiring a truck routing plan to be prepared and implemented which includes avoidance of impacted intersections and peak traffic hours and reduction of conflicts between trucks and other traffic through the provision of a traffic control monitor and noticing of residents and businesses. In addition, a construction parking plan will be required.
- o. Construction-related cultural resource impacts will be mitigated to less than significance for all historic resources except 15 West Mason Street by avoidance or by recordation of historic resources using the Historic American Building Survey and Historic American Engineering Records (HABS/HAER) standards and by surveying West Beach neighborhoods (already completed) and designating appropriate landmark districts based on the outcome of such surveys. Demolition of 15 West Mason Street remains significant and unavoidable. The applicant indicates that removal of the property at 134 Chapala Street (a City Structure of Merit) can be avoided. However, if during final design the applicant finds that it is necessary to remove the structure at 134 Chapala Street, mitigation requiring recordation of historic resources using HABS/HAER standards would be implemented to ensure that this potential impact is not significant.

- p. Construction-related cultural resource impacts will be mitigated to less than significance for all archaeological resources by archaeological monitoring of any potential sites and, if resources are found, stopping work in the area, determining their significance and, if significant, developing and carrying out an appropriate mitigation plan, subject to approval by the Historic Landmarks Commission and the Environmental Analyst.

**B. SPECIFIC ECONOMIC, SOCIAL OR OTHER CONSIDERATIONS MAKE INFEASIBLE THE PROJECT ALTERNATIVES IDENTIFIED IN THE FINAL FEASIBILITY STUDY AND EIS/EIR FOR THE FOLLOWING REASONS:**

1. Other alternatives do not meet the objectives of providing flood control improvements and environmental benefits and meeting the benefit:cost ratio minimum of 1:1, as required by the regulations of the U.S. Army Corps of Engineers.
2. The City of Santa Barbara and the Santa Barbara County Flood Control and Water Conservation District do not have the financial resources on their own to pay for flood control improvements that might be environmentally superior from the standpoint of biological resources.
3. Other alternatives that would maximize biological resources would result in significant unavoidable impacts on cultural resources and loss of housing units, many of them affordable, and would not meet the benefit:cost ratio minimum of 1:1 as required by the regulations of the U.S. Army Corps of Engineers.

**C. STATEMENT OF OVERRIDING CONSIDERATIONS**

The Planning Commission has balanced the benefits of the project against the unavoidable environmental impacts and has concluded that the benefits of the project outweigh the significant cultural resources impact sufficiently to justify approval of the project. The Planning Commission makes the following Statements of Overriding Considerations, which support approval of the project notwithstanding the identified impacts that are not mitigated:

1. The Lower Mission Creek Flood Control Project, as a whole, will result in reduced flood hazards by removing 171 parcels from the 25-year flood plain, 183 parcels from the 50-year flood plain and 104 parcels from the 100-year floodplain. Flood hazards and potential flood damage would be reduced for all parcels remaining in these floodplain areas.
2. Parcels no longer in the 100-year floodplain as a result of the Lower Mission Creek Flood Control Project improvements would not be required to purchase annual flood insurance after the Flood Insurance Rate Map is revised to reflect the new floodplain. This would result in decreased costs to the property owners and, potentially, to any tenants.

3. The improved flood control may result in improved property values, ultimately increasing property tax revenues to the County and City of Santa Barbara.
4. Demolition of 15 West Mason Street will allow for an alignment of Mission Creek that would preserve the integrity of the 100 block of Chapala Street and the house at 20 West Mason Street. Protection of these other resources preserves a more significant part of Santa Barbara's architectural and historical integrity. The structure at 15 West Mason Street is designated as a City Structure of Merit while the structures at 20 West Mason Street and 116, 118 and 120 Chapala Street are eligible for designation as City Landmarks and for inclusion on the California Register of Historic Resources and the National Register of Historic Places. In addition, they would be contributing elements of a potential National Register District.
5. In the long-term, the Lower Mission Creek Flood Control Project is anticipated to result in improved biological resources and aesthetic appearance of the creek by:
  - a. Restoring the major plant species of a native riparian community;
  - b. Enhancing the habitat for steelhead in the lower creek;
  - c. Removing and suppressing invasive non-native vegetation and replacing it with native vegetation;
  - d. Removing man-made construction materials along the creek bottom and restoring much of the lower creek to a natural bottom;
  - e. Increasing the size of that portion of the estuary above Cabrillo Boulevard, which may provide increased benefits for the Tidewater goby.
  - f. The improved riparian habitat will also improve the appearance of the creek for the community and specifically for the adjacent property owners and tenants, potentially enhancing property values and ultimately increasing property tax revenues to the County and City of Santa Barbara.
6. The Mitigation Monitoring and Reporting Program contained Exhibit F attached to the Staff Report of the Final EIS/EIR is hereby adopted by the City of Santa Barbara to the degree for which it has responsibility to carry out the mitigation measures.
7. The record for the Feasibility Report and Final EIS/EIR is under the custodianship of the City of Santa Barbara.

**D. COASTAL DEVELOPMENT PERMIT (SBMC §28.44.060)**

For the reasons stated above in Section VI.B and based on the entirety of the record, including this staff report, the Final EIS/EIR, and the addendum, the Planning Commission makes the following findings:

1. The project is consistent with the policies of the California Coastal Act.
2. The project is consistent with all applicable policies of the City's Local Coastal Plan, all applicable implementing guidelines, and all applicable provisions of the Code.
3. The project is consistent with the Chapter 3 (commencing with Section 30200) Policies of the Coastal Act regarding public access and public recreation.

Exhibits:

- A. Conditions of Approval
- B. Site Plan
- C. Applicant's letter, dated December 21, 2007
- D. Applicable General Plan/Local Coastal Plan Policies
- E. EIS/EIR Addendum with detailed Project Description, graphics, and Arborist Report
- F. Mitigation Monitoring and Reporting Program (MMRP)

## PLANNING COMMISSION CONDITIONS OF APPROVAL

MISSION CREEK SOUTH OF U.S. HIGHWAY 101  
MISSION CREEK FLOOD CONTROL PROJECT  
*COASTAL DEVELOPMENT PERMIT*  
SEPTEMBER 11, 2008

In consideration of and for the benefit of the Applicant(s) and occupant(s) of the Real Property, the Applicants and occupants of adjacent real property and the public generally, the following terms and conditions are imposed on the use, possession, and enjoyment of the Real Property:

- A. **Project Description** The development of the Real Property approved by the Planning Commission on September 18, 2008 is limited to the improvements shown on the plans signed by the chairman of the Planning Commission on said date and on file at the City of Santa Barbara. This project would result in the construction of an oxbow bypass culvert between the northern edge of U.S. Highway 101 and Chapala Street, widening of Mission Creek south of the bypass by up to a maximum of 60 feet, and construction of vertical banks, and vertical banks with vegetated slopes in expanded riparian habitat areas in two areas where existing structures would be removed. The oxbow bypass would not be connected to Mission Creek north of Highway 101 as part of this permit. The Mason Street bridge would be replaced. Total material to be excavated is estimated to be 21,000 cubic yards. The project includes construction of fish ledges, use of grout lines in sandstone walls for tidewater goby hideouts, and use of boulder clusters to improve fish habitat. Revegetation of a portion of the lagoon south of Cabrillo Boulevard, installation of riparian vegetation above the creek banks, and maintenance of the facility is also proposed. Due to the scope of this project, this approval shall be valid as long as the work commences within ten (10) years from the date of approval of the Coastal Development permit approved by the Coastal Commission for the portion of the project located within the Coastal Commission's original jurisdiction.
- B. **Landscape Plans:** The Applicant shall comply with the Landscape/Restoration Plans as approved by the Historic Landmarks Commission (HLC). Such plan shall not be modified unless prior written approval is obtained from the HLC. The landscaping on the Real Property shall be provided and maintained in accordance with said landscape/restoration plan.
- C. **Design Review.** The following items are subject to the review and approval of the Historic Landmarks Commission (HLC). HLC shall not grant preliminary approval of the project until the following conditions have been satisfied.
1. **Tree Removal and Replacement.** All trees removed, except fruit trees and street trees approved for removal without replacement by the Parks Department, shall be replaced on-site on a one-for-one basis with a native species propagated from seeds or seedlings collected from within the Lower Mission Creek corridor.
  2. **Moreton Bay Fig Tree Protection Measures.** The landscape plan(s) and grading plan(s) shall include the following tree protection measures:

- a. **Arborist's Report.** Include a note on the plans that recommendations/conditions contained in the arborist's report prepared by Dan Condon Arboricultural Consulting, dated December 19, 2007, shall be implemented.
  - b. **Arborist Monitoring.** An arborist with knowledge of root systems of large ornamentals shall monitor bypass culvert construction to minimize impacts to the Moreton Bay Fig Tree. [BIO-14]
  - c. **Root Protection:** Any Moreton Bay Fig Tree root over 2 inches in diameter that must be cut during excavation shall be cleanly severed using a sharp hand cutting tool. [BIO-15]
  - d. **Construction Buffer:** Install a construction fence as near as possible to the limit of the excavation trench on the Moreton Bay Fig Tree buffer side. No parking or storage of construction equipment would be allowed in the buffer area. [BIO-18]
  - e. **Tree Protection Excavation:** All excavation on the channel near the Moreton Bay Fig Tree shall be made from the side of the culvert opposite from the Moreton Bay Fig Tree. [BIO-19]
  - f. **Tree Protection Mulching:** Prior to the initiation of culvert construction, remove all turf grass between the edge of the excavation trench and the drip line of the Moreton Bay Fig Tree and mulch the entire area with two-inch deep composted organic mulch to be approved by the City Arborist. [BIO-20]
3. **Tree Protection Measures.** The landscape plan (and grading plan) shall include the following tree protection measures for other trees in the project area:
- a. **Landscaping Under Trees.** Landscaping under the tree(s) shall be compatible with the preservation of the tree(s).
  - b. **Oak and Sycamore Tree Protection Measures.** The following provisions shall apply to existing oak and sycamore trees in the project area:
    - (1) Landscaping provided under the oak and sycamore trees shall be compatible with preservation of the trees as determined by the HLC. No irrigation system shall be installed under the dripline of any oak tree.
    - (2) Oak trees greater than four inches (4") in diameter at four feet (4') above grade removed as a result of the project shall be replaced at a (three to one (3:1)) (five to one (5:1)) (ten to one (10:1)) ratio, at a minimum five (5) gallon size, from Lower Mission Creek watershed stock.

4. **Crime Analyst Plan Review.** The Developer shall meet with the City Police Department Crime Analyst prior to Preliminary Approval to determine how lighting, locking mechanisms, egress, and fencing with special emphasis on culvert and expanded habitat access can be designed and installed to reduce the potential number of calls for police service resulting from unauthorized use of the Real Property.
  5. **Screened Check Valve/Backflow.** The check valve or anti-backflow devices for irrigation systems shall be provided in a location screened from public view.
  6. **Bank Planting.** Upper creek banks shall be planted with native vegetation. [AES-1]
  7. **Vertical Walls/Fences.** Plant vines along the vertical walls to minimize visual impacts; cover concrete with natural color and texture. If fencing is installed in the project design for safety purposes, plant vines along fencing to minimize impacts. Upgraded fence materials shall be used in areas visible or accessible to the public. [AES-2]
  8. **Concrete Treatment.** Aesthetic treatment, including the use of colored concrete and/or pouring concrete in forms that would mimic existing sandstone walls or natural vertical creek banks, shall be incorporated into project plans to minimize project-related impacts. [AES-3]
  9. **Bridge Design.** Mason Street Bridge shall be designed to retain an appearance appropriate to the character of the neighborhood in which it is located. Design of the bridge shall be reviewed and approved by the Historic Landmarks Commission. [AES-4]
- D. **Community Development Requirements Prior to Building or Public Works Permit Application/Issuance.** The following shall be finalized prior to, and/or submitted with, the application for any Building or Public Works permit:
1. **Project Environmental Coordinator Required.** Submit to the Planning Division a contract with a qualified representative for the Applicant, subject to approval of the contract and the representative by the Planning Division, to act as the Project Environmental Coordinator (PEC). The PEC shall be responsible for assuring full compliance with the provisions of the Mitigation Monitoring and Reporting Program (MMRP) and Conditions of Approval to the City. The contract shall include the following, at a minimum:
    - a. The frequency and/or schedule of the monitoring of the mitigation measures.
    - b. A method for monitoring the mitigation measures.
    - c. A list of reporting procedures, including the responsible party, and frequency.
    - d. A list of other monitors to be hired, if applicable, and their qualifications.

- e. Submittal of biweekly reports during demolition, excavation, grading and footing installation and biweekly reports on all other construction activity regarding MMRP and condition compliance by the PEC to the Community Development Department.
  - f. The PEC shall have authority over all other monitors/specialists, the contractor, and all construction personnel for those actions that relate to the items listed in the MMRP and conditions of approval, including the authority to stop work, if necessary, to achieve compliance with mitigation measures.
2. **Neighborhood Notification Prior to Construction.** At least twenty (20) days prior to commencement of construction, the contractor shall provide written notice to all property Applicants, businesses, and residents within 300 feet of the project area. The notice shall contain a description of the project, the construction schedule, including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) and Contractor(s), site rules and Conditions of Approval pertaining to construction activities and any additional information that will assist the Building Inspectors, Police Officers and the public in addressing problems that may arise during construction. The language of the notice and the mailing list shall be reviewed and approved by the Planning Division prior to being distributed. An affidavit signed by the person(s) who compiled the mailing list shall be submitted to the Planning Division.
  3. **Contractor and Subcontractor Notification.** The Applicant shall notify in writing all contractors and subcontractors of the site rules, restrictions, and Conditions of Approval. Submit a copy of the notice to the Planning Division.
  4. **Traffic Control Plan.** A traffic control plan shall be submitted, as specified in the City of Santa Barbara Traffic Control Guidelines. Traffic Control Plans are subject to approval by the Transportation Manager.
  5. **Archaeological Monitoring Contract.** Submit to the Planning Division a contract with an archaeologist from the most current City Qualified Archaeologists List for monitoring during all ground-disturbing activities associated with the project, including, but not limited to, grading, excavation, trenching vegetation or paving removal and ground clearance near archaeological sites CA-SBA-27 and SBA-28. The contract shall be subject to the review and approval of the Planning Division.

The archaeologist's monitoring contract shall include the following provisions: If cultural resources are encountered or suspected, work shall be halted or redirected by the archaeologist immediately and the Planning Division shall be notified. The archaeologist shall assess the nature, extent and significance of any discoveries and develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash

representative from the most current City Qualified Barbareño Chumash Site Monitors List, preparation of further site studies and/or mitigation.

If the discovery consists of possible human remains, the Applicant shall contact the Santa Barbara County Coroner immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. The Applicant shall retain a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Planning Division grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, the Applicant shall retain a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Planning Division grants authorization.  
**(CR-2)**

6. **Park Commission Tree Removal Approval.** Submit to the Planning Division verification of approval from the Park Commission for the removal of trees with a trunk diameter greater than four (4) inches at a point twenty-four (24) inches above the ground) in the front yard setback.
7. **Arborist's Monitoring.** Submit to the Planning Division an executed contract with a qualified arborist for monitoring of all work within the dripline of all native trees and within 30 feet of the dripline of the Moreton Bay Fig Tree at Chapala Street and Montecito Street. The contract shall include a schedule for the arborist's presence during grading and construction activities, and is subject to the review and approval of the Planning Division.
8. **Letter of Commitment for Pre-Construction Conference.** The Applicant shall submit to the Planning Division a letter of commitment that states that, prior to disturbing any part of the project site for any reason and after the Building and/or Public Works permit has been issued, the General Contractor shall schedule a conference to review site conditions, construction schedule, construction conditions, and environmental monitoring requirements. The conference shall include representatives from the Public Works Department Engineering and Transportation Divisions, the assigned Building Inspector, the Planning Division, the Applicant, the Archaeologist, the Arborist, the Landscape Architect, the Biologist, the Geologist, the Project Engineer, the Project Environmental Coordinator, the Contractor and each subcontractor.
9. **Biology.** A signed contract shall be submitted for the following:
  - a. **Biological Monitor.** A qualified biologist (knowledgeable of steelhead and tidewater goby) shall monitor project construction in the water. Monitoring shall be performed at least twice per week beginning when any construction

- activity is initiated in or above the creek water and occurring every other week until construction in or above the creek water is completed. [BIO-4]
- b. **Invasive Plants.** Invasive weeds (principally giant reed, castor bean, salt cedar, and sweet fennel) shall be removed at least twice a year for the first two years and annually for the next three years following final acceptance of contractor contract completion for each phase of the project. [BIO-10]
  - c. **Native Tree Plantings.** Any native trees removed shall be replaced. Any replacement trees which die within the first five years shall be removed and replaced by the same species from 1-gallon stock. The applicant shall maintain the planted vegetation for the life of the project. Said replacement trees shall be propagated from local genetic stock, primarily in lower Mission Creek. [BIO-11]
  - d. **Growth Monitoring.** The growth rates of the trees and shrubs planted as a part of this project shall be monitored biannually for five years or until vegetation has been established. If the plants do not meet pre-determined growth and survival rates, actions shall be taken to improve growing conditions such as fertilization, increased irrigation and replanting. Achieve 90% success of the planted vegetation at the end of five years of planting, and ensure that vegetation survival rate is equivalent. If 90% success of the planted vegetation is not achieved after five years, the applicant shall ensure achievement of 90% success of the planted vegetation. For the first year after completion of construction, the stream bank corridors and habitat expansion zones shall be monitored every three months. At each monitoring period, a monitoring report shall be prepared and a final report shall be prepared at the end of the five year period. Said reports shall be submitted to the Santa Barbara City Community Development Department and the Santa Barbara County Flood Control and Water Conservation District. Monitoring of planted vegetation shall be conducted at least twice a year for a minimum of five years. [BIO-12]
10. **15 West Mason Street.** Prior to removal of the building at 15 West Mason Street, full Historic American Building Survey (HABS) recordation, including a photographic study of the structure to the neighborhood and a short history of the building that places it in its historic and architectural context, is required prior to issuance of a demolition permit. [CR-3]
  11. **134 Chapala.** If the structure at 134 Chapala is to be removed, complete full HABS documentation, including a photographic study of the relationship of the structure to the neighborhood, and a short history of the building that places it in its historical and architectural context prior to the issuance of a demolition permit. [CR-4]

12. **Waterfront Neighborhood.** Submit the already completed study regarding eligibility of the Waterfront Neighborhood to the City Planning Division. [CR-6] Note that the study has already been completed.
  13. **Property Acquisition.** The applicant shall purchase the property interest and provide compensation to the Applicant and tenants and/or property would be relocated as required by State and Federal law. [LU-1]
- E. **Permit Requirements.** The Public Works Permit shall require the following measures to be included as requirements in the construction contracts and reproduced on the drawings.
1. **Design Review Requirements.** Plans shall show all design, landscape and tree protection elements, as approved by the Historic Landmarks Commission, outlined in Section C. above.
  2. **Prepare a Structural Crack Survey and Video Reconnaissance.** At least twenty (20) days prior to the issuance of a demolition permit, Applicant shall notify owners and occupants of structures within 300 feet of the project site property lines of the opportunity to participate in a structural crack survey and video reconnaissance of their property. Prior to the issuance of a demolition permit, Applicant shall prepare a structural crack survey and video reconnaissance of the property of those owners or occupants who express a desire to participate in the survey. The purpose of the survey shall be to document the existing condition of neighboring structures within 300 feet of the project site property line and more than years old. After each major phase of project development (demolition, grading, and construction), a follow-up structural crack survey and video reconnaissance of the property of those owners and occupants who have elected to participate in the survey. Prior to issuance of Final Acceptance, Applicant shall meet with the owners and occupants who have elected to participate in the survey to determine whether any structural damage has occurred due to demolition, grading or construction at the project site. Applicant shall be responsible for the cost of repairing any structural damage caused by project demolition, grading, or construction on properties that have elected to participate in the survey.
  3. **Design.** Implement a design which causes no constriction to the creek bed, and hence no increase of water velocity compared to existing conditions. [BIO-5]
  4. **Flow Conditions.** Create flow conditions conducive to the passage of steelhead through the length of the project on Mission Creek. [BIO-6]
  5. **Fish Refuges.** Provide permanent refuges appropriate to Tidewater Goby and Steelhead. Restore an important measure of natural heterogeneity in flow characteristics to the riverine portion of the streambed through the creation of boulder fields. Use placement of ledges, grout lines in cast walls, mid-stream boulder clusters, and natural bottom to promote higher quality of in-stream habitat, especially during steelhead migration. [BIO-7]
  6. **Habitat.** Use strategic placement of boulder clusters on the creek bed as energy dissipaters as determined by a qualified biologist and hydrologist. [BIO-8]

7. **Vegetation Establishment.** A temporary, above ground irrigation system shall be installed and maintained for five years to ensure that planted vegetation is established. [BIO-9]
8. **Revegetation Plan.** A final revegetation plan shall be prepared by a qualified biologist that includes the above-stated mitigation measures, indicates how plants and seeds would be collected and grown for the project, and defines success criteria and monitoring in more detail. BIO-13
9. **Potter Hotel Footbridge.** Extend the box culvert downstream of the Chapala Street Bridge as currently designed. [CR-5]
10. **Recreation.** Areas that provide limited passive recreation shall be created where real estate is available. [REC-1]
11. **Fencing/Access.** Provide safety fencing for the public and locations for emergency access. [SAF-1]
12. **Conditions on Plans/Signatures.** The final Planning Commission Resolution shall be provided on a full size drawing sheet as part of the drawing sets. Each condition shall have a sheet and/or note reference to verify condition compliance. If the condition relates to a document submittal, indicate the status of the submittal (e.g., submitted to Public Works Department for review). A statement shall also be placed on the above sheet as follows: The undersigned have read and understand the above conditions, and agree to abide by any and all conditions which is their usual and customary responsibility to perform, and which are within their authority to perform.

Signed:

Applicant		Date
Contractor	Date	License No.
Architect	Date	License No.
Engineer	Date	License No.

F. **Construction Implementation Requirements.** All of these construction requirements shall be carried out in the field by the Applicant and/or Contractor for the duration of the project construction. Community Development Department staff shall review the plans and specifications to assure that they are incorporated into the bid documents, such that potential contractors will be aware of the following requirements prior to submitting a bid for the contract.

1. **Pollution Prevention.** Construction equipment shall be kept in proper working condition and inspected for leaks and drips on a daily basis prior to commencement

of work. The construction contractor shall develop and implement a spill prevention and remediation plan and workers shall be instructed as to its requirements. Construction supervisors and workers shall be instructed to be alert for indications of equipment-related contamination such as stains and odors. Construction supervisors and workers shall be instructed to respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment-related contamination are noted. No refueling or oil change shall occur in the creek bed. [HAZ-1]

2. **Unanticipated Archaeological Resources Contractor Notification.** Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the applicant shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization. [CR-1]

3. **Tree Protection Buffer:** Install a construction fence as near as possible to the limit of the excavation trench on the Moreton Bay Fig Tree buffer side. No parking or storage of construction equipment shall be allowed in the buffer area. [BIO-18]
4. **Tree Protection Excavation:** All excavation on the channel near the Moreton Bay Fig Tree shall be made from the side of the culvert opposite from the Moreton Bay Fig Tree. [BIO-19]
5. **Tree Protection Mulching:** Prior to the initiation of culvert construction, remove all turf grass between the edge of the excavation trench and the and the drip line of

the Moreton Bay Fig Tree and mulch the entire area with two-inch deep composted organic mulch to be approved by the City Arborist. [BIO-20]

6. **Hazardous Materials Contamination.** Prior to construction, borings and soil samples shall be taken at potentially critical areas and analyzed at a qualified laboratory for likely contaminants. If concentrations are detected at or above action levels, remediation action shall be implemented in accordance with federal, state, and county procedures. [HAZ-2]
7. **Sediment Samples.** Prior to the commencement of excavation activities, samples of creek sediments shall be taken to the depth of planned excavation and the same suite of analyses used to characterize the shallow sediments would be used to analyze the deep sediments. In the event actionable concentrations of contaminants are detected by the analyses, the applicant shall develop a plan to identify the extent of contamination. A plan shall then be developed and implemented to comply with applicable laws and regulations related to the identified contamination so that excavation activities do not result in releases of actionable levels of hazardous materials to the environment. [HAZ-3]
8. **Construction-Related Truck Trips.** Construction-related truck trips that will pass through capacity constrained intersections or peak hour level of service problem areas (as designated in the City's Master Environmental Assessment, p. 99) shall not be scheduled during peak hours (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). The purpose of this condition is to help reduce truck traffic on adjacent streets and roadways.
9. **Haul Routes.** The haul route(s) for all construction-related trucks, three tons or more, entering or exiting the staging area or access points, shall be approved by the Public Works Director.
10. **Traffic Control Plan.** All elements of the approved Traffic Control Plan shall be carried out by the Contractor.
11. **Construction Parking/Storage/Staging.** Construction parking and storage shall be provided as follows:
  - a. During construction, free parking spaces for construction workers and construction shall be provided at the staging area or in a location subject to the approval of the Public Works Director. Construction workers are prohibited from parking within the public right-of-way, except as outlined in subparagraph b. below.
  - b. Parking in the public right of way is permitted as posted by Municipal Code, as reasonably allowed for in the 2006 Greenbook (or latest reference), and with a Public Works permit in restricted parking zones. No more than three (3) individual parking permits without extensions may be issued for the life of the project.

