CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

W22b

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ADDENDUM

DATE: May 12, 2014

TO: Commissioners and Interested Parties

FROM: South Central Coast District Staff

SUBJECT: Agenda Item W22b, Application No. 4-13-1176 (City of Santa Barbara, Public Works Department), Wednesday, May 14, 2014

The purpose of this addendum is to correct minor errors regarding technical facts contained in the May 1, 2014 staff report.

Note: ~~Strikethrough~~ indicates text to be deleted from the May 1, 2014 staff report and underline indicates text to be added to the staff report.

The following changes to Section "IV. Findings and Declarations," found on pages 14-42 of the May 1, 2014 staff report, to reflect minor corrections regarding technical facts of the proposed project.

1. *The last 4 sentences of the 3rd paragraph on Page 15 shall be modified as follows:*

   The pedestrian component of the new bridge however would be enlarged to better accommodate the extensive pedestrian traffic in the area. Curb-to-curb dimensions on the bridge would be ~~72~~ 60 feet. Sidewalks would be ~~six~~ nine feet wide on the north side and ~~nine~~ seventeen feet wide on the south side. The existing beachway (multipurpose trail for pedestrians and bicycles) on the south side of the existing bridge would ~~be expanded eight~~ remain the same eighteen feet in width. As noted above, these sidewalks and beachway expansions would not increase the total width of the bridge.

2. *The last sentence of the 1st paragraph on Page 16 shall be modified as shown below. Additionally, all other references to the existing bridge stream flow capacity of 1,500 cubic feet per second (cfs) on pages 25, 27, and 34 are also changed to 3,400 consistent with the change below:*

   The existing bridge has a capacity of ~~1,500~~ 3,400 cfs without any freeboard space.

3. *The second to last sentence of the 5th paragraph on Page 18 shall be modified as follows:*

…The water would be pumped to a depression on the west side of bridge within the ~~grassy~~ sandy area between the bridge and Stearns Wharf (above the highest high tide line) and sediments would be removed by means of settling, filtering, and percolation into the ground…

4. *The 5th paragraph on Page 34 shall be modified as follows and the following text shall be added:*

In this case, the proposed bridge has been designed to improve hydraulic conveyance to a twenty year creek flood event, and has been designed to withstand overtopping floods (Bengal Engineering 2005). The bridge has been designed with an approximate design life of 75 years for a marine environment with reinforcement against corrosion and earthquakes. This would result in the bridges design life ending in approximately 2090. The proposed finished bridge elevations are 12.2 feet ~~above mean sea level~~ NAVD88 (North American Vertical Datum, 1988) at the bridge's top deck and 9.7 feet ~~above mean sea level~~ NAVD88 at the bridge's bottom deck. This design conforms to the existing elevations of Cabrillo Boulevard and allows overtopping during a 20-year flow event in Mission Creek, for flood control purposes. Specifically, this design would improve the flood capacity of the creek from ~~1,500~~ 3,400 cfs without any freeboard to 3,400 cfs with one foot of freeboard space from the bottom of the bridge to the water surface.

5. *The beginning of the 2nd paragraph on Page 40 shall be modified as follows and the following text shall be added:*

The bridge replacement would result in improved public access including the enlargement of the sidewalk to the north side of the bridge from ~~4.5~~ 5 feet wide to ~~six~~ 9.5 feet wide and the expansion of the existing ~~multi-purpose beachway~~ sidewalk on the south side of the bridge from 8.5 feet wide to ~~10~~ 17 feet wide ~~in each direction~~. The existing beachway (multipurpose trail for pedestrians and bicycles) on the south side of the existing bridge would remain the same eighteen feet in width.

6. *The third sentence of the 3rd paragraph on Page 40 shall be modified as follows:*

Stage 3 would involve the demolition and repair of the southern portion of the existing bridge. During this phase, vehicular traffic would be shifted to the newly completed northern portion of the bridge, the new northern sidewalk that was completed in Stage 2 would be opened for pedestrians, and the pedestrian/bicycle beachway and southern sidewalk would be temporarily closed. Prior to construction on the southern portion of the bridge, a temporary, 12-foot-wide bridge would be constructed across Mission Creek approximately ~~50~~ 65 feet seaward of the existing beachway to accommodate all pedestrians and east-bound bicyclists.

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W22b

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Staff:	D. Venegas-V
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Hearing Date:	5/14/14

STAFF REPORT: REGULAR CALENDAR

Application No.: **4-13-1176**

Applicant: **City of Santa Barbara, Public Works Department**

Agent: **Adam Hendel, Public Works Department**

Project Location: **East Cabrillo Boulevard Bridge over Mission Creek, Santa Barbara (APN: 033-120-0RW)**

Project Description: **Replacement of the existing, structurally deficient 122-foot-long, 110-foot-wide Cabrillo Bridge with a 110-foot wide, 131-foot-long new bridge within the existing bridge footprint. The project involves: (1) the removal of 280 timber and concrete pilings that are approximately 14" in diameter that support the existing bridge and replacement with one row of 18 concrete pilings that are 24" in diameter; (2) replacement of the existing decking, north and south sidewalks, and multi-use public access beachway on the south side of the bridge; and (3) the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean, including the removal of the existing wooden vertical retaining walls and ornamental landscaping upstream of the Cabrillo Bridge, and the removal of approximately 130 feet of the sack-crete retaining walls on each side of the creek downstream of the bridge. Upstream walls would be replaced with concrete retaining walls, downstream walls would be replaced with a rock revetment and vegetated geogrid, and both sections of the creek banks would be planted with native wetland and riparian vegetation.**

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed development with 14 special conditions. The motions and resolution for Commission action can be found starting on page 5.

The City of Santa Barbara Public Works Department is proposing to replace the structurally deficient Cabrillo Bridge over Mission Creek in the City of Santa Barbara. According to engineering analysis, the existing bridge has deteriorated and is not expected to be able to safely carry the amount and weight of future traffic unless it is replaced. The project would also improve the hydraulic conveyance of Mission Creek and involve the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean in the City of Santa Barbara.

The proposed project was reviewed and approved by the Coastal Commission at its April 9, 2008 hearing under Coastal Development Permit (CDP) No. 4-07-134 (City of Santa Barbara, Public Works Department). However, the applicant never satisfied the conditions of that permit that were required to be met prior to issuance and the permit was never issued. The applicant applied for and obtained three one-year permit time extensions; however, the applicant did not apply for a fourth extension to the permit prior to the permit's expiration date and the CDP expired on April 9, 2013. The application that is the subject of this staff report represents the City's resubmittal of an application for essentially the same project that was approved pursuant to CDP 4-07-134with some minor changes to the proposed development which are discussed below in Section IV.C.

Although the project is located within the City of Santa Barbara, which has a certified LCP, the majority of the project, including all work between the western and eastern banks of Mission Creek are located within the retained coastal development permit jurisdiction of the Coastal Commission. The subject coastal development permit is for that portion of the project in the retained jurisdiction of the Commission. The City has previously approved a coastal development permit for the portion of the project outside of the Commission's retained permit jurisdiction.

As proposed, the existing Cabrillo Boulevard Bridge over Mission Creek would be removed and replaced with a similar bridge that would have a total deck length of 131 feet (length measured west to east). The new bridge would be nine feet longer than the existing bridge with expansion at the east end of the bridge which allows additional area under the bridge to accommodate creek flows. These changes will increase the flood area (both width and height) and hydraulic capacity of Mission Creek. The proposed new bridge would have a capacity of 3,400 cubic feet per second (cfs) with one foot of freeboard space from the bottom of the bridge to the water surface.

The project site is adjacent to the shoreline. Due to its location, the project site is subject to wave and flooding hazards, and may be subject to increased flooding and wave action in the future because of the fluctuating nature of coastal conditions, such as changes to the sand supply and sea level rise. To analyze the suitability of the site of the proposed development relative to potential hazards, the City has submitted a Wave Uprush and Sea Level Rise Study for Cabrillo Bridge, dated April 11, 2014 and prepared by ESA PWA. This study evaluated the existing wave uprush and coastal processes for the Cabrillo Bridge replacement and the effect of sea level rise. Impacts from wave uprush are expected to increase with rising sea level. Specifically, the report recommended that the proposed bridge design be capable to withstand the expected wave forces and hazards that are anticipated as a result of the projected sea level rise scenarios during the life expectancy of the bridge. The bridge has been designed to withstand the expected wave forces and hazards (wave overtopping and wave loading) that are anticipated as a result of the projected low scenario sea level rise.

In order to minimize the impact of the project on vehicular, pedestrian, and bicycle access across Cabrillo Bridge, the City is proposing to construct the project in stages. After piles are driven through the existing bridge decking, the northern portion of the bridge would be replaced. Pedestrian, bicycle, and vehicular traffic would be rerouted to the sidewalk and multi-use beachway on the southern portion of the bridge. Once the northern portion of the bridge has been constructed, the southern portion of the bridge would be replaced. During this phase, the sidewalk and the highly used beachway along the south side of the bridge would be closed. In order to offset the impacts of this closure on public access, the City is proposing to construct a temporary bridge approximately 65 feet closer to the beach than the existing beachway, to accommodate all pedestrian traffic and east-bound bicyclists. This bridge would also provide an alternative location for the Arts and Crafts Show artists during construction. During this stage, west-bound bicycle traffic would be accommodated by creating a Class 2 bike lane on the north side of Cabrillo Boulevard.

The project would also improve the hydraulic conveyance of Mission Creek and involve the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean in the City of Santa Barbara. Specifically, the project involves the removal of the existing wooden vertical retaining walls and ornamental landscaping upstream of the Cabrillo Bridge, replacement of these walls with concrete retaining walls, and planting of native riparian vegetation to improve cover over the creek and aquatic habitats in the creek. Downstream of the bridge, the sack-crete retaining walls extending approximately 130 feet southeast of the bridge would be removed and the banks of the creek would be laid back. Rock revetment covered in a vegetated geogrid and planted with native coastal dune scrub would be placed at the top of both slopes. All portions of the new rip rap revetment/bank protection downstream of the bridge will be located in the same footprint or landward of the previous sack-crete walls that will be removed, resulting in a slight widening of the creek. No new rock will be placed streamward of the previously existing toe of the sack-crete walls and no fill of wetland or open coastal waters will occur. The newly created additional estuary and transition habitat would be planted with emergent wetlands, transitional wetlands, and riparian scrub and would result in a net increase of 9,299 square feet of wetland and riparian habitat along Mission Creek and Lagoon.

Construction of the new bridge would require periods of partial and full dewatering of portions of Mission Creek. Impacts of the project to water quality and biological resources of Mission Creek and Lagoon would be minimized by implementing the special conditions that have been included herein including construction windows, best management practices, pre-construction surveys, development and implementation of erosion control plans, development of a tidewater goby management plan, and development and implementation of a habitat enhancement and revegetation monitoring plan.

Mission Creek has been the subject of several previous Commission actions. In 2001, the Commission conditionally concurred with the U.S. Army Corps of Engineers consistency determination for the Lower Mission Creek Flood Control Project, which would improve flood protection on Mission Creek from Canon Perdido to the State Street Bridge (CD-117-99). In 2006 (CD-046-06) and 2009 (CDP No. 4-08-096 and CD-012-09), the Commission concurred with Phase II of the flood control project, which included the submittal of four plans: the Tidewater Goby Management Plan, flood control channel maintenance, pilot channel design, and landscaping plans

The subject application is only for the portion of the project within retained jurisdiction of the Commission. Thus, the standard of review for the proposed permit application is the Chapter Three policies of the Coastal Act. As conditioned, the proposed project is consistent with all applicable Chapter Three policies of the Coastal Act.

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LOCAL APPROVALS RECEIVED: U.S. Army Corps of Engineers, Permit No. SPL-2006-00379-CLH, dated 9/1/10; California Department of Fish and Game, Lake or Streambed Alteration Agreement, Notification No. 1600-2009-0042-0000-R5, dated 8/29/13; California Regional Water Quality Control Board, Water Quality Certification No. 34208WQ08 for the Cabrillo Boulevard over Mission Creek Replacement Project, dated 12/27/12;

I. MOTION AND RESOLUTION

The staff recommends that the Commission adopt the following resolution:

Motion:

*I move that the Commission **approve** Coastal Development Permit No 4-13-1176 pursuant to the staff recommendation.*

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

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

development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

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

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Compliance with City of Santa Barbara Conditions of Approval

All conditions of approval contained in the City of Santa Barbara Planning Commission's Resolution No. 029-07 (Exhibit 1) applicable to the proposed project are hereby incorporated as special conditions of the subject permit unless specifically modified by any additional special conditions set forth herein.

2. Compliance with Approved Mitigation Measures

All mitigated measures required in Final Mitigated Negative Declaration No. MST2004-00878 approved by the City Council in Resolution No. 029-07 applicable to the proposed project (Exhibit 2) are hereby incorporated by reference as special conditions of the subject permit unless specifically modified by any additional special conditions set forth herein.

3. Final Revised Plans

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall submit, for the review and approval of the Executive Director, two sets of final revised project plans. All plans must be drawn to scale with dimensions shown. Said plans shall be in substantial conformance with the preliminary plans submitted with this application on November 26, 2013, but shall be revised to include the following:

(1) Installation of two inch crushed rock covered with filter fabric underneath and landward of the bridge abutment footings to avoid undermining and potential piping erosion due to wave uprush.

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

4. Other Federal, State, or Local Approvals

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall submit, for the review and approval of the Executive Director, either evidence of final required approvals or evidence that no approval is needed from the Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), State Historic Preservation Office (if needed), United States Fish and Wildlife Service, and the National Marine Fisheries Service.

5. Timing of Operations

A. Except for installation of sheet piles for partial dewatering and diversion for pile installation, abutment construction, and bank protection, construction work in the channel and on the banks of Mission Creek and Lagoon, including construction of cofferdams, shall not occur during the period from November 1 through March 31, unless authorized by the Executive Director. This schedule shall be subject to revision, if authorized by the Executive Director, dependent on weather conditions and monitoring for spawning of tidewater goby. Installation of cofferdams and full dewatering and diversion of Mission Creek shall not begin until forecasts from the National Weather Service provide reasonable assurance that the winter rainfall has ended. Installation of cofferdams and full dewatering and diversion of the creek shall not occur during the tidewater goby spawning season, as indicated through the tidewater goby monitoring required in Special Condition Five (5).

B. Pile driving shall occur during September 1 to December 1 in order to avoid steelhead migration period and avian nesting/breeding season. “Cast-in-place” pile installation method which utilizes an auger shall occur during June 1 to December 1. The ending dates may be moved to as late as December 31 if the lagoon remains closed by its own forces and if authorized by the Executive Director.

6. Tidewater Goby and Aquatic Species Management Plan

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall submit, for the review and approval of the Executive Director, a final plan for the protection of tidewater goby. The plan shall include the following elements:

A. Pre-construction monitoring surveys for tidewater goby shall be implemented at the upstream, downstream, and mid-lagoon bridge areas, one year prior to construction. These surveys shall include one pre-spawn survey and one post-spawn survey. Pre-construction surveys shall be conducted by a biologist approved to handle tidewater gobies under a Section 10a1a recovery permit to determine the general abundance of tidewater gobies.

B. At least four (4) weeks prior to commencement of any onset work, the City shall submit the name and qualifications of a tidewater goby biologist or specialist, for the review and approval of the Executive Director. The City shall retain the services of the qualified biologist(s) or environmental resource specialist(s) to develop and implement the Tidewater Goby Protection Plan and to monitor project operations.

C. The authorized biologist retained by the City shall conduct a training session for all construction personnel prior to the onset of work. The training shall include a description of the tidewater goby and its habitat; the specific measures that are being implemented to protect the tidewater goby during construction; and the project limits.

D. The authorized biologist shall complete initial surveys for tidewater gobies within the project area one week prior to the onset of work.

E. The authorized biologist and a crew working under his/her direction shall clear all fish, including tidewater gobies, from the area to be dewatered prior to construction.

F. The authorized biologist shall be present when dewatering activities begin and subsequently inspect the dewatered areas and construction site regularly to detect whether any tidewater gobies or other fish are passing through the cofferdam and investigate whether tidewater goby protection measures are being implemented.

G. The qualified biologist shall be present when the cofferdams are removed and the construction area refilled with water to relocate any fish present in the construction area before completion of removal operations and to ensure successful reintroduction of aquatic habitat in the construction area.

H. Following construction, the authorized biologist shall complete post-construction surveys for tidewater gobies in Mission Creek.

I. The qualified biologist shall prepare a post-project monitoring report documenting the efforts to protect the goby, the results, and recommendation for future projects involving similar procedures. In the event that monitoring shows a significant decrease in the goby population that cannot be readily explained by natural factors or is clearly linked to the Project, the authorized biologist, in consultation with the USFWS and other experts, shall recommend a course of action to address the problem.

7. Biological Surveys and Construction Monitoring

A. The City shall retain the services of a qualified biologist(s) or environmental resource specialist(s) to conduct surveys for sensitive wildlife species and raptors and to monitor project operations. At least two (2) weeks prior to commencement of any project operations, the City shall submit the name and qualifications of the biologist or specialist, for the review and approval of the Executive Director. The City shall ensure that all project construction and operations shall be carried out consistent with the following:

1. The environmental resource specialist shall conduct a survey of all areas within 500 feet of the project site to determine presence and behavior of sensitive wildlife species and raptors, no more than 7 days prior to any project operations including construction, grading, excavation, vegetation eradication and removal, hauling, and maintenance activities.
2. In the event that any sensitive wildlife species or raptors exhibit reproductive or nesting behavior, the environmental specialist shall immediately notify the City, the Executive Director and local resource agencies in writing. The City shall immediately cease development activities upon receipt of such notice. Project activities shall resume only upon written approval of the Executive Director.
3. In the event that any sensitive wildlife species are present in the project area but do not exhibit reproductive behavior and are not within the estimated breeding/reproduction cycle of the subject species, the environmental resource specialist shall either: (1) initiate a salvage and relocation program prior to any excavation/maintenance activities to move sensitive species by hand to safe locations elsewhere along the project reach or (2) as appropriate, implement a resource avoidance program with sufficient buffer areas to ensure adverse impacts to such resources are avoided. The City shall also immediately notify the Executive Director of the presence of such species and which of the above actions are being taken. If the presence of any such sensitive species requires review by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife, then no development activities shall be allowed to continue until any such review and authorizations to proceed are received, subject to the approval of the Executive Director.

B. The environmental resource specialist shall be present during all construction, grading, excavation, vegetation eradication and removal, hauling, and maintenance activities. The environmental resource specialist shall require the applicant to cease work should any breach in permit compliance occur, or if any unforeseen sensitive habitat issues arise. The environmental resource specialist(s) shall immediately notify the Executive Director if activities outside the scope of notice of coastal development permit no. 4-13-1176 occur. If significant impacts or damage occur to sensitive habitats or to wildlife species, the City shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental program shall be processed as an amendment to this coastal development permit or a new coastal development permit.

8. Protection of Water Quality

It shall be the City's responsibility to ensure that the following occurs during project operations:

A. In order to minimize impacts to Mission Creek from storm water runoff associated with Cabrillo Boulevard, the City shall install filtrations basket inserts within the catch basins at the Cabrillo Bridge.

B. The work area shall be flagged to identify limits of construction and identify natural areas that are off limits to construction traffic.

C. No construction materials, debris, or waste shall be stored on the beach or where it may be subject to erosion and dispersion. Construction debris and sediment shall be properly contained and secured on site with BMPs to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking. Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris that may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the Coastal Zone or at a location within the Coastal Zone authorized to receive such material.

D. No equipment shall be stored in the project area, including designated staging and/or stockpile areas, except during active project operations.

E. Only areas essential for construction shall be cleared.

F. Construction equipment shall not be cleaned on the beach or in the beach parking lots.

G. Stockpiled materials shall be located as far from stream areas on the designated site(s) as feasible and in no event shall materials be stockpiled closer than 30 ft. in distance from the top edge of a stream bank.

H. All debris and other construction materials shall be cleared from Mission Creek prior to reintroduction of stream flows and tidal action to the channel following removal of the cofferdams and sheet piles.

9. Erosion Control Plan

Prior to commencement of development, the City shall submit two (2) sets of final erosion control plans, prepared by a qualified engineer, for the review and approval by the Executive Director. The plans shall be consistent with all measures required pursuant to Special Condition Seven (7). The plans shall also incorporate the following criteria:

1. The plan shall delineate the areas to be disturbed by grading or construction activities and shall include any temporary access roads, staging areas and stockpile areas. The natural areas on the site shall be clearly delineated on the project site with fencing or survey flags.
2. The final erosion control plans shall specify the location and design of erosion control measures to be implemented during the rainy season (November 1 - May 1). The City shall install or construct temporary sediment basins (including debris basins, desilting basins or silt traps), temporary drains and swales, sand bag barriers, silt fencing, stabilize any stockpiled fill with geofabric covers or other appropriate cover, install geotextiles or mats on all cut or fill slopes and close and stabilize open trenches as soon as possible. Straw bales shall not be approved. These erosions measures shall be required on the project site prior to or concurrent with the initial grading operations and maintained

throughout the development process to minimize erosion and sediment from runoff waters during construction. All sediment shall be retained on-site unless removed to an appropriate approved dumping location either outside the Coastal Zone or to a site within the Coastal Zone permitted to receive fill.

3. The plan shall also include temporary erosion control measures should grading or site preparation cease for a period of more than 30 days, including but not limited to: stabilization of all stockpiled fill, access roads, disturbed soils and cut and fill slopes with geotextiles and/or mats, sand bags barriers, silt fencing; temporary drains and swales and sediment basins. The plans shall also specify that all disturbed areas shall be seeded with native grass species and include the technical specifications for seeding the disturbed areas. These temporary erosion control measures shall be monitored and maintained until grading or construction operations resume.
4. Storm drain inlets shall be protected from sediment-laden waters by the use of inlet protection devices such as gravel bag barriers, filter fabric fences, block and gravel filters, and excavated inlet sediment traps.

10. Plans Conforming to Geotechnical Engineer's Recommendations

By acceptance of this permit, the City agrees to comply with the recommendations contained in all of the geology, geotechnical, and/or soils reports referenced as Substantive File Documents. These recommendations, including recommendations concerning foundations, sewage disposal, and drainage, shall be incorporated into all final design and construction plans, which must be reviewed and approved by the City Engineer prior to commencement of development.

The final plans approved by the consultant shall be in substantial conformance with the plans approved by the Commission relative to construction, grading, and drainage. Any substantial changes in the proposed development approved by the Commission, which may be required by the consultant, shall require an amendment to the permit or new Coastal Development Permit.

11. Assumption of Risk, Waiver of Liability and Indemnity

By acceptance of this permit, the City acknowledges and agrees (i) that the site may be subject to hazards from erosion, wave action, tidal action, earth movement, and flooding; (ii) to assume the risks to the City and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

12. Removal of Excavated Material

A. Permanent stockpiling of material on site shall not be allowed. Sediment shall be retained at the designated temporary stockpile areas for dewatering, up to approximately three months, until removed to an appropriate approved disposal location either outside the Coastal Zone or to a site within the Coastal Zone permitted to receive such fill.

B. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall provide evidence to the Executive Director of the location of the disposal site for all excess excavated material from the site. If the disposal site is located in the Coastal Zone, the disposal site must have a valid coastal development permit for the disposal of fill material. If the disposal site does not have a coastal permit, a coastal development permit will be required prior to the disposal of material.

13. Final Habitat Enhancement and Revegetation Monitoring Program

A. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the City shall revise the draft Habitat Enhancement and Revegetation Monitoring Program and submit, for the review and approval of the Executive Director, a final Habitat Restoration, Enhancement, Monitoring, and Management Program for restoration of the creek banks upstream and downstream of the Cabrillo Bridge. This program shall be prepared by a qualified biologist or environmental resource specialist and shall include, but not limited to, the following:

1. Onsite habitat enhancement shall include, at a minimum, the removal of any and all invasive plant species on site and revegetation of all disturbed areas with appropriate native species of local genetic stock, including areas where invasive and non-native plants were removed.
2. Indication as to the location, type, and height of any temporary fencing that will be used for restoration. The plans shall also indicate when this fencing is to be removed.
3. Indication on plans that invasive plant species shall be removed from all development and restoration areas for the life of the project.
4. Indication on plans that herbicides shall not be used within the creek habitat. Target non-native or invasive species shall be removed by hand.
5. Indication on plans that rodenticides containing any anticoagulant compounds (including, but not limited to, Warfarin, Brodifacoum, Bromadiolone or Diphacinone) shall not be used.
6. A baseline assessment, including photographs, of the current physical and ecological condition of the proposed restoration site, including a biological survey, a description and map showing the area and distribution of existing vegetation types, and a map showing the distribution and abundance of any sensitive species.
7. A description of the goals of the restoration plan, including, as appropriate, topography, hydrology, vegetation types, sensitive species, and wildlife usage.
8. Documentation of performance standards, which provide a mechanism for making adjustments to the mitigation site when it is determined, through monitoring, or other means that the restoration techniques are not working.

9. Documentation of the necessary management and maintenance requirements, and provisions for timely remediation should the need arise.
10. A planting palette (seed mix and container plants), planting design, source of plant material, and plant installation. The planting palette shall be made up exclusively of native plants that are appropriate to the habitat and region and that are grown from seeds or vegetation materials obtained from local natural habitats so as to protect the genetic makeup of natural populations. Horticultural varieties shall not be used. Planting shall be maintained in good growing condition throughout the life of the project and, whenever necessary, shall be replaced with new plant materials to ensure continued compliance with the revegetation requirement. No plant species listed as problematic and/or invasive by the California Native Plant Society, the California Exotic Pest Plant Council, or by the State of California shall be employed or allowed to naturalize or persist on the site. No plant species listed as a "noxious weed" by the State of California or the U.S. Federal Government shall be utilized or maintained within the property.
11. Sufficient technical detail on the restoration design including, at a minimum, a planting program including a description of planned site preparation, method and location of exotic species removal, timing of planting, plant locations and elevations on the baseline map, and maintenance timing and techniques.
12. A plan for documenting and reporting the physical and biological "as built" condition of the site within 30 days of completion of the initial restoration activities. The report shall describe the field implementation of the approved restoration program in narrative and photographs, and report any problems in the implementation and their resolution.
13. Documentation that the project will continue to function as viable native habitats, as applicable, over the long term.
14. A Monitoring Program to monitor the Restoration and Enhancement. Said monitoring program shall set forth the guidelines, criteria and performance standards by which the success of the enhancement and restoration shall be determined. The monitoring program shall include but not be limited to the following:

    a) Interim and Final Success Criteria. Interim and final success criteria shall include, as appropriate: species diversity, total ground cover of vegetation, vegetation cover of dominant species and definition of dominant, wildlife usage, hydrology, and presence and abundance of sensitive species or other individual "target" species.

    b) Interim Monitoring Report. The City shall submit, for the review and approval of the Executive Director, on an annual basis, for a period of five (5) years, a written monitoring report, prepared by a monitoring resource specialist indicating the progress and relative success or failure of the enhancement on the site. This report shall also include further recommendations and requirements for additional enhancement/restoration activities in order for the project to meet the criteria and performance standards. This report shall also include photographs taken from predesigned sites (annotated to a copy of the site plans) indicating the progress of recovery at each of the sites. Each report shall be cumulative and shall summarize all previous results. Each report shall be cumulative and shall summarize all previous results. Each report shall also include a "Performance Evaluation"

section where information and results from the monitoring program are used to evaluate the status of the enhancement/restoration project in relation to the interim performance standards and final success criteria.

c) Final Report. At the end of the five-year period, a final detailed report on the restoration shall be submitted for the review and approval of the Executive Director. If this report indicates that the enhancement/restoration project has, in part, or in whole, been unsuccessful, based on the performance standards specified in the restoration plan, the applicant(s) shall submit within 90 days a revised or supplemental restoration program to compensate for those portions of the original program which did not meet the approved success criteria. The revised or supplemental program shall be processed as an amendment to this coastal development permit.

d) Monitoring Period and Mid-Course Corrections. During the five-year monitoring period, all artificial inputs (e.g., irrigation, soil amendments, plantings) shall be removed except for the purposes of providing mid-course corrections or maintenance to insure are survival of the enhancement/restoration site. If these inputs are required beyond the first two years, then the monitoring program shall be extended for every additional year that such inputs are required, so that the success and sustainability of the enhancement/restoration is insured. The enhancement/restoration site shall not be considered successful until it is able to survive without artificial inputs.

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

14. Herbicide Use

Herbicide use shall be restricted to the use of Habitat™ (Imazaoyr) herbicide for the elimination of non-native and invasive vegetation located within upland and transitional areas of the project site for purposes of habitat restoration only. No use of any herbicide shall occur during the rainy season (November 1 – March 31) unless otherwise allowed by the Executive Director for good cause. In no instance shall herbicide application occur if wind speeds on site are greater than 5 mph or 48 hours prior to predicted rain. In the event that rain does occur, herbicide application shall not resume again until 72 hours after rain.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. PROJECT DESCRIPTION

The City of Santa Barbara Public Works Department is proposing to replace the structurally deficient Cabrillo Bridge over Mission Creek in the City of Santa Barbara (Exhibits 3-5). According to engineering analysis, the existing bridge has deteriorated and is not expected to be

able to safely carry the amount and weight of future traffic unless it is replaced. The project would also improve the hydraulic conveyance of Mission Creek and involve the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean in the City of Santa Barbara.

Although the project is located within the City of Santa Barbara, which has a certified LCP, the majority of the project, including all work between the western and eastern banks of Mission Creek are located within the retained coastal development permit jurisdiction of the Coastal Commission. The City has previously approved a coastal development permit for the portion of the project outside of the Commission's retained permit jurisdiction. The subject coastal development permit is for that portion of the project in the retained jurisdiction of the Commission. This includes the majority of the bridge area and that portion of Mission Creek and Lagoon extending approximately 150 feet south or downstream of the bridge towards the Pacific Ocean (Exhibit 5). On July 12, 2007, the City of Santa Barbara approved a mitigated negative declaration on the whole project and a coastal development permit (MST2004-00878; CDP2007-00001) for that portion of the project north of Cabrillo Boulevard within the City's Local Coastal Program appealable area. The conditions of approval can be found in Exhibit 1. The notice of final action for the permit (4-SBC-07-202) was received by the Commission on July 26, 2007, and no appeal was filed with the Commission within the allowable appeal period that ended August 9, 2007. City staff has confirmed CDP 2007-00001 has not expired and is still active.

Bridge Design

The existing Cabrillo Boulevard Bridge over Mission Creek (Exhibit 5) would be removed and replaced with a similar bridge that would have a total deck length of 131 feet (length measured west to east). The project involves the removal of 280 timber and concrete pilings that are approximately 14" in diameter that support the existing bridge. The new bridge would be nine feet longer than the existing bridge with expansion at the east end of the bridge which allows additional area under the bridge to accommodate creek flows. The new bridge width would be 110 feet, the same width as the existing bridge (width measured north to south). Making up the 110-foot wide bridge, is a 1.5-foot vehicular bridge rail to the north, a 9.5-foot wide sidewalk to the north, a 60-foot curb to curb travel way, a 17-foot sidewalk to the south, 1.5-foot bridge rail to the south, an 18.5 foot wide multipurpose path for pedestrians and bicyclists, and a 1.5-foot wide pedestrian bridge rail. The new bridge would accommodate the same number of traffic lanes and convey the same gas, water, and electrical utilities as it currently does. The pedestrian component of the new bridge however would be enlarged to better accommodate the extensive pedestrian traffic in the area. Curb-to-curb dimensions on the bridge would be 72 feet. Sidewalks would be six feet wide on the north side and nine feet wide on the south side. The existing beachway (multipurpose trail for pedestrians and bicycles) on the south side of the existing bridge would be expanded eight feet in width. As noted above, these sidewalks and beachway expansions would not increase the total width of the bridge.

The hydraulic capacity beneath the existing concrete bridge is limited by the fact that its two rows of pilings are not placed in a straight line. The new bridge would use two spans instead of the existing three spans. The existing two rows of timber pilings would be replaced with one row of 15 pilings in a straight line under the vehicular bridge and 3 pilings for the multipurpose pedestrian/bicycle path bridge. The pilings measure 20 inches in diameter at the abutments and 24 inches in diameter at the center bend and all pilings would have a steel shell filled with

concrete. The new bridge will also be nine feet longer and have a thinner deck (Exhibit 12). These changes will increase the flood area (both width and height) and hydraulic capacity of Mission Creek. The proposed new bridge would have a capacity of 3,400 cubic feet per second (cfs) with one foot of freeboard space from the bottom of the bridge to the water surface. This would result in hydraulic capacity that would accommodate the 20-year statistical storm. The existing bridge has a capacity of 1,500 cfs without any freeboard space.

Reconstruction and Restoration of Mission Creek

The project's Mission Creek bank and lagoon restoration is divided into two areas: upstream planting and downstream planting. Upstream of Cabrillo Bridge, Mission Creek currently has a natural sediment bottom and is surrounded on both sides by deteriorated wooden retaining walls. A row of ornamental vegetation is planted behind these vertical walls. As part of the project, these deteriorated wooden retaining walls would be removed and replaced with cast-in-place concrete vertical walls. On the west side of the channel the retaining walls would actually be of differing heights (total protected area 10 feet in height) that allows for planting of native riparian vegetation in the two feet clearance between the walls as shown in Exhibit 12. On the east side, a 7.5 foot retaining wall would be bordered by an approximately 10 foot wide slope (1.5:1 ratio) planted with native riparian species. Both banks would be vegetated with native riparian species including willows and shrubs that would overhang the walls to provide more cover for the creek and, thereby increase the quality of habitat for tideway goby (Exhibit 16).

Directly downstream of the Cabrillo Bridge, Mission Creek estuary currently has a natural sediment bottom and is surrounded by steep sack-crete retaining walls. The sack-crete retaining walls located on the west and east banks of the stream extending 110 feet and 130 feet downstream from the bridge respectively. A landscaped lawn within the City's public waterfront beach park borders the sack-crete retaining wall on the west bank. Non-native and native ruderal vegetation and the beachway border the sack-crete retaining walls on the east bank. South of the sack-crete walls, the estuary is surrounded by beach sand until it reaches the ocean.

As part of the project, the City would remove the existing 110-foot and 130-foot sack-crete walls downstream of the bridge and replace the walls with a combination of buried rock slope protection, bioengineered revetments (vegetated geogrids), and native vegetation. On the west bank, the existing sack-crete slope would be removed and laid back to create a 1:1 slope. A rock revetment would be placed on the slope and would be covered by a four to six-foot high vegetated geogrid comprised of mule fat cutting layered between soil, rock, and gravel. The top of the bank would be vegetated with native coastal dune scrub. Riparian scrub, transitional wetlands, and emergent wetland would be planted on soil and sand covering the new slope. On the eastern bank of the creek, the existing sack-crete slope would be removed and replaced with a gradual 3:1 slope. A rock revetment covered in a vegetated geogrid would be placed at the top of the slope, approximately 10 to 40 feet east of the existing sack-crete wall. This rock revetment would border and protect the adjacent beachway and would be covered with soil/sand and native coastal dune scrub. The additional creek area and slope created would be planted with emergent wetlands, transitional wetlands, and riparian scrub. All portions of the rock revetment will be located in the same footprint or landward of the previous sack-crete walls that will be removed, resulting in a slight widening of the creek. No new rock will be placed streamward of the previously existing toe of the sack-crete walls and no fill of wetland or open coastal waters will occur. In total, the project will result in the creation of approximately 9,299 square feet of new

wetland and riparian areas in the project area. The reconstruction and restoration of the lagoon area only extends downstream into the area currently occupied by the sack-crete revetments. That part of the lagoon located south of the revetment and extending across the beach to the Pacific Ocean is not part of the project area. The proposed restoration of the creek banks upstream and downstream of the bridge would occur concurrently with the construction of the bridge.