12. **Storage.** Storage or staging of construction materials and equipment within the public right-of-way shall not be permitted, unless approved by the Transportation Manager.
13. **Dust Control.** Water the excavation site, storage piles and unpaved roads twice each day of construction - once in the morning and at the end of the construction day; and cover material transported in haul trucks. [AQ-1]
14. **Speed.** Limit vehicle speeds to 15 mph maximums within the construction site and maintenance areas. [AQ-2]
15. **Wind Erosion.** Cease grading and earth movement when wind speeds exceed 15 mph, or as directed by SBCAPCD. Storage piles shall be covered to minimize fugitive dust. [AQ-3]
16. **Construction Dust Control. Tarping.** Trucks transporting fill material to and from the site shall be covered from the point of origin.
17. **Construction Dust Control – Gravel Pads.** Gravel pads shall be installed at all access points to prevent tracking of mud on to public roads.
18. **Construction Dust Control – Stockpiling.** If importation, exportation and stockpiling of fill material are involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.
19. **Construction Dust Control – Disturbed Area Treatment.** After clearing, grading, earth moving or excavation is completed, the entire area of disturbed soil shall be treated to prevent wind pickup of soil. This may be accomplished by:
  - a. Seeding and watering until grass cover is grown;
  - b. Spreading soil binders;
  - c. Sufficiently wetting the area down to form a crust on the surface with repeated soakings as necessary to maintain the crust and prevent dust pickup by the wind;
  - d. Other methods approved in advance by the Air Pollution Control District.
20. **Construction Dust Control – Paving.** All roadways, driveways, sidewalks, etc., should be paved as soon as possible. Additionally, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
21. **Construction Dust Control – PEC.** The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when construction work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to land use clearance for map recordation and land use clearance for finish grading for the structure.

22. **Diesel Engines.** Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible.
23. **Engine Size.** The engine size of construction equipment shall be the minimum practical size.
24. **Amount of Equipment.** The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
25. **Equipment Maintenance.** Construction equipment shall be maintained in tune per the manufacturer's specifications.
26. **Engine Timing.** Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines.
27. **Catalytic Converters.** Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
28. **Certified Pollution Controls.** Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed, if available.
29. **Electric Equipment.** Diesel powered equipment should be replaced by electric equipment whenever feasible.
30. **Limited Idling.** Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible.
31. **Equipment.** To avoid impacts to aquatic resources, no construction equipment shall be operated within the channel and stream bottom between December 1st and March 30th or whenever significant water flows (defined as more than ½" for April and May and more than 1" from June through November) pass down Mission Creek. **[BIO-1]**
32. **Construction Dates.** To avoid impact to steelhead trout and tidewater goby, which are federally listed species, construction shall be restricted to dates between June 1 and December 1st if water flow in the CALTRANS Channel [upstream of Yanonali Street within Mission Creek] is more than 1/2 inch deep. If no continuous surface water flow (defined as more than ½" for April and May and more than 1" from June through November) exists in the CALTRANS Channel after April 15th, construction could occur from then until December 1st. Downstream of Yanonali Street, all construction in Mission Creek shall be performed after June 1, provided no significant stream flows are occurring in Mission Creek. **[BIO-2]**
33. **Construction in the Channel.** No construction shall occur in the flowing water. If water is present during construction, the water shall be diverted by construction of a low flow channel or installation of a pipe as follows:

- a. No construction work is allowed in water in the estuary from December 1 to June 1<sup>st</sup>
  - b. Divide a suitable length of the estuary down the middle with an impermeable barrier, such as sheet piling. The length should be as long as practicable to minimize repetition of this divide and dry procedure for making temporary construction enclosures. A lateral coffer dam in mid-stream shall not be acceptable because of increased turbidity and fine sediments that would be conveyed downstream to the coastal lagoon.
  - c. Dam half the estuary at the upper end with sheet piling
  - d. A qualified biologist shall walk downstream in a zigzag pattern to herd as many fish as possible from the incipient enclosure
  - e. Dam the lower end of the enclosure with sheet piling immediately.
  - f. Fish biologists shall seine the entire contained half thoroughly to remove any gobies and other large organisms to the wet side of the construction enclosure.
  - g. Fish biologists shall monitor the drying enclosure and seine it thoroughly at least twice a week.
  - h. When construction on one side has been completed, the downstream wall of the enclosure shall be removed first, followed by the upstream end.
  - i. The above steps shall be repeated for the opposite bank construction. [BIO-3]
34. **Construction Hours.** Construction (including preparation for construction work) is prohibited Monday through Friday before 7:00 a.m. and after 7:00 p.m., and all day on Saturdays, Sundays and holidays observed by the City of Santa Barbara, as shown below:

New Year's Day	January 1st*
Martin Luther King's Birthday	3rd Monday in January
Presidents' Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4th*
Labor Day	1st Monday in September
Thanksgiving Day	4th Thursday in November
Following Thanksgiving Day	Friday following Thanksgiving Day
Christmas Day	December 25th*

\*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.

When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above

construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out night construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number. [N-1]

35. **Truck Traffic.** Truck traffic shall be limited to designated truck routes, as determined in cooperation with City Transportation Staff. Truck transport shall be permitted between 7 a.m. and 7 p.m., Monday through Saturday and by Condition 8 above that limits construction traffic in impacted intersections during peak traffic times. [N-2]
36. **City Noise Ordinance.** The selected construction contractor shall follow the noise ordinance established by the City of Santa Barbara. [N-3]
37. **Notification.** Property owners and tenants within the project area shall be notified a minimum of 20 days prior to project construction in their area. [N-4]
38. **Equipment.** Any equipment that must be operated during nighttime hours must be individually reviewed and treated with enclosures, barriers, silencers or other techniques as required to reduce the noise at any residential property line to 50 dBA. [N-5]
39. **Silencers.** All equipment used in the project shall be equipped with factory standard or better silencing features in proper working condition. [N-6]
40. **Workers.** Worker hearing conservation requirements shall be incorporated into contract documents and implemented. [N-7]
41. **Minimizing Noise Due to Pile Installation.** In order to minimize the amount of noise and vibration generated by pile installation, the preferred method shall be to use push and twist pile installation techniques. However, should pile driving be necessary, the following shall be required:
  - a. **Public Exclusion.** If CISS piles are driven with a hammer, members of the public shall be kept out of the 120 dB peak noise level area. The public exclusion area is estimated to be 50 feet from the pile insertion location unless reduced by a three or four sided noise barrier reviewed and approved for adequacy by the noise consultant and the City. If a noise barrier is used, the noise consultant shall specify the reduced estimated distance from the pile insertion that would exceed the 120 dB contour wherein the public would be excluded during pile driving. The public exclusion area shall be clearly demarcated and signed as follows: "WARNING NOISE HAZARD AHEAD, you are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes."
  - b. **Barriers.** If CISS piles are inserted, within the area between 50 and 100 feet of the pile insertion point, noise barriers shall be installed that are 8-10

feet high. The barrier design shall be reviewed and approved for adequacy by the noise consultant and the City, and be installed only if the private landowner or business operator consents. In addition, the contactor shall install signs, clearly visible to the public, on all area roadways approximately 150 feet from the construction area that say "WARNING NOISE HAZARD AHEAD, you are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes." [N-8]

42. **Access/Detours.** No access to residences or commercial establishments shall be eliminated. Appropriate detours and traffic control officers would be provided to direct traffic to alternative routes. Alternative routes, including bicycle routes, shall be coordinated with the City of Santa Barbara, Transportation Division. [TRAN-1]
43. **Safety.** During construction, traffic control officers shall be provided at affected intersections to divert traffic to minimize accidents. [TRAN-2]
44. **Notification** Notify residents and commercial owners of proposed construction in their area at least 20 days before initiation of construction in the vicinity of their neighborhood to advise them of location, time and duration of construction. [TRAN-3]
45. **Damage.** Identify damage caused by construction vehicles and repair damaged facilities. Identify responsible agency or individuals to repair the damaged roads and assure that repair work is completed. [TRAN-4]
46. **Equipment amount, size and speed.** Limit the number and size of vehicles and reduce speed limits. [TRAN-5]
47. **Phases.** Perform project construction in sections as proposed. [TRAN-6]
48. **Notification.** Provide notification to affected landowners prior to disruption of utilities. [UTIL-1]
49. **Dewatering.** The creek channel upstream of construction activity shall be dammed temporarily to prevent water from entering the reach under construction. A diversion pipe shall be installed in the creek to convey any creek water around the construction area for discharge downstream of the construction activity. [WQ-1]
50. **Leaks.** The selected contractor shall develop and implement a spill prevention and remediation plan. [WQ-2]
51. **Time of Construction.** No construction or sediment removal shall occur anywhere within the project area between December 1 and April 15. Construction upstream from the estuary could be accomplished between April 15 and November 30, provided that no continuous surface flow exists. Water flowing deeper than an inch through the CALTRANS Channel (above Yanonali Street) between April 15 and June 1 would require temporary cessation of construction activities in the streambed. [WQ-3]

52. **Turbidity.** Measures to reduce turbidity during the construction of the project and periodic future maintenance shall include installation of pipe, as needed, as well as creation of low-flow channels around construction and debris removal operations to divert water flow and avoid mixing of loose dust particles into creek flow. Details of these mitigation measures are:
- a. Pipe culverts shall be placed in the low flow stream where the stream must be crossed on a regular basis. No work shall be allowed in the flowing water except as absolutely necessary (as determined by the Flood Control District and concerned resource agencies).
  - b. Construction of temporary low-flow channels within the creek during debris removal operations shall be required to minimize turbidity and provide habitat for aquatic species. The low-flow channel shall be constructed around and away from debris removal operations. Project biologists shall develop criteria for the low-flow channels.
  - c. Conditions identified in the federal and state permits (Section 404 permit and Section 401 Water Quality Certification and 1601/1603 Streambed Alteration Agreement) shall be followed during construction and future maintenance as applicable. [WQ-4]
53. **Discharges During Maintenance:** • No discharge of oil or spill of contaminated material shall be allowed within the creek bed. [WQ-5]
- G. **Maintenance:** The following shall apply to future maintenance of the creek:
1. **Routine Maintenance.** All routine maintenance shall be carried out as follows:
    - a. Routine maintenance shall be accomplished between August 1st and October 31st. A front end loader or road grader working together with dump trucks (10 cubic yards) would be used for the bulk of sediment and vegetation removal.
    - b. A pair of silt curtain fences (straw bales) shall be set across the low flow channel not more than 100 yards downstream of the work area; the fences shall be approximately 10 yards apart.
    - c. Any trout present shall be captured by techniques dictated by National Marine Fisheries Service and California Department of Fish and Game and relocated promptly to a suitable refuge. A written report describing in detail any such relocation shall be submitted to National Marine Fisheries Service.
    - d. Mechanized equipment shall enter the creek immediately adjacent to the oxbow. A front end loader would scoop all materials directly from the channel to trucks waiting above adjacent to the railroad lines.
    - e. Sediments and vegetation shall be removed when channel capacity has been reduced by more than 15%. The full width of 33 feet would be cleaned of obstructive materials in the oxbow bypass and would continue to follow

current practices. If storm events do not reduce conveyance more than 15%, then the next maintenance cycle shall involve only mowing of vegetation.

- f. During those maintenance cycles when the County determines silt removal has become necessary, all plants and deposits would be removed. As the final step during maintenance, the pilot channel would be rebuilt following the path where the natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it. A swath half the channel width shall then be mowed or brushed to suppress the growth of potentially large perennials, first along one side as seems convenient for an arbitrary distance (approx. 250 feet), then switching to the opposite bank for another arbitrary distance, while still allowing for the growth of herbaceous perennials and annuals. The pilot channel would not be disturbed.
- g. If sediment removal is not needed the next year, then the other half of the channel shall be mowed and brushed. The pilot channel shall not be disturbed.
- h. If storm events of the next winter rains leave enough sediment to warrant their removal, then during the following summer the full width of that section of the creek shall be groomed to remove obstructing sediments and plants. The pilot channel shall be rebuilt where a natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it. **[BIO-16]**

2. **Fish Habitat Maintenance:** Boulder clusters shall be maintained as follows:

- a. Sediments shall be removed from among boulder clusters and large rocks of the side baffles only as needed to prevent them from being covered completely.
- b. If necessary, sediments shall be dug from the downstream side of boulders with a backhoe equipped with a 3 foot bucket, then dragged toward the center of the creek to be combined with streambed sediments being removed as described previously.
- c. Any individual boulders that might have been dislodged mechanically or displaced by currents would be pushed back into a suitable vacant spot in the baffle and reset.
- d. Any propagules of giant reed or salt cedar that have taken root shall be eliminated. A combination of foliar application of glyphosate or digging out rhizomes with hand tools could be employed. Application of herbicides shall be very limited, confined to only those small locations where the most persistent and aggressive weedy plants begin to reinvade the creek bottom.

- e. The remaining growth shall be cut back using a brush hog, or similar mowing attachment passed a couple feet over the tops of the rocks. The intent is to cut down woody species before they attain much height or stem expansion, but not to eradicate low-growing herbaceous plants that offer negligible friction to water currents. **[BIO-17]**

**NOTICE OF APPROVAL TIME LIMIT:**

This Coastal Development Permit shall be valid as long as the work commences within ten (10) years from the date of approval of the Coastal Development Permit by the Coastal Commission for the portion of the project located within the Coastal Commission's original jurisdiction.



LOWER MISSION CREEK FLOOD CONTROL PROJECT  
 OVERALL PROJECT IMPROVEMENT LIMITS

Drawn By: \_\_\_\_\_  
 Date: \_\_\_\_\_

FIGURE 1

EXHIBIT B







# City of Santa Barbara

Public Works Department

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov)

Main Offices  
630 Garden Street  
P.O. Box 1990  
Santa Barbara, CA  
93102-1990

Administration  
Tel: 805.564.5377  
Fax: 805.897.2613

Engineering  
Tel: 805.564.5363  
Fax: 805.564.5467

Facilities  
Tel: 805.564.5415  
Fax: 805.897.2577

Street Maintenance  
Tel: 805.564.5413  
Fax: 805.897.1991

Transportation Operations  
Transportation Planning  
Tel: 805.564.5385  
Fax: 805.564.5467

Water Resources  
Tel: 805.564.5387  
Fax: 805.897.2613

Granada Offices  
1221 Anacapa Street  
Santa Barbara, CA 93101

Environmental Services  
(Recycling Programs)  
Tel: 805.564.5587  
Fax: 805.564.5688

Downtown Parking  
1221 Anacapa Street  
Santa Barbara, CA 93101  
Tel: 805.564.5656  
Fax: 805.564.5655

July 24, 2008

Ms. Jan Hubbell, Senior Planner  
Planning Division, Community Development Department  
630 Garden Street  
Santa Barbara, CA 93101

SUBJECT: Coastal Development Permit for the Lower Mission Creek Flood Control Project - Coastal Reach

Dear Ms. Hubbell:

Attached, please find the following documents:

- Seven copies of the completed Master Application
- Coastal Development Permit Application forms
- A detailed project description with graphics illustrating the location and type of proposed improvements
- Labeled photographs of the project area
- Two copies of the Arborist's Report, dated December 19, 2007, evaluating project impacts on the Moreton Bay Fig Tree

These materials are submitted in support of our request for a City Coastal Development Permit (CDP) approval for the portion of the project in the Appealable Jurisdiction, and a Recommendation for Approval of a CDP to the California Coastal Commission for the portion of the project in their Original Jurisdiction.

As you are aware, the Lower Mission Creek Flood Control project Environmental Impact Report/Environmental Impact Statement (EIR/EIS) was approved by the City Planning Commission on June 28, 2001, and was approved by City Council in September of 2000. The EIR/EIS covered the area from Cabrillo Boulevard to just south of Canon Perdido Street. At that time, the project sponsor was the US Army Corps of Engineers (Corps). The Corps obtained a Federal Coastal Consistency Determination in August of 2006 for the project that only applied if a Federal Agency undertook the project. Subsequently, due to funding shortfalls, the Corps has been unable to implement the project.

The Planning Division is already in possession of the project description, technical studies, and the environmental review that was conducted for the larger Lower Mission Creek Flood Control Project. This included the portion of the project in the Coastal Zone and the area from Highway 101 north to just south of Canon Perdido Street.

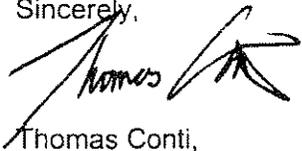
July 24, 2008

The Santa Barbara County Flood Control and Water Conservation District, together with the City of Santa Barbara Public Works Department, now propose to construct the project. The portion of the project in the Coastal Zone (from the northern edge of Highway 101 to the ocean) would require a CDP to allow for the construction.

We propose to construct Alternative 12, the preferred alternative, as identified in the certified Lower Mission Creek Flood Control Project EIR/EIS. This alternative would increase channel capacity to approximately 3,400 cubic feet per second. We trust that much of the documentation from that report will be useful during the review of the proposed project. This project would provide a much needed flood reduction hazard in the lower reaches of the Mission Creek flood plain, and in developed portions of the City. The project would also result in the removal of much of the non-native invasive plant species, planting of native riparian plant species, and the improvement of native habitat in the creek corridor. The proposed project is expected to provide benefits to City residents and native species that use the creek.

Please let us know if we can provide any additional information to facilitate the acquisition of the required permits.

Sincerely,



Thomas Conti,  
Project Engineer

TC/mj

cc: Pat Kelly, Assistant Public Works Director/City Engineer  
Michael Berman, Project Planner

## Exhibit D

### General Plan and Local Coastal Plan Policy

#### General Plan Policies:

#### CULTURAL AND HISTORIC RESOURCES

##### Goals

- Sites of significant archaeological, historic, or architectural resources will be preserved and protected wherever feasible in order that historic and prehistoric resources will be preserved.
- Selected structures which are representative of architectural styles of fifty or more years ago (pre-1925) will be preserved wherever feasible.

##### Policies

- Activities and development which could damage or destroy archaeological, historic, or architectural resources are to be avoided.
- The requirements and restrictions administered by the Landmarks Committee and the Architectural Board of Review will apply to City and other public agencies as well as private projects.

#### VISUAL RESOURCES

##### Goals

- Restore where feasible, maintain, enhance, and manage the creekside environments within the City as visual amenities, where consistent with sound flood control management and soil conservation techniques.
- Protect and enhance the scenic character of the City.
- Protect significant open space areas from the type of development which would degrade the City's visual resources.

##### Policies

- Development adjacent to creeks shall not degrade the creeks or their riparian environments.
- New development shall not obstruct scenic view corridors, including those of the ocean and lower elevations of the City viewed respectively from the shoreline and upper foothills, and of the upper foothills and mountains viewed respectively from the beach and lower elevations of the City.

#### Implementation

##### Strategies

- Development adjacent to creeks shall not degrade the creeks or their riparian environments.

#### AIR QUALITY

##### Goals

- Maintain air quality above Federal and State ambient air quality standards.

##### Policy

- Improve the attractiveness and safety of bicycle use as an alternate mode of travel for short- and medium-distance trips.

## **BIOLOGICAL RESOURCES**

### **Goal**

- Enhance and preserve the City's critical ecological resources in order to provide a high-quality environment necessary to sustain the City's ecosystem.

### **Policy**

- Intertidal and marine resources shall be maintained or enhanced.

## **DRAINAGE AND FLOOD CONTROL**

### **Goals**

- Ensure that human habitation of the City's floodplains does not adversely affect public health, safety, and welfare.

## **TRANSPORTATION ELEMENT**

- Provide a major street system adequate to serve the City's projected population at a level of service below that which would allow the free flow of peak hour traffic.

## **SCENIC HIGHWAYS ELEMENT**

### **Goal**

- The purpose of the scenic highway designation is the protection and enhancement of the natural scenic resources of the highway corridor, and the assurance that the highway incorporates not only safety, utility and economy, but also beauty.
- Improve Mission Creek at Cabrillo Boulevard

## **NOISE ELEMENT**

### **Goal**

To ensure that the City of Santa Barbara is free from excessive noise and abusive sounds such that: a) sufficient information concerning the City noise environment is provided for land use planning; b) strategies are developed for abatement of excessive noise levels; and c) existing low noise levels are maintained and protected.

In defining this goal, primary emphasis should be placed on protecting the general public from noise levels which may be hazardous to hearing. Second in importance is the minimization of noise induced stress, annoyance, and activity interference.

## **LOCAL COASTAL PLAN**

Policy 6.3: Seawalls, revetments and bulkheads shall not be permitted unless the City has determined that they are necessary to, and will accomplish the intent of protecting existing principal structures, and that there are not less environmentally or aesthetically damaging alternatives such as relocation of structures, sand

augmentation, groins, drainage improvements, etc. Determinations permitting such structures shall be based upon the findings and recommendations of geology, soils and engineering reports prepared by licensed and registered professionals in those fields.

Policy 6.4: Where permitted, such structures as seawalls, revetments and bulkheads, shall minimize, to the degree possible, alterations of the natural landform.

Policy 6.5: Seawalls, revetments, bulkheads and all other permitted structures shall not encroach upon any beach area to a degree which impedes lateral access along the beach at any tide condition.

Policy 6.6: Revetments, seawalls, bulkheads, groins, pipelines, outfalls and other necessary permitted construction shall be designed to eliminate or mitigate to the maximum extent adverse impacts on local shoreline sand supply.

Policy 6.7: To avoid the need for future protective devices that could impact sand movement and supply, no permanent above-ground structures shall be permitted on the dry sandy beach except facilities necessary for public health and safety, such as lifeguard towers and restrooms.

Policy 6.8: The riparian resources, biological productivity, and water quality of the City's coastal zone creeks shall be maintained, preserved, enhanced, and, where feasible, restored.

Policy 6.11-A: New highway bridges or other highway improvements should be designed to provide clear spans of the stream or creek and to avoid the use of pilings within the stream or creek corridor. Culverting of the creek channel shall not be permitted.

Policy 6.11-B: New highway structures shall be designed to protect stream and creek environments from non-point pollutants (such as oil and rubber residues from the road surface) and from accidental spills of toxic materials.

Policy 6.11-C: When highway bridges or other structures are replaced or renovated in the vicinity of streams or creeks, an emergency response and cleanup plan shall be prepared by the applicant to address accidental releases of toxic materials.

Policy 9.1: The existing views to, from, and along the ocean and scenic coastal areas shall be protected, preserved, and enhanced.

Policy 9.17: Materials, colors, and textures used in new highway structures shall be appropriate to the Santa Barbara region. Concrete, when used in sound barriers, safety barriers, overpasses, ramps, and other highway structures shall be textured and/or colored in such a manner that the appearance of these structures will be compatible with landscaping, surrounding structures, and exposed soil. Use of wooden barriers and structures shall be encouraged where feasible. Use of metal beam guard rails shall be minimized.



CITY OF SANTA BARBARA

**ADDENDUM TO ENVIRONMENTAL IMPACT REPORT (State Clearinghouse  
#1998101061, MST#92-00465)**

**FOR**

**LOWER MISSION CREEK FLOOD CONTROL PROJECT COASTAL DEVELOPMENT  
PERMIT (CDP), (MST2008-00360/CDP2008-00012)**

(September 9, 2008)

This Addendum is prepared in accordance with State CEQA Guidelines Section 15164, which provides that an Addendum to a previous environmental impact report may be prepared if only minor changes or additions are necessary to make the prior document adequate for the current project.