Construction

Construction for the bridge would occur over a 24-month period. The bridge would be reconstructed in three stages in order to ensure that at least one lane of vehicular traffic on Cabrillo Boulevard would remain open in each direction at all times during construction. The following describes the three stages of construction:

Stage 1 would span five months (September through February). During Stage 1 the pilings for the new bridge center bent would be installed through holes bored in the existing bridge deck using the cast-in-drilled-hole method, and the conflicting portions of the adjacent commercial building would be demolished to a setback line of 8 feet behind the new upstream retaining wall. No staged traffic lane closures or dewatering of the creek would occur during this stage.

Stage 2 would span approximately 9 months (February through October). During Stage 2, the northern 44 feet of the existing bridge would be demolished and replaced. This would leave one lane of traffic in each direction on the south side of the existing bridge, plus the existing bicycle/pedestrian beachway. The majority of work on the upstream retaining walls and downstream banks would also occur during Stage 2. Toward the end of Stage 2, a temporary pedestrian bridge would be constructed approximately 65 feet closer to the beach than the existing beachway bridge. The temporary pedestrian bridge would be 12 feet wide and provide a place for the Arts and Crafts Show, bicyclists and pedestrians during construction. Additionally, the temporary pedestrian bridge would provide a location to temporarily relocate the gas transmission main, recycled water main, street lighting, and telephone cable that currently run through and under the south side of the existing bridge. The temporary pedestrian bridge would span the channel. The piles for the vehicular bridge abutments and temporary pedestrian bridge would not be driven but would installed using a simultaneous application of torque and push.

Stage 3 (November through August) the southern 66 feet of the existing bridge would be demolished and replaced. The temporary pedestrian bridge would be removed after construction is completed and all pipelines and cables have been placed on the new bridge. At the end of Stage 3, final landscaping and creek habitat restoration would occur.

During Stages 2 and 3, the bridge will be demolished and reconstructed in stages. For each area, the new bridge abutments will be constructed outside of the existing abutments. The existing abutments and soils between the two abutments will then be removed. Rock, vegetation, and other erosion control measures would be installed to reduce scour around the new abutments. A temporary support structure for the building at 15 E. Cabrillo Boulevard would be constructed using timber/steel framing during construction. The new piles installed during Stage 1 will be capped with concrete and a new precast reinforced concrete deck would be laid in units on the

pile caps to form the new bridge in stages. Pavement approaches to the bridge, railings, and pavement on the bridge will then be added to complete the project once the deck units are in place.

During replacement of the bridge, it will be necessary for the contractors to have space available for storage of construction materials and staging operations. The Cabrillo Boulevard right-of-way and the parking lots at 21 Helena Avenue and 6 State Street will be used for these purposes. Additional staging and storage areas could also include the southeast corner of Cabrillo Boulevard and Bath Street at the existing U.S. Army Corps of Engineers dredge storage site; a portion of Chase Palm Park adjacent to Cabrillo Boulevard between State Street and Anacapa Street; and the Waterfront Parking Lot on the northeast side of Mission Creek. The City will manage use of the different staging areas in order to reduce impacts to the extent feasible on Waterfront parking, beach access, and recreation.

The construction workforce will vary from five to 30 workers. Construction related employee parking will require 25 parking spaces that will be provided at an existing public waterfront parking lot west of the intersection of Cabrillo Boulevard and Garden Street. An estimated 33 average worker related trips per day, and peak of 45 worker trips per day, will be generated during project construction. The project will also require an estimated 10 average daily truck trips to carry materials, waste, and equipment with a peak of 20 trips per day.

The City has developed a final traffic control plan for Stages 2 and 3 of the project that will provide for signs, barricades and fencing, striping and signal changes, and flag men to allow the ongoing circulation of automobiles, buses, bicycles, and pedestrians along the waterfront. One vehicular travel land will be available in each direction over the bridge during all stages of construction. Pedestrian and bicycle routes will be kept open in both directions as well for the duration of the project.

Water Quality and Biological Protection Measures

During demolition and reconstruction of the bridge, a cofferdam (gravel bags, plastic sheeting, and a Porta Dam or equivalent) will be constructed in the channel of Mission Creek not more than 100 feet upstream (north) of the State Street Bridge. Downstream of the work area in Mission Creek, a similar cofferdam will also be constructed to resist any storm surge and tidal influence from the Pacific Ocean that may occur. The cofferdams will be connected with a flume allowing Mission Creek to flow through the dewatered work area. The flume will be 3-6 feet wide and constructed to maintain the existing channel water stratification for water temperature, salinity, pH, and natural tidal depth. A natural sediment bottom will also be placed in the flume. It is expected that flow rates within the flume will be higher than the existing channel. Therefore, one or two silt free gravel bags or a small pile of cobble will be placed every ten feet alternating along the sides of the flume to provide refuge for tidewater gobies. Shade cloth will also be placed over the top of the flume to maintain the existing temperature stratification and to prevent birds from entering the flume. During dewatering, water remaining or seeping into the work area after creek diversion or dewatering will be removed with a submersible pump. The water would be pumped to a depression on the west side of bridge within the grassy area between the bridge and Stearns Wharf (above the highest high tide line) and sediments would be removed by means of settling, filtering, and percolation into the ground. If groundwater comes in contact with fresh

concrete, contaminated water would be pumped out of the work area and hauled away in trucks or pumped into a city sewer main.

During some construction phases, it would not be necessary to completely dewater the entire creek channel. For example, during construction of abutments, the work area would be isolated from the live stream channel by dewatering using a temporary cofferdam or sheet piles around the work area and allowing the creek to flow in a portion of the existing channel. At no time, however, would temporary dewatering of the creek exceed 30% of the Mission Creek estuary upstream of Cabrillo Boulevard (approximately 650 feet long section).

All construction within the creek bed itself, with the exception of pile driving, would occur within the dry season from April through November. Pile installation shall occur during September 1 to December 1 in order to avoid steelhead migration period and avian nesting/breeding season to the extent feasible. "Cast-in-place" pile installation method which utilizes an auger shall occur during June 1 to December 1. Specifically, the installation of piles using the "cast-in-place" method using an auger creates a low-level vibration and will serve to minimize construction noise compared to using the pile driving method, thus, the construction period may commence earlier without any additional impacts to aquatic or avian species. Piles for the center bent will be installed through a waterproof cylinder that would prevent concrete contact with the water flowing in Mission Creek. During the rainy season, it may be necessary for the City to install sheet piles for partial dewatering and diversion of the creek for pile installation, abutment construction, and installation of bank construction. Installation of cofferdams and the full dewatering and diversion of the creek would occur in April following the wet winter season and prior to the beginning of spawning for the Tidewater Goby (May-July). A 650-foot long section of Mission Creek would then remain dewatered for approximately 7 months from May to November to allow for the bridge and channel retaining wall removal and reconstruction. Installation of the temporary beachway bridge during Stages 2 and 3 will not occur within the channel of Mission Creek.

The City has proposed numerous other best management practices to prevent construction materials and contaminants from entering Mission Creek and Lagoon and to prevent sedimentation and erosion of the waterways. Additionally, the City proposes extensive biological monitoring of avian and sensitive species within 500 feet of the project area prior to and during construction, fish relocation procedures, dewatering procedures, and diversion and flume design to protect aquatic species as outline in Exhibit 2. The City has been performing preconstruction Tidewater Goby monitoring surveys since 2008 and will continue to do so until the start of construction in fall 2014. Tidewater Goby monitoring will continue to occur during and post constriction in accordance with the Tidewater Goby Management Plan. Finally, in order to minimize the impact of storm water from Cabrillo Boulevard on water quality in Mission Creek, the City will install filtration basket inserts within the catch basins at the bridge.

B. PROJECT AREA AND BACKGROUND

Project Area

The project area consists of an approximately 800-foot long reach of the Mission Creek Estuary extending from just northwest of the State Street Bridge to 150 feet southeast of Cabrillo Boulevard Bridge in the City of Santa Barbara (Exhibits 3-5). The area has been largely

developed with urban uses, including roadway, curb, gutter, sidewalks, bicycle paths, commercial enterprises, and coastal parklands that are heavily used. The Cabrillo Boulevard serves a large volume of pedestrian, bicycle, vehicular, and mass transit uses. The original bridge was built in 1913. In 1928, the bridge was expanded to 110 feet in width and 122 feet in length in order to provide for five traffic lanes and two sidewalks. In 1977, a class I bicycle/pedestrian bridge (beachway bridge) was added immediately south of the bridge. The beachway bridge has a grated utility opening which carries several utilities, including a 16 inch diameter high pressure gas main. The existing bridge includes three spans of variable length. Two rows of piers are used to support the three spans. The existing piles are not aligned in rows, which diminishes the hydraulic capacity beneath the bridge.

The existing bridge spans Mission Creek, which conveys flows drained from a large portion of the City of Santa Barbara. Upstream of the Cabrillo Bridge, Mission Creek drains into a tidally influence estuary that generally extends from above the State Street Bridge and empties into the Pacific Ocean south of the project site on East Beach. The conditions of the estuary vary considerably depending on the flows from Mission Creek and the condition of the sandspit forming the southern boundary of the estuary. If the sandspit is "open," the ocean provides tidal and wave influence into the estuary. If the sandspit is "closed," tidal action into the estuary is blocked and the estuary is filled with freshwater from Mission Creek.

The creek channel has a natural sediment bottom. Upstream of the Cabrillo Bridge, vertical concrete and wood walls and ornamental vegetation line the banks of the creek. Downstream of the bridge, the creek forms a larger lagoon at the beach. That portion of the lagoon approximately 150 downstream of the bridge is lined by two sack-crete walls, which are bordered by turf, palm trees, non-native and nature ruderal vegetation within the City's public waterfront beach park, an existing public pedestrian/bicycle path, and beach sand. South of the sack-crete walls, the lagoon is surrounded by beach sand until it eventually empties into the ocean. The project area is largely paved and devoid of natural biological habitats, except for the creek channel and lagoon that supports various fish and water-dependent birds. The channel currently does not have a sufficient width or bank configurations to support streamside emergent wetland habitat.

Mission Creek generally flows year-round; therefore, there is a base flow to the lagoon in the summer months that maintains the lagoon at a relatively constant size. The depth of the lagoon on the beach in the summer typically ranges from 5 to 8 feet.

The Lower Mission Creek Flood Control Project

The Mission Creek watershed area is bordered on the east and west by unincorporated urbanized lands, on the north by the Santa Ynez Mountains, and on the south by the Pacific Ocean. Mission Creek and its tributary Rattlesnake Creek drain approximately 11.38 square miles of Santa Barbara watershed. Mission Creek has been subject to flooding events during previous rainy seasons (November through April). According to FEMA, the 100-year discharge cited for Mission Creek in the project area is 7,400 cubic feet per second (cfs). The highest flood on record for Mission Creek was 5,120 cfs in the year 1995, which equates to a 50-year food. The existing capacity of the creek is 1,500 cfs or a five-year level of flood protection.

In 1999, the Army Corps of Engineers, in conjunction with the City of Santa Barbara and County of Santa Barbara, developed a feasibility study (December 1999) that considered alternatives to increase the flood capacity and aquatic and riparian habitats of Mission Creek. Lower Mission Creek is highly urbanized and relocation or retrofitting existing development along the creek would likely be cost prohibitive and infeasible. Therefore, the 1999 feasibility report recommended several changes to the lower portions of Mission Creek in order to increase the hydraulic capacity of the creek to 3,400 cfs and allowing for a 20-year level of flood protection without extensive relocation of existing development bordering the creek.

On August 9, 2001, the Coastal Commission conditionally concurred with the U.S. Army Corps Engineers' consistency determination for a flood control project to improve flood protection on Mission Creek consistent with the recommendations outlined in the 1999 feasibility report (CD-117-99). This flood control project includes that portion of Mission Creek from Canon Perdido to State Street Bridge and does not include that portion of Mission Creek downstream of State Street. The project consisted of (1) increasing the channel capacity to 3,400 cubic feet per second (cfs), thereby providing an approximately 20-year storm level of protection; (2) replacing four bridges along the study reach; (3) installing a new culvert bypassing the oxbow below Highway 101 ("oxbow bypass") (the oxbow would be left in place as a low-flow channel); (4) planting of native riparian species along sloped banks stabilized by riprap and creation of additional riparian habitat by enlarging planted slopes in areas where the Corps must purchase property adjacent to the stream; (5) creek banks consisting of either a vertical wall or a combination vertical wall and riprap sideslope (combination vertical wall/riprap sideslope would consist of vertical wall for the bottom half, with ungrouted riprap for the upper half and with native riparian vegetation planted within the riprap); (6) maintaining existing natural stream bottom, and restoring concrete lined stream bottom to natural conditions (except immediately underneath bridges and through the oxbow); and (7) fish habitat improvements.

In their concurrence with the project, the Commission required the development of several plans for the project that were to be approved by the Commission at a later date as Phase II of the project. On August 11, 2006, the Commission concurred with Phase II of the project, which included a Tidewater Goby Management Plan for the Mission Creek Estuary (CD-046-06). Throughout its review the Commission became aware that the City and/or County of Santa Barbara would ultimately assume the responsibility for constructing and maintaining many of the project's components, and at that point, the Corps was no longer the implementing agency. The City then applied for a coastal development permit (CDP No. 4-08-096) for the portion of the project in the Commission's original permit jurisdiction, and submitted a consistency certification (CD-012-09) for the remainder of the project. The Commission approved CDP No. 4-08-096 and conditionally concurred with consistency certification CD-012-09 on April 9, 2009 and the City of Santa Barbara has begun implementing the Lower Mission Creek Flood Control Project.

Archeological Resources

An archeological literature and records search for the proposed project was conducted in September 2005 and the entire project area was surveyed in its entirety for archaeological resources at the same time. No previously recorded archaeological sites were identified within the area. The survey also resulted in no prehistoric or cultural materials over 50 years of age in the project area. Two unrecorded historical sites (a service station and driveway) and the Santa

Barbara Lumber Company were identified in literature covering the project area. However, no historic archaeological material was identified upon surveying of the project area. Based on the history of the service station and Santa Barbara Lumber Company, the potential for other deposits associated with these sites is considered unlikely. The Cabrillo Boulevard Bridge itself is the only historic property identified in the project area.

C. PAST COMMISSION ACTION

On April 9, 2008, the Coastal Commission approved Coastal Development Permit No. 4-07-134 (City of Santa Barbara, Public Works Department) for replacement of the existing, structurally deficient 122-foot-long, 110-foot-wide Cabrillo Bridge with a 110-foot-wide, 131-foot-long new bridge. The project involved: (1) the removal of two rows of pilings that support the existing bridge and replacement within one row of 24 pilings; (2) replacement of the existing decking, north and south sidewalks, and multi-use public access beachway on the south side of the bridge; and (3) the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean, including the removal of the existing wooden vertical retaining walls and ornamental landscaping upstream of the Cabrillo Bridge, and the removal of approximately 130 feet of the sack-crete retaining walls on each side of the creek downstream of the bridge. Upstream walls would be replaced with concrete retaining walls, downstream walls would be replaced with a rock revetment and vegetated geogrid, and both sections of the creek banks would be planted with native wetlands and riparian vegetation.

On October 11 2012, the Coastal Commission approved Coastal Development Permit Amendment 4-07-134-A1 to amend Special Condition 4 (Timing of Operations), to allow for installation of piles between June 1 to December 1 provided that all piles will be installed using the "cast-in-place" method utilizing an auger and that no pile driving shall occur. The amendment also includes the addition of a short section of center median (approximately 280 linear feet) at Anacapa Street with a concrete curb, gutter and sidewalk.

The City applied for three permit extensions (4-07-134-E1, E2 and E3); however, the conditions were never met prior to the third extension expiration date of April 9, 2013, and the City did not request a fourth extension of the CDP prior to the permit's expiration date and, therefore, the permit expired. The application that is the subject of this staff report represents the City's resubmittal of the essentially the same project that was approved pursuant to CDP 4-07-134, as amended, noted above with some changes to the proposed development which include: the transitions walls upstream of the bridge will be constructed of cast-in-place panels as opposed to pre-cast panels; correction of a typo in the previously approved CDP project description that should have stated "installation of one row of "18" piles instead of "24"piles; the temporary beachway path will be 12 feet wide as opposed to 14 feet wide, and lastly a few minor changes to the construction schedule.

D. ALTERATION OF COASTAL WATERS AND ENVIRONMENTALLY SENSITIVE HABITAT

Section 30233(a) of the Coastal Act states:

> *The diking, filling, or dredging of open waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is*

no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

1. *New or expanded port, energy, and coastal-dependent industrial facilities, including commercial facilities.*
2. *Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
3. *In open coastal water, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
4. *Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
5. *Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
6. *Restoration purposes.*
7. *Nature study, aquaculture, or similar resource dependent activities.*

Section 30236 of the Coastal Act states:

Channelization, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

Section 30240 of the Coastal Act protects environmentally sensitive habitat areas (ESHA) by restricting development in and adjacent to ESHA. Section 30240 states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

Section 30107.5 of the Coastal Act, defines an environmentally sensitive area as:

"Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

The City of Santa Barbara Public Works Department is proposing to replace the structurally deficient Cabrillo Bridge over Mission Creek in the City of Santa Barbara. According to engineering analysis, the existing bridge has deteriorated and is not expected to be able to continue to safely carry the amount and weight of traffic unless it is replaced. The project would also improve the hydraulic conveyance of Mission Creek and involve the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean in the City of Santa Barbara.