**PRIOR ENVIRONMENTAL DOCUMENT**

The prior certified Final EIS/EIR (State Clearinghouse #1998101061) was prepared for the Lower Mission Creek Flood Control Project for the Army Corps of Engineers and City of Santa Barbara (joint lead agencies) and was certified on June 28, 2001. Mitigation measures associated with biology, cultural resources, traffic, water quality, air quality and noise impacts were incorporated into the project as conditions of approval. The document concluded that significant unavoidable effects on the environment would result from the project. Areas where significant unavoidable impacts were identified were cultural resources, aesthetics, and traffic. Most impacts were related to the actual construction of the project; however, a few impacts are long-term. The certified Final EIS/EIR analyzed the impacts of the proposed Lower Mission Creek Flood Control Project on Mission Creek from Cabrillo Boulevard to Canon Perdido Street.

**Project Description Changes**

The project (Alternative 12 the preferred alternative) analyzed in the certified Final EIS/EIR is identical to the proposed project except for the following changes:

- The portion of the project analyzed in this Addendum is the area within the Coastal Zone (i.e. south of the northern edge of the U.S. Highway 101 right-of-way). The area north of U.S. Highway 101 is not included because it is already approved and does not need a Coastal Development Permit (CDP). The areas between State Street and Cabrillo Boulevard and the portion of the culvert bypass under the railroad line are not included in this project since these elements already have CDPs.
- The culvert bypass has been shifted to the east so that it would be approximately 10 feet closer to the Moreton Bay Fig Tree than the approved design analyzed in the certified Final EIS/EIR. This was done to ensure that the culvert can align with the design constraints of the culvert beneath the railroad line while retaining hydraulic capacity.

- The Tidewater goby refugia have been modified to use the 3-inch-wide, 2-inch-deep grout lines within the cast concrete panels installed on vertical creek banks. Horizontal grout lines would be filled in periodically to provide additional refugia for gobies. This feature would replace the previously proposed diagonal protruding ribs and would occur wherever the cast sandstone walls would be constructed within the lagoon (up to just south of Yanonali Street, the northern end of the lagoon).
- Revegetation along the edge of Mission Creek Lagoon south of Cabrillo Boulevard has been included as required by the Tidewater Goby Management Plan required by the California Coastal Commission 2006 Coastal Consistency Determination.
- The creek may be narrowed to 55 feet (instead of 60 feet) if detailed hydraulic studies indicate that narrowing of proposed improvements would not reduce the hydraulic capacity of the planned improvements. This would reduce the amount of property required for the project.
- The creek would be allowed to find a low flow channel naturally, as determined by a Pilot Channel analysis prepared as required by the California Coastal Commission Coastal Consistency Determination.

## FINDINGS/CONCLUSIONS OF PRIOR ENVIRONMENTAL DOCUMENT

**Aesthetics.** Construction-related aesthetic impacts would be partially mitigated in the short-term by planting upper banks with natural vegetation; creating habitat expansion zones with natural vegetation; planting vines on vertical walls; using concrete forms, colors and textures to enhance concrete walls; and designing bridges and fencing to fit into the neighborhood character. These impacts would be mitigated to less than significant, in the long term, once plantings grow, approximately five to ten years.

**Air Quality (Short and Long-Term).** Construction and maintenance-related air quality impacts from fugitive dust increases would be mitigated to less than significance by watering the construction and maintenance areas daily, covering material transported in trucks, limiting vehicle speeds and ceasing grading and earth movement when wind speeds exceed 20 mph.

**Biological Resources.** Construction-related impacts on Steelhead trout would be mitigated to less than significance by prohibiting construction in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup> (no work in estuary proposed); requiring a biologist to survey the area for Steelhead prior to commencement of construction; placement of ledges, rocky side baffles, and mid-stream boulder clusters in the project area; construction and alignment of a pilot channel; construction and alignment of a weir above U.S. Highway 101, and establishment of a natural bottom throughout the project area. In addition, all conditions contained in the Biological Opinion, dated August 2, 2000, prepared by the National Marine Fisheries Service, would be incorporated into the final project design.

Maintenance-related impacts on the Steelhead trout would be mitigated to less than significance by prohibiting maintenance in flowing water between December 1<sup>st</sup> and March 31<sup>st</sup>; and requiring a biologist to survey the area for Steelhead prior to commencement of maintenance. In addition, all maintenance-related conditions

contained in the Biological Opinion, dated August 2, 2000, prepared by the National Marine Fisheries Service, would be incorporated into the final maintenance plan.

Construction and maintenance related impacts on aquatic and stream bank habitat would be mitigated to less than significance by all of the above measures outlined for construction and maintenance-related impacts on the Steelhead trout; removal of invasive weeds; installation of temporary above-ground irrigation systems on the banks; installation of native trees from local genetic stock; replacement of any native trees that die within the first five years with local genetic stock; and by preparation and implementation of a maintenance plan that would use a "mosaic" approach to removal of streambed vegetation; reconstruction of the pilot channel to follow the evolving low-flow alignment; and all measures contained in the Biological Opinions for the Steelhead trout.

Construction-related impacts on large native trees would be mitigated to less than significance by protecting as many of the trees as feasible during final design and by planting replacement trees of species native to riparian habitats from local genetic stock on the banks and habitat expansion zones. The City of Santa Barbara would also establish a program to encourage the planting of native riparian trees and other plants on private property along Mission Creek.

Mitigation specifically for the Moreton Bay Fig tree included requirements that a qualified arborist monitor construction of the culvert bypass and large roots are to be medicated properly to minimize damage to the tree.

**Cultural Resources.** Construction-related cultural resource impacts would be potentially significant and would be mitigated to less than significance for all historic resources [except 15 West Mason Street] by 1) avoidance; 2) recordation of historic resources using the Historic American Building Survey and Historic American Engineering Records (HABS/HAER) standards; 3) surveying the West Downtown and West Beach neighborhoods; and 4) designating appropriate landmark districts based on the outcome of such surveys. Surveys of the West Beach neighborhoods and portions of the West Downtown area have already been completed. Demolition of the structure at 15 West Mason Street remains a significant and unavoidable project impact.

Construction-related cultural resource impacts would be mitigated to less than significance for all archaeological resources by archaeological monitoring near potential sites and, if resources are found, stopping work in the area, determining their significance and, if significant, developing and carrying out an appropriate mitigation plan, subject to approval by the Historic Landmarks Commission and the Environmental Analyst.

**Hazardous Waste.** Construction-related hazardous, toxic and radioactive waste impacts would be mitigated to less than significance by requiring the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), as outlined under water quality impacts discussion below. The plan would also require testing of creek sediments prior to construction. Based on the tests, a plan for reducing contamination to acceptable levels shall be prepared and implemented in coordination with the Regional Water Quality Control Board and the Santa Barbara County Fire Department.

**Land Use and Economics.** Construction-related impacts on land use and socio-economics would be mitigated to a less than significance by purchasing affected property at fair market value and providing relocation assistance to any tenants as required by state and federal law.

**Noise.** Construction-related potentially significant noise impacts would be partially mitigated and maintenance-related noise impacts would be mitigated to less than significance by following the City of Santa Barbara Noise Ordinance, prohibiting construction between 7:00 PM and 7:00 AM, prohibiting heavy equipment operation before 8:00 AM and after 7:00 PM, prohibiting all construction on Sundays and holidays and requiring truck traffic to follow designated routes.

**Recreation.** Construction-related short-term recreation impacts would be mitigated to less than significance by planting along the upper banks of the project and by creating habitat expansion zones with recreational value.

**Safety.** Potentially significant impacts associated with people entering the creek bed and culvert were identified. Mitigation proposed was to provide fencing or other types of protection to provide access for safe rescues.

**Traffic.** No long-term significant impacts were identified, but short-term construction impacts were identified as potentially significant and mitigation was provided for traffic control at intersections where construction occurs, detour signs for alternative routes, limiting number size and speed of vehicles, constructing the project in sections, monitoring roads for damage and repairing damage, and providing alternative bicycle routes.

**Utilities.** Potentially significant impacts could be associated with residents experiencing temporary loss of service. Mitigation proposed would be to notify affected landowners in advance of any disruption of service and to minimize the disruption.

**Water Quality.** Construction and maintenance-related water quality impacts would be potentially significant and would be mitigated to less than significance by prohibiting construction during flowing water or heavy rains and from December 1st through April 1st. Maintenance would be allowed between August 1<sup>st</sup> and October 1<sup>st</sup>. A low flow diversion channel would be established during construction and maintenance. Water Quality Certification conditions have been met. A SWPPP would be prepared prior to construction and implementation would be required. All stockpiles and equipment storage would be prohibited within the creek banks.

## **CHANGES IN ENVIRONMENTAL CIRCUMSTANCES**

There has been a change to the environmental setting of the project since the Final EIS/EIR was certified. An area on the north side of Mission Creek just west of State Street that is located on the Harbor View Inn (29 State Street) property was planted with riparian vegetation in 2006 as a part of the hotel construction project. This issue is discussed in the Biological Resources section below.

Since the preparation of the certified Final EIS/EIR, the 2007 Clean Air Plan was adopted. The proposed project would be consistent with the 2007 Clean Air Plan because the project is consistent with the City General Plan that was used to estimate future emissions. No change has occurred in the environmental regulations that were in effect when the Lower Mission Creek Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was certified that would result in a new significant impact. However, the Storm Water Management Plan (SWMP) was adopted by the City of Santa Barbara and became effective in July 2007.

## **CURRENT PROJECT DESCRIPTION**

### **Introduction**

The proposed project is a portion of the Lower Mission Creek Flood Control Project (LMCFCP), alternative 12, and the Tidewater Goby Management Plan. The larger project includes Mission Creek from just downstream of Canon Perdido Street to Cabrillo Boulevard and the lagoon south of Cabrillo Boulevard. The project that would require a Coastal Development Permit (CDP) is the portion of the larger project from the north side of U.S. Highway 101 south to the beach.

### **Project Location**

The proposed improvements include Mission Creek channel from the State Street Bridge to the Yanonali/Chapala Bridge and an Oxbow by-pass culvert from the Yanonali/Chapala Bridge to Highway 101. The culvert alignment goes through the west end of the Railroad Depot parking lot and outside the westerly side of the canopy of the Moreton Bay Fig Tree. It also includes planting native shrubs on the periphery of the lagoon south of the Cabrillo Street Bridge.

### **Project Design**

The project provides approximately 3,400 Cubic Feet per Second (cfs) capacity for the creek, which would correspond to an approximate 20-year return interval storm event per the certified Final EIR/EIS. The 3,400 CFS capacity is now estimated to exceed a 25-year event per 2007 hydrology calculations. Current capacity is approximately 1,500 cfs at the Montecito Bridge, which corresponds to an approximate 5-year return event.

The improved creek follows the existing creek alignment between State Street and the Yanonali/Chapala Bridge. Construction of the new underground culvert would carry high flows and bypass the oxbow once the connection is completed north of Highway 101. The oxbow would be left in place to function as the low flow channel for fish passage. Total material to be excavated for the project, south of Highway 101, has been estimated to be 21,000 cubic yards.

Downstream of the oxbow bypass culvert, the creek would be widened to as much as 60 feet at the top of the channel. The average depth of the creek channel would be 8 to 12 feet. The County and City are also looking at ways to reduce the overall cost of the project by potentially reducing the width of the channel to 55 feet. The possibility for this reduction would be determined during the final design development.

As a result of creek widening that is south of the Yanonali/Chapala Bridge, two small parcels of open land (Figure 3) would be created along the banks after completion of

project construction referred to as "Expanded Habitat Zones" (Figure 4) in the certified EIR/EIS. The size is approximately 0.04 acres with final calculations for the channel's configuration determining the exact size. These open land areas could be designed to serve a dual purpose: to expand the corridor of riparian habitat to be planted along the stream banks, and to provide passive park space for area residents.

Native trees, primarily western sycamores, cottonwoods, and coast live oak from local stock, would be planted in the habitat expansion zones. In time, their canopies would form dense clusters on the creek bank adjacent to the stream corridor. In some of these zones, pathways and benches might also be added to create passive park spaces.

The natural bottom of the creek would be maintained at most locations. Creek banks would consist mainly of vertical walls with the possibility of side sloped bank treatments of ungrouted rock riprap at two Expanded Habitat Zones. The riprap would be covered with topsoil and, when possible, at the Expanded Habitat Zones native willows or branches of other native herbaceous plants would be planted into the riprap to allow sprouting through gaps in order to form a continuous understory of riparian growth. Aesthetic treatment, including cast simulated sandstone walls, would be incorporated into the project design to reduce the visual impacts of concrete vertical walls.

The Corps, along with the City, developed a Landscaping Plan that includes native landscaping along all reaches of the project on both sides of the creek, including segments adjacent to vertical floodwalls where vegetated riprap banks are not proposed. The plan included provisions for planting on private property to ensure a continuous riparian corridor wherever physical space permits. The City would encourage plantings and provide technical guidance to private landowners who own property adjacent to the Creek to assist them in providing suitable native plantings along, and adjacent to, creek banks on their property.

Future maintenance for the life of the project follows an "adaptive maintenance" approach and is included in this project description. Future maintenance of the constructed channel is essential to retain the form and design capacity of the creek.

A detailed project description is attached as Attachment A and all figures referred to in the Addendum are attached to that document.

## **COMPARISON OF PROPOSED PROJECT TO PROJECT ANALYZED IN THE FINAL CERTIFIED EIS/EIR**

### **PROJECT IMPACTS AND MITIGATIONS**

#### **Aesthetics.**

The proposed project would have similar aesthetic impacts to those identified in the already certified EIS/EIR. The project would be reviewed by the Architectural Board of Review (ABR) to ensure that the landscaping and the appearance of the replacement bridge of Mason Street are both aesthetically pleasing. The vegetation removed on the 29 State Street project site would be replaced with a vertical wall/vegetated slope combination. This was proposed in the certified Final EIS/EIR and removal of this small amount of recently planted riparian vegetation would not cause a significant visual

impact. Therefore, no new significant aesthetic impacts are anticipated and no additional mitigation or revised mitigation is required.

### **Air Quality**

Santa Barbara County is considered in attainment of the federal eight-hour ozone standard, and in attainment of the state one-hour ozone standard. The County does not meet the state eight-hour ozone standard or the state standard for particulate matter less than ten microns in diameter (PM<sub>10</sub>); the County does meet the federal PM<sub>10</sub> standard. There is not yet enough data to determine the County' attainment status for either the federal standard for particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) or the state PM<sub>2.5</sub> standard, although the air basin would likely be in attainment for the federal 2.5 standard.

Projects involving grading, paving, construction, and landscaping activities may cause localized nuisance dust impacts and increased particulate matter (PM<sub>10</sub>). Substantial dust-related impacts may be potentially significant, but are generally considered mitigable with the application of standard dust control mitigation measures.

Exhaust from construction equipment also contributes to air pollution. Quantitative thresholds of significance are not currently in place for short-term or construction emissions. However, SBCAPCD uses combined emissions from all construction equipment that exceed 25 tons of any pollutant except carbon monoxide within a 12-month period as a guideline threshold for determining significance of construction emission impacts.

The anticipated increased duration of bridge construction would result in a longer period for particulate emissions. The EIS/EIR evaluated construction emissions and found them to be less than significant. The EIS/EIR included mitigation measures designed to minimize construction emissions. The project would not exceed the annual construction emission threshold of 25 tons per annum. Therefore, construction emissions would not be significant. Standard dust mitigation measures would be included as conditions of project approval and would minimize emissions from this project. Project emissions would be similar to those identified in the certified EIS/EIR for the portion of the project considered in this addendum.

### **Biological Resources.**

The proposed project would result in the removal of approximately 4,700 square feet of riparian vegetation installed at 29 State Street on the north side of Mission Creek and west of State Street. This vegetation was installed pursuant to a CDP Condition of Approval (Resolution 023-04) with the understanding that it may be removed for the LMCFC project. This recently installed riparian area would be replaced with the expanded creek. The proposed project would result in the addition of approximately 28,500 square feet of new creek bed (that can be classified as wetlands) and approximately 1,700 square feet of riparian areas adjacent to the creek. Native trees would be planted above the vertical creek banks where space permits. Since the project would replace the newly installed riparian vegetation with superior wetland habitat and riparian areas would be added adjacent to the creek, removal of the riparian vegetation is not expected to result in a new significant impact. The Certified Final EIS/EIR anticipated the removal of riparian vegetation that existed at the time that the EIR was prepared on the 29 State Street site. Therefore, this level of impact and mitigation is anticipated in the certified Final EIS/EIR.

The culvert bypass has been relocated to be 10 feet closer to the Landmark Moreton Bay Fig Tree than was anticipated in the certified Final EIS/EIR. An Arborist's Report prepared by Dan Condon Arboricultural Consulting (December 19, 2007) evaluated the impacts of moving the culvert bypass closer to the Moreton Bay Fig Tree. The report indicates that 92-98% of the living root system of the tree would be totally unaffected by the new bypass culvert alignment and that groundwater movement to or away from the roots would not be affected by the proposed project. The report further indicates that the realignment of the culvert would not result in any serious impact to the health and long term survival of the tree. The report recommends that a trained arborist be present during excavations, all roots over two inches in diameter be cleanly severed, excavations be made from the site area opposite from the Moreton Bay Fig Tree, the construction area be fenced adjacent to the trench and tree, heavy equipment be excluded from the fenced area, remove the turf between the drip line and trench and mulch the area with two inches deep composted organic mulch, and irrigate and fertilize the entire area prior to construction. The medication of the Moreton Bay Fig Tree roots is no longer recommended and has been replaced with a recommendation to cleanly cut roots over two inches in diameter. Measures to protect the Moreton Bay Fig Tree have been provided below as recommended mitigations in addition to the existing required mitigation. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

The use of grout lines for Tidewater goby refuges instead of the diagonal ribs is considered to be an improvement because they are expected to create more slow moving water during high flows because they would cause more hydraulic turbulence. There would also be more areas for the gobies to use since the sandstone grout lines would be installed where the sandstone walls would be formed, but the ribs would only be located where shown in the certified Final EIS/EIR. The use of grout lines would provide equivalent and improved locations for the gobies to hide when flows are high. Also, the United States Department of the Interior Fish and Wildlife Service Biological and Conference Opinion for the Cabrillo Bridge Replacement Project that also replaced fish ribs with grout lines concluded that the proposed installation of the more natural channel between State Street and Cabrillo Boulevard would improve habitat for the tidewater goby. Therefore, the grout lines would provide improved habitat when compared to the ribs proposed in the certified EIS/EIR. The level of impact and mitigation for the revised project was anticipated in the certified EIS/EIR.

After the LMCFCP EIS/EIR was certified, a study (Channel Design Recommendations Lower Mission Creek Flood Control Project.) was prepared to investigate the pilot channel construction requirement placed on the project by the California Coastal Commission. The study determined that it would be best to allow the creek to form its own pilot channel and construction of a grouted pilot channel was not recommended. The study indicates that there would be less environmental impact associated with the revised approach to channel configuration. The level of impact and mitigation for the revised project was anticipated in the certified EIS/EIR.

#### **Cultural Resources.**

The certified Final EIS/EIR identified potentially significant impacts on historic resources and included mitigation measures to address those impacts. Specifically, the certified

Final EIS/EIR anticipated potentially significant historic resource impacts on 15 West Mason Street due to the need to demolish the Structure of Merit in order to construct the project. This impact was identified as significant and unavoidable and would remain at this level of impact. The project would avoid the Pony Truss Bridge over Mission Creek and would construct the culvert under the parking lot of the Historic Railroad Station. Potential impacts could occur on nearby adjacent archaeological resources and this would be addressed by monitoring excavations in this area. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

#### **Hazardous Waste.**

Project hazardous waste impacts would be similar to those identified in the certified Final EIS/EIR. Preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) would require testing of creek sediments prior to construction as outlined under the water quality impacts discussion below. Based on the tests, a plan for reducing contamination to acceptable levels shall be prepared and implemented in coordination with the Regional Water Quality Control Board and the Santa Barbara County Fire Department. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

#### **Land Use and Economics.**

There are properties that would be acquired to facilitate the LMCFC project. Construction-related impacts on land use and socio-economics would be mitigated to less than significance by purchasing affected property at fair market value and providing relocation assistance to any tenants as required by state and federal law. No substantial changes in land use and economic impacts are anticipated since the properties that would be acquired would be purchased from willing sellers and occupants would be relocated. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

#### **Noise**

The Lower Mission Creek Flood Control Project certified Final EIS/EIR indicates that there would be short term increases in noise within a city block from construction that would last from two to three weeks for each segment. The proposed project would include use of heavy construction equipment that would result in an increase in noise similar to that anticipated in the certified Final EIS/EIR, but the duration of heavier construction for Mason Street bridge demolition and pile driving would be approximately 12 to 13 months, approximately one year longer than anticipated in the Certified Final EIS/EIR. Note, however, that the bridge construction would have noisier demolition and pile driving activities that would last only a few weeks each so the entire 13 month bridge construction would not be characterized by high peak noise levels likely to disturb nearby residents. Remaining bridge construction would be much quieter and similar to larger commercial building construction framing, rebar installation, and concrete pouring project noise impacts. Even with the increased duration of construction, the project would not cause a significant noise impact because the noise would be temporary, occur only during daytime hours, would be of an intermittent nature, and notice would be provided as required by mitigation included in the Certified Final EIS/EIR. Mitigation requires that the operation of heavy equipment be restricted to daytime hours, truck traffic limited to between 7 am and 7 pm weekdays only and excluding holidays, the contractor would be required to follow the City Noise Ordinance, and advance notification of owners and tenants in the project area is required. The mitigation has

been refined to ensure that the public is not exposed to harmful peak noise levels during pile driving. The mitigation includes use of noise shields to reduce noise exposure to 120 dBA and signs to advise the public to avoid the area during construction. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

### **Recreation**

Project recreation impacts would be similar to those identified in the original EIS/EIR because the project is a creek restoration project that is essentially the same as the original project analyzed in the EIS/EIR. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

### **Safety**

The Lower Mission Creek Flood Control Project would result in similar level of safety impacts to the proposed project. Fencing and emergency access would be required to address these impacts. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

### **Traffic and Parking/Safety.**

The Lower Mission Creek Flood Control Project channel improvements would result in the temporary closure of area roadways to all traffic for an estimated four weeks on any city block which is similar to, but slightly more than, the three weeks for any one City block anticipated in the Certified Final EIS/EIR. This would be a temporary closure. Traffic using these routes would be provided adequately signed alternative routes to their destinations and the public would be informed in advance of the proposed detour routes. Circulation impacts are similar to those identified in the certified Final EIS/EIR. Since the impact would be temporary, and other routes would be provided, traffic impacts would be less than significant. Street parking in the vicinity of the project would be temporarily unavailable. Parking impacts would be similar to those identified in the certified Final EIS/EIR. Since parking impacts would be similar to the original project, they would be less than significant. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

Closure of the Mason Street Bridge over Mission Creek while it is replaced is anticipated to last up to a year. Temporary rerouting of pedestrian and vehicular traffic around the bridge closure would be required. While the one year closure of Mason Street Bridge was not anticipated in the Certified Final EIS/EIR, this impact would not result in significant traffic impacts because there would be sufficient capacity on adjacent streets to handle the rerouted traffic and the rerouting would be temporary. Very little traffic actually uses the Mason Street bridge. A traffic control plan would be provided to ensure that the public are informed about the closure and alternative routes. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

### **Utilities.**

The proposed project would result in similar levels of impact to those anticipated in the certified Final EIS/EIR. Mitigation would be to notify residents of any disruption in service.

### **Water Quality**

Water Quality impacts associated with the proposed project would be similar to those associated with the larger project analyzed in the certified Final EIS/EIR. Construction and maintenance-related water quality impacts would be mitigated to less than significance by prohibiting construction and maintenance during flowing water or heavy rains and from December 1st through April 1st. A low flow diversion channel would be established during construction and maintenance. Water Quality Certification conditions have been met. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared prior to construction and would be implemented. All stockpiles and equipment storage would be prohibited within the creek banks. This level of impact and mitigation is anticipated in the certified Final EIS/EIR.

### **MITIGATION MEASURES**

The following mitigation measures are contained in the certified Final EIS/EIR for the Lower Mission Creek Flood Control project. Mitigation measures for noise have been detailed since the EIS/EIR contained general mitigation measures and the explanation of how they were to be accomplished was not provided in that document.

#### *Required mitigation*

#### **Aesthetics:**

- AES-1 Bank Planting.** Upper creek banks shall be planted with native vegetation.
- AES-2 Vertical Walls/Fences.** Plant vines along the vertical walls to minimize visual impacts; cover concrete with natural color and texture. If fencing is installed in the project design for safety purposes, plant vines along fencing to minimize impacts. Upgraded fence materials shall be used in areas visible or accessible to the public.
- AES-3 Concrete Treatment.** Aesthetic treatment, including the use of colored concrete and/or pouring concrete in forms that would mimic existing sandstone walls or natural vertical creek banks, shall be incorporated into project plans to minimize project-related impacts.
- AES-4 Bridge Design.** Mason Street Bridge shall be designed to retain an appearance appropriate to the character of the neighborhood in which it is located. Design of the bridge shall be reviewed and approved by the Historic Landmarks Commission.

#### **Air Quality:**

All air quality mitigation measures apply both to construction and future maintenance.

- AQ-1 Dust Control.** Water the excavation site, storage piles and unpaved roads twice each day of construction - once in the morning and at the end of the construction day; and cover material transported in haul trucks.
- AQ-2 Speed.** Limit vehicle speeds to 15 mph maximums within the construction site and maintenance areas.
- AQ-3 Wind Erosion.** Cease grading and earth movement when wind speeds exceed 15 mph, or as directed by SBCAPCD. Storage piles shall be covered to minimize fugitive dust.

**Biological Resources:**

- BIO-1 Equipment.** To avoid impacts to aquatic resources, no construction equipment shall be operated within the channel and stream bottom between December 1st and March 30th or whenever significant water flows (defined as more than ½" for April and May and more than 1" from June through November) pass down Mission Creek.
- BIO-2 Construction Dates.** To avoid impact to steelhead trout and tidewater goby, which are federally listed species, construction shall be restricted to dates between June 1 and December 1st if water flow in the CALTRANS Channel [upstream of Yanonali Street within Mission Creek] is more than 1/2 inch deep. If no continuous surface water flow (defined as more than ½" for April and May and more than 1" from June through November) exists in the CALTRANS Channel after April 15th, construction could occur from then until December 1st. Downstream of Yanonali Street, all construction in Mission Creek shall be performed after June 1, provided no significant stream flows are occurring in Mission Creek.
- BIO-3 Construction in the Channel.** No construction shall occur in the flowing water. If water is present during construction, the water shall be diverted by construction of a low flow channel or installation of a pipe as follows:
- No construction work is allowed in water in the estuary from December 1 to June 1<sup>st</sup>
  - Divide a suitable length of the estuary down the middle with an impermeable barrier, such as sheet piling. The length should be as long as practicable to minimize repetition of this divide and dry procedure for making temporary construction enclosures. A lateral coffer dam in mid-stream shall not be acceptable because of increased turbidity and fine sediments that would be conveyed downstream to the coastal lagoon.
  - Dam half the estuary at the upper end with sheet piling
  - A qualified biologist shall walk downstream in a zigzag pattern to herd as many fish as possible from the incipient enclosure
  - Dam the lower end of the enclosure with sheet piling immediately.
  - Fish biologists shall seine the entire contained half thoroughly to remove any gobies and other large organisms to the wet side of the construction enclosure.
  - Fish biologists shall monitor the drying enclosure and seine it thoroughly at least twice a week.
  - When construction on one side has been completed, the downstream wall of the enclosure shall be removed first, followed by the upstream end.
  - The above steps shall be repeated for the opposite bank construction.
- BIO-4 Biological Monitor.** A qualified biologist (knowledgeable of steelhead and tidewater goby) shall monitor project construction in the water. Monitoring shall be performed at least twice per week beginning when any construction activity is

initiated in or above the creek water and occurring every other week until construction in or above the creek water is completed.

- BIO-5 Design.** Implement a design which causes no constriction to the creek bed, and hence no increase of water velocity compared to existing conditions.
- BIO-6 Flow Conditions.** Create flow conditions conducive to the passage of steelhead through the length of the project on Mission Creek.
- BIO-7 Fish Refuges.** Provide permanent refuges appropriate to Tidewater Goby and Steelhead. Restore an important measure of natural heterogeneity in flow characteristics to the riverine portion of the streambed through the creation of boulder fields. Use placement of ledges, grout lines in cast walls, mid-stream boulder clusters, and natural bottom to promote higher quality of in stream habitat, especially during steelhead migration.
- BIO-8 Habitat.** Use strategic placement of boulder clusters on the creek bed as energy dissipaters as determined by a qualified biologist and hydrologist.
- BIO-9 Vegetation Establishment.** A temporary, above ground irrigation system shall be installed and maintained for five years to ensure that planted vegetation is established.
- BIO-10 Invasive Plants.** Invasive weeds (principally giant reed, castor bean, salt cedar, and sweet fennel) shall be removed at least twice a year for the first two years and annually for the next three years following final acceptance of contractor contract completion for each phase of the project.
- BIO-11 Native Tree Plantings.** Any native trees removed shall be replaced. Any native trees which die within the first five years shall be removed and replaced by the same species from 1-gallon stock. The applicant would maintain the planted vegetation for the life of the project. Said replacement trees shall be propagated from local genetic stock, primarily in lower Mission Creek.
- BIO-12 Growth Monitoring.** The growth rates of the trees and shrubs planted as a part of this project shall be monitored biannually for five years or until vegetation has been established. If the plants do not meet pre-determined growth and survival rates, actions shall be taken to improve growing conditions such as fertilization, increased irrigation and replanting. Achieve 90% success of the planted vegetation at the end of five years of planting, and ensure that vegetation survival rate is equivalent. If 90% success of the planted vegetation is not achieved after five years, the applicant shall ensure achievement of 90% success of the planted vegetation. For the first year after completion of construction, the stream bank corridors and habitat expansion zones shall be monitored every three months. At each monitoring period, a monitoring report shall be prepared and a final report shall be prepared at the end of the five year period. Said reports shall be submitted to the Santa Barbara City Community Development Department and the Santa Barbara County Flood Control and Water Conservation District. Monitoring of planted vegetation shall be conducted at least twice a year for a minimum of five years.
- BIO-13 Revegetation Plan.** A final revegetation plan shall be prepared by a qualified biologist that includes the above-stated mitigation measures, indicates how plants and seeds would be collected and grown for the project, and defines success criteria and monitoring in more detail.
- BIO-14 Moreton Bay Fig Tree.** An arborist with knowledge of root systems of large ornamentals shall monitor bypass culvert construction to minimize impacts to the Moreton Bay Fig Tree.

**BIO-15 Moreton Bay Fig Roots.** Any Moreton Bay Fig Tree root over 2 inches in diameter that must be cut during excavation shall be cleanly severed using a sharp hand cutting tool.

**BIO-16 Maintenance.** The following shall apply to future maintenance of the creek:

- All routine maintenance shall be accomplished between August 1<sup>st</sup> and October 31<sup>st</sup>. A front end loader or road grader working together with dump trucks (10 cubic yards) would be used for the bulk of sediment and vegetation removal.
- A pair of silt curtain fences (straw bales) shall be set across the low flow channel not more than 100 yards downstream of the work area; the fences shall be approximately 10 yards apart.
- Any trout present shall be captured by techniques dictated by National Marine Fisheries Service and California Department of Fish and Game and relocated promptly to a suitable refuge. A written report describing in detail any such relocation shall be submitted to National Marine Fisheries Service.
- Mechanized equipment shall enter the creek immediately adjacent to the oxbow. A front end loader would scoop all materials directly from the channel to trucks waiting above adjacent to the railroad lines.
- Sediments and vegetation shall be removed when channel capacity has been reduced by more than 15%. The full width of 33 feet would be cleaned of obstructive materials in the oxbow bypass and would continue to follow current practices. If storm events do not reduce conveyance more than 15%, then the next maintenance cycle shall involve only mowing of vegetation.
- During those maintenance cycles when the County determines silt removal has become necessary, all plants and deposits would be removed. As the final step during maintenance, the pilot channel would be rebuilt following the path where the natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it. A swath half the channel width shall then be mowed or brushed to suppress the growth of potentially large perennials, first along one side as seems convenient for an arbitrary distance (approx. 250 feet), then switching to the opposite bank for another arbitrary distance, while still allowing for the growth of herbaceous perennials and annuals. The pilot channel would not be disturbed.
- If sediment removal is not needed the next year, then the other half of the channel shall be mowed and brushed. The pilot channel shall not be disturbed.
- If storm events of the next winter rains leave enough sediment to warrant their removal, then during the following summer the full width of that section of the creek shall be groomed to remove obstructing sediments and plants. The pilot channel shall be rebuilt where a natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it.

**BIO-17 Fish Habitat Maintenance.** Boulder clusters shall be maintained as follows:

- Sediments shall be removed from among boulder clusters and large rocks of the side baffles only as needed to prevent them from being covered completely.
- If necessary, sediments shall be dug from the downstream side of boulders with a backhoe equipped with a 3 foot bucket, then dragged toward the

center of the creek to be combined with streambed sediments being removed as described previously.

- Any individual boulders that might have been dislodged mechanically or displaced by currents would be pushed back into a suitable vacant spot in the baffle and reset.

- Any propagules of giant reed or salt cedar that have taken root shall be eliminated. A combination of foliar application of glyphosate or digging out rhizomes with hand tools could be employed. Application of herbicides shall be very limited, confined to only those small locations where the most persistent and aggressive weedy plants begin to reinvade the creek bottom.

- The remaining growth shall be cut back using a brush hog, or similar mowing attachment passed a couple feet over the tops of the rocks. The intent is to cut down woody species before they attain much height or stem expansion, but not to eradicate low-growing herbaceous plants that offer negligible friction to water currents.

**CR-1 Unanticipated Archaeological Resources Contractor Notification.** Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the applicant shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.

If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.

**CR-2 Monitor.** A qualified archaeological monitor shall be in place during all new ground disturbing activities near archaeological sites CA-SBA-27 and SBA-28. If archaeological artifacts are discovered during project construction, construction shall be halted until appropriate coordination (including notification of the City Environmental Analyst) and recording of the data is completed. A Native

American monitor that has traceable hereditary roots to the Barbareno Chumash shall be present.

- CR-3 15 West Mason Street.** Avoidance is the preferred mitigation, but if the building at 15 West Mason Street is removed, full Historic American Building Survey (HABS) recordation, including a photographic study of the structure to the neighborhood and a short history of the building that places it in its historic and architectural context, is required prior to issuance of a demolition permit.
- CR-4 134 Chapala.** If the structure at 134 Chapala is to be removed, complete full HABS documentation, including a photographic study of the relationship of the structure to the neighborhood, and a short history of the building that places it in its historical and architectural context prior to the issuance of a demolition permit.
- CR-5 Potter Hotel Footbridge.** Extend the box culvert downstream of the Chapala Street Bridge.
- CR-6 Waterfront Neighborhood.** Submit the already completed study regarding eligibility of the Waterfront Neighborhood to the City Planning Division. Note that the study has already been completed.
- HAZ-1 Pollution Prevention.** Construction equipment shall be kept in proper working condition and inspected for leaks and drips on a daily basis prior to commencement of work. The construction contractor shall develop and implement a spill prevention and remediation plan and workers shall be instructed as to its requirements. Construction supervisors and workers shall be instructed to be alert for indications of equipment-related contamination such as stains and odors. Construction supervisors and workers shall be instructed to respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment-related contamination are noted. No refueling or oil change shall occur in the creek bed.
- HAZ-2 Hazardous Materials Contamination.** Prior to construction, borings and soil samples shall be taken at potentially critical areas and analyzed at a qualified laboratory for likely contaminants. If concentrations are detected at or above action levels, remediation action shall be implemented in accordance with federal, state, and county procedures.
- HAZ-3 Sediment Samples.** Prior to the commencement of excavation activities, samples of creek sediments shall be taken to the depth of planned excavation and the same suite of analyses used to characterize the shallow sediments would be used to analyze the deep sediments. In the event actionable concentrations of contaminants are detected by the analyses, the applicant shall develop a plan to identify the extent of contamination. A plan shall then be developed and implemented to comply with applicable laws and regulations related to the identified contamination so that excavation activities do not result in releases of actionable levels of hazardous materials to the environment.
- LU-1 Property Acquisition.** The applicant shall purchase the property interest and provide compensation to the Applicant and tenants and/or property would be relocated as required by State and Federal law.
- N-1 Construction Hours.** Construction (including preparation for construction work) is prohibited Monday through Friday before 7:00 a.m. and after 7:00 p.m., and all day on Saturdays, Sundays and holidays observed by the City of Santa Barbara, as shown below:

New Year's Day	January 1st*
Martin Luther King's Birthday	3rd Monday in January

Presidents' Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4th*
Labor Day	1st Monday in September
Thanksgiving Day	4th Thursday in November
Following Thanksgiving Day	Friday following Thanksgiving Day
Christmas Day	December 25th*

\*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.

When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out night construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number.

- N-2 Truck Traffic.** Truck traffic shall be limited to designated truck routes, as determined in cooperation with City Transportation Staff. Truck transport shall be permitted between 7 a.m. and 7 p.m., Monday through Saturday
- N-3 City Noise Ordinance.** The selected construction contractor shall follow the noise ordinance established by the City of Santa Barbara.
- N-4 Notification.** Property owners and tenants within the project area shall be notified prior to project construction in their area.
- N-5 Equipment.** Any equipment that must be operated during nighttime hours must be individually reviewed and treated with enclosures, barriers, silencers or other techniques as required to reduce the noise at any residential property line to 50 dBA.
- N-6 Silencers.** All equipment used in the project shall be equipped with factory standard or better silencing features in proper working condition.
- N-7 Workers.** Worker hearing conservation requirements shall be incorporated into contract documents and implemented.
- N-8 Minimizing Noise Due to Pile Installation.** In order to minimize the amount of noise and vibration generated by pile installation, the preferred method shall be to use push and twist pile installation techniques. However, should pile driving be necessary, the following shall be required:
- **Public Exclusion.** If CISS piles are driven with a hammer, members of the public shall be kept out of the 120 dB peak noise level area. The public exclusion area is estimated to be 50 feet from the pile insertion location unless reduced by a three or four sided noise barrier reviewed and approved for adequacy by the noise consultant and the City. If a noise barrier is used, the noise consultant shall specify the reduced estimated distance from the pile insertion that would exceed the 120 dB contour wherein the public would be excluded during pile driving. The public exclusion area shall be clearly demarcated and signed as follows: "WARNING NOISE HAZARD AHEAD, you

are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes.”

- **Barriers.** If CISS piles are inserted, within the area between 50 and 100 feet of the pile insertion point, noise barriers shall be installed that are 8-10 feet high. The barrier design shall be reviewed and approved for adequacy by the noise consultant and the City, and be installed only if the private landowner or business operator consents. In addition, the contractor shall install signs, clearly visible to the public, on all area roadways approximately 150 feet from the construction area that say “WARNING NOISE HAZARD AHEAD, you are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes.”

**REC-1 Recreation.** Areas that provide limited passive recreation shall be created where real estate is available.

**SAF-1 Fencing/Access.** Provide safety fencing for the public and locations for emergency access.

**TRAN-1 Access/Detours.** No access to residences or commercial establishments shall be eliminated. Appropriate detours and traffic control officers would be provided to direct traffic to alternative routes. Alternative routes, including bicycle routes, shall be coordinated with the City of Santa Barbara, Transportation Division.

**TRAN-2 Safety.** During construction, traffic control officers shall be provided at affected intersections to divert traffic to minimize accidents.

**TRAN-3 Notification** Notify residents and commercial owners of proposed construction in their area at least 20 days before initiation of construction in the vicinity of their neighborhood to advise them of location, time and duration of construction.

**TRAN-4 Damage.** Identify damage caused by construction vehicles and repair damaged facilities. Identify responsible agency or individuals to repair the damaged roads and assure that repair work is completed.

**TRAN-5 Equipment amount, size and speed.** Limit the number and size of vehicles and reduce speed limits.

**TRAN-6 Phases.** Perform project construction in sections as proposed.

**UTIL-1 Notification.** Provide notification to affected landowners prior to disruption of utilities.

**WQ-1 Dewatering.** The creek channel upstream of construction activity shall be dammed temporarily to prevent water from entering the reach under construction. A diversion pipe shall be installed in the creek to convey any creek water around the construction area for discharge downstream of the construction activity.

**WQ-2 Leaks.** The selected contractor shall develop and implement a spill prevention and remediation plan.

**WQ-3 Time of Construction.** No construction or sediment removal shall occur anywhere within the project area between December 1 and April 15. Construction upstream from the estuary could be accomplished between April 15 and November 30, provided that no continuous surface flow exists. Water flowing deeper than an inch through the CALTRANS Channel (above Yanonali Street) between April 15 and June 1 would require temporary cessation of construction activities in the streambed.

**WQ-4 Turbidity.** Measures to reduce turbidity during the construction of the project and periodic future maintenance shall include installation of pipe, as needed, as well as creation of low-flow channels around construction and debris removal operations to divert water flow and avoid mixing of loose dust particles into creek flow. Details of these mitigation measures are:

- Pipe culverts shall be placed in the low flow stream where the stream must be crossed on a regular basis. No work shall be allowed in the flowing water except as absolutely necessary (as determined by the Flood Control District and concerned resource agencies).
- Construction of temporary low-flow channels within the creek during debris removal operations shall be required to minimize turbidity and provide habitat for aquatic species. The low-flow channel shall be constructed around and away from debris removal operations. Project biologists shall develop criteria for the low-flow channels.
- Conditions identified in the federal and state permits (Section 404 permit and Section 401 Water Quality Certification and 1601/1603 Streambed Alteration Agreement) shall be followed during construction and future maintenance as applicable.

**WQ-5 Discharges During Maintenance:** • No discharge of oil or spill of contaminated material shall be allowed within the creek bed.

See the section on Hazardous material for additional Water Quality Mitigation.

#### *Recommended Mitigation Measures*

The following mitigation measures are recommended to address less than significant impacts.

**BIO-18 Tree Protection Buffer:** Install a construction fence as near as possible to the limit of the excavation trench on the Moreton Bay Fig Tree buffer side. No parking or storage of construction equipment would be allowed in the buffer area.

**BIO-19 Tree Protection Excavation:** All excavation on the channel near the Moreton Bay Fig Tree shall be made from the side of the culvert opposite from the Moreton Bay Fig Tree.

**BIO-20 Tree Protection Mulching:** Prior to the initiation of culvert construction, remove all turf grass between the edge of the excavation trench and the and the drip line of the Moreton Bay Fig Tree and mulch the entire area with two-inch deep composted organic mulch to be approved by the City Arborist.

#### **CEQA FINDING**

Based on the above review of the project, in accordance with State CEQA Guidelines Section 15612, no Subsequent Negative Declaration or Environmental Impact Report is required for the current project, because new information and changes in circumstances, project description, impacts and mitigations are not substantial and do not involve new

significant impacts or a substantial increase in the severity of previously identified impacts.

This Addendum identifies the current project changes and minor changes to project impacts. With application of identified mitigation measures, project construction impacts would remain significant and unavoidable. This addendum, together with the Mission Creek Flood Control Project Environmental Impact Report/Environmental Impact Statement (State Clearinghouse #1998101061), constitute adequate environmental documentation in compliance with CEQA for the current project.

Prepared by:  Date: 9/9/2008  
(Michael Berman, Environmental Analyst)

Reviewed by:  Date: 9/9/2008  
(Michael Berman, Environmental Analyst)

Attachments:

Exhibit A: Detailed Project Description with Figures

References:

California Coastal Commission, August 11, 2006. Staff Recommendations on Consistency Determination.  
Dan Condon Arboricultural Consulting, 2007. Arborist Report on Impact to Morton Bay Fig Tree of Lower Mission Creek Box Culvert Project.  
URS Corporation, April 2005. Tidewater Goby Management Plan Lower Mission Creek Flood Control Project.  
URS Corporation, June 2005. Channel Design Recommendations Lower Mission Creek Flood Control Project.  
Geomatrix, October 12, 2005. Phase II Assessment Report Lower Mission Creek  
US Army Corps of Engineers, September 2000. Lower Mission Creek Flood Control Feasibility, Final EIS/EIR.

References are available at the Planning Division, 630 Garden Street, Santa Barbara CA 93101.

**Project Description**  
Lower Mission Creek Flood Control Project  
Coastal Development Permit Application  
Highway 101 north to State Street

## **Introduction**

The overall Lower Mission Creek Flood Control Project (LMCFCP) is defined in its Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) which was certified in September 2000 (Figure 1). The preferred alternative (Alternative 12) from the EIR/EIS, described a project to reduce Mission Creek flooding from Cabrillo Boulevard to Canon Perdido Street, which is the basis for the proposed project.

In 2003, this overall project was estimated to cost \$28.5 million dollars. A 2008 update, now values the proposed work at approximately \$62 million dollars. The lead agency in the past, the US Army Corps of Engineers (Corps), has been unable to get Federal budget approval to construct this overall project. Local agencies, namely the County of Santa Barbara Flood Control (Flood Control) and the City of Santa Barbara (City), now propose building the project in logical increments using grants and other funds, depending on their availability of funds.

The work will use a “phased approach” that will generally take increments of work starting at the downstream reach, and proceed upstream. By starting the channel construction at the downstream end, the surge of floodwater prevents excessive flow traveling to undeveloped areas of the creek that cannot handle the flow.

The proposed project is the portion of the LMCFCP from just north of Highway 101 to State Street (Figure 2) and is estimated to cost \$30 million if the work can be completed in the next 5 to 10 years. It also includes some restoration work at the lagoon south of Cabrillo Boulevard, as conditioned in the California Coastal Commission (CCC) Coastal Consistency Determination (CCD), issued on August 11, 2006, for the original overall Corps’ project.

## **Project Location**

The proposed improvements include channel widening from the State Street Bridge to the Yanonali/Chapala Bridge and an Oxbow by-pass culvert from the Yanonali/Chapala Bridge to Highway 101. The culvert alignment goes through the west end of the Railroad Depot Parking Lot and outside the western canopy of the Moreton Bay Fig Tree. It also includes planting of native shrubs on the periphery of the lagoon south of the Cabrillo Street Bridge.

## **Project Capacity/Design**

The project provides approximately 3,400 Cubic Feet per Second (cfs) capacity for the creek, which will correspond to an approximate 20-year return interval flood event per the 2000 EIR/EIS. The 3,400 CFS capacity is now estimated to exceed a 25-year event per 2007 hydrology calculations. Current capacity is approximately 1,500 cfs at the Montecito Bridge, which corresponds to an approximate 5-year return event.

The improved creek follows the existing creek alignment between State Street and the Yanonali/Chapala Bridge. Construction of the new underground culvert will carry high flows and bypass the oxbow. The oxbow will be left in place to function as the low flow channel for fish passage.

The creek width will range from about 60 feet wide at the top of the channel. The average depth of the creek channel will be 8 to 12 feet. The County and City are also looking at ways to reduce the overall cost of the project by potentially reducing the width of the channel to 55 feet. The possibility for this reduction will be revealed in the final design work.

As a result of creek widening that is south of the Yanonali/Chapala Bridge, two small parcels of open land (Figure 3) will be created along the banks after completion of project construction referred to as Expanded Habitat Zones (Figure 4) in the certified EIR/EIS. The size is approximately 0.04 acres with final calculations for the channels' configuration determining the exact size. These open land areas could be designed to serve a dual purpose: to expand the corridor of riparian habitat to be planted along the stream banks, or to provide passive park space for area residents.

Native trees, primarily western sycamores, cottonwoods, and coastal live oak from local stock, will be planted in the habitat expansion zones. In time, their canopies will form dense clusters on the creek bank adjacent to the stream corridor. In some of these zones, pathways and benches might also be added to create passive park spaces.