The Mission Creek drainage, the largest of several coastal streams systems in the Santa Barbara region, originates in the Santa Ynez Mountains north of Santa Barbara. The drainage, including its tributaries, is approximately 11.5 square miles in size. The headwaters of Mission Creek and its major tributary, Rattlesnake Creek, occur at approximately 3,500 feet in elevation. During the rainy season, Mission Creek ranges from a comparatively small stream carrying an average maximum stream flow of 370 cfs during non-flood years to a creek with peak flows of 5,120 cfs[1]. The incidental trickle moving down the channel after mid-summer appears to be primarily urban runoff that enters Mission Creek via storm drains along its course. Mission Creek drains into a tidally influenced estuary that generally extends from above the State Street Bridge and empties into the Pacific Ocean south of the project site on East Beach. The conditions in the estuary vary considerably depending on the flows from Mission Creek and the conditions of the sandspit forming the southern boundary of the estuary. If the sandspit is "open", the ocean provides tidal and wave influence into the estuary. If the sandspit is "closed", tidal action into the estuary is blocked and the estuary is filled with freshwater from Mission Creek.

The project area consists of an 800-foot-long reach of the Mission Creek Estuary extending from just northwest of the creek's intersection with State Street southwest to 150 feet southeast of Cabrillo Boulevard Bridge at the creek mouth to the ocean in the City of Santa Barbara. The area has been largely developed with urban uses, including roadway, curb, gutter, sidewalks, bicycle paths, commercial enterprises, and coastal parklands that are heavily used. The creek channel has a natural sediment bottom. Upstream of the Cabrillo Bridge, vertical concrete and wood walls bordered by ornamental vegetation line the banks of the creek. Downstream of the bridge the creek forms a larger lagoon at the beach. That portion of the lagoon approximately 150 downstream of the bridge is bordered by two sack-crete walls, which are bordered by turf, palm trees, ruderal vegetation (sea rocket, rabbitsfoot grass, white sweet clover, atriplex tringularis, and an unidentified sedge), the beachway, and beach sand. South of the sack-crete walls, the lagoon is surrounded by beach sand until it eventually empties into the ocean.

The area surrounding the project site is generally consists of urban development although the creek channel itself contains open water estuarine habitat that supports fish and water-dependent birds. The channel currently does not have a sufficient width or bank configurations to support significant streamside emergent wetlands. The City's consultant, URS, conducted wetlands surveys of the project area in May 2007 and determined that 0.967 acres of emergent wetland occurs in the project area directly upstream from the State Street Bridge.

[1] Hydrology data from the U.S. Army Corps of Engineers 1995a.

Although the Mission Creek watershed is not pristine, the drainage as a whole provides habitat for important sensitive aquatic resources and qualifies as environmentally sensitive habitat area. Invertebrates collected from the estuary include epibenthic crustaceans and insects. Tidewater goby, prickly sculpin, staghorn, topsmelt, striped mulled, and partially armored stickleback have been found in the lagoon. Two federally listed endangered species occur in Mission Creek lagoon, the tidewater goby (as a year-round resident) and southern steelhead (during upstream and downstream migration periods). While southwestern pond turtles and red-legged frogs have historically occurred in Mission Creek, suitable habitat for these species is not present in the project area.

The lagoon and its margins are used for resting and feeding by numerous species of migratory and resident birds, including waterfowl, diving and wading fishers, and shorebirds. Common species include western gull, ring-billed gull, Herman's gull, California brown pelican, pied-billed grebe, American coot, mallard, common loon, great egret, snowy egret, among others. Many other species are commonly observed using the lagoon, including great blue heron. Bird use of the lagoon varies from month to month. Spring is a season of relatively low bird diversity and abundance. In early June, seabird use of the lagoon and beach area increases. The late summer and fall migrations bring a large number of shorebird species into the Santa Barbara area that remain in the area until the spring migration in mid-March.

Four federally or state listed threatened or endangered species of birds have historically been found in the area of Mission Creek, including the western snowy plover, California brown pelican, California least tern, and peregrine falcon. However, suitable habitat for western snowy plover does not exist in or around the project area and they are not expected to be found in the project area. Additionally, five other bird species that are state species-of-special-concern have historically been found in Mission Creek. These included California gull, long-billed curlew, double-crested cormorant, elegant tern, and black skimmer.

As discussed in detail in Section IV-A above, the City of Santa Barbara Public Works Department is proposing to replace the structurally deficient Cabrillo Bridge over Mission Creek in the City of Santa Barbara. The project would also slightly improve the hydraulic conveyance of Mission Creek through the use two spans on the new bridge instead of the existing three spans. The existing two rows of pilings of the bridge would be replaced with one row of 18 pilings in a straight line. The reduction in the number of piles necessary to support the bridge would result in a net increase in the area on site that consists of wetlands and open water estuarine habitat. Moreover, the proposed project will improve the flood capacity of the creek from 1,500 cfs without any freeboard to 3,400 cfs with one foot of freeboard space from the bottom of the bridge to the water surface.

The project would also involve the reconstruction and restoration of portions of Mission Creek and Lagoon between State Street and the Pacific Ocean in the City of Santa Barbara. Specifically, the project involves removal of the existing wooden vertical retaining walls and ornamental vegetation upstream of the Cabrillo Bridge. These walls would be replaced with concrete retaining walls in the same location as the existing walls. Additionally, native riparian vegetation would be planted on either side of the creek to improve cover over the creek and aquatic habitats in the creek. Downstream of the bridge, the sack-crete retaining walls extending approximately 130 feet southeast of the bridge would be removed. The west and east banks of the creek estuary would be laid back. On both sides a rock revetment/bank protection covered in

a vegetated geogrid and planted with native coastal dune scrub would be placed at the top of the slopes. All portions of the new rip rap revetment/bank protection downstream of the bridge will be located in the same footprint or landward of the previous sack-crete walls that will be removed, resulting in a slight widening of the creek. No new rock will be placed streamward of the previously existing toe of the sack-crete walls and no fill of wetland or open coastal waters will occur. The newly created additional estuary and transition habitat would be planted with emergent wetlands, transitional wetlands, and riparian scrub.

In total, the project will result in the creation of approximately 9,299 square feet of new wetland and riparian areas in the project area. The existing 280 timber and concrete pilings that are approximately 14" in diameter that support the existing bridge would be removed as part of the project, the new piles will have to be driven in new locations currently providing open estuarine habitat. Although this constitutes fill of coastal waters according to Section 30233 of the Coastal Act, there will actually be a net increase in coastal waters and wetland habitat due to the reduction in the number of piles and change from two rows of piles to one row of piles in the estuary as a result of the bridge replacement. No other permanent fill of coastal waters or wetlands is proposed as part of this project.

While the project will result in a new increase in coastal wetlands and estuarine habitat, construction of the project will temporarily impact a 650-foot section of channel from just above the State Street Bridge to downstream of Cabrillo Bridge. As described in Section IV-A, the project will involve partial to full dewatering and diversion of the creek using sheet piles, cofferdams, and flumes for periods up to 9 months in duration. Installation of cofferdams for dewatering during construction would temporarily impact 0.88 acres of the emergent wetlands located upstream of the State Street Bridge. Additionally, construction activities, including pile driving, grading, dewatering, etc. could lead to disruption of habitat for aquatic species such as the tidewater goby, steelhead trout, and for avian species that could be present in the project area. The project would, therefore, result in the substantial alteration of Mission Creek pursuant to Section 30236 of the Coastal Act and has the potential to impact sensitive biological resources protected under Section 30240 of the Coastal Act.

Allowable Uses

As discussed above, the project will include the filling of coastal waters to install piles for the new bridge and reconstruction of the banks of Mission Creek Estuary. Section 30233 of the Coastal Act identifies seven allowable uses for the dredging, diking and filling of coastal waters. According to Section 30233(a) filling of coastal waters can be allowed for, among other purposes, incidental public service and restoration purposes. The proposed project involves the replacement of a public road and bridge that provide public access and emergency public access routes for the City of Santa Barbara. The bridge will not be expanded or widened into the creek channel and, in fact, the project would reduce the overall fill of the Mission Creek Estuary by replacing two rows of piles with one row of piles. The project would also involve the restoration of 9,299 square feet of new wetland and riparian areas in the Mission Creek Estuary as discussed above. The project, therefore, meets the definition of allowable uses for fill of coastal waters as defined by Section 30233.

The project would also involve a substantial alteration of Mission Creek, a coastal stream. Section 30236 of the Coastal Act allows for such alterations of coastal streams for flood-control

purposes, provided that the alternative "incorporates the best mitigation measures feasible," that no feasible alternative exist for protecting existing structures in the floodplain, and that such flood protection is necessary for public safety or to protect existing development. As discussed above in Section IV-B, the existing overall capacity of the Mission Creek system is 1,500 cfs and provides only a five-year level of flood protection. According to studies conducted by the Army Corps of Engineers (Draft Feasibility Study, 1999), records show that the area has suffered at least 20 considerable floods since 1900. These floods have negatively impacted the health and safety of residents of Santa Barbara and damaged several existing structures along the creek. As discussed in Section IV-B, the Commission has approved the Lower Mission Creek Flood Control Project proposed by the Army Corps and more recently by the City of Santa Barbara. This project involves the reconstruction of lower Mission Creek down to the State Street Bridge and will improve the capacity to 3,400 cfs and a 20-year level of flood protection. The subject project will further improve the hydraulic conveyance of Mission Creek through the use of two spans on the new Cabrillo Boulevard Bridge instead of the existing three spans. This would improve the flood capacity under the bridge from 1,500 cfs without any freeboards to 3,400 cfs with one foot of freeboard space from the bottom of the bridge to the water surface. Therefore the Commission finds that the proposed project is for flood-control purposes and is necessary to protect existing development. The project, therefore, meets the "allowable uses" requirements of Section 30236.

In addition, while the project will result in an increase in coastal wetlands and estuarine habitat, construction of the project will temporarily impact a portion of the Mission Creek channel during construction activities. Construction activities could lead to disruption of habitat for aquatic species such as tidewater goby, steelhead trout, and for avian species that could be present within the project area. The project would, therefore, result in the substantial alteration of Mission Creek pursuant to Section 30236 of the Coastal Act and has the potential to impact sensitive biological resources protected under Section 30240 of the Coastal Act.

The proposed project is designed to replace a structurally deficient bridge, increase streamflow flooding capacity, and prevent stream bank erosion by replacing the deficient sack/crete walls downstream of the bridge with new rip rap slope protection in more landward configuration. Thus, the project constitutes necessary repair and maintenance work. The Commission has expressly recognized, since 1978, certain types of public road-related repair and maintenance work as exempt from permit requirements pursuant to Public Resources Code ("PRC") Section 30610(d) (*See* "Repair, Maintenance and Utility Hook-Up Exclusions From Permit Requirements" (adopted by the Commission on Sept. 5, 1978) (hereafter, "R&M Exclusions") Appendix I, § 3 (referring to "installation of slope protection devices, minor drainage facilities")). However, the exemptions provided by the above referenced section of the Public Resources Code and the R&M Exclusions are limited. Accordingly, California Code of Regulations, Title 14 ("14 CCR"), Section 13252(a) lists extraordinary methods of repair and maintenance that do still require a permit. Among those methods is any repair or maintenance "located in an environmentally sensitive habitat area" 14 CCR § 13252(a)(3). Since this project would occur within such an area, the method by which this project is conducted is not exempt, and a permit is required.

In addition, further review of the R&M Exclusions Guidelines confirms that this proposed repair and maintenance is not exempt from permit requirements under that document either, because

the proposed development is located outside the "roadway prism" or the roadway property or easement.

Similarly, Section 13252(a) of the Commission's regulations states that "activities specifically described in the [R&M Exclusions guidance document] that will have a risk of substantial adverse impact on ... environmentally sensitive habitat area" are not exempt based on that document and may require a coastal development permit, pursuant to the normal application of section 13252.

In this case, although the project is a repair and maintenance project, since the work is to be performed within an ESHA, Section 13252(a)'s limits on the repair and maintenance exemption do apply, and this project does require a permit to ensure that the method employed is as consistent as possible with the Chapter 3 policies of the Coastal Act. Moreover, this project involves excavation for the purpose of installing the rip rap slope protection and bridge abutments, and the R&M Exclusions guidance document expressly states that a permit is required "for excavation . . . outside of the roadway prism" Id. at § II.A, page 2. Therefore, a coastal development permit is required for this project.

Although Section 30240 provides that new development may not be allowed within an environmentally sensitive habitat area unless the use is dependent on the sensitive resource. In this case, the proposed project will serve to restore and enhance wetland and riparian upland habitat on site; although the replacement of the sack-crete walls with rip rap slope protection on site is not "dependent" on the sensitive resource. However, Section 30236 of the Coastal Act specifically allows for stream bank alteration, such as the proposed rip rap, for the purpose of necessary flood control project such as the proposed project. Thus, the proposed development is considered an allowable use within ESHA and riparian areas consistent with the provisions of both Sections 30236 and 30240.

Other Feasible Less Environmentally Damaging Alternatives

Section 30236 limits the proposed flood-control facility to those where no feasible method for protecting existing structures exists. This is similar to the alternatives requirement of Section 30233 of the Coastal Act, which prevents the Commission from authoring dredging and filling within coastal waters unless the project is the least damaging feasible alternative. As stated previously, there are two goals of this project: replacement of a structurally deficient bridge and increased flood protection. The City has explored many alternatives to the project to minimize impacts to coastal resources while satisfying these two goals.

The City has also looked at several alternatives to minimize use of hard structures and rock revetments to protect the banks of the creek and lagoon. Again, given the proximity of several existing structures to Mission Creek, significant bank protection is needed to protect the proposed bridge, adjacent streets, and development. The proposed project would replace the existing sack-crete walls downstream of the existing bridge with a combination of a smaller rock revetment, vegetated geogrid, and native riparian and wetland habitats that will provide protection for the banks for the stream. In this case, the proposed project includes the laying back of the creek bed slope at a less steep angel and installation of the new rip rap in a more landward configuration than the sack-crete wall and will serve to increase wetland and coastal waters on sites with restoration of 9,299 square feet of riparian and wetlands habitat in the estuary. All hard

structures downstream of the bridge would also be buried and covered in native habitats. The area upstream of the bridge, however, would remain channelized with vertical concrete banks. The bottom of the creek would, however, remain natural sediment. The City considers this the minimum amount of protection needed to protect existing structures in the project area. No feasible less environmentally damaging bank alternatives exist that would provide flood and erosion protection in the project area.

The City also investigated repairing the existing bridge instead of complete replacement in order to reduce environmental impacts. However, the needed repairs are extensive and would likely result in the need to eventually replace the bridge in the near future anyway. Additionally, the repairs needed include reinforcements that would further reduce the hydraulic capacity of the bridge and cause further flooding in the City of Santa Barbara.

Finally, the City looked at several construction alternatives to minimize impacts to water quality, coastal access, and biological resources. Specifically, the City looked at closing the bridge completely during construction instead of in phases as proposed in order to minimize the time need for construction of the bridge completely and dewatering of the creek. However, if it was possible to work 24 hours per day and seven days a week, construction could be completed in less than a year if everything went as planned. However, realistically, there are several weather, environmental, and design considerations that could limit the times and seasons during which work could occur. It is, therefore, anticipated that closing the bridge completely would not significantly shorten the construction schedule. Additionally, closing the bridge entirely could mean closing a principal traffic and beach access artery for the City of Santa Barbara. All traffic, including pedestrian and bicycle, would need to be rerouted onto small surfaces streets in the area. This would likely cause substantial traffic delays, impact major streets in the area. This would likely cause substantial traffic delays, impact major emergency access routes, and disrupt neighborhoods in the area of the project. Therefore, the small amount of time saved by closing the entire bridge is not sufficient to justify the potential impacts to beach access, traffic, and public safety.

In conclusion, the Commission finds that the proposed project is the least damaging feasible alternative to provide flood control for existing structures and replace the structurally deficient Cabrillo Bridge.

Mitigation Measures and Avoidance of Significant Disruption

Section 30240 of the Coastal Act requires that the project avoid significant disruption to the sensitive resources. Additionally, Sections 30233 and 30236 require that where fill or alteration of coastal waters is allowed, feasible mitigation measures should be implemented to minimize adverse environmental effects. The City, in their approval of the final mitigated negative declaration for the project and a coastal development permit for the portion of the project in their jurisdiction, required several conditions and mitigation measures related to the protection of sensitive habitats, wetlands, and coastal waters (Exhibits 1-2). These measures include timing of construction activities to minimize disturbance to habitats, erosion control measures, revegetation, and the proposed dewatering and fish relocation measures described in previous sections. Special Conditions One (1) and Two (2) incorporate, by reference, all of the mitigation measures required in the Final Mitigation Negative Declaration No. MST2004-00878 and all conditions of approval contained in City Council Resolution No. 029-07 as special conditions of

the subject permit. Erosion control, construction staging, and water quality measures are discussed in more detail in Section IV-D below.