The natural bottom of the creek will be maintained at most locations. Creek banks will consist of mainly vertical walls with the possibility of side sloped bank treatments of ungrouted rock riprap at two Expanded Habitat Zones. The riprap will be covered with topsoil and when possible, at the Expanded Habitat Zones, native willows or branches of other native herbaceous plants will be planted into the riprap to allow sprouting through gaps in order to form a continuous understory riparian growth. Aesthetic treatment will be incorporated into the project design to reduce the visual impacts of concrete vertical walls, such as with simulated sandstone.

The Corps, along with the City, developed a Landscaping Plan as part of the 2006 CCD that includes native landscaping along all reaches of the project on

both sides of the creek, including segments adjacent to vertical floodwalls where vegetated riprap banks are not proposed. The plan included provisions for planting on private property to ensure a continuous riparian corridor wherever space physically permits. The City will encourage plantings and provide technical guidance to private landowners who own property adjacent to the Creek. This technical guidance will provide suitable native plantings along, and adjacent to, creek banks on their property.

Future maintenance for the life of the project follows an "adaptive maintenance" approach and is included in this project description. Future maintenance of the constructed channel is essential to retain the form and design capacity of the creek.

## **Detailed Project Description of Each Reach**

### ***Highway 101 to Chapala Street Bridge at Yanonali Street***

The reach of the creek, referred to as the "oxbow", is where the sharpest bends of the creek, within the project area, are found. The oxbow runs between the Gutierrez Street Bridge and the Yanonali/Chapala Bridge, where the creek makes several sharp turns while crossing under Highway 101, the Montecito Street Bridge, the Union Pacific Railroad Bridge, and the Yanonali/Chapala Bridge, before joining its most direct path to the Pacific Ocean (See Figure 2). The culvert (two 18-foot wide by 6-foot high boxes) connecting both ends of the oxbow, is referred to as the "overflow box culvert" or the "oxbow bypass" (Figure 5).

The northern limit of the work for this project will be at the northern edge of Highway 101, where a temporary bulkhead will be placed to block off the opening to the full box culvert run. Within the existing opening underneath Highway 101 (built by Caltrans in the 1980s), the culvert is a pair of 18 foot wide by 6 foot high open channels. After the Highway 101 crossing, the culvert will cross under Montecito Street, until it terminates alongside the downstream end of the Yanonali/Chapala Bridge. The channel under the freeway will be approximately 200 lineal feet long, while the culvert section will be approximately 640 lineal feet long. The culvert will connect to an existing culvert directly under the railroad tracks, which is scheduled to be constructed in fall of 2008. The construction was given a City Coastal Development Permit this last April. The culvert box will remain covered as it runs along the left side of the sandstone channel. It will continue alongside the Yanonali/Chapala Bridge and terminate at the downstream end of the bridge. Approximately 50 feet of streambed, immediately downstream of the overflow culvert outlet, will be armored with riprap to prevent scouring.

The culvert alignment will be outside of the Moreton Bay Fig Tree drip line to minimize impacts to its major root system. In order to avoid any potential impacts to the Moreton Bay Fig Tree, the culvert is aligned approximately 40 feet

outside of its drip line (the project description in the certified EIR/EIS indicated the culvert will be 50 feet from the drip line). This is ten feet closer to the Moreton Bay Fig Tree than the project analyzed in the certified EIR/EIS. The current configuration, bringing the alignment closer to the Moreton Bay Fig Tree, was analyzed by an arborist. The conclusion of the report was that this closer alignment will have no effects on the tree. The report is Attachment 1.

The existing portion of Mission Creek, with vertical sandstone walls on its westerly bank, will remain as currently configured. The creek bottom in this area will be unchanged from its current condition, except for some rock armoring just downstream of the culvert outlet near the Chapala/Yanonali Bridge.

Upstream of Highway 101, a weir structure, which is not part of this permitting, will eventually be built at the inlet of the box culvert to control the flows through the box culvert and the oxbow. The height of the weir will be constructed in order to direct the first 640 cfs through the oxbow, in consideration of optimum fish passage, as noted in the 2000 EIR/EIS. The weir will split higher flows (up to the design conveyance capacity of 3400 cfs) between the culvert and the oxbow.

#### ***Yanonali/ Chapala Street Bridge to Mason Street Bridge***

The creek banks will be predominantly vertical walls on both sides, except for Expanded Habitat Zones, which are approximately 120 lineal feet of the east bank adjacent to the Mason Street Bridge. This portion could be protected by a combination toe wall-riprap side slope where the riprap slope will be laid back to cover the area. The creek will be 60 feet wide between the vertical wall sides and potentially widen at the top of the bank at the Expanded Habitat Zone. This reach will have an average depth of 7.5 feet. The invert slope will be streamlined necessitating some excavation and fill of up to one foot. Proposed new walls will be placed on the east side. Preliminary design has identified to maintain the walls that exist on the western side of the creek.

The Mason Street Bridge will be rebuilt. In order to widen the creek and rebuild the bridge, Kimberly Avenue will be partially realigned, which requires the removal of the commercial structure (APN 033-075-006) located at the corner of Kimberly Avenue and Mason Street. Bridge demolition will be expected to last 2 weeks, pile driving will last approximately 6 weeks, and bridge deck placement, roadwork, and associated bank and abutment reconstruction, will last approximately 10 months for an approximate total of 12 to 13 months.

#### ***Mason Street Bridge to State Street Bridge***

The creek banks will be predominantly vertical walls between Mason and State Streets, except for the Expanded Habitat Zone on the eastern bank immediately downstream of the Mason Street Bridge. The structure located on the property at 15 West Mason Street will be removed to allow for widening of the creek. The remainder of this lot will be planted to create an Expanded Habitat Zone.

The creek will be 60 feet wide between the vertical wall sides and extend at the top of bank where the toe wall-riprap side slope is found. The average depth along this reach will be 8 feet. The invert slope will be streamlined, necessitating some excavation or fill, averaging one foot in depth. A pedestrian bridge located at 22 West Cabrillo will be removed and relocated. The State Street Bridge will remain to convey the 3,400-cfs design capacity.

### ***Lagoon Restoration Plan***

The 2006 Coastal Commission CCD Condition of Approval for the LMCFCP required installation of a 20- to 50-foot-wide area of native shrubs that extends 150 to 200 feet south of the Cabrillo Bridge existing wing wall on the west and the east banks of the Mission Creek Lagoon. The area of this new native shrub planting will be an estimated 12,250 square feet (assuming 175 feet long on both banks and a 35-foot average width).

This project will include preparation of a Restoration Plan for the Mission Creek Lagoon in consultation with the City Creeks Division and other interested parties. The vegetation described in the Revegetation Plan will be installed within one year of any completion of construction of upstream improvements. Prior to construction of the upstream improvements, the project sponsor will prepare and submit to the CCC for approval, a plan of native shrubs on the banks of Mission Creek Lagoon. This work will be downstream of the Cabrillo Bridge project plantings, which provides a 10-foot vegetative buffer at its downstream wing walls as part of its Coastal Commission CPD. Provisions for monitoring the success of planting, modifying the conditions to improve the success of plantings, and replacement of unsuccessful plantings, will be included in the plan.

## **Detailed Project Description of Feature Elements**

### ***Removal of Existing Bank Protection and Earthen Material***

The total amount of material to be excavated from creek banks and creek bottom is estimated to be about 21,000 cubic yards (CY). Creek excavation will occur as the work progresses so that all 21,000 CY of material will not be stockpiled at one time. About one quarter of the material will be utilized in project construction as fill material. The remaining excavated material can be stockpiled or be taken off site for storage or recycling, depending on whether it meets project specifications. The material could be distributed to other construction sites requiring fill. Expected debris will include stacked burlap bags filled with concrete, large rocks, mortared riprap, slabs of concrete, grouted stone, jointed masonry walls, shot-crete walls, wire baskets filled with coarse rock (gabions), formed walls, wooden pilings, and other bank material found throughout the length of the project. Sandstone not used in project construction will either be conserved for use in other City projects or, if badly damaged, recycled. Most of the metal and concrete will be recycled. The green waste will be composed and recycled as compost and mulch. The applicant will examine suitability of the

excavated material for beach nourishment. If material is suitable, it can be used to restore sand supply on local beaches.

It is assumed that small amounts of excess material will be transported within a radius of about 10 to 25 miles from the project site. At maximum, about 75% of material will need to be transported to the disposal sites either at the Tajiguas Landfill, located 25 miles west of the project site or used in a reclamation site (if one exists at the time of construction). About 2,100 truck trips will be required to transport the excavated material. Channel excavation may last for 130 to 180 days. It is expected that 96 to 128 CY of material will be removed each day. Therefore, it is assumed that 6 to 8 truck trips will be required per day to transport excavated material to the staging or stockpile area.

The construction will be performed in segments. Therefore, the estimated time frame for project construction is approximately 5 to 10 years although the construction may not occur in one single continuous period of time. In case of inclement weather conditions, mechanical failure, funding constraints, or environmental reasons, project construction may be prolonged.

#### ***Stabilization of Creek Banks***

The existing creek banks will be replaced with vertical walls except at the expanded habitat zones. The vertical walls will be constructed using one of two methods, according to their proximity to existing structures. The first method will be the use of an inverted "T" footing. This construction method will be applied in areas where sufficient rights-of-way are available without directly impacting existing structures. In the majority of areas with limited right-of-way and close proximity to structures, a pier/pile footing construction design will be applied. Typical cross sections of these designs are shown in Figure 6.

At Expanded Habitat Zones, the height of the wall may be approximately half the depth of the creek (Figure 7). The riprap side slope will be built at a 1.5:1 (H:V) slope. The riprap side slope will be covered with topsoil and planted with ground cover and shrubs that will help develop the understory of a larger riparian canopy along the creek.

#### ***Environmental Structural Features***

Several environmental structural features will be included to avoid and minimize impacts to biological resources. These permanent and durable features will create hiding places where fish may take refuge. They will be composed of three separate structural elements formed by coarse surface relief of the walls (goby refugia, Figure 8), artificial overhangs projecting from the walls (fish ledges), and placing double rows of coarse boulders (fish baffles) between the overhangs along the creek walls Figure 9.

The combination of these three features will be used within the estuary between Mason and State Street Bridges. The goby refugia and the fish baffles will be

used for the remainder of the project reach. The locations of these features are shown on Figure 10 and 11.

*Goby Refugia:* The Final EIS/EIR proposed ribs protruding from the wall to create goby refuges from high flows. The proposed project has been modified to use as part of the simulated sandstone vertical walls, three inch wide (horizontal) and three inch wide vertical grout lines that are approximately two inches deep (Figure 8), instead of the protruding ribs. The goby refugia, where gobies and other small fish to escape strong currents, will be incorporated into the grout lines between the simulated sandstone blocks in the retaining walls. The grout lines are 2" deep and taper from 3" at the opening to 0.75" at the full depth of the grout line. The horizontal grout spaces will be filled with grout for a few inches every 10 feet to create eddies and slower moving water behind the grout barriers.

The grout lines will extend from the ordinary high water mark to the bottom of the formed wall, roughly eight feet in vertical length. Most of the time, water in the estuary will cover them completely and each will extend below the streambed. Lower velocity and localized eddy currents will exist around these grout lines, primarily caused by the effects of the grout barriers located every 10 feet along the horizontal grout spaces. Small fish the size of gobies will find the recesses and take advantage of the refugia from currents created by increased flows in the creek resulting from the proposed upstream improvements. This modification was proposed and approved as part of the Channel wall element of the Cabrillo Bridge CDP at the CCC and City Flood Control.

*Fish Ledges:* The second component of structural mitigation features, intended primarily for steelhead and other large fish, will consist of projecting ledges (fish ledges). The ledges will typically cantilever from the wall, 2 feet into the flow, be 6 inches thick, and roughly 50 feet long. Within the estuary, cantilever ledges will be built at varying heights, 10 to 20 inches, above the invert of the streambed and substantially below the ordinary high water level. Water will cover these ledges at all times except during the lowest low tides and all fish could easily swim beneath them.

*Fish Baffles:* The space between successive fish ledges allows a third mitigation measure. A double row of large, angular rocks will be nestled together and placed against the wall at the foot of the ribs. Ranks of boulders will extend into the creek approximately 5 feet from each wall. The innumerable crevices, voids between rocks, and spaces between rocks and the wall itself, will provide natural habitat for small fish and invertebrates. A fraction of those spaces should prove large enough for steelhead smolt to also find shelter amongst the rocks.

Grout lines, boulders, and ledges will line both sides of the estuary between Mason Street and State Street. Grout lines and boulders will only extend from State Street to Cabrillo Boulevard. All surfaces between Mason Street and State Street will have all three features intermixed, although a ledge on one wall will

face ribs and boulders on the opposite wall (Figure 10 and 11). The project will provide 380 linear feet of fish grout lines and boulders and 240 linear feet of overhanging ledges on the east side; 360 linear feet of fish ribs and boulders and about 300 linear feet of ledges on the west side.

Walls on both sides of the creek will have fish ledges. Four will be built along the west side (approximately 200 linear feet, in total) and five constructed against east side (total of 250 feet in length).

*Fish baffles upstream of Mason Street:* Arrays of large boulders placed to the inside of walls will impart diverse flow patterns to improve the aquatic environment. The mass of the boulders and their position adjacent to the wall, and therefore within the boundary currents inherent to sides of the channel, will minimize the incidence of currents dislodging them.

Each baffle will consist of a rank of large rocks or derrick stone, placed touching the inside surface of the walls, with a second rank inside the first and closer to the creek. Rocks will stand vertical off the streambed by 18 to 24 inches. Together, the two ranks will extend inward toward the creek approximately 5 feet. A space of 5 to 8 feet will separate individual rocks, or perhaps pairs of boulders, to facilitate periodic removal of sediments from between them.

Fish baffles will occupy locations in lower velocity sections of the creek, on one side or the other as appropriate according to channel curvature. In certain lengths of the creek, side baffles will be placed along one side only, then for another length be built against the opposite side. Many baffles will extend along 150 feet of the creek's side, a few up to 200 feet in length, while others will be shorter by necessity. Design restrictions prevent their placement beneath bridges for a certain distance on the upstream side of bridge abutments, and directly opposite other baffles or ledges.

The creek's channel allows fish baffles to be interspersed with ledges to encourage formation of varied stream features. Side baffles will be installed over approximately 1,400 linear feet of the stream's edge; 675 linear feet of fish baffles on the east and 725 linear feet on the west side.

Large boulders, essentially individual derrick stones of 3 to 4 feet each in diameter, will be set down into surrounding riprap, placed 5 to 8 feet apart, and arranged in clusters of 6 to 9 individual boulders (Figure 9). Stone used for riprap will be as large as 15 inches in diameter and of angular character. Tips of the rocks will protrude 1.5 to 2 feet above the streambed. The boulder patches will constitute islands of very coarse and permanent streambed irregularities. By their placement, these clusters induce variability in flow direction and velocity. These many smaller currents should continually reshape the longitudinal profile over the length of the baffles fields.

Each cluster of boulders will naturally form various internal cross currents and protected patches of water. Placement of clusters within the baffle is intended to promote the variety of flow conditions trout seek out in natural streams. Clusters will be placed such that the low-flow channel is sinuous and meandering, shifting back and forth across the streambed.

## ***Construction Description***

### ***Material Required for Construction***

Material required for project construction will include earth-fill material; concrete for walls, footings, and the box culvert; rocks/riprap for slope protection; steel reinforcement for concrete support; filter material; fencing material; top soils; planters; and material required to establish vegetation. Most of the material will be obtained from a distance of about 5 to 10 miles radius from the project area, except for the rocks/riprap. Riprap may be obtained from existing quarries located within about 50 miles.

About one quarter of excavated material (from the creek bed and banks) will be stockpiled and be utilized during project construction as fill material. Backfill material will be transported to the project site on an as-needed basis. It is estimated that about 50 to 100 CY material will be required each day for the period of project construction. Therefore, about 3 to 6 truck trips will be required to transport the backfill material to the construction site. The maximum one-way travel distance will be about one mile.

### ***Duration of Construction***

Project construction, including the proposed creek improvements, oxbow culvert, and bridge replacement, is expected to take a minimum of 5 years to complete. If sufficient funding is made available, the work could be completed in 24 months. During construction, excavation activities will not be carried out during heavy storms or during the rainy season. Every effort will be made to complete the project construction within 5 years. However, due to weather conditions/seasonal heavy rainfall, mechanical failure, or funding constraints more importantly, the project construction could be delayed.

Project construction will not occur within the flowing water between mid-December through March to avoid potential impacts to adult steelhead, a Federally listed species. Between April and the end of May, a qualified biologist will monitor locations upstream for the presence of young steelhead preparing to swim down to the ocean. By agreement with the National Marine Fisheries Service (NMFS), construction will be allowed between April 15 and June 1 provided that there is no continuous surface flow (water more than an inch deep) occurs between Oak Park and the project area. Either the Corps or an environmental contractor will fulfill this monitoring commitment. Temporary or brief suspensions of construction could occur during these two months.

### ***Staging Stockpiling Areas***

One staging area will be located north of the channel between the railroad and Yanonali Street. Additional access points could be at State Street, Mason Street, and Montecito Street. At these staging areas, the selected contractor will install temporary trailers with sanitary facilities. Small quantities of material excavated (about 3,000 to 4,000 cy) from the creek bed will be stockpiled at these local staging areas, but the majority of it will be transported to the remote stockpile/disposal site, about 20 miles from the project area. Material will be processed on site to be used for the project construction. Staging will also be located along the creek banks.

### ***Equipment for Construction***

Construction equipment will include pile driver, bulldozers, grader, trencher, crane, off-highway trucks, water trucks, etc. Most of the equipment will be used for 8 hours a day. The equipment will be stored at the staging area.

### ***Construction Crew***

About 20 to 30 construction crew members will be required to construct the proposed project for the anticipated incremental period of about 5 years. Most of the construction workers will come from a radius of about 20 miles, residing within the City or County of Santa Barbara. Maximum one-way travel distance will be about 20 miles. It is estimated that about 20 to 30 passenger vehicles will be used by the construction crews for commuting during the duration of the construction.

### ***Haul Routes***

Hauling of materials and equipment to and from the project site will primarily use Highway 101 and nearby on/off ramps. The Castillo Street on/off ramp is near the project area and provides the most direct route to the proposed staging and stockpiling sites. Access and haul routes from the staging and stockpiling sites to the specific creek construction site, will use streets that are nearest to the creek, taking the most direct route. Castillo, Montecito, Yanonali, Mason, and State Streets will provide the main access during construction downstream of Highway 101.

### ***Operation and Maintenance***

Perpetual maintenance of the creek is an integral part of the project. The project will use the Adaptive Maintenance Plan approved in the 2006 CCD. To ensure and maintain its design, function, and form, some maintenance to maintain the design capacity of the channel will be needed on a regular basis. Any areas where sediment deposition and/or vegetation growth impede more than 15% of the channel capacity, will be removed to maintain the capacity of the project reach. Future maintenance will also include maintenance of the structures such as cleaning of oxbow culverts, repair of vertical concrete walls and riprap (bottom riprap lining and baffle piers), structures for mitigation, and maintenance of planted vegetation (after initial establishment required as part of project

construction). It is estimated that the frequency of sediment removal will be as often as once a year. However, when several low-flow years occur sequentially, sediment removal might occur every two to three or more years. Future maintenance will be similar to the existing maintenance performed by Santa Barbara County. Evidently, no sediments were removed from the sandstone channel (between Montecito and Yanonali Streets) during recent maintenance. No maintenance of any kind had been performed in the estuary (between Yanonali Street and Cabrillo Boulevard).

*Inspections.* Flood Control staff, in addition to representatives from regulatory agencies, will conduct periodic inspections. The Flood Control's inspection will determine the condition of the various components of the project and disclose any areas that require repair, replacement, or maintenance. Inspections will occur in the spring after the rainy season, in the fall immediately prior to the rainy season, and after major storms.

*Stream Bed Maintenance:* Inspection and maintenance of the streambed will address vegetation control, fish baffles, rocky energy dissipater and boulder fields, de-silting, and shaping.

Usually, sediment removal will occur only when the flow of water approaches the seasonal minimum, i.e. between mid-August and mid-October. However, in the case of a heavy storm event, operation/maintenance of the channel invert could be required between December and March. If maintenance work occurs during these months in flowing water, a qualified biologist will be needed on site to monitor the sediment removal activities.

Vegetation control will be accomplished by brushing, clearing, or spraying. Clearing could be done using mechanical equipment such as a dozer. Partial removal of vegetation will occur annually. The removal will follow a mosaic pattern, wherein one-half of the streambed will be cleared while the other half will be cleared the following year. The alternate clearing method will be repeated for the subsequent years. Fish baffles, rocky energy dissipaters, and boulder fields will be periodically inspected. If the riprap or boulders get removed or dislodged, they will be replaced back into the intended design location. Maintenance for the de-silting and streambed shaping will typically be done with a dozer or loader. Typically, accumulated sediment will be pushed to an area where the material can be loaded directly into trucks driving on the channel bottom or to an area where a crane (at the top of bank) can access the material, which could then be loaded into trucks and hauled to a suitable disposal site. Lesser amounts of sediment may be placed on the riprap slope.

*Channel Wall Maintenance.* Any adverse conditions encountered will be repaired as soon as possible. Inspection and maintenance of the channel walls, culvert, fish ledges, and the cut stone channel, will address the following:

- Cracking, chipping or breaking, and eroding of the concrete to an extent which might affect the stability of the wall or its permeability.
- Evidence of settlement, uplift, scour or failure of concrete structures will be given special attention.
- Prevention of damage to, or loss of, backfill behind walls through settlement, unauthorized removal of soil and sloughing of soil from adjacent property.
- Weep holes will be cleaned on a regular basis. Accumulated debris will be removed from the front of any weep holes.
- Sediment and debris deposited within the culvert will be removed. Sediment removal will be conducted by pushing the accumulated sediment to the inlet and/or outlet where the material can be removed with a crane or excavator.
- Drainage structures such as pipes, headwalls, outlets, etc., will be maintained to preserve their function.

Inspection and maintenance of the Expanded Habitat Zones will address the following:

- The growth rates of the trees and shrubs will be documented for 5 years and vegetation will be maintained by the local sponsors for the life of the project.
- If the plants do not meet pre-determined growth rates, actions will be taken to improve growing conditions such as fertilization and increased irrigation; trees and shrubs that do not survive will be replaced as soon as possible with local stock.
- Non-native vegetation will be removed and/or controlled with herbicide.
- Coordinate trash removal with local volunteer groups or other agencies.
- Any adverse conditions encountered will be documented in the District's Annual Maintenance Plan, the annual re-vegetation monitoring plan, or the annual report.

### ***Removal of Urban Trash***

At every maintenance period, litter will be removed from the project reach to reduce impacts on water quality and biological resources. The local sponsor will also work with other agencies and volunteer groups to provide additional trash removal as needed.

### ***Equipment for Future Maintenance***

Front-end loaders (both full sized and miniature), tracked excavators, mobile conveyor belts, and dump trucks (20 cubic yard capacity) will be appropriate. All equipment will enter and leave the creek only at the identified access points. Refueling and lubrication of equipment will not occur within the stream channel.