As noted above, the proposed project involves the expansion of the Mission Creek estuary and no net loss of wetland or riparian habitats. The City is proposing to create approximately 9,299 square feet of new wetland and riparian areas, remove non-native plants in the project area, and plant the banks of the creek and estuary in the protect area with native riparian scrub, dune, and wetland plants. Special Condition Thirteen (13) requires the City to submit a final restoration plan ensuring the successful completion of the abovementioned restoration. The condition also requires planting of native plant species of local genotype on all disturbed areas. Special Condition Thirteen (13) also requires monitoring of all restoration areas for five years, or until all areas have successfully been restored according to success criteria outlined in the plans. Special Condition Four (4) also requires the City to submit approvals from agencies, such as the Army Corps of Engineers, Regional Water Quality Board, United States Fish and Wildlife Service, and California Department of Fish and Wildlife for the proposed project, including all construction and restoration activities.

In order to further ensure that the proposed activities minimizes impacts on sensitive species and coastal waters, Special Condition Seven (7) requires the applicant to obtain the services of an environmental resources specialist to survey all areas within 500 feet of the project site prior to construction, and remain on site to monitor all project activities. The monitor would immediately direct the City to cease work should any breach in permit compliance occur, should any nesting or reproductive behavior is observed, or if any other unforeseen habitat issues arrive. Special Condition Seven (7) further stipulates that if significant impacts or damage occurs to sensitive habitat, wildlife species, or coastal waters, the City shall be required to submit a revised or supplemental program to adequately mitigate such impacts.

The City also proposes to remove non-native vegetation manually, and to apply Habitat™ (Imazaoyr) herbicides to the stems of cut plants, if needed, in order to prevent regrowth. In previous permit actions, the Commission has allowed for the use of Habitat™ (Imazapyr) within sensitive wetland and riparian areas when it was found that use of an herbicide was necessary for habitat restoration and that there were no feasible alternative that would result in fewer adverse effects to the habitat value of the site. Further, the previously approved CDP authorized use of a glysophate herbicide (Rodeo™) for removal of non-native vegetation. Since then, the new herbicide, Habitat™ has become available. Habitat is an Imazapyr formulation of herbicide approved for aquatic use and has been shown to be more effective at one-tenth the application rate for glysophate sprays, and for at least half the cost per acre. In order to minimize the potential for introduction of herbicide into the aquatic environment or onto adjacent non-targeted vegetation, Special Condition Fourteen (14) restricts the use of herbicides to hand-painting of Habitat™ (Imazaoyr) and prohibits spraying of herbicide, use of herbicide during the rainy season, prior to predicted rain, or within 72 hours after rain.

Tidewater Goby, Southern Steelhead Trout, and Other Aquatic Resources

As noted above, the Mission Creek estuary provides habitat for several invertebrate and fish species, including the tidewater goby (Eucyclobius newberryi) and southern steelhead trout (Oncoryhynchus mykiss). The tidewater goby is a federally listed endangered species and a state species of special concern. USFWS proposed in November 2006 to include Mission

Creek/Laguna Channel lagoon as critical habitat for the tidewater goby. Tidewater gobies are typically found in the upper ends of lagoons in brackish water. Gobies have been found in waters with salinity that range from 0 to 40 parts per thousand. They are bottom dwellers and are typically found at depths of less than 3 feet. A tidewater goby population occurs in the estuarine portion of lower Mission Creek (approximately 2,000 feet of the creek/estuary extending from Yanonali Street to the beach). Surveys have been conducted throughout the 1990s, 2000, 2002, 2004, 2005, 2008, and 2011 thru 2013 of the goby populations in the estuary. Gobies typically exhibit an extreme seasonal variation in population size that reflects the variation in salinity, temperature, and hydrologic conditions in a coastal lagoon. According to the Natural Environmental Study prepared for the City of Santa Barbara (July 2007), goby populations in the estuary are most abundant in the spring. Tidewater gobies however, occur in low numbers through the estuary throughout the year. Tidewater gobies spawn throughout the year, but spawning typically peaks from May to July.

The southern steelhead trout is a federally listed endangered species and a state species of special concern. NOAA fisheries have designed Mission Creek as critical habitat for steelhead. Steelhead typically migrate to marine waters after spending one to two years in fresh water. They then spend two or three years in the ocean before returning to streams to spawn. Adult steelhead are stimulated to begin their upstream migration when there are high winter flows in the stream (December through March). Previous studies from 2000-2005 by URS, Army Corps, and USFWS (see Natural Environmental Study July 2007) show a small number of adult steelhead migrating up Mission Creek during years with good winter runoff. Suitable spawning habitat is present in the upper reaches of Mission Creek outside of the project area. Steelhead could be expected to travel through the estuary during upstream (December through March) and downstream (February through May) migration events when the lagoon is open.

Construction of the proposed project has the potential to impact goby and steelhead populations due to the noise and vibrations associated with piling driving. Pile driving, however, is proposed to occur from September 1 to December 1 in order to avoid steelhead migration period, the spawning period for the tidewater goby and avian nesting/breeding season. “Cast-in-place” pile installation method which utilizes an auger shall occur during June 1 to December 1. Special Condition Five (5), therefore, prohibits any pile driving activities from December 1 to September 1 and/or June 1, unless approved by the Executive Director.

In addition, construction of the proposed project includes partial dewatering of Mission Creek and full dewatering of a 650-foot-long reach of Mission Creek estuary for up to seven months, as described in the project description in Section IV-A above. During partial dewatering, sheet piles or cofferdams would be installed in limited areas adjacent to the banks of the stream. During the full dewatering, two cofferdams would be installed at the State Street Bridge and downstream of Cabrillo Bridge. Prior to any dewatering all fish species would be captured and relocated from the construction area. A flume 3-6 feet in width would allow the creek to flows though the dewatered work area. According to the City’s biologist, URS Corporation, and D. Camm Swift, adequate velocities for the tidewater goby range from 1.2 feet per second (ftps) to 2 ftp. The flow velocities inside the flume during dewatering will vary from 0 to 7 ftps. The project biologist, however, would regulate flows and conditions in the flume to the extent feasible to provide for optimal flow conditions in the flume for goby. Additionally, natural sediment will be placed on the bottom of the flume and occasional cobbles to slow down flows and simulate natural conditions for any aquatic species present. According to Bengal Engineering, no rise in turbidity

and/or creek bed scour is expected as a result of construction of the flume because relatively low flows are expected to occur during the dewatering period.

In order to avoid impacts to goby and southern steelhead, the City, in consultation with USFWS, NOAA Fisheries and CDFW, has proposed that the complete dewatering of the 650-foot section of creek occur during the dry season from May to November 1. Some partial dewatering of small sections of the channel may be necessary during the dry season. Additionally, installation of cofferdams shall occur prior to the spawning season for tidewater goby (May through July) and after the winter rainfall and steelhead migration period has ended in the month of April. Special Condition Five (5), therefore requires the City to prohibit full dewatering of the creek from November 1 through March 31 and requires the City to monitor tidewater goby in order to install cofferdams prior to spawning season in May through July.

In addition to the above-mentioned measures, the City has proposed a tidewater goby and aquatic species management plan. This plan recommends measures for protection of aquatic species, including monitoring of the creek prior to construction, biologist monitoring of all creek operations, recovery and relocation of fish species, and post-project monitoring. Special Condition Six (6) requires the City to submit, for the review and approval of the Executive Director, a final version of this plan that shall be prepared by a qualified biologist and implemented during project construction.

Sensitive Bird Species

The lagoon and its margins are used for resting and feeding by numerous species of migratory and resident birds including waterfowl, diving and wading fishers, and shorebirds. Bird use of the lagoon varies from month to month. Spring is a season of relatively low bird diversity and abundance. In early June, seabird use of the lagoon and beach area increases. The late summer and fall migration bring large number of shorebird species into the Santa Barbara area that remain in the area until the spring migration in mid-March. The California brown pelican is a federally and state listed endangered species that is a year round visitor to the waterfront area. This bird however, does not breed in the waterfront area. The western snowy plover, a federal threatened species and state species of special concern, are rarely found near the Mission Creek Lagoon. However, the plover has been found to nest on the harbor sandspit, approximately 0.5 miles from the project area. The California least tern, a federally and state listed endangered species is a transient and post-breeding visitor to the Santa Barbara area in July and August. Least terns occasionally use Mission Creek Lagoon for foraging and resting. Historically, the least terns have bred in colonies on East Beach. However, no least tern nests have historically been found at the project area.

The project has the potential to disturb sensitive bird species in and around the protect area due to noise and vibration, dust, and disturbance associated with construction. The City has proposed that pile driving occur between September 1 to December 1, outside the breeding season for avian species (February through August 31). “Cast-in-place” pile installation method which utilizes an auger shall occur during June 1 to December 1. Specifically, the installation of piles using the “cast-in-place” method using an auger creates a low-level vibration and will serve to minimize construction noise compared to using the pile driving method, thus, the construction period may commence earlier without any additional impacts to aquatic or avian species. This timing is required in Special Condition Five (5) as described above. Additionally, the City has

proposed biological monitoring of all areas within 500 feet of the construction area during all construction activities. Special Condition Seven (7) requires the implementation of this monitoring and also requires that if any sensitive species are found in the project area, the City's biologist should initiate a relocation or avoidance program for the species. Additionally, if any species exhibits reproduction or nesting behavior in the study area, development should be stopped unless authorizations to proceed are obtained from the Executive Director in consultation with USFWS and CDFW.

The following special conditions are required, as determined in the findings above, to assure the project's consistency with Section 30233, 30236, and 30240 of the Coastal Act:

Special Condition 1: Compliance with City of Santa Barbara Conditions of Approval
Special Condition 2: Compliance with Approved Mitigation Measures
Special Condition 4: Other Federal, State, or Local Approvals
Special Condition 5: Timing of Operations
Special Condition 6: Tidewater Goby and Aquatic Species Management Plan
Special Condition 7: Biological Surveys and Construction Monitoring
Special Condition 13: Habitat Enhancement and Revegetation Monitoring Program
Special Condition 14: Herbicide Use

Due to the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with 30233, 30236, and 30240 of the Coastal Act.

E. HAZARDS AND GEOLOGIC STABILITY

Section 30253 of the Coastal Act states, in pertinent part, that new development shall:

> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Section 30253 of the Coastal Act mandates that new development minimize risks to life and property in areas of high geologic, flood, and fire hazard. The project area is subject to several hazards, including earthquakes, erosion, flooding, tidal action, and storm surge. The purpose of the proposed improvements on Mission Creek and the Cabrillo Bridge is to replace a structurally deficient bridge and to improve the hydraulic capacity of Mission Creek. The project would, therefore, reduce the hazards currently experienced in the project area.

The project site is underlain by artificial fills and alluvium consisting of silt and sand and gravel. No bedrock was encountered within the depth of exploratory borings. The region surrounding the project area is underlain by numerous active and potentially active faults. However, the bridge site is not located within any Alquist-Priolo Earthquake Fault Zone as defined by the California Geological Survey. The Mesa-Rincon Creek fault is the nearest seismic course from the bridge

site and is located approximately 650 to 1,300 feet (0.2 to 0.4 km) north of the project site. The site has experienced earthquakes in the past and it can be expected to experience moderate to strong earthquakes in the future.

Bengal Engineers has prepared the Preliminary Foundation Recommendation Report (December 2005) and Addendum (November 2013) for the project that includes recommendation in the design and construction of the project in order to maximize the safety of the project given the geologic and hydraulic conditions around the project area. Special Condition Ten (10) requires the City to incorporate all recommendations contained in the applicable geotechnical and hydraulic reports submitted for the project into the final design and construction plans for the project.

According to FEMA, the 100-year discharge cited for Mission Creek in the project area is 7,400 cubic feet per second (cfs). The highest flood on record for Mission Creek was 5,120 cfs in the year 1995, which equates to a 50-year food. The existing capacity of the creek is 1,500 cfs or a five-year level of flood protection.

In 1999, the Army Corps of Engineers, in conjunction with the City of Santa Barbara and County of Santa Barbara, developed a feasibility study (December 1999) that considered alternatives to increase the flood capacity and aquatic and riparian habitats of Mission Creek. Lower Mission Creek is highly urbanized and relocation or retrofitting existing development along the creek would likely be cost prohibitive and infeasible. Therefore, the 1999 feasibility report recommended several changes to the lower portions of Mission Creek in order to increase the hydraulic capacity of the creek to 3,400 cfs and allowing for a 20-year level of flood protection without extensive relocation of existing development bordering the creek.

In this case, the proposed bridge has been designed to improve hydraulic conveyance to a twenty year creek flood event, and has been designed to withstand overtopping floods (Bengal Engineering 2005). The bridge has been designed with an approximate design life of 75 years for a marine environment with reinforcement against corrosion and earthquakes. This would result in the bridges design life ending in approximately 2090. The proposed finished bridge elevations are 12.2 feet above mean sea level at the bridge's top deck and 9.7 feet above mean sea level at the bridge's bottom deck. This design conforms to the existing elevations of Cabrillo Boulevard and allows overtopping during a 20-year flow event in Mission Creek, for flood control purposes. Specifically, this design would improve the flood capacity of the creek from 1,500 cfs without any freeboard to 3,400 cfs with one foot of freeboard space from the bottom of the bridge to the water surface.

Furthermore, the project site is adjacent to the shoreline. Due to its location, the project site is subject to wave and flooding hazards, and may be subject to increased flooding and wave action in the future because of the fluctuating nature of coastal conditions, such as changes to the sand supply and sea level rise. The beach at the project site is just downcoast of the Santa Barbara Harbor and sand dredged from the navigational channel by the U.S Army Corps of Engineers and the City is routinely placed on the beach seaward of the subject site. To maintain this federally maintained navigational channel, the U.S. Army Corps of Engineers and the City of Santa Barbara's Waterfront Department have dredged and managed sediment within the Harbor since the early 1930s. Current annual dredge placement practice is authorized pursuant to Coastal Development Permit No. 4-10-066 as part of the Santa Barbara Sediment Management Program

which allows for up to 300,000 cubic yards of sediment along East Beach. The dredging operations and sediment management provide a relatively stable shoreline position along East beach and the project site.

To analyze the suitability of the site of the proposed development relative to potential hazards, the City has submitted a Wave Uprush and Sea Level Rise Study for Cabrillo Bridge, dated April 11, 2014 and prepared by ESA PWA. This study evaluated the existing wave uprush and coastal processes for the Cabrillo Bridge replacement and the effect of sea level rise. Wave uprush can induce erosion and flooding, and the high velocities can scour foundations and damage structures. Impacts from wave uprush are expected to increase with rising sea level. Sea level rise is expected to reduce beach widths and increase the potential for wave impacts to backshore development over time. Specially, sea level rise will result in: 1) an increase in the elevation of maximum wave uprush, 2) an increase in landward extent of wave induced coastal flooding and long term erosion hazards from sea level rise, and 3) storm induced erosion impacts. These may all affect the bridge's performance over the expected lifespan of 75 years.

In many riverine, creek or estuarine situations, an elevation of sea level can result in a propagation of higher water levels through the tidal reach of the waterway. During flood flows this higher water level at the mouth of the river or creek can elevate flood levels throughout the downstream reach of the creek. The ESA PWA Study provides a qualitative examination of the risks from a combined high flood and high wave condition and notes that when strong waves combine with high creek flows, the lagoon will breach and that this will lower the creek water level and that there will be little flood risk from a combined condition of high flood flows and high wave action.

The ESA PWA Wave Uprush and Sea Level Rise Report analyzed the estimated wave uprush from current conditions and from two sea level rise scenarios -- 2.0 feet (24 inches) and 4.6 feet (55 inches) by 2100, approximately the expected life of the proposed bridge reconstruction. The current bridge is fairly low (the bridge is at the same elevation as Cabrillo Boulevard) and close to the coast and the current bridge has been subject to occasionally wave uprush and overtopping during winter storms. The proposed bridge will use the same access road (Cabrillo Boulevard) as the existing bridge and will re-occupy the right-of-way with a similar bridge deck elevation. Modifications to the bridge length, elevation of the lower bridge deck and to the pilings will improve conveyance capacity and flood conditions, but this will only slightly modify potential threats from rising sea level. The PWA wave uprush analysis found that wave impacts at the bridge location will worsen in the future and that in the future waves could impact or overtop the bridge approximately 20 to 90 hours per year for the low sea level rise scenario and approximately 700 to 1,100 hours per year for the high sea level rise scenario. Wave impacts and overtopping would eventually make the bridge unsafe for use, and the ESA PWA report recommends that the threshold for temporary closure of the bridge occur when the water level reaches the lowest part of the bridge.

In addition to increased overtopping, sea level rise could greatly reduce the beach area. For the low sea level rise scenario by 2100, the winter-time beach could erode back to the location of the bridge and Cabrillo Boulevard. Examination of beach change for the high sea level rise scenario indicates that the eroded shoreline could reach the location of the bridge and Cabrillo Boulevard by 2060 and be far inland of this location by 2100.

Erosion and overtopping concerns will not be limited to the bridge alone. The bridge will be at the same elevation as Cabrillo Boulevard and the low-lying portions of this roadway are also expected to experience wave impacts, overtopping, and erosion, especially under conditions similar to those represented by the high sea level rise scenario. While the sea level rise analysis focused on issues related to the bridge, it also points out the potential future sea level rise vulnerabilities of this section of coast.

The results of the wave uprush analysis had some implications to the design of the bridge and the report provided some design considerations that should be evaluated by the City and the project's engineers. Specifically, the report recommended that the proposed bridge design be capable to withstand the expected wave forces and hazards that are anticipated as a result of the projected low and high sea level rise scenarios during the life expectancy of the bridge. Commission staff has worked with the City to analyze these bridge design recommendations and the City has revised the project description to include the following recommendation: modification of the abutment foundation to include installation of two inch crushed rock covered with filter fabric underneath and landward of the bridge abutment footings to avoid undermining and potential piping erosion due to wave uprush. This additional crushed rock/filter fabric treatment will be located entirely on the landward side of the abutments and will not encroach into the creek channel and; therefore, would not result in fill of Mission Creek. However, the City has not yet submitted revised project plans to reflect the proposed changes noted above and; therefore, the Commission finds it necessary to impose Special Condition Three (3), which requires the City to submit final revised plans, for the review and approval of the Executive Director, that requires the incorporated changes noted above to the bridge's design. As a result of incorporating this design recommendation, the proposed bridge is now designed to withstand the expected wave forces and hazards (wave overtopping and wave loading) that are anticipated as a result of the projected low scenario sea level rise.

The bridge design requirements to withstand the projected high scenario sea level rise wave forces and hazards that are anticipated during the life expectancy of the bridge would entail raising the bridge to a higher elevation that is adequate enough to reduce the risk of wave overtopping, wave run-up and inundation. Specifically, the PWA wave uprush analysis estimated a maximum wave run-up elevation of 14.9 feet (NAVD88) for the projected high sea level rise scenario using the Stockdon Method. The bottom of the bridge desk as previously specified is at an elevation of 9.7 feet (NAVD88). In order to reduce the bottom exceeded probability (wave overtopping) to near 0 over the design life of the bridge and all projected sea level rise scenarios, the bridge would need to be elevated the difference of 5.2 feet. The top of the bridge deck is specified at an elevation of 12.2 feet (NAVD88) to match the existing bridge and conform to adjacent roadway elevations. It is anticipated that raising the bridge elevation to a significantly higher elevation then the surrounding existing roads, road intersections, and buildings would require a significant reconfiguration and change in the elevation of Cabrillo Boulevard, State Street, and Stearn's Wharf and the surrounding waterfront area due to the location of the bridge adjacent to the intersection of State Street and Cabrillo Boulevard. Moreover, to accommodate the bridge at a higher elevation, Cabrillo Boulevard approaches would also need to be raised to reach the bridge at its higher elevation, which would then impact adjacent streets, intersections, drainage systems and surrounding development. This significant reconfiguration of the waterfront area would change the characteristic of the area and result in impacts to visual resources and public access. This significant reconfiguration of the waterfront area cannot be achieved through this project at this time and; therefore, it is not feasible to raise the bridge

elevation to avoid any potential impacts from the expected high sea level rise scenario during the life expectancy of the bridge. The City of Santa Barbara has already begun a regional coastal hazards vulnerability assessment study for the waterfront area, which includes the Cabrillo Boulevard Bridge, to develop long term adaptation planning strategies to address coastal hazards with a regional approach, these adaptation strategies will be part of a future Local Coastal Plan update by the City.

Although the project has been designed to ensure structural and geologic stability to the extent feasible for the expected life of the project, the Commission finds that here remains an inherent risk to development along the shoreline and that the project is located in an area of the Coastal Zone that has been identified as subject to potential hazards from flooding, tidal action, high surf conditions, storm surge, and seismicity. Although the proposed development is intended as a flood control project and will serve to reduce the potential for flooding of development areas, there remains some inherent risk to any flood control projects. The Coastal Act recognizes that certain types of development, such as the proposed project, may involve some risk. As such, the Commission finds that due to the unforeseen possibility of storm waves, surges, erosion, seismicity, and flooding, the applicant shall assume these risks as a condition of approval. Therefore, Special Condition Eleven (11) requires the applicant to waive any claim of liability against the Commission for damage to life or property that may occur as a result of the permitted development.

The following special conditions are required, as determined in the findings above, to assure the project's consistency with Section 30253 of the Coastal Act and as a response to the risks associated with the project:

Special Condition 3: Revised Plans
Special Condition 10: Plans Conforming to Geotechnical Engineer's Recommendations
Special Condition 11: Assumption of Risk, Waiver of Liability and Indemnity

For the reasons set forth above, the Commission finds that, as conditioned, the proposed project is consistent with Section 30253 of the Coastal Act.

F. WATER QUALITY

Section 30230 of the Coastal Act states that:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states that:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where*

> *feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, minimizing alteration of natural streams.*

Erosion adjacent to surface waters can result in increased sedimentation, thereby reducing the biological productivity and quality of coastal waters. Sedimentation directly affects wetland ecology be increasing water turbidity. Turbidity reduces the penetration of sunlight needed by aquatic vegetation, which translates to negative effects on plant establishment and overall productivity, which in turn impacts aquatic species that depend on such vegetation for food and cover. In addition, aquatic animals are affected by turbidity in the following ways: reduced visibility for visual predators such as birds and mammals; and inhibited feeding effectiveness for benthic filter feeding organisms.

Construction of the proposed project, which is described in detail in previous sections, is intended to reduce erosion and improve water quality. The proposed grading of the Mission Creek estuary's banks will eliminate the existing near vertical sack-crete walls. The reduced slope would be planted with riparian, wetland, and dune vegetation and be subject to saturations, thus increasing the potential for percolation of the water into the groundwater table. The proposed banks of the creek mouth would be stabilized with geotextiles and brush mats, thus providing both interim erosion control and long-term stabilization of the slope with a strand of native vegetation. The applicant also proposes numerous other construction best management practices (BMPs) and erosion control measures to be employed during project construction. In order to ensures that the applicant's proposal for erosion control are implemented, Special Condition Eight (8) requires the applicant to submit erosion control plans designed to minimize potential impacts on coastal water quality.

Many of the measures proposed for protection of water quality are outlined in Final Mitigation Negative Declaration No. MST2004-00878. In addition, the City of Santa Barbara, in its approval of a CDP for the project, required additional conditions for the protection of water quality. In order to ensure that these measures are employed, Special Conditions One (1) and Two (2) incorporate the mitigation measures and conditions of approval as special conditions of this permit.

The proposed project involves a significant amount of excavation. Stockpiling of excavated material at the project site could result in transport of sediments into the estuary. Therefore, in order to further reduce the potential for sedimentation of the estuary, Special Condition Twelve (12) requires the applicant to provide evidence to the Executive Director of the location of the disposal site for all excess excavated material and debris. Should the disposal site be located in the Coastal Zone, a Coastal Development Permit shall be required.

The stream and estuarine environment of Mission Creek could also be adversely impacted as a result of the implementation of project activities by unintentional introduction of sediment, debris, or chemicals with hazardous properties to the channel and lagoon. To ensure that construction material, debris, or other waste associated with project activities does not enter the water, the Commission finds Special Condition Eight (8) is necessary to define the applicant's responsibility for proper disposal of solid debris and materials unsuitable for placement into the

marine environment. Special Condition Eight (8) is also necessary to define the applicant's responsibility for proper disposal of solid debris and material unsuitable for placement into the marine environment. As provided under Special Condition Eight (8), it is the applicant's responsibility to ensure that no construction materials, debris, sediment, or trash shall be properly contained and removed from construction areas within 24 hours. Debris shall be disposed of at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material by a coastal development permit or other authorization from the Commission. Further, construction equipment shall not be cleaned on the beach or in the beach parking lots. In order to protect water quality and biological resources in the project area, the Commission also requires Special Condition Four (4), which provides for the review and approval of the project by other relevant state and federal agencies.

The following special conditions are required, as determined in the findings above, to assure the project's consistency with Section 30230 and Section 30231 of the Coastal Act:

Special Condition 1: Compliance with City of Santa Barbara Conditions of Approval
Special Condition 2: Compliance with Approved Mitigation Measures
Special Condition 4: Other Federal, State, or Local Approvals
Special Condition 8: Protection of Water Quality

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30230 and Section 30231 of the Coastal Act.

G. PUBLIC ACCESS

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section 30211 states:

> *Development shall not interfere with the public's right to access to the sea where acquired through use or legislature authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Sections 30210 and 30211 of the Coastal Act mandates that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast.

The proposed project involves the replacement of the existing, structurally deficient Cabrillo Bridge over Mission Creek. The project site is located in any area adjacent to Stern Wharf that is heavily used by the public and includes sidewalks on both the north and south sides of the bridge and a Class I bicycle/pedestrian pathway (beachway) on the south side of the bridge.

Additionally, every Sunday, the sidewalk and area around the multi-use beachway is used by artists during the Arts and Crafts Show, which generates considerable pedestrian traffic by shoppers and park users in this area. Furthermore, Cabrillo Boulevard is a main artery through the City of Santa Barbara and provides vehicular access to the beach along the Santa Barbara coastline.

The bridge replacement would result in improved public access including the enlargement of the sidewalk to the north side of the bridge from 4.5 feet wide to six feet wide and the expansion of the existing multi-purpose beachway on the south side of the bridge from eight feet wide to 10 feet wide in each direction. Despite the fact that the project will ultimately create public access improvements along Cabrillo Bridge, there will be temporary impacts to public access associated with the bridge repairs. In order to minimize the impacts of the project on vehicular, bicyclist, and pedestrian access, the project will be constructed in stages. Stage 1 of the project involves the installation of the pilings through holes bored in the existing bridge deck and would not create any impacts to public access. Stage 2 would involve the demolition and replacement of the northern portion of the bridge and would result in shifting vehicular traffic to the south side of the existing bridge where there would be one lane of traffic open in each direction. During Stage 2, the sidewalk on the north side of the bridge would be closed and pedestrians and bicyclists would be rerouted to the southern sidewalk and bicycle/pedestrian beachway, which would remain open and available to the public. Impacts during Stage 2 are expected to last 10 to 11 months.

Stage 3 would involve the demolition and repair of the southern portion of the existing bridge. During this phase, vehicular traffic would be shifted to the newly completed northern portion of the bridge, the new northern sidewalk that was completed in Stage 2 would be opened for pedestrians, and the pedestrian/bicycle beachway and southern sidewalk would be temporarily closed. Prior to construction on the southern portion of the bridge, a temporary, 12-foot-wide bridge would be constructed across Mission Creek approximately 50 feet seaward of the existing beachway to accommodate all pedestrians and east-bound bicyclists. This bridge would also provide a location for the Arts and Crafts Show artists during construction. West-bound bicycle traffic would be accommodated by creating a Class 2 bicycle lane on the north side of Cabrillo Boulevard. Impacts during Stage 3 are expected to last 10 months.

In order to facilitate the ongoing circulation of automobiles, buses, bicycles, and pedestrians along the waterfront, the City has developed a final traffic control plan that would provide for signs and flagmen to redirect the public during project construction. One vehicular travel lane in each direction and pedestrian and bicycle routes in both directions would be available for the duration of the project.

Construction of the proposed bridge would not result in an intensification of use at the site or adverse impacts to public access parking. Throughout project implementation, the construction workforce would vary from five to 30 workers. Construction-related employee parking would require 25 parking spaces that would be provided at an existing public waterfront parking lot west of the intersection of Cabrillo Boulevard and Garden Street. The temporary use of these parking spaces during bridge construction would result in minimal impacts to public access as the spaces represent a small percentage of available parking capacity along the waterfront. Additionally, project construction activities would result in the temporary loss of up to 12 parking spaces and the permanent loss of 6 parking spaces would be offset by improving public

transportation efficiency, thereby providing an incentive to the public to not drive their cars. Furthermore, the temporary and permanent loss of these parking spaces impacts a minor amount of potential coastal access parking adjacent to the project site.

Based on the fact that the project site would not result in an intensification of use, would not result in an adverse impact on coastal access parking, and would provide alternative public access to offset the temporary impacts associated with bridge construction, the Commission finds that the proposed project is consistent with Coastal Act Sections 30210 and 30211.

H. VISUAL RESOURCES

Section 30251 of the Coastal Act states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

The Cabrillo Bridge project site is located along the Santa Barbara waterfront and is visible from the beach area and adjacent roadways. Views of cracks in the bridge and rusting steel can be seen from the eastern side of State Street and a deteriorating chain link fence along the northern portion of the bridge is visible from Cabrillo Boulevard. During construction, impacts to visual resources associated with construction work and equipment would occur; however, these impacts would be temporary in nature.

The new bridge would be the same size and constructed in the same location as the existing bridge and would not result in any additional impacts to views to and along the coast. Furthermore, the proposed project would improve the appearance of the existing bridge by streamlining pile arrangement, replacing the chain-link fence, replacing deteriorating concrete, and eliminating the utility grate on the southern edge of the bridge. Removal of the existing sack-crete walls and replacement of these walls with rock boulders and native vegetation would also improve the visual appearance of Mission Creek and the project site (Exhibits 6-11).

The proposed project location is adjacent to the sandy beach and ocean and blue water views of the ocean are available across the entire site. In such a location, it is necessary to assess any potential visual impacts that may result from the completion of the proposed project. In this case, bluewater views of the ocean from Cabrillo Boulevard are available along the entire reach of the project site. The top of the currently existing hand rail/bridge barrier is approximately 45 inches in height above the bridge deck. As proposed, the rail/bridge barrier will not be any greater in height than the existing rail/bridge barrier. In past permit actions, the Commission has required the use of visually permeable rails or barriers in road or bridge projects that are in visually sensitive locations, such as the project site. In this case, the City has included a visually permeable bridge railing as part of the proposed project which has been designed to visually

match the historic architecture and bridge rail design of the existing bridge while maintaining blue water views across the site (Exhibit 14). Therefore, as proposed, the project has been designed to maintain blue water views across the site and avoid any new adverse impacts to public views of the ocean from the highway, and maintain and enhance scenic coastal views, as required by Section 30251.

For the reasons set forth above, the Commission finds that the proposed project, as proposed, is consistent with Section 30251 of the Coastal Act.

I. LOCAL COASTAL PROGRAM

The proposed project area lies within the City of Santa Barbara, but falls within the Commission's area of retained permit jurisdiction as shown on the LCP Certification Permit and Appeal Jurisdiction map. The Commission has certified the Local Coastal Program for the City of Santa Barbara (Land Use Plan and Implementation Ordinance), which contains policies for regulating development and protection of coastal resources, including the protection of environmentally sensitive habitats, recreation and visitor serving facilities, coastal hazards, and public access.

J. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, the proposed development, as conditioned, is consistent with the polices of the Coastal Act. Feasible mitigation measures, which will minimize all adverse environmental effects, have been required as special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX 1

Substantive File Documents

Consistency Determination CD-046-06 (U.S. Army Corps of Engineers); Consistency Determination CD-117-99 (U.S. Army Corps of Engineers); City of Santa Barbara's Coastal Development Permit CDP2007-00001; Mitigated Negative Declaration MST2044-00878, approved by the City of Santa Barbara's Planning Commission on July 12, 2007; City of Santa Barbara Planning Commission Report, July 12, 2007; "Hydrology and Hydraulic Analysis for the Cabrillo Boulevard Bridge Over Mission Creek," December 15, 2005; "Noise and Vibration Analysis Report, Cabrillo Boulevard Bridge Replacement Project," June 19, 2006, Channel Island Acoustic; "Noise and Vibration Analysis Addendum, Cabrillo Boulevard Bridge Replacement Project," February 19, 2014, Channel Island Acoustic; "Preliminary Foundation Recommendation Report for the Replacement of Cabrillo Boulevard Bridge Over Mission Creek," December 3, 2005, Bengal Engineering, Inc.; "Addendum Foundation Recommendation Report for the Replacement of Cabrillo Boulevard Bridge Over Mission Creek," November 7, 2013, Bengal Engineering, Inc.; "Addendum Foundation Recommendation Report for the Replacement of Cabrillo Boulevard Bridge Over Mission Creek," November 21, 2013, Bengal Engineering, Inc.; "Addendum to Hydrology & Hydrulics Analysis for the Replacement of Cabrillo Boulevard Bridge Over Mission Creek," November 4, 2013, Bengal Engineering, Inc.; "Water Quality Study, Cabrillo Boulevard Bridge Replacement at Mission Creek," URS Corporation, December 2006; "Tidewater Goby Management Plan, Lower Mission Creek Flood Control Project," URS Corporation, April 2005; "Natural Environment Study, Cabrillo Boulevard Bridge Replacement at Mission Creek," URS Corporation, July 2007; "Biological Assessment, Cabrillo Blvd. Bridge Replacement Project at Mission Creek," URS Corporation, July 2007; "Cabrillo Bridge Wave Uprush and Sea Level Rise Study," April 11, 2014, ESA PWA; "Cabrillo Boulevard Bridge Replacement Project 2007 Biological Assessment Re-Validation, November 20, 2013, Cardno Entrix.

City of Santa Barbara
California

CITY OF SANTA BARBARA PLANNING COMMISSION

RESOLUTION NO. 029-07
00 CABRILLO BOULEVARD
COASTAL DEVELOPMENT PERMIT
JULY 12, 2007

APPLICATION OF HAL HILL, AGENT FOR CITY OF SANTA BARBARA, PUBLIC WORKS DEPARTMENT, CITY OF SANTA BARBARA, 00 EAST CABRILLO BOULEVARD, 033-111-011 AND 033-120-015, P-R/S-D-3 and HRC-2/S-D-3 ZONES, GENERAL PLAN DESIGNATION: OPEN SPACE (MST2004-00878)/CDP2007-00001)

The project would replace the existing structurally deficient Cabrillo Boulevard Bridge over Mission Creek and improve the hydraulic conveyance of Mission Creek from State Street to the Pacific Ocean. The banks of Mission Creek from Cabrillo Boulevard to State Street would be rebuilt in compliance with the approved Lower Mission Creek Flood Control Project. The discretionary application required for this project is a Coastal Development Permit in the appealable jurisdiction of the coastal zone and a recommendation to the California Coastal Commission (SBMC § 28.45.009).

The Planning Commission will consider adoption of the Negative Declaration prepared for the project (MST2004-00878) pursuant to the California Environmental Quality Act Guidelines Section 15074. The MND contains mitigation measures that reduce potentially significant avoidable impacts to a less than significant level.

WHEREAS, the Planning Commission has held the required public hearing on the above application, and the Applicant was present.