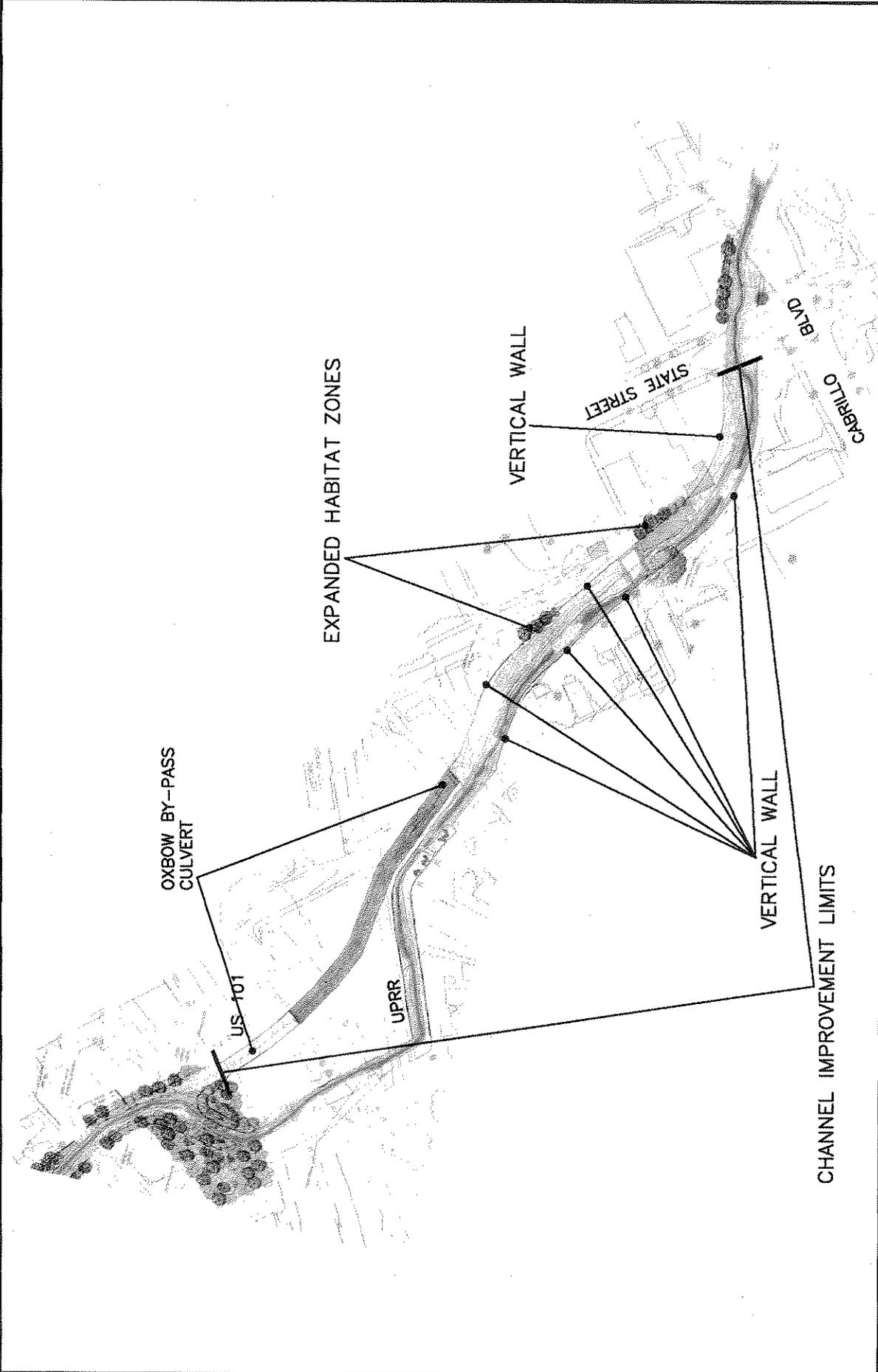
LOWER MISSION CREEK FLOOD CONTROL PROJECT  
OVERALL PROJECT IMPROVEMENT LIMITS

Drawn By: \_\_\_\_\_  
Date: \_\_\_\_\_

FIGURE 1







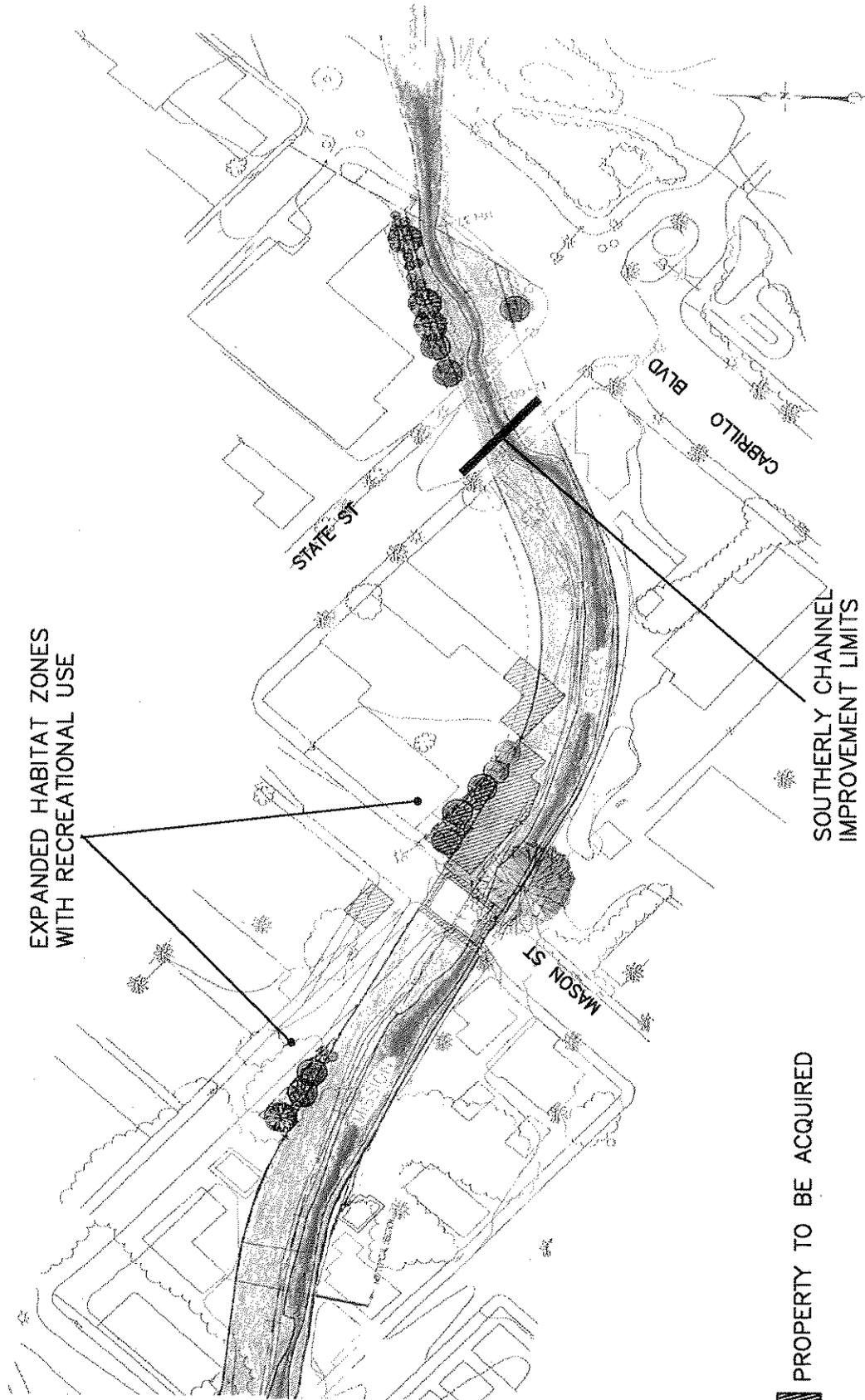
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FIGURE 2

LOWER MISSION CREEK FLOOD CONTROL PROJECT  
 CHANNEL IMPROVEMENT LIMITS  
 AND  
 BANK TREATMENT LOCATIONS







PROPERTY TO BE ACQUIRED

SOUTHERLY CHANNEL IMPROVEMENT LIMITS

EXPANDED HABITAT ZONES WITH RECREATIONAL USE



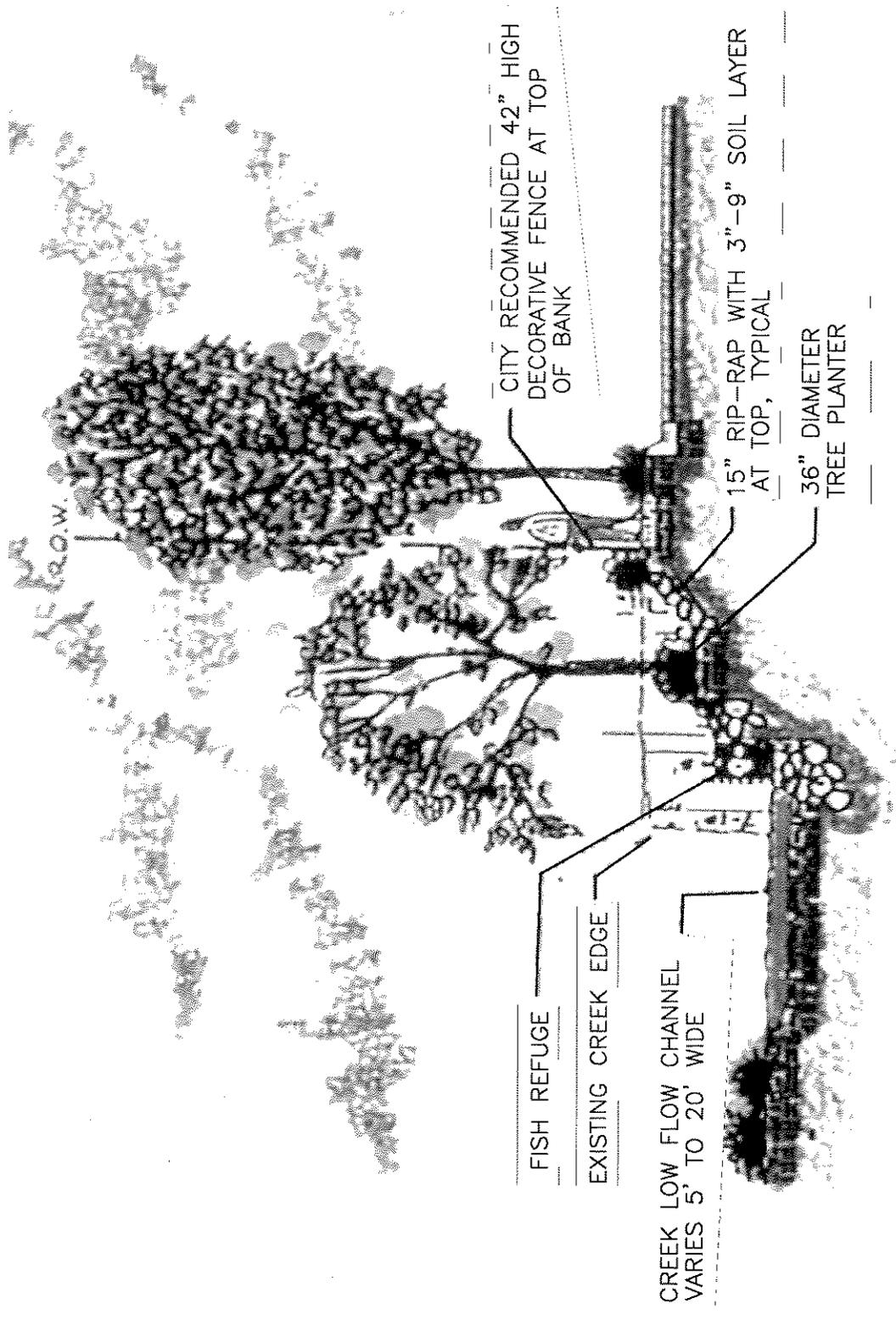
LOWER MISSION CREEK FLOOD CONTROL PROJECT  
 PROPERTY ACQUISITION PARCELS  
 AND  
 EXPANDED HABITAT ZONES

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

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FIGURE 3





LOWER MISSION CREEK FLOOD CONTROL PROJECT

EXPANDED HABITAT ZONE PREFERRED OPTION

Drawn By: \_\_\_\_\_ Date: \_\_\_\_\_

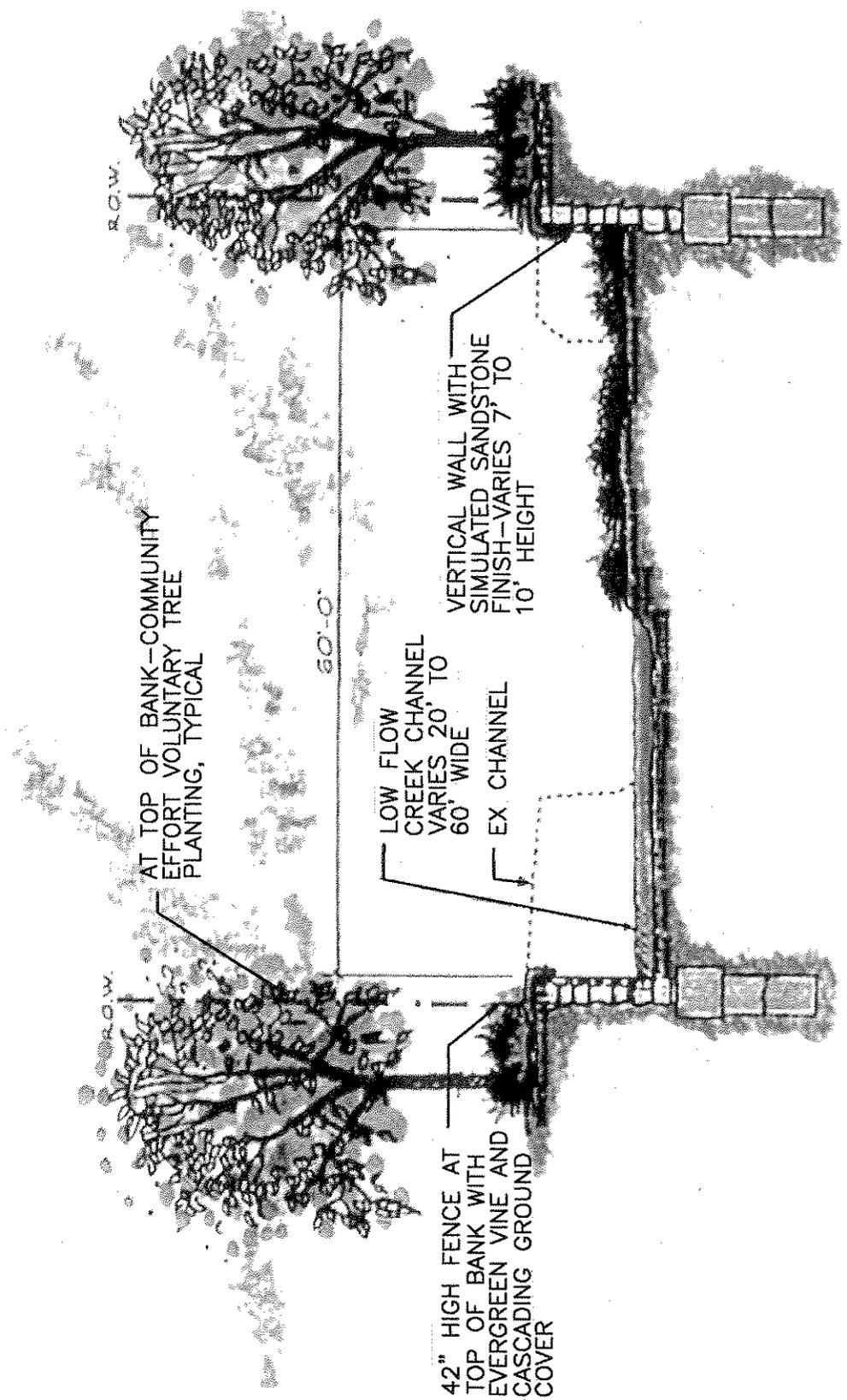
FIGURE 4











AT TOP OF BANK—COMMUNITY EFFORT VOLUNTARY TREE PLANTING, TYPICAL

60'-0"

LOW FLOW CREEK CHANNEL VARIES 20' TO 60' WIDE

EX CHANNEL

42" HIGH FENCE AT TOP OF BANK WITH EVERGREEN VINE AND CASCADING GROUND COVER

VERTICAL WALL WITH SIMULATED SANDSTONE FINISH—VARIES 7' TO 10' HEIGHT

R.O.W.



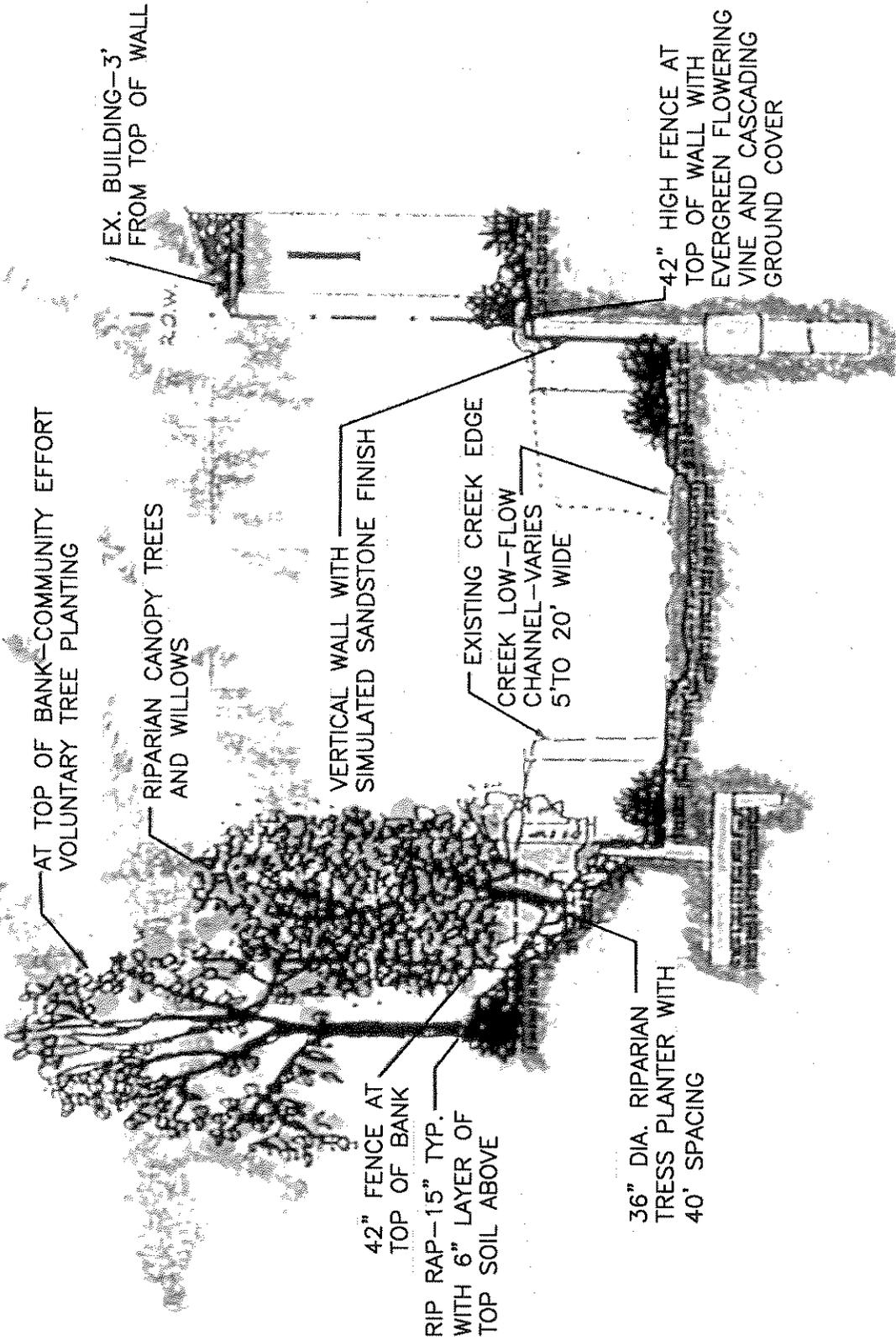
LOWER MISSION CREEK FLOOD CONTROL PROJECT

VERTICAL WALL ON PIER/PILE FOOTING

Drawn By: \_\_\_\_\_ Date: \_\_\_\_\_

FIGURE 6





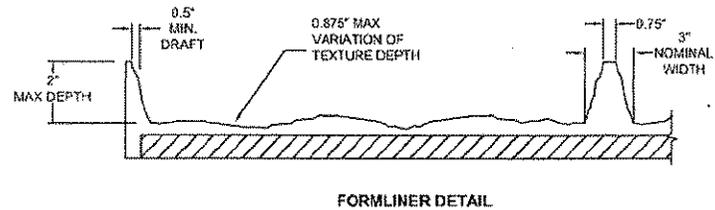
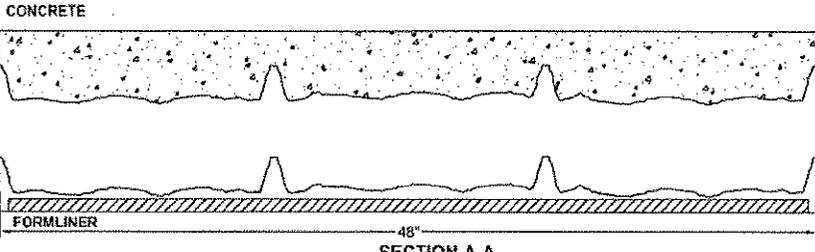
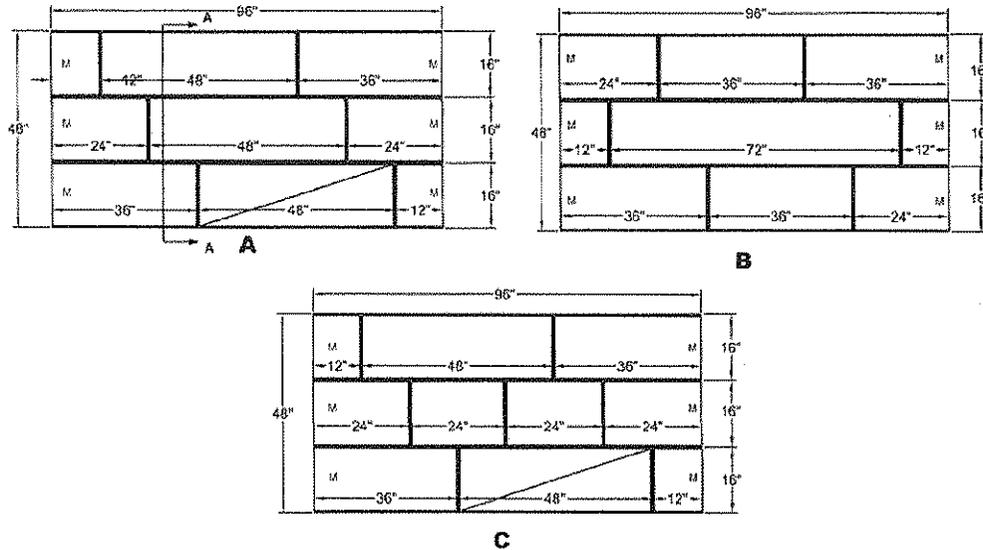
LOWER MISSION CREEK FLOOD CONTROL PROJECT

VEGETATED SIDE SLOPE AND VERTICAL WALL SECTION

Drawn By: \_\_\_\_\_ Date: \_\_\_\_\_

FIGURE 7





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LOWER MISSION CREEK FLOOD CONTROL PROJECT

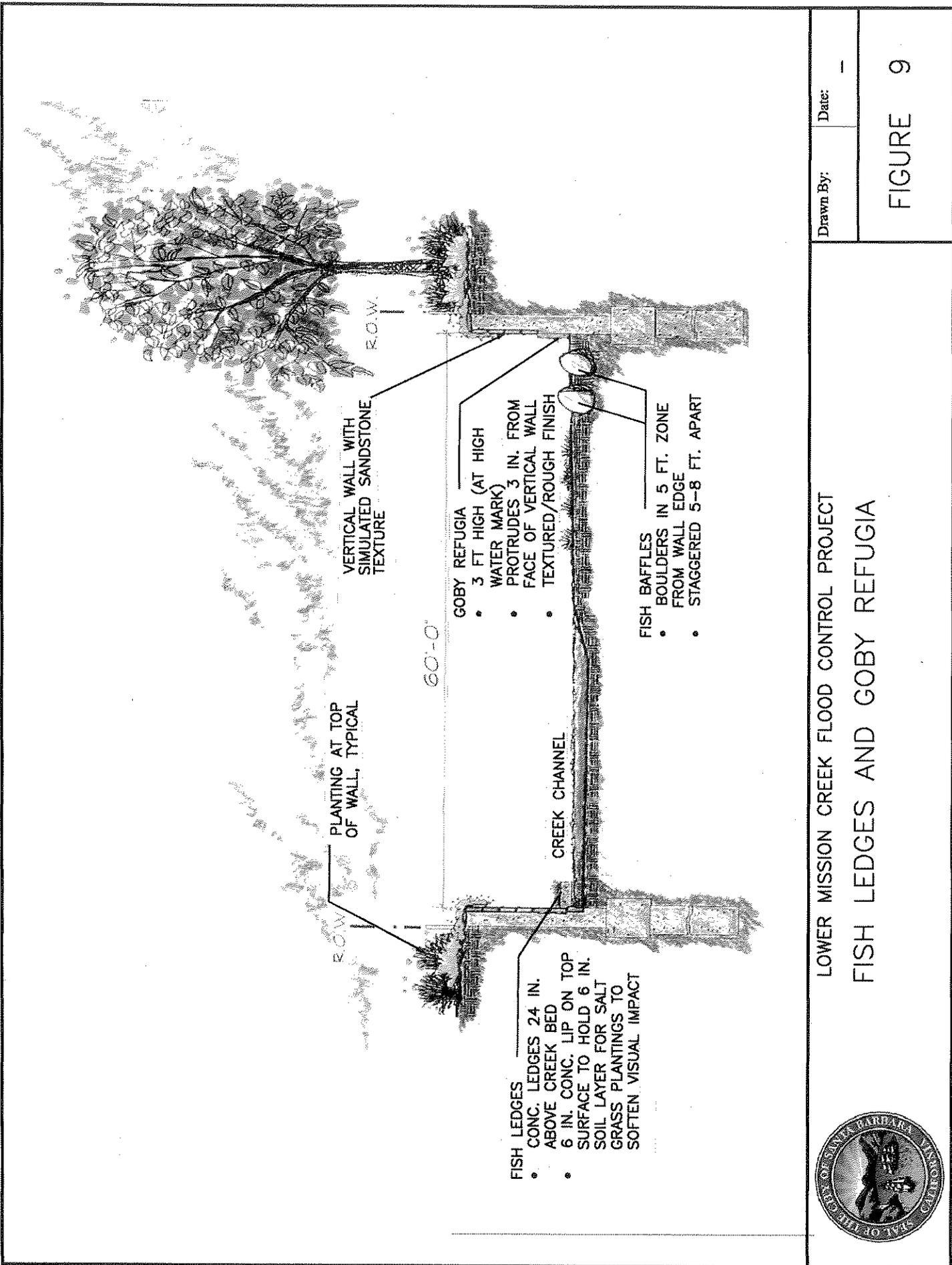
FAUX SANDSTONE  
GOBY REFUGIA

Drawn By:

Date:

FIGURE 8





PLANTING AT TOP OF WALL, TYPICAL

VERTICAL WALL WITH SIMULATED SANDSTONE TEXTURE

60'-0"

GOBY REFUGIA

- 3 FT HIGH (AT HIGH WATER MARK)
- PROTRUDES 3 IN. FROM FACE OF VERTICAL WALL
- TEXTURED/ROUGH FINISH

CREEK CHANNEL

FISH LEDGES

- CONC. LEDGES 24 IN. ABOVE CREEK BED
- 6 IN. CONC. LIP ON TOP SURFACE TO HOLD 6 IN. SOIL LAYER FOR SALT GRASS PLANTINGS TO SOFTEN VISUAL IMPACT

FISH BAFFLES

- BOULDERS IN 5 FT. ZONE FROM WALL EDGE
- STAGGERED 5-8 FT. APART

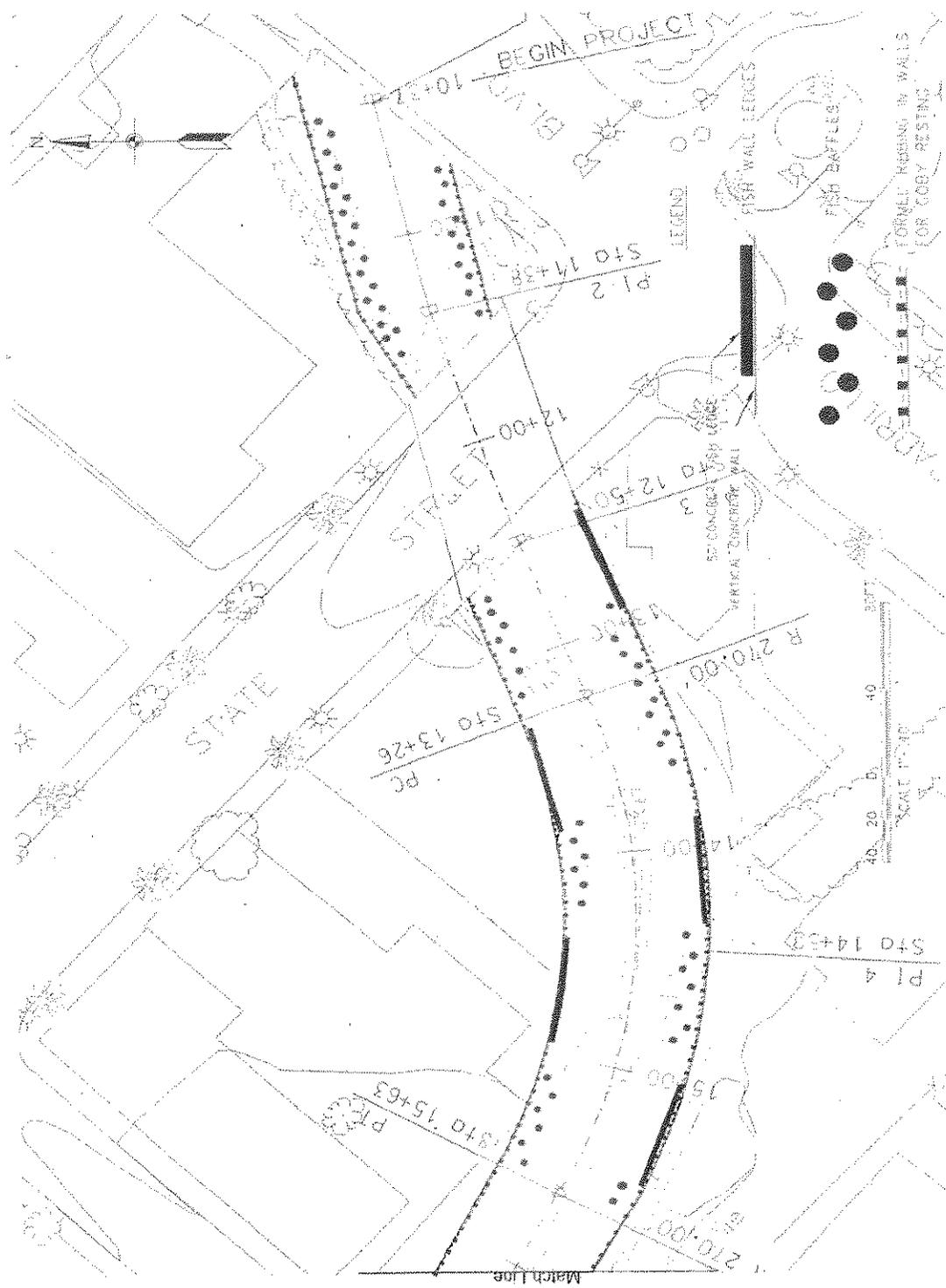


LOWER MISSION CREEK FLOOD CONTROL PROJECT  
FISH LEDGES AND GOBY REFUGIA

Drawn By: \_\_\_\_\_ Date: \_\_\_\_\_

FIGURE 9





LOWER MISSION CREEK FLOOD CONTROL PROJECT

FISH LEDGES AND GOBY REFUGIA LOCATIONS

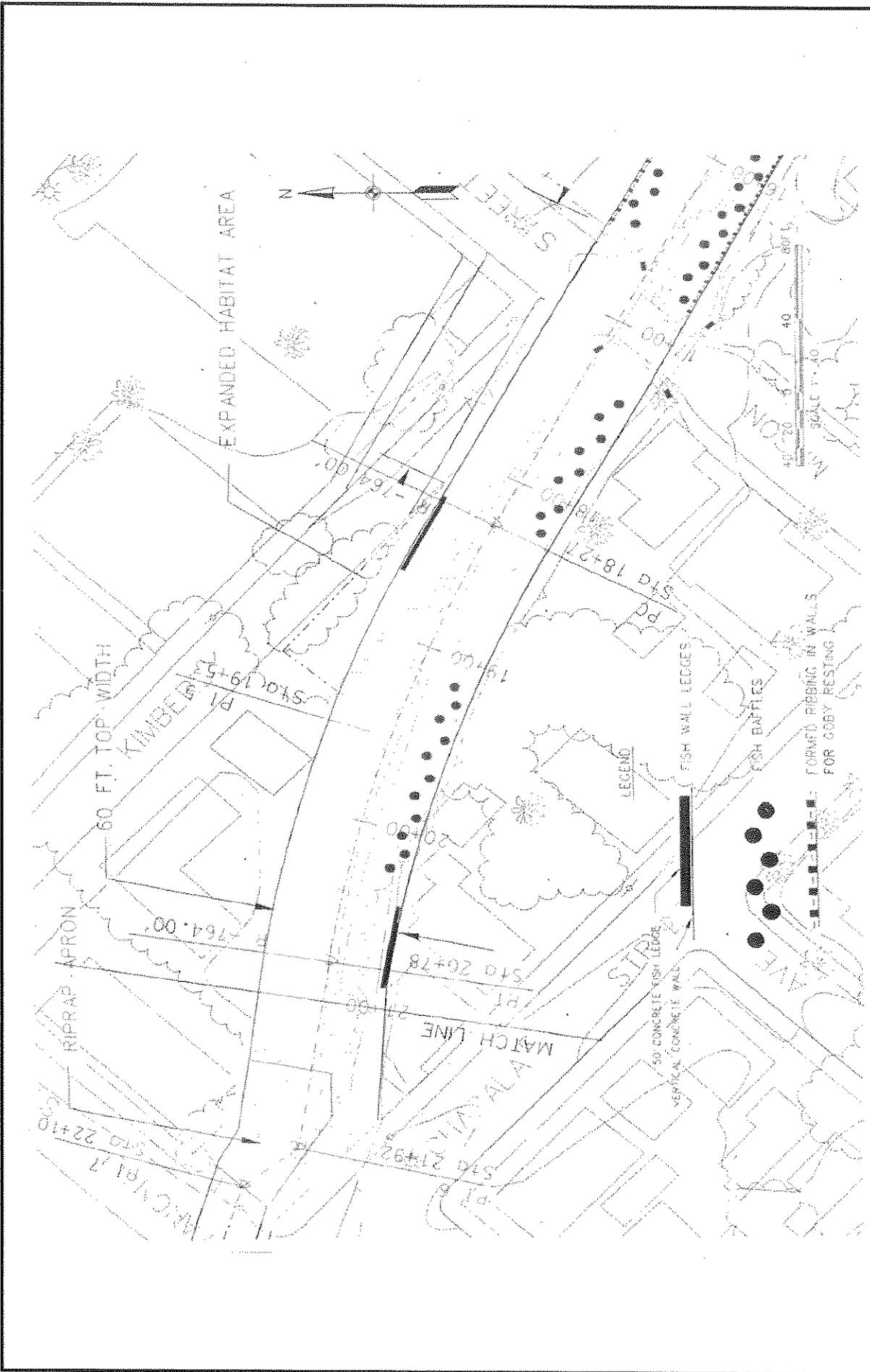
Drawn By: \_\_\_\_\_

Date: \_\_\_\_\_

FIGURE 10







LOWER MISSION CREEK FLOOD CONTROL PROJECT  
 FISH LEDGES AND GOBY REFUGIA LOCATIONS

Drawn By: \_\_\_\_\_  
 Date: \_\_\_\_\_





**Arborist Report on Impact to Moreton Bay Fig Tree  
Of Lower Mission Creek Box Culvert Project**

December 19, 2007

Jon Frye  
Engineering Manager, County Flood Control  
123 E. Anapamu St.  
Santa Barbara, CA 93101

Dear Mr. Frye,

I have been asked by you on behalf of the Santa Barbara County Flood Control Department to evaluate newly revised plans to install underground box culverts through the city park property, inventoried as "Moreton Bay Fig Tree Park," pertaining to specific expected impacts upon the health of the fig tree by the installation and construction activities of such a project. The most recent proposed plans, prepared by Penfield & Smith Engineering show an alignment of the box culverts which is different from the previous alignment proposed by the U.S. Army Corps of Engineers and reviewed in the EIS & F-4 Main Report Dated July 1999.

In reference to the Moreton Bay Fig Tree (*Ficus macrophylla*), the new alignment places the edge of the box culvert construction zone, slightly more than 30' closer to the drip line than the earlier proposal, for a short area tangent to the edge of the arc of the dripline. Essentially, this slight zone of encroachment as proposed would now be approximately 35 feet beyond the current drip line of the tree rather than the 60 foot distance as proposed in the 1999 EIS review.

On Wednesday 12/13/07, I met with Tim Downey, Urban Forest Superintendent, with the City of Santa Barbara Parks and Recreation Department. We briefly discussed these new plans relative to the fig tree, as well as activities he and Parks staff have undertaken over the past two years to improve upon the overall health of the Moreton Bay Fig. I was also given ample time to review the extensive file information that the Park Division has about the fig tree going back over 50 years. There have been several consulting arborist reports prepared over the past 18 years addressing a variety of aspects about the fig tree. As city arborist myself, serving from 1980- August 2002, I am well familiar with all of these reports, including the most recent, very extensive study and report submitted by local consulting arborist Bill Spiewak.

I have utilized considerable information from the January, 2000 consulting report by Michael T. Mahoney entitled, "Mission Creek Channel Assessment of Impact on Fig Tree," in my preparation of this current report. A copy of the Mahoney Report can be obtained out of the Parks Division file by contacting Tim Downey at 564-5592, if necessary for the current review. I have attached a sketch attachment to the Mahoney report and three black and white photos he took in December 1999, and I have attempted to add in the approximate newly proposed culvert alignment to his sketch.

On Friday, 12-14-07, I met with Jon Frye at the County Flood Control office to discuss specific construction details for the proposed box culvert installation across the Moreton Bay Fig Tree Park turf zone. Essentially, the project will involve the excavation of a trench about 40 feet wide and 10-12 feet deep in order to install two box culvert cells placed side by side, each culvert being 16 feet wide by 6' high on top of and surrounded by rock, with the area above to be restored after construction to its original condition. Mr. Frye answered all of my questions about the installation of these culverts and we briefly discussed some of the construction techniques and fig tree impact mitigation measures that I was then contemplating and will detail later in this report.

After careful study of the proposed plans prepared for County Flood Control by Penfield & Smith Engineering for this project and my review of all other relevant information available, and based upon my own extensive knowledge about this landmark tree and the orientation of its root system, I feel confident in making the following observations and recommendations:

### Observations

1. The Moreton Bay Fig tree is presently in good condition, with stable vigor and health considering the massive size of the tree and its age and growing conditions of the site as it exists now.
2. The tree is being well and properly managed by professional staff of the City Parks Division. Proactive measures to improve upon tree health are ongoing.
3. The extensive root system of this tree primarily exists within an area following outward from the buttress above the ground portions of the trunk, mostly oriented to the south and Westward from the main trunk. In other words over 90% of the living root system of this tree is growing within the open soil area and extending out under the turf zone within the park site, with very little of the root zone growing to the North and East directions out under Montecito Street and Chapala streets respectively.
4. The vast majority of the live absorbing roots and conducting support root system of this tree are growing within the top two feet of the soil profile within the park as stated above. However, it is my opinion that there are a significant number of "sinker" roots emanating from the primary and secondary support roots that grow much deeper into the soil profile to depths that may near the fluctuating water table level. It is these roots that have enabled this amazing specimen to survive for 130 years, enduring many periods of extended drought.
5. The viable healthy absorbing root system of this tree should be expected to extend about half way out under the turf zone from the present distance measured from the trunk to the drip line. If this is a correct estimate and I believe it is based on accepted arboricultural knowledge of root system orientation for such large, mature shade trees, and also based upon specific exploratory trench excavation done as part of the on site root analysis for the Mahoney report, then most active growing, fine absorbing roots are both under the extensive mulched drip line zone and extend out approximately 30-40 feet under the turf.
6. Because of the detailed observations/opinions discussed under points 3, 4, & 5 above, I believe that somewhere between 92-98 percent of the living root system of this dynamic specimen tree will be totally unaffected by the alignment of the currently proposed Mission Creek culvert installation if construction activities are undertaken carefully and are properly monitored by a local arborist certified by the International Society of Arboriculture. More details for other construction impact mitigations are included under the following section of recommendations.
7. I do not believe that the ground water table conditions or horizontal movement of water into or way from the root zone will be significantly altered by the installation of the Mission Creek diversion culverts or by the construction activities proposed as discussed with Jon Frye.

### **Recommendations to minimize construction impact to the Moreton Bay Fig Tree**

1. A sturdy construction fence should be installed as near as possible to the limit of the excavation trench on the side of the fig tree buffer zone. This zone must be kept free at all times from any parking of construction equipment or storage of construction materials.
2. All excavations must be made from the opposite side of the channel trench, away from the trench wall shoring edge of the side of the tree.
3. Any roots over 2" in diameter that are uncovered by the excavations must be cleanly severed, using sharp hand cutting tools to assure a clean root cut, at the edge of the channel wall on the fig tree side but do not need to be treated with any materials as previously suggested in the 1999 EIS. Such practice will have no beneficial effect upon cut roots or overall tree health.
4. Remove all turf grass between the edge of the excavation trench and the drip line of the fig tree (about where present turf meets mulch zone) and mulch the entire area with 2' deep composted organic mulch to be approved by City Park Division staff. Irrigate and organically fertilize this entire area per direction of City Park Staff. This work should be complete prior to the initiation of construction activity for the installation of deep underground culverts.
5. Have a local ISA certified arborist available to daily monitor the excavation process and direct proper methods of root pruning as needed. Never allow excavators to rip or tear roots encountered.

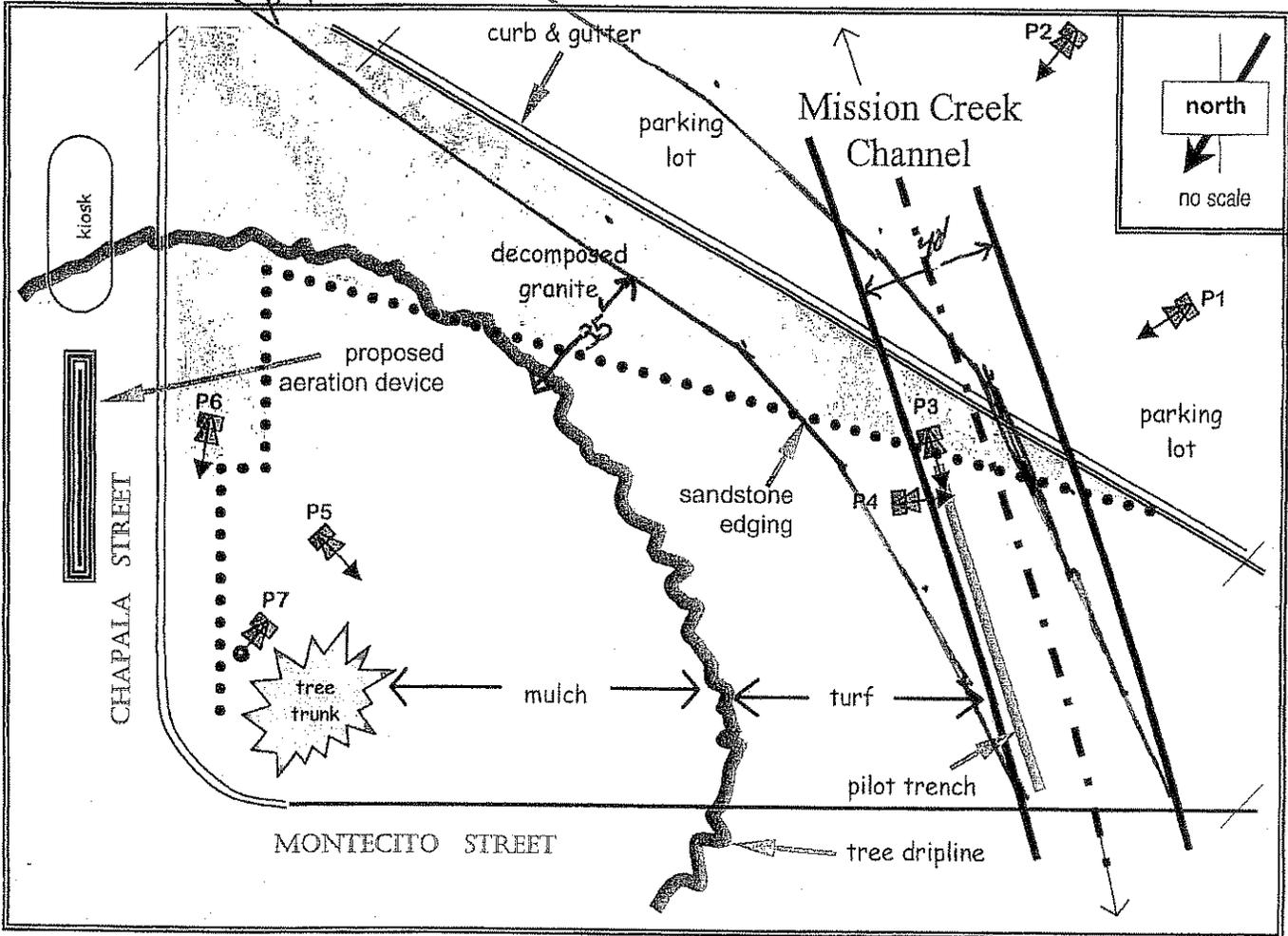
Incorporation of these five recommendations into any project conditions should help significantly to assure that no serious construction damage to the Moreton Bay Fig occurs as part of the Mission Creek drainage installation under the Fig Tree Park turf area. I do not feel that the new alignment of the culverts 30 feet closer to the drip line than was proposed in the 1990's design will have any serious impact on the health or long term survival of the tree.

Respectfully Submitted,



Dan Condon  
Consulting Arborist

Site Sketch



- Seven photos were taken at locations indicated by this symbol . The object is intended to represent a camera, the arrow pointing in the direction facing the image.
- The long, narrow orange line just inside the Mission Cheek Channel on the side facing the tree depicts the pilot trench.
- The tree's canopy extends to the dripline, indicated by the irregular, wide green line arching across the lower left corner of the sketch.
- Chapala Street, Montecito Street and the parking lot south of the tree are paved.
- Except where indicated by texture as covered with decomposed granite, bare ground beneath the dripline is covered with a bed of organic mulch – this mulch must be replenished on a regular basis.
- Beyond the dripline bare ground is covered with turf grass.
- An aeration device is depicted in the pavement along the centerline of Chapala Street north of the kiosk.



P2 – view of city crew digging another exploratory pit to inspect root zone activity. Several lateral roots were encountered here as well as herbaceous absorbing root. The pilot trench is seen in the lower right corner behind an orange safety screen. The sandstone edging is also seen transecting the lower right corner with turf grass above and decomposed granite below.



P3 — view into the pilot trench looking from east to west. The trench is about 90' long, 15" wide and 2' deep. A 2" diameter root is slightly visible in the foreground in this picture of the trench



P4— close-up view of a 2" diameter root near the east end of the pilot trench.  
The small roots at the sides of the trench are mostly from turf grass though some are from the Fig.



**Lower Mission Creek Flood Control Project (MST2008-00360/CDP2008-00012)**

**MITIGATION MONITORING AND REPORTING PROGRAM**

**PURPOSE**

The purpose of the Lower Mission Creek Flood Control Project Mitigation Monitoring and Reporting Program (MMRP) is to ensure compliance with all mitigation measures identified in the Addendum to the certified Final EIS/EIR (State Clearinghouse #1998101061) was prepared for the Lower Mission Creek Flood Control Project to mitigate or avoid potentially significant adverse environmental impacts resulting from the proposed project. The implementation of this MMRP shall be accomplished by City staff and the Public Works Department, consultants and representatives. The MMRP program shall apply to all of the actions occurring under the Coastal Development Permit for the Lower Mission Creek Flood Control Project.

**I. RESPONSIBILITIES AND DUTIES**

A qualified representative from the Public Works Department, approved by the City Planning Division and paid for by the Public Works Department shall be designated as the Project Environmental Coordinator (PEC) for each department. The PEC shall be responsible for assuring full compliance with the provisions of this mitigation monitoring and reporting program to the City for actions undertaken under the Lower Mission Creek Flood Control Project. The PEC shall have authority over all other monitors/specialists, the contractor, and all construction personnel for those actions that relate to the items listed in this program.