WHEREAS, 1 person appeared to speak in favor of the application with some concerns, and no one appeared to speak in opposition thereto, and the following exhibits were presented for the record:

1. Staff Report with Attachments, July 5, 2007
2. Site Plans

NOW, THEREFORE BE IT RESOLVED that the City Planning Commission:

I. Adopted the Final Mitigated Negative Declaration, approved the Coastal Development Permit, and recommended approval of the Coastal Development Permit for the portion of the project in the Coastal Commission's original jurisdiction, making the following findings and determinations:

A. **Negative Declaration Findings**

1. The Planning Commission has read and considered the Final Mitigated Negative Declaration together with comi

Exhibit 1
Santa Barbara Planning Commission Resolution No. 029-07
CDP No. 4-13-1176

review process. In this agency's independent judgment and analysis and on the basis of the record before the Commission, there is no substantial evidence that the project will have a significant effect on the environment.

2. Pursuant to Section §15074 of the California Environmental Quality Act Guidelines, the Planning Commission adopts the Final Mitigated Negative Declaration MST2004-00878.

3. The Planning Commission approves the Mitigation Monitoring and Reporting Program, which will monitor compliance with the mitigation measures agreed to by the applicant and conditions imposed on the project in order to mitigate or avoid significant effects on the environment.

4. The custodian of the environmental documents and record of the proceedings upon which this decision is based is the Environmental Analyst for the City of Santa Barbara Planning Division located at 630 Garden Street, Santa Barbara.

5. An Initial Study has been conducted by the lead agency, which has evaluated the potential for the proposed project to result in adverse effect, either individually or cumulatively, on wildlife resources. For this purpose, wildlife is defined as "all wild animals, bird, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability." The proposed project has the potential for adverse effect on wildlife resources and their habitat. Mitigation measures have been applied such that impacts will be less than significant. The project is therefore subject to payment of the California Department of Fish and Game environmental review fee.

B. **Findings for the Coastal Development Permit**

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 Coastal Plan, all applicable implementing guidelines, and all applicable provisions of the Code.

3. The project is consistent with Chapter 3 (commencing with Section 30200) of the Coastal Act (Visitor Serving, Access and Recreation).

II. Said approval is subject to the following conditions:

A. **Project Description:** The development of the Real Property approved by the Planning Commission on July 12, 2007 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 replace the existing structurally deficient Cabrillo Boulevard Bridge over Mission Creek and improve the hydraulic conveyance of Mission Creek from State Street to the Pacific Ocean. The banks of Mission Creek from Cabrillo Boulevard to State Street would be rebuilt in compliance with the Lower Mission Creek Flood Control Feasibility Report, dated September 2000, and accompanying EIS/EIR by the Corps of Engineers and approved by the City on November 30, 2001 and by the California Coastal Commission, through the issuance of a Final Coastal Consistency determination on August 11, 2006. The project description is further refined to incorporate the following:

1. The location of the eastern rock revetment south of Cabrillo Boulevard will be moved back by up to 10 feet towards the Beachway as it curves east back into the existing beach dune.

2. The height of the eastern rock revetment south of Cabrillo Boulevard shall be ~ 8.6 feet above mean sea level (MSL) near the bridge. At approximately two-thirds of its length south of the bridge, the rock revetment will be reduced in height by making a transition from the ` 8.6 feet above MSL to a height of approximately four feet above MSL at the point it ties into the sand dune berm covered with ice plant. The rock revetment will be replaced in the transition area with a bio-revetment alternative (vegetative mat) to the full 8.6 feet above MSL revetment height. Said bio-revetment (jute netting securing soil and native plants) shall be designed by a restoration specialist.

3. The area between the east revetment and the existing Beachway shall be vegetated with ecologically appropriate native dune, riparian or coastal scrub vegetation as determined by a qualified biologist and habitat restoration specialist with experience in beach environments. A low, vegetated berm may be created between the Beachway and the planted revetments.

4. Both the rock revetment and bio-revetment shall be filled with earth and irrigated to facilitate successful vegetation establishment.

5. A wood post and rail fence shall be installed at an appropriate location between the revetment and the Beachway for the entire length of the revetment.

6. The "Bengal Engineering Alternative Design" that straightens the creek shall remain under consideration until the Planning Commission Update is held (See Condition E.5).

B. **Landscape Plans.** The Public Works Department shall comply with the Landscape/Restoration Plan 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. **California Department of Fish and Game Fees Required.** Pursuant to Section 21089(b) of the California Public Resources Code and Section 711.4 et. seq. of the California Fish and Game Code, the approval of this permit/project shall not be considered final unless the specified Department of Fish and Game fees are paid and filed with the California Department of Fish and Game within five days of the project approval. The fees required are $2,500 for projects with Environmental Impact Reports and $1,800 for projects with Negative Declarations. Without the appropriate fee, the Notice of Determination (which the City is required to file within five days of project approval) cannot be filed and the project approval is not operative, vested, or final. The fee shall be delivered to the Planning Division immediately upon project approval in the form of a check payable to the California Department of Fish and Game.

D. **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. **HLC Review.** Bridge and restoration plans shall be subject to HLC review and approval to ensure that they are compatible with the East Cabrillo Boulevard Parkway District (CR-2).

2. **Design Elements.** The bridge railings shall utilize the same design and finish as the 1928 bridge railing (a pipe or wrought iron above the existing railing is permitted to achieve increased height required by code and the openings between pillars in the railing may be tapered to four inches on the interior of the railing, also to meet code), the bridge deck shall be similar in appearance to the existing structure with arch like structures, piers shall be round in one row, the existing monument shall be removed and replaced on the bridge, and all rip-rap on the channel banks, downstream of the project, would use stone rather than concrete (CR-3).

3. **Replacement Trees.** The project shall replace all palm trees removed as result of project construction on a one for one basis, with trees of the same variety and approximately 30 feet in height (CR-4).

4. **Post and Rail Fence.** A post and rail fence shall be installed at an appropriate location between the revetment and the Beachway for the entire length of the revetment to discourage pedestrian access to the lagoon while maintaining visual access.

E. **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 Owner, 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 monthly reports during demolition, excavation, grading and footing installation and monthly reports on all other construction activity regarding MMRP and condition compliance by the PEC to the Community Development Department.

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. **Archive Plans and Photos.** Prior to demolition the bridge will be recorded in accordance with the National Park Service guidelines for Historic American Engineering Record (HAER) documentation. The documentation will include historic research, a narrative report of the history of the bridge, and photo documentation of the bridge. The HAER document will be submitted to the Library of Congress (CR-1) [I suggest you move the completion of this condition to either as a condition to be satisfied before permit issuance or conducted after permit issuance and before final inspection.]

3. **Preconstruction Surveys – Tidewater Goby.** Pre-construction monitoring surveys for tidewater goby would be implemented at the upstream, downstream, and mid-lagoon bridge areas, one year prior to construction, including one pre-spawn survey in April, and one post-spawn in August. In addition, tidewater goby monitoring surveys also would be conducted at the same time at other known tidewater goby habitats Arroyo Burro Estuary, Sycamore Creek, and/or Andree Clark Bird Refuge. Pre-construction surveys would be conducted by a biologist approved to handle tidewater gobies under a Section 10a1a recovery permit to determine the general abundance of tidewater gobies. Survey methods would follow those currently being used to measure population densities at Arroyo Burro Estuary (BIO-17).

4. **Educational Signage.** A sign shall be designed and installed for the duration of the construction that explains the annual life cycle of the lagoon and how the construction is designed to work with the life cycle.

5. **Planning Commission Project Update.** Approximately nine months from Planning Commission approval, the applicant shall return to the Planning Commission to review the landscape plan, changes to the streetscape, how the Arts and Crafts Show displacements will be handled and the "Bengal Alternative Bridge Design" that would straighten the creek.

F. The Public Works Department shall require the following measures be included as requirements in the construction contracts and reproduced on the construction drawings for the project:

1. **Construction Dust Control** – Minimize Disturbed Area/Speed. Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less (AQ-1).

2. **Construction Dust Control** - Watering. During site grading and transportation of fill materials, regular water sprinkling shall occur using reclaimed water whenever the Public Works Director determines that it is reasonably available. During clearing, grading, earth moving or excavation, sufficient quantities of water, through use of either water trucks or sprinkler systems, shall be applied to prevent dust from leaving the site. Each day, after construction activities cease, the entire area of disturbed soil shall be sufficiently moistened to create a crust (AQ-2).

   Throughout construction, water trucks or sprinkler systems shall also be used to keep all areas of vehicle movement damp enough to prevent dust raised from leaving the site. At a minimum, this will include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency will be required whenever the wind speed exceeds 15 mph.

3. **Construction Dust Control – Tarping**. Trucks transporting fill material to and from the site shall be covered from the point of origin (AQ-3).

4. **Construction Dust Control – Gravel Pads**. Gravel pads shall be installed at all access points to prevent tracking of mud on to public roads (AQ-4).

5. **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 (AQ-5).

6. **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 (AQ-6).

7. **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 (AQ-7)

8. **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 (AQ-8).

9. **Diesel Engines**. Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible (AQ-9).

10. **Engine Size**. The engine size of construction equipment shall be the minimum practical size (AQ-10).

11. **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 (AQ-11).

12. **Equipment Maintenance.** Construction equipment shall be maintained in tune per the manufacturer's specifications (AQ-12).

13. **Engine Timing.** Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines (AQ-13).

14. **Catalytic Converters.** Catalytic converters shall be installed on gasoline-powered equipment, if feasible (AQ-14).

15. **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 (AQ-15).

16. **Electric Equipment**. Diesel powered equipment should be replaced by electric equipment whenever feasible (AQ-16).

17. **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 (AQ-17).

18. **Worker Trips.** Construction worker trips shall be minimized by requiring carpooling and by providing for lunch onsite (AQ-18).

19. **Biodiesel.** Biodiesel shall be used to the maximum extent feasible (AQ-19)

20. **Dewatering Timing.** Except for installation of sheet piles (Porta Dam or equivalent) for partial dewatering and diversion of three areas for 1) pile installation (including the temporary beachway bridge), 2) abutment construction, and 3) bank protection, construction work in the Mission Creek channel and on the banks, including construction of the cofferdams, shall not occur during the period October 1/November 1 to mid March/April 30 during an average or above-average rainfall year. The exact schedule is subject to revision dependent on weather conditions and monitoring for goby spawning. Construction work requiring dewatering/diversion in the creek shall not begin until forecasts from the National Weather Service provide reasonable assurance that the winter rainfall has ended, and/or tidewater goby monitoring shows no reasonable evidence of initiation of spawning season (BIO-1)

21. **Pile Driving Timing.** Pile driving and construction for the center line of piles on the north side of the road (Stage 1) shall be completed during the period October 1 to December 1 to avoid vibration impact in the creek during the adult steelhead migration period, which can begin as early as December 1 if there are suitable runoff conditions. Weather and other possible delays permitting, the center row of piles for the north side of the bridge will be driven and filled with concrete with the existing bridge deck intact and while the creek is not dewatered. This date may be moved forward as late as December 31 if the lagoon remains closed (i.e., has not breached by its own forces). If all the center row of pilings cannot be completed in Stage 1, the center piles on the south side of Cabrillo Boulevard currently identified for Stage 3, will be driven and filled while the cofferdams are installed and the creek is dewatered during Stage 2 (BIO-2).

22. **Construction Timing**. Bridge demolition, center bent construction, north side abutment construction, and deck placement on the north side (Stage 2) shall occur when the creek is dewatered and diverted to the flume. Bent construction and deck placement on the south side may occur before cofferdams are constructed or after the cofferdams are removed, provided the erosion and water quality protection measures (see Water Quality section) are implemented (BIO-3).

23. **Pile Driving Precaution.** Piles will be driven and filled with concrete in Stage 1 when the creek is flowing. During the phase of breaching the bridge deck, a plywood deck, construction diaper, or other method will be used underneath the bridge to collect any falling debris or concrete. To prevent the generation of silt from the physical movement of the pile into the creek bottom sediments, and to prevent leakage of concrete when filling the hollow pile, a temporary impermeable containment sleeve will be placed surrounding the base of the pile,

before insertion (embedded in the creek bottom) to capture silt or leaking concrete. The containment sleeve will be wrapped at the bottom with 1/8-inch mesh screen before insertion to prevent fish from being trapped inside. The sleeve shall be connected to the bridge deck with a thick plastic sleeve to prevent concrete or debris from falling into the creek during piling installation. A monitor provided by the contractor shall ensure that the sleeve remains intact during pile construction operations, and shall inspect for leakage. If leakage occurs, the captured turbid water or concrete fluids will be tested for pH and will be pumped from between the sleeve and pipe to a portable tank (Baker tank). The waste fluids will be treated and disposed of off-site in the sewer system or other approved location (BIO-4).

24. **Cofferdam.** A cofferdam or equivalent barrier shall be placed between the abutment being installed and the open creek channel during construction to prevent spillage of construction materials and concrete. A plywood deck or construction diaper shall be placed above the Mission Creek bed when constructing the bent and placing the bridge deck. The barrier shall be designed to capture all dry or liquid materials (including concrete) and prevent discharge to the creek (BIO-5).

    The cofferdams shall be constructed of silt-free gravel bags stacked in a stable configuration with Visqueen, or similar waterproof fabric or interlocking steel plates, or a flexible temporary barrier equivalent or better than the device constructed by Portadam, Inc. may also be used to create a dry work area within the channel. Use of other inert materials shall be allowed if necessary to create a better barrier or reduce leaks, but must be approved by the California Department of Fish and Game (CDFG) and United States Fish and Wildlife Service (USFWS). The cofferdams shall be placed approximately at the locations shown in the project description. They shall form a seal along the bottom and banks of the creek and lagoon, to the maximum extent feasible. The top elevations of the cofferdams shall be at least 9 feet NAVD 88 (North American Vertical Datum, 1988), which would be sufficient to contain water in the creek and lagoon during the summer when the sandbar is closed at the beach. The downstream cofferdam will be reinforced as necessary to withstand the impact of tidal surge from Mission Creek lagoon (BIO-8).

25. **Water Quality.** The creek shall be dewatered to allow for the installation of upstream and downstream bank protection, demolition of the existing bridge, construction of the center bent, abutments, and placement of the new bridge deck. The following measures shall be implemented during these activities to prevent water quality impacts.

    a. Any concrete (or grout) or other construction materials that are discharged to the dewatered creek shall be removed and disposed of off site. If the material is dry, it shall be physically removed from the work

site by equipment or manual labor. If the material is liquid discharged to ponded water in the work area, the water shall be pumped and discharged to a Baker tank, and the affected muddy sediments shall be removed by equipment and disposed offsite. The contaminated water shall be tested and ph adjusted before it is disposed of at the sewer treatment plant or other approved location.

b. An environmental monitor, or other qualified contractor personnel, shall be present during the construction activities listed above to monitor for discharges to the dewatered creek, particularly discharges of concrete. The monitor shall measure pH levels in any standing water near the work area on a regular basis during the day to determine if there is any discharge of concrete into the groundwater below the ground surface. Ponded water with elevated pH shall be pumped to a Baker tank and not discharged to the beach. A biological monitor will document compliance.

c. The contractor shall maintain spill contingency materials onsite to be mobilized in the event of a concrete spill to the dewatered channel. These materials shall include weed-free, straw bales, Visqueen, gravel bags, and absorbent pads. They would be deployed if concrete is spilled in the channel, even if it is fully dewatered, to immediately isolate and remove the concrete.

d. Limited equipment is expected to be operated within the dewatered work area. Equipment may include rubber tire backhoes and loaders or other equipment that can be lifted into the creek bed. The contractor will be required to minimize streambed disturbance. The substrate of the creek bed may be disturbed to a depth of 6 inches by equipment and personnel movement. If the streambed is too saturated even with dewatering then the contractor will work from creosote-free wood planks or other temporary inert platform typical for wetland construction Best Management Practices.

e. **Storm Water Pollution Prevention Plan.** Prior to commencement of construction, a Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for implementation during construction, that incorporates all feasible Best Management Practices (BMPs) to reduce erosion from construction activities, to minimize the discharge of sediment during storm events, and to eliminate the discharge of non-stormwater pollutants to the maximum extent possible. The following measures shall be incorporated into the project SWPPP, which must meet state NPDES General Construction Permit requirements:

(1) Temporary stockpiles at the project site shall be protected from erosion by the combined use of temporary berms around the

perimeter, perimeter interceptor ditches, and temporary downstream catchments as necessary and appropriate.

(2) Stockpiles that are present during the winter season shall be protected from erosion due to direct precipitation or runoff during the winter by the use of surface stabilization (such as erosion control blankets).

(3) Sediment filters/barriers will be constructed along the perimeter of the work area above Mission Creek to prevent sheet flow from discharging sediment into Mission Creek. Protection measures shall remain in place and be maintained in good condition until all disturbed soil areas are permanently stabilized by installation and establishment of landscaping, grass, mulching, or are otherwise covered and protected from erosion.

(4) If the streambed is determined to be unsuitable for equipment and personnel movement to the point of disturbing the streambed to a depth greater than 6 inches, then the contractor will implement a work plan equivalent to a wetland construction. This will include working from creosote-free wood planks or other temporary inert work pad. Sediment fabric will be placed under any pad to protect the streambed to the maximum extent possible.

(5) The SWPPP must include a contingency plan to protect the exposed work site during the winter months in the event of high runoff in the creek or tidal surges that could overtop banks and inundate work areas.

(6) BMPs to prevent discharge of construction materials, contaminants, wash-water, concrete, fuels, and oils that include the following measures:

(7) Ensure that all construction vehicles and equipment are properly maintained (off site) to prevent leaks of fuel, oil, and other vehicle fluids.

(8) Refuel only in bermed areas with impermeable surfaces at least 200 feet from the creek.

(9) Implement measures and provide materials to contain any accidental spills or leakage during the fueling of construction equipment at the site.

(10) Place all stored fuel, lubricants, paints, and other construction liquids in secured and covered containers within a bermed or otherwise contained area at least 200 feet from the creek.

(11) Prohibit equipment washing and major maintenance at the project site except at the construction staging area. Prohibit concrete

washout except at the construction staging area. Concrete washout water shall be collected and stored in an onsite Baker tank to be disposed of off site. Place berms around the active work area on the road when installing piles through the roadbed during the winter to capture any construction debris or concrete in the event of rainfall; place sandbag or straw bale barriers at all storm drain inlets near the work area to capture any site runoff during winter construction. Remove all refuse and construction debris from the site as soon as possible.

(12) During concrete pours, the contractor shall have a qualified monitor present to measure pH within any standing water adjacent to the pour. The monitor will have onsite suitable material such as acid to neutralize contaminated water.

(13) **Storm Inspection Program.** During extended storm events, inspections must be made during each 24-hour period. The goals of these inspections are: 1) to identify areas contributing to a storm water discharge, 2) to evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly installed and functioning in accordance with the terms of the General Permit, and 3) whether additional control practices or corrective maintenance activities are needed. Equipment, materials, and workers must be available for rapid response to failures and emergencies. All corrective maintenance to BMPs shall be performed as soon as possible, depending upon worker safety. Each discharger shall certify annually that the construction activities are in compliance with the requirements of this General Permit. Dischargers who cannot certify annual compliance shall notify the appropriate RWQCB.

(14) The trenching, stockpiling, and back-filling activities associated with the temporary gas line will be incorporated into the SWPPP for this project and will incorporate BMPs for the following

(15) Laydown yard procedures for the storage and maintenance of equipment

(16) Stockpile stormwater management

(17) Implementation of wind erosion controls during trenching

(18) Stabilization of excavated material during pipeline laydown and removal

(19) Erosion control measures during backfill and temporary pipeline operation

(20) Revegetation of trenched areas post removal

(21) Prior to construction a SWPPP for the project will incorporate the City of Santa Barbara Procedures for the Control of Runoff into Storm Drains and Watercourses for implementation during construction,. In addition the SWPPP will incorporate specific Caltrans Category IB design BMPs. The text of the specific Caltrans requirements is incorporated as Appendix E in the URS Corporation Water Quality Assessment; the basic requirements of each BMP are summarized below as follows:

f. Category Non-Stormwater; NS02 Update Dewatering Operations:

(1) Dewatering shall be conducted in accordance with the Field Guide to Construction Site Dewatering, October 2001, CTSW-RT-01-010.

(2) The RWQCB may require a separate NPDES permit prior to the dewatering discharge of non-storm water.

(3) Non-storm water dewatering for discharges meeting certain conditions are allowed under an RWQCB general dewatering NPDES permit.

(4) Non-storm water discharges must be free of pollutants other than sediment; the discharge must be <0.25 mgd.

(5) Discharges must comply with regional and watershed-specific discharge requirements.

(6) Additional permits or permissions from other agencies may be required for dewatering cofferdams or diversions.

(7) Dewatering discharges must not cause erosion at the discharge point.

g. Category Non-Stormwater; NS05 Clearwater Diversion:

(1) Diversion structures must be adequately designed to accommodate fluctuations in water depth or flow volume due to tides, storms, flash floods, etc.

(2) Heavy equipment driven in wet portions of a water body to accomplish work shall be completely clean of petroleum residue, and water levels shall be below the gearboxes of the equipment in use, or lubricants and fuels are sealed such that inundation by water shall not result in leaks.

(3) Mechanical equipment operated in the water shall not be submerged to a point above any axle of said mechanical equipment.

(4) Excavation equipment buckets may reach out into the water for the purpose of removing or placing fill materials. Only the bucket

of the crane/excavator/backhoe may operate in a water body. The main body of the crane/excavator/backhoe shall not enter the water body, except as necessary to cross the stream to access the work site.

(5) Clear water diversions that require dewatering shall be conducted in accordance with policies and guidelines presented in Field Guide to Construction Site Dewatering, October 2001, CTSW-RT-01-010.

(6) Stationary equipment such as motors and pumps, located within or adjacent to a water body, shall be positioned over drip pans.

(7) When any artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall, at all times, be allowed to pass downstream to maintain aquatic life downstream.

(8) The exterior of vehicles and equipment that will encroach on a water body within the project shall be maintained free of grease, oil, fuel, and residues.

(9) Equipment shall not be parked below the high-water mark unless allowed by a permit.

(10) Drip pans shall be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than one hour.

(11) Diversion structures shall be constructed with materials free of potential pollutants such as soil, silt, sand, clay, grease, or oil.

h. Category Non-Stormwater; NS11 Pile Driving Operations:

(1) Use drip pans or absorbent pads during vehicle and equipment maintenance, cleaning, fueling, and storage.

(2) Have spill kits and cleanup materials available at all locations of pile driving.

(3) Park equipment over plastic sheeting or equivalent where possible.

(4) Implement other BMPs as applicable, such as NS-2 "Dewatering Operations."

(5) When not in use, store pile-driving equipment away from concentrated flows of storm water, drainage courses, and inlets.

(6) Use less hazardous products, e.g., vegetable oil instead of hydraulic fluid.

i. Category Non-Stormwater; NS13 Material Use over Water:

(1) Use drip pans and absorbent materials for equipment and vehicles and ensure that an adequate supply of spill cleanup materials is available.

(2) Drip pans shall be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is expected to be idle for more than one hour.

(3) Maintain equipment in accordance with BMP NS-10, "Vehicle and Equipment Maintenance." If a leaking line cannot be repaired, remove equipment from over the water.

(4) Provide watertight curbs or toe boards to contain spills and prevent materials, tools, and debris from leaving the barge, platform, dock, etc.

(5) Secure all materials to prevent discharges to receiving waters via wind.

(6) Identify types of spill control measures to be employed, including the storage of such materials and equipment. Ensure that staff is trained regarding the deployment and access of control measures and that measures are being used.

(7) Discharges to waterways shall be reported to the Resident Engineer immediately upon discovery. A written discharge notification must follow within seven days.

(8) The SWPPP for the Cabrillo Bridge project will include a chemical monitoring plan to ensure that non-visible pollutants do not impact the water quality of Mission Creek during construction. As concrete fluids may alter pH, the non-visible pollutant to be monitored would be pH. The contractor or environmental monitor will conduct pH monitoring during concrete preparation, pouring, and curing operations. pH will be monitored twice daily at the following points during piling construction and construction in the dewatered area:

(9) Mission Creek during piling construction at points just upstream and downstream of the pilings

(10) Any standing water between the protective sleeve and steel pile casing prior to pumping and disposal

(11) Any standing water within the dewatered construction zone

(12) At the point of discharge of dewatering fluids onto the beach

(13) Results will be recorded and a contingency plan implemented if pH exceeds the applicable surface water quality standard (WQ-1).

26. **Temporary Bridge Construction.** No construction work or storage of materials is allowed in the Mission Creek lagoon for installation and removal of the temporary beachway bridge. No workers shall enter the lagoon; work may occur from a boat or platform during installation of the temporary utility bypasses and temporary bridge installation. Prior to installation of piles for the temporary bridge footing, erosion control fiber blankets or a sediment barrier shall be placed around the abutment locations to prevent discharge of soil or concrete into the dewatered area (BIO-6).

27. **Environmental Monitor.** An environmental monitor shall be present during pile installation and pouring of concrete to address any discharges of concrete. The contractor will maintain spill contingency materials onsite to be mobilized in the event of a concrete spill during pile and bridge construction. These materials may include straw bales, Visqueen, gravel bags, absorbent pads, and additional fiber rolls. Any concrete spilled during construction will be removed and disposed of prior to removal of the cofferdam (BIO-7).

    An environmental monitor shall inspect any ponded water in the dewatered portion of the work area on a daily basis (three times – before work begins, midday, and at the end of the day) to search for any fish that may have traveled through gaps in the cofferdams. Fish (excluding mosquito fish) shall be removed on an as-needed basis and relocated above the upper cofferdam. The number and species of fish shall be recorded (BIO-10).

28. **Fish Protection.** The installation/removal of the cofferdams and flume shall follow this sequence of tasks:

    a. The Contractor shall submit to the USFWS in writing, at least four weeks prior to the onset of work, the qualifications of a biologist familiar with tidewater goby biology. This biologist will be responsible for implementing measures that involve handling and relocation of tidewater gobies. The USFWS will provide written authorization of the individual, if qualified, or denial, if unqualified.

    b. The qualified biologist shall conduct a training session for all personnel associated with cofferdam construction and operations within the dewatered area prior to the onset of work.

    c, A qualified biologist will assist in the preparation of the drawings and specifications for the preliminary and final engineering plans for the project that will include plans, details, and specifications for the placement/removal of cofferdams, dewatering/diversion operations, and fish capture and relocations procedures.. The fish rescue and relocation will follow the procedures included in the Natural Environmental Study. Rescued fish will be relocated to adjacent channel areas in the estuary that are not dewatered or subject to construction disturbance. The dewatering and fish rescue plans will be submitted to the USFWS for

review and approval to ensure that the proper procedures and safeguards are included to avoid unnecessary take of gobies. After blocking nets have been placed to control fish access to the area a biologist will use nets to remove any remaining fish in the area where the dewatering and flume would be constructed.

d. The authorized biologist shall complete initial surveys for tidewater gobies in Mission Creek within the project area one week prior to the onset of work.

e. Two parallel fish blocking nets (mesh size 1/8 inch or less) shall be placed across the creek channel immediately upstream of the upstream cofferdam to prevent fish from traveling downstream to the work area.

f. Qualified biologists with federal permits to handle gobies or personnel under the supervision of a permitted biologist shall insert a seine net at the upstream cofferdam location and conduct a sweep of the channel to herd and capture all fish in the work area, ending the sweep at the downstream cofferdam location. As the sweep is ended, two parallel fish blocking nets shall be placed across the lagoon to prevent fish from traveling upstream into the work area. The authorized biologist will be approved by USFWS and CDFG for relocating tidewater goby and native species that may occur in the work area to be dewatered.

g. As the initial dewatering/diversion is occurring, fish biologists shall systematically survey for fish through the work area, including tidewater gobies and western pond turtles. Fish shall be captured with a dipping net and immediately relocated upstream of the upper cofferdam. The number and species of fish shall be recorded. This fish rescue operation shall occur until the work area is completely dewatered, or until the fish biologists are confident that no fish remain in any standing water in the work area.

h. A silt fence shall be placed inside the fish blocking nets (after fish survey and relocation has occurred) when the cofferdams are being constructed to prevent silt, if any, from migrating through the meshes to the creek and lagoon outside the work area.

i. The cofferdams shall be constructed with water in the creek and lagoon. This will require construction personnel to work in standing water. The flume (a narrow centralized channel created by installation of metal sheet piles, Porta dam, or equivalent) shall be placed or constructed in the creek. The system may be a continuous flexible barrier (Portadam device equivalent or better). Once the cofferdams and creek flume are installed in the wetted channel, pumping to dewater the work area between the cofferdams shall begin. Because tidewater gobies are most often on the bottom of the estuary, the intake on the pumps used for water diversion

shall be covered with mesh 1/8 inch or less, and floated as long as possible to prevent tidewater gobies from being entrained and killed.

j. The mesh size on the pump intake shall be 1/8 inch or less. The mesh shall be checked by the qualified biologist prior to use each day and twice daily during operation to determine that it is intact. If the mesh develops holes or other conditions that impair its function, it shall be replaced or repaired immediately.

k. Once it is dewatered, the construction area may need continuous dewatering to maintain a dry working area. Three to six dewatering pits will need to be excavated within the planned work area. This will create localized low points at which to collect the water. The dewatering pits will be limited in size and depth to the maximum extent possible to achieve a dry work area.

l. Each dewatering pit will be constructed using 1/8-inch or less mesh anchored by a circle of rocks. The mesh will be suspended on the perimeter of the dewatering pits and shall cover the rocks and be anchored underneath on the outside. Work area creek water shall be discharged to the beach into an excavated depression or bermed area near the lagoon. An environmental monitor with applicable USFWS and CDFG permits or authorizations shall monitor the discharge location on a continuous basis to determine if any fish are inadvertently contained in the discharge. If present, these fish shall be captured with a small net and placed in the lagoon immediately after identifying species and numbers of fish.

m. The cofferdam and flume diversion shall be removed by first blocking the downstream terminus of the flume. An authorized biologist shall then conduct a sweep to clear the diversion area of fish. Once clear, the upstream end of the flume shall also be blocked. The work area will be policed by the contractor and reviewed by a biological monitor to ensure that all construction material is removed. The flume will then be dewatered and relocated to accommodate construction access or removed. During low tide the downstream cofferdam will be removed first and followed by the upstream cofferdam (BIO-9).

29. **Inspection dewatering.** The dewatering system shall be inspected prior to leaving the work site at night. It shall be inspected and maintained by the contractor during non-work days (i.e., Saturdays, Sundays, holidays) (BIO-11)

30. **Flume Design.** The flume shall be constructed as follows:

a. The flume will be installed with the cofferdams and be constructed similar to a Portadam, Inc. device or better, or of plywood, inert material, or Visqueen-wrapped, silt-free gravel bags.

b. The flume will be continuous and may be constructed to retain a natural sediment or manmade bottom.

c. The contractor will prepare the final flume design for agency review and approval.

d. The flume will maintain natural water levels and avoid potential dry spots from forming that would not naturally occur within the channel.

e. The flume shall be 3 to 6 feet wide and constructed to maintain the existing channel water stratification for water temperature, salinity, pH, and natural tidal depth.

f. The flume shall not disturb more than a 6-inch depth into the streambed or create the potential for scour.

g. It is expected that flow rates within the flume will be higher than the existing channel. Therefore, one or two silt free gravel bags or a small pile of cobble shall be placed every ten feet alternating along the sides of the flume to provide refuge for tidewater gobies.

h. Shade cloth shall be placed over the top of the flume and draped over each end to maintain the existing temperature stratification and to prevent birds from entering the flume.

i. While the streambed through the work area is generally a continuous grade, slight microtopography or a low-flow channel may be present; to address this, the flume bottom will be installed to achieve the lowest possible elevation from downstream to upstream (BIO-12).

31. **Worker Training.** During the pre-construction conference with the contractor, a biologist shall conduct a training session for all construction personnel. The training shall include:

a. A description of the tidewater goby, southern steelhead, brown pelican, California least tern, western snowy plover, southwestern pond turtle, and associated habitats; the general provisions of the Endangered Species Act (ESA), including species relocation by a qualified biologist and documentation requirements

b. The necessity for adhering to the provisions of the ESA

c. The penalties associated with violating the provisions of the ESA

d. The specific measures that are being implemented to conserve the tidewater goby and southern steelhead as they relate to the project, and measures that would be required if unexpected special status species, such as southwestern pond turtle, least tern, or snowy plover are on site during construction

e. The boundaries of the project (BIO-13).

32. **Riparian Plants.** The following native plants shall be used in the upstream bank protection: Atriplex lentiformis var. lentiformis – Brewer's Saltbush, Encelia californica – Bush Sunflower, Rhus integrifolia – Lemonadeberry, Mimulus auranticus – sticky monkey flower, Suaeda taxifolia – Wooly Sea Blite, Eriogonum parvifolium – Seaside Buckwheat, and Limonium californicum – Western Marsh-Rosemary. The saltbush and dwarf willow (Salix Exigua), used to create brush mattresses for erosion control (from a local source) shall also be planted above and among the ungrouted boulders on the downstream banks. Cocoanut fiber mats would be used to stabilize the soils above the boulders providing an opportunity for the native plants to get established. Other native plant species may be used if these are not readily available, subject to approval by a City-approved biologist and CDFG. Restoration efforts may also refer to "Guidelines to Evaluate, Modify and Develop Estuarine Restoration Projects for Tidewater Goby Habitat" (USFWS, Stillwater Science, Arcata, CA, May 2006), and the approved Adaptive Maintenance Plan for Mission Creek (ACOE, URS, Channel Design Recommendations 2005) (BIO-14).

33. **Biologist Inspections.** A qualified biologist shall conduct daily inspections of the construction work areas to ensure that the cofferdams remain intact, and that no gobies have entered the work areas. The biologist shall also monitor and inspect erosion control measures to be implemented as part of the project. The biologist shall conduct periodic visual surveys of the unaffected portions of the estuary to monitor the abundance and conditions of fish during construction. Weekly reports shall be provided to the USFWS to apprise them of the status of the goby and the effectiveness of the protection measures during construction (BIO-15).

34. **Water Quality Monitoring.** During flume operations, decreased through-flow in Mission Creek may alter indicator parameters such as salinity, dissolved oxygen, and temperature. Although it is unlikely that the flume will alter concentrations of indicator parameters outside of historic ranges, monitoring would establish if operations were having serious effects on water quality. Indicator parameter monitoring in Mission Creek can be implemented either as a stand alone requirement or as part of the general construction permit as follows:

    a. Monitoring for dissolved oxygen, salinity, and temperature will be performed twice daily at a point directly upstream and downstream of the flume. If values are found outside of historic ranges, the cause shall be identified and steps shall be taken to return the parameter to the historic range.

    b. The flume will be monitored visually daily to ensure that flow is present at all times (BIO-16)

35. **Post-construction Surveys – Tidewater Goby.** Post-construction surveys for tidewater goby would be implemented for one year following completion of the project. Post-construction surveys would be conducted by a biologist approved

to handle tidewater gobies under a Section 10a1a recovery permit to determine the general abundance of tidewater gobies. Survey methods would follow those currently being used to measure population densities at Arroyo Burro Estuary (BIO-17). The results of post construction surveys shall be submitted to the Environmental Analyst by the PEC within a month of the survey.

36. **Surveys – Snowy Plover