It is the responsibility of the Public Works Department to comply with all mitigation measures listed in the attached MMRP matrix table. Any problems or concerns between monitors and construction personnel shall be addressed by the PEC and the responsible department. Staff and/or contractors hired to do work under the Lower Mission Creek Flood Control Project shall provide a schedule of activities for review and approval of the PEC. The staff or contractor shall inform the PEC of any major revisions to the construction schedule at least 48 hours in advance. The respective PEC, staff, and contractor shall meet on a weekly basis in order to assess compliance and review future activities anticipated under the construction of the Lower Mission Creek Flood Control Project.

**A PRE-IMPLEMENTATION BRIEFING**

The PEC shall prepare a pre-implementation briefing report. The report shall include a list of all mitigation measures and a plot plan delineating all sensitive areas to be avoided. This report shall be provided to all personnel performing work under this permit.

The pre-implementation briefing shall be conducted by the PEC. The briefing shall be attended by the PEC, supervisors of staff working on the project, necessary consultants, Planning Division Case Planner, and all contractors and subcontractors associated with the project. Additional pre-construction briefings shall be conducted when changes in the PEC, staff working on the project, and a change in contractor occurs.

This MMRP shall be presented to those in attendance at the meeting. The briefing presentation shall include project background, the purpose of the MMRP, duties and responsibilities of each participant, communication procedures, monitoring procedures, filling out of the mitigation monitoring matrix and summary reports, and duties and responsibilities of the PEC, staff, contractors, and project consultants.

It shall be emphasized at this briefing that the PEC and project consultants have the authority to stop construction and redirect construction equipment in order to comply with all mitigation measures.

## II. IMPLEMENTATION PROCEDURES

### A. REPORTING PROCEDURES

The PEC for the Public Works shall utilize the MMRP Matrix Table, attached to the Addendum to the Mitigated Negative Declaration, as the basis for daily monitoring of activities approved as a part of the project. As long as no compliance with mitigation measure issues is identified on the completed matrix table, the MMRP forms shall be kept on file at the Public Works and Parks and Recreation Departments. If the PEC identifies non-compliance or other problems with mitigation measure issues, the completed forms shall be forwarded to the Planning Division. In addition, monthly summary reports and annual summary reports on the mitigation monitoring program shall be submitted to the Planning Division by the PEC.

### A. MMRP MATRIX

The following MMRP Matrix Table provides each mitigation measure, identifies the responsible party, and allows the monitor to indicate the date monitoring occurred, whether the mitigation measure has been implemented, and comments on activities, if necessary.

The MMRP Matrix Table is intended to be used by all parties involved in monitoring the project mitigation measures, as well as project contractors and others working in the field. The Matrix Table shall be used as a compliance checklist to aid in compliance verification and monitoring requirements for all activities conducted under the Lower Mission Creek Flood Control Project, whenever activities authorized under this permit are conducted. A copy of the MMRP matrix table shall be kept in the project file at the Public Works Department as verification that compliance with all mitigation measures has occurred.

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<b>AES-1 Bank Planting.</b> Upper creek banks shall be planted with natural vegetation.				
<b>AES-2 Vertical Walls/Fences.</b> Plant vines along the vertical walls to minimize visual impacts; cover concrete with natural color and texture. If fencing is installed in the project design for safety purposes, plant vines along fencing to minimize impacts. Upgraded fence materials shall be used in areas visible or accessible to the public.				
<b>AES-3 Concrete Treatment.</b> Aesthetic treatment, including the use of colored concrete and/or pouring concrete in forms that would mimic existing sandstone walls or natural vertical creek banks, shall be incorporated into project plans to minimize project-related impacts.				
<b>AES-4 Bridge Design.</b> Mason Street Bridge shall be designed to retain an appearance appropriate to the character of the neighborhood in which it is located. Design of the bridge shall be reviewed and approved by the Historic Landmarks Commission.				
<b>AQ-1 Dust Control.</b> Water the excavation site, storage piles and unpaved roads twice each day of construction - once in the morning and at the end of the construction day; and cover material transported in haul trucks.				
<b>AQ-2 Speed.</b> Limit vehicle speeds to 15 mph maximums within the construction site and maintenance areas.				
<b>AQ-3 Wind Erosion.</b> Cease grading and earth movement when wind speeds exceed 15 mph, or as confirmed by SBCAPCD. Storage piles shall be covered to minimize fugitive dust.				
<b>BIO-1 Equipment.</b> To avoid impacts to aquatic resources, no construction equipment shall be operated within the channel and stream bottom between December 1st and March 30th or whenever significant water flows (defined as more than 1/2" for April and May and more than 1" from June through November) pass down Mission Creek.				
<b>BIO-2 Construction Dates.</b> To avoid impact to steelhead trout and tidewater goby, which are federally listed species, construction shall be restricted to dates between June 1 and December 1st if water flow in the CALTRANS Channel [upstream of Yanonali Street within Mission Creek] is more than 1/2 inch deep. If no continuous surface water flow (defined as more than 1/2" for April and May and more than 1" from June through November) exists in the CALTRANS Channel after April 15th, construction could occur from then until December 1st. Downstream of Yanonali Street, all construction in Mission Creek shall be performed after June 1, provided no significant stream flows are occurring in Mission Creek.				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p><b>BIO-3 Construction in the Channel.</b> No construction shall occur in the flowing water. If water is present during construction, the water shall be diverted by construction of a low flow channel or installation of a pipe as follows:</p> <ul style="list-style-type: none"> <li>• No construction work is allowed in water in the estuary from December 1 to June 1<sup>st</sup></li> <li>• Divide a suitable length of the estuary down the middle with an impermeable barrier, such as sheet piling. The length should be as long as practicable to minimize repetition of this divide and dry procedure for making temporary construction enclosures. A lateral coffer dam in mid-stream shall not be acceptable because of increased turbidity and fine sediments that would be conveyed downstream to the coastal lagoon.</li> <li>• Dam half the estuary at the upper end with sheet piling</li> <li>• A qualified biologist shall walk downstream in a zigzag pattern to herd as many fish as possible from the incipient enclosure</li> <li>• Dam the lower end of the enclosure with sheet piling immediately.</li> <li>• Fish biologists shall seine the entire contained half thoroughly to remove any gobies and other large organisms to the wet side of the construction enclosure.</li> <li>• Fish biologists shall monitor the drying enclosure and seine it thoroughly at least twice a week.</li> <li>• When construction on one side has been completed, the downstream wall of the enclosure shall be removed first, followed by the upstream end.</li> <li>• The above steps shall be repeated for the opposite bank construction.</li> </ul> <p><b>BIO-4 Biological Monitor.</b> A qualified biologist (knowledgeable of steelhead and tidewater goby) shall monitor project construction in the water. Monitoring shall be performed at least twice per week at the beginning of construction and every other week after establishment of project construction.</p> <p><b>BIO-5 Design.</b> Implement a design which causes no restriction to the creek bed, and hence no increase of water velocity compared to existing conditions.</p> <p><b>BIO-6 Flow Conditions.</b> Create flow conditions conducive to the passage of steelhead through the length of the project on Mission Creek.</p>				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<b>BIO-7 Fish Refuges.</b> Provide permanent refuges appropriate to Tidewater Goby and Steelhead. Restore an important measure of natural heterogeneity in flow characteristics to the riverine portion of the streambed through the creation of boulder fields. Use placement of ledges, grout lines in cast walls, mid-stream boulder clusters, and natural bottom to promote higher quality of in stream habitat, especially during steelhead migration.				
<b>BIO-8 Habitat.</b> Use strategic placement of boulder clusters on the creek bed as energy dissipaters as determined by a qualified biologist and hydrologist.				
<b>BIO-9 Vegetation Establishment.</b> A temporary, above ground irrigation system shall be installed and maintained for five years to ensure that planted vegetation is established.				
<b>BIO-10 Invasive Plants.</b> Invasive weeds (principally giant reed, castor bean, salt cedar, and sweet fennel) shall be removed at least twice a year for the first two years and annually for the next three years.				
<b>BIO-11 Native Tree Plantings.</b> Any native trees removed shall be replaced. Any native trees which die within the first five years shall be removed and replaced by the same species from 1-gallon stock. The applicant would maintain the planted vegetation for the life of the project. Said replacement trees shall be propagated from local genetic stock, primarily in lower Mission Creek.				
<b>BIO-12 Growth Monitoring.</b> The growth rates of the trees and shrubs planted as a part of this project shall be monitored biannually for five years or until vegetation has been established. If the plants do not meet pre-determined growth and survival rates, actions shall be taken to improve growing conditions such as fertilization, increased irrigation and replanting. Achieve 90% success of the planted vegetation at the end of five years of planting, and ensure that vegetation survival rate is equivalent. If 90% success of the planted vegetation is not achieved after five years, the applicant shall ensure achievement of 90% success of the planted vegetation. For the first year after completion of construction, the stream bank corridors and habitat expansion zones shall be monitored every three months. At each monitoring period, a monitoring report shall be prepared and a final report shall be prepared at the end of the five year period. Said reports shall be submitted to the Santa Barbara City Community Development Department and the Santa Barbara County Flood Control and Water Conservation District. Monitoring of planted vegetation shall be conducted at least twice a year for a minimum of five years.				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<b>BIO-13 Revegetation Plan.</b> A final revegetation plan shall be prepared by a qualified biologist that includes the above-stated mitigation measures, indicates how plants and seeds would be collected and grown for the project, and defines success criteria and monitoring in more detail.				
<b>BIO-14 Moreton Bay Fig Tree.</b> An arborist with knowledge of root systems of large ornamentals shall monitor bypass culvert construction to minimize impacts to the Moreton Bay Fig Tree.				
<b>BIO-15 Moreton Bay Fig Roots:</b> Any Moreton Bay Fig Tree roots over 2 inches in diameter uncovered during excavation shall be cleanly severed using a sharp hand cutting tool.				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p><b>BIO-16 Maintenance:</b> The following shall apply to future maintenance of the creek:</p> <ul style="list-style-type: none"> <li>All routine maintenance shall be accomplished between August 1st and October 31st. A front end loader or road grader working together with dump trucks (10 cubic yards) would be used for the bulk of sediment and vegetation removal.</li> <li>A pair of silt curtain fences (straw bales) shall be set across the low flow channel not more than 100 yards downstream of the work area; the fences shall be approximately 10 yards apart.</li> <li>Any trout present shall be captured by techniques dictated by National Marine Fisheries Service and California Department of Fish and Game and relocated promptly to a suitable refuge. A written report describing in detail any such relocation shall be submitted to National Marine Fisheries Service.</li> <li>Mechanized equipment shall enter the creek immediately adjacent to the oxbow. A front end loader would scoop all materials directly from the channel to trucks waiting above adjacent to the railroad lines.</li> <li>Sediments and vegetation shall be removed when channel capacity has been reduced by more than 15%. The full width of 33 feet would be cleaned of obstructive materials in the oxbow bypass and would continue to follow current practices. If storm events do not reduce conveyance more than 15%, then the next maintenance cycle shall involve only mowing of vegetation.</li> <li>During those maintenance cycles when the County determines silt removal has become necessary, all plants and deposits would be removed. As the final step during maintenance, the pilot channel would be rebuilt following the path where the natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it. A swath half the channel width shall then be mowed or brushed to suppress the growth of potentially large perennials, first along one side as seems convenient for an arbitrary distance (approx. 250 feet), then switching to the opposite bank for another arbitrary distance, while still allowing for the growth of herbaceous perennials and annuals. The pilot channel would not be disturbed.</li> <li>If sediment removal is not needed the next year, then the other half of the channel shall be mowed and brushed. The pilot channel shall not be disturbed.</li> <li>If storm events of the next winter rains leave enough sediment to warrant their removal, then during the following summer the full width of that section of the creek shall be groomed to remove obstructing sediments and plants. The pilot channel shall be rebuilt where a natural channel had gradually come into being, or where the pilot channel was if hydraulic processes have not already shifted and reshaped it.</li> </ul>				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p><b>BIO-17 Fish Habitat Maintenance:</b> Boulder clusters shall be maintained as follows:</p> <ul style="list-style-type: none"> <li>• Sediments shall be removed from among boulder clusters and large rocks of the side baffles only as needed to prevent them from being covered completely.</li> <li>• If necessary, sediments shall be dug from the downstream side of boulders with a backhoe equipped with a 3 foot bucket, then dragged toward the center of the creek to be combined with streambed sediments being removed as described previously.</li> <li>• Any individual boulders that might have been dislodged mechanically or displaced by currents would be pushed back into a suitable vacant spot in the baffle and reset.</li> <li>• Any propagules of giant reed or salt cedar that have taken root shall be eliminated. A combination of foliar application of glyphosate or digging out rhizomes with hand tools could be employed. Application of herbicides shall be very limited, confined to only those small locations where the most persistent and aggressive weedy plants begin to reinvade the creek bottom.</li> <li>• The remaining growth shall be cut back using a brush hog, or similar mowing attachment passed a couple feet over the tops of the rocks. The intent is to cut down woody species before they attain much height or stem expansion, but not to eradicate low-growing herbaceous plants that offer negligible friction to water currents.</li> </ul>				
<p><b>BIO-18 Tree Protection Buffer:</b> Install a construction fence as near as possible to the limit of the excavation trench on the Moreton Bay Fig Tree buffer side. No parking or storage of construction equipment would be allowed in the buffer area.</p>				
<p><b>BIO-19 Tree Protection Excavation:</b> All excavation on the channel near the Moreton Bay Fig Tree shall be made from the side of the culvert opposite from the Moreton Bay Fig Tree.</p>				
<p><b>BIO-20 Tree Protection Mulching:</b> Prior to the initiation of culvert construction, remove all turf grass between the edge of the excavation trench and the and the drip line of the Moreton Bay Fig Tree and mulch the entire area with two-inch deep composted organic mulch to be approved by the City Arborist.</p>				

**LOWER MISSION CREEK FLOOD CONTROL PROJECT (MST2008-00360/CDP2008-00012)  
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE**

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
<p><b>CR-1 Unanticipated Archaeological Resources Contractor Notification.</b> Prior to the start of any vegetation or paving removal, demolition, trenching or grading, contractors and construction personnel shall be alerted to the possibility of uncovering unanticipated subsurface archaeological features or artifacts associated with past human occupation of the parcel. If such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and the applicant shall retain an archaeologist from the most current City Qualified Archaeologists List. The latter shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, which may include, but are not limited to, redirection of grading and/or excavation activities, consultation and/or monitoring with a Barbareño Chumash representative from the most current City qualified Barbareño Chumash Site Monitors List, etc.</p> <p>If the discovery consists of possible human remains, the Santa Barbara County Coroner shall be contacted immediately. If the Coroner determines that the remains are Native American, the Coroner shall contact the California Native American Heritage Commission. A Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.</p> <p>If the discovery consists of possible prehistoric or Native American artifacts or materials, a Barbareño Chumash representative from the most current City Qualified Barbareño Chumash Site Monitors List shall be retained to monitor all further subsurface disturbance in the area of the find. Work in the area may only proceed after the Environmental Analyst grants authorization.</p>				
<p><b>CR-2 Monitor.</b> A qualified archaeological monitor shall be in place during all new ground disturbing activities near archaeological sites CA-SBA-27 and SBA-28. If archaeological artifacts are discovered during project construction, construction shall be halted until appropriate coordination (including notification of the City Environmental Analyst) and recording of the data is completed. A Native American monitor that has traceable hereditary roots to the Barbareño Chumash shall be present.</p>				
<p><b>CR-3 15 West Mason Street.</b> Avoidance is the preferred mitigation, but if the building at 15 West Mason Street is removed, full Historic American Building Survey (HABS) recordation, including a photographic study of the structure to the neighbor hood and a short history of the building that places it in its historic and architectural context, is required prior to issuance of a demolition permit.</p>				

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<b>CR-4 134 Chapala.</b> If the structure is to be removed complete full HABS documentation, including a photographic study of the relationship of the structure to the neighborhood, and a short history of the building that places it in its historical and architectural context prior to the issuance of a demolition permit.				
<b>CR-5 Potter Hotel Footbridge.</b> Extend the box culvert downstream of the Chapala Street Bridge.				
<b>CR-6 Waterfront Neighborhood.</b> Working with the HLC and City Staff, complete a full evaluation of the neighborhood's eligibility for inclusion on the National Register, California Register, or City designation. This study had been completed.	Applicant		Completed	
<b>HAZ-1 Pollution Prevention.</b> Construction equipment shall be kept in proper working condition and inspected for leaks and drips on a daily basis prior to commencement of work. The construction contractor shall develop and implement a spill prevention and remediation plan and workers shall be instructed as to its requirements. Construction supervisors and workers shall be instructed to be alert for indications of equipment-related contamination such as stains and odors. Construction supervisors and workers shall be instructed to respond immediately with appropriate actions as detailed in the spill prevention and remediation plan if indications of equipment-related contamination are noted. No refueling or oil change shall occur in the creek bed.				
<b>HAZ-2 Hazardous Materials Contamination.</b> Prior to construction, borings and soil samples shall be taken at potentially critical areas and analyzed at a qualified laboratory for likely contaminants. If concentrations are detected at or above action levels, remediation action shall be implemented in accordance with federal, state, and county procedures.				
<b>HAZ-3 Sediment Samples.</b> Prior to the commencement of excavation activities, samples of creek sediments shall be taken to the depth of planned excavation and the same suite of analyses used to characterize the shallow sediments would be used to analyze the deep sediments. In the event actionable concentrations of contaminants are detected by the analyses, the applicant shall develop a plan to identify the extent of contamination. A plan shall then be developed and implemented to comply with applicable laws and regulations related to the identified contamination so that excavation activities do not result in releases of actionable levels of hazardous materials to the environment.				
<b>LU-1 Property Acquisition.</b> The applicant shall purchase the property and provide compensation to the property owner and tenants and/or property would be relocated.				

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<p><b>N-1 Construction Hours.</b> Construction (including preparation for construction work) is prohibited Monday through Friday before 7:00 a.m. and after 7:00 p.m., and all day on Saturdays, Sundays and holidays observed by the City of Santa Barbara, as shown below:</p> <p>New Year's Day January 1st*            Martin Luther King's Birthday 3rd Monday in January            Presidents' Day 3rd Monday in February            Memorial Day Last Monday in May            Independence Day July 4th*            Labor Day 1st Monday in September            Thanksgiving Day 4th Thursday in November            Following Thanksgiving Day Friday following Thanksgiving Day            Christmas Day December 25th*</p> <p>*When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.</p> <p>When, based on required construction type or other appropriate reasons, it is necessary to do work outside the allowed construction hours, contractor shall contact the Chief of Building and Safety to request a waiver from the above construction hours, using the procedure outlined in Santa Barbara Municipal Code §9.16.015 Construction Work at Night. Contractor shall notify all residents within 300 feet of the parcel of intent to carry out night construction a minimum of 48 hours prior to said construction. Said notification shall include what the work includes, the reason for the work, the duration of the proposed work and a contact number.</p>				
<p><b>N-2 Truck Traffic.</b> Truck traffic shall be limited to designated truck routes, as determined in cooperation with City Transportation Staff. Truck transport shall be permitted between 7 a.m. and 7 p.m., Monday through Saturday</p>				
<p><b>N-3 City Noise Ordinance.</b> The selected construction contractor shall follow the noise ordinance established by the City of Santa Barbara.</p>				
<p><b>N-4 Notification.</b> Property owners and tenants within the project area shall be notified prior to project construction in their area.</p>				
<p><b>N-5 Equipment.</b> Any equipment that must be operated during nighttime hours must be individually reviewed and treated with enclosures, barriers, silencers or other techniques as required to reduce the noise at any residential property line to 50 dBA.</p>				

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<b>N-8 Silencers.</b> All equipment used in the project shall be equipped with factory standard or better silencing features in proper working condition.				
<b>N-9 Workers.</b> Worker hearing conservation requirements shall be incorporated into contract documents and implemented.				
<b>N-10 Minimizing Noise Due to Pile Installation.</b> In order to minimize the amount of noise and vibration generated by pile installation, the preferred method shall be to use push and twist pile installation techniques. However, should pile driving be necessary, the following shall be required: <ul style="list-style-type: none"> <li>Public Exclusion. If CISS piles are driven with a hammer, members of the public shall be kept out of the 120 dB peak noise level area. The public exclusion area is estimated to be 50 feet from the pile insertion location unless reduced by a three or four sided noise barrier reviewed and approved for adequacy by the noise consultant and the City. If a noise barrier is used, the noise consultant shall specify the reduced estimated distance from the pile insertion that would exceed the 120 dB contour wherein the public would be excluded during pile driving. The public exclusion area shall be clearly demarcated and signed as follows: "WARNING NOISE HAZARD AHEAD, you are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes."</li> <li>Barriers. If CISS piles are inserted, within the area between 50 and 100 feet of the pile insertion point, noise barriers shall be installed that are 8-10 feet high. The barrier design shall be reviewed and approved for adequacy by the noise consultant and the City, and be installed only if the private landowner or business operator consents. In addition, the contractor shall install signs, clearly visible to the public, on all area roadways approximately 150 feet from the construction area that say "WARNING NOISE HAZARD AHEAD, you are advised to avoid the area, use ear protection or stay in this area for less than 30 minutes."</li> </ul>				
<b>REC-1 Recreation.</b> Areas that provide limited passive recreation shall be created where real estate is available.				
<b>SAF-1 Fencing/Access.</b> Provide safety fencing for the public and locations for emergency access.				
<b>TRAN-1 Access/Detours.</b> No access to residences or commercial establishments shall be eliminated. Appropriate detours and traffic control officers would be provided to direct traffic to alternative routes. Alternative routes, including bicycle routes, shall be coordinated with the City of Santa Barbara, Transportation Division.				

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<b>TRAN-2 Safety.</b> During construction, traffic control officers shall be provided at affected intersections to divert traffic to minimize accidents.				
<b>TRAN-3 Notification</b> Notify residents and commercial owners of proposed construction in their area at least 20 days before initiation of construction in the vicinity of their neighborhood to advise them of location, time and duration of construction.				
<b>TRAN-4 Damage.</b> Identify damage caused by construction vehicles and repair damaged facilities. Identify responsible agency or individuals to repair the damaged roads and assure that repair work is completed.				
<b>TRAN-5 Equipment amount, size and speed.</b> Limit the number and size of vehicles and reduce speed limits.				
<b>TRAN-6 Phases.</b> Perform project construction in sections as proposed.				
<b>UTIL-1 Notification.</b> Provide notification to affected landowners prior to disruption of utilities.				
<b>WQ-1 Dewatering.</b> The creek channel upstream of construction activity shall be dammed temporarily to prevent water from entering the reach under construction. A diversion pipe shall be installed in the creek to convey any creek water around the construction area for discharge downstream of the construction activity.				
<b>WQ-2 Leaks.</b> The selected contractor shall develop and implement a spill prevention and remediation plan.				
<b>WQ-3 Time of Construction.</b> No construction or sediment removal shall occur anywhere within the project area between December 1 and April 15. Construction upstream from the estuary could be accomplished between April 15 and November 30, provided that no continuous surface flow exists. Water flowing deeper than an inch through the CALTRANS Channel (above Yanonali Street) between April 15 and June 1 would require temporary cessation of construction activities in the streambed.				

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<p><b>WQ-4 Turbidity.</b> Measures to reduce turbidity during the construction of the project and periodic future maintenance shall include installation of pipe, as needed, as well as creation of low-flow channels around construction and debris removal operations to divert water flow and avoid mixing of loose dust particles into creek flow. Details of these mitigation measures are:</p> <ul style="list-style-type: none"> <li>• Pipe culverts shall be placed in the low flow stream where the stream must be crossed on a regular basis. No work shall be allowed in the flowing water except as absolutely necessary (as determined by the Flood Control District and concerned resource agencies).</li> <li>• Construction of temporary low-flow channels within the creek during debris removal operations shall be required to minimize turbidity and provide habitat for aquatic species. The low-flow channel shall be constructed around and away from debris removal operations. Project biologists shall develop criteria for the low-flow channels.</li> <li>• Conditions identified in the federal and state permits (Section 404 permit and Section 401 Water Quality Certification and 1601/1603 Streambed Alteration Agreement) shall be followed during construction and future maintenance as applicable.</li> </ul>				
<p><b>WQ-5 Discharges During Maintenance:</b> • No discharge of oil or spill of contaminated material shall be allowed within the creek bed.</p>				

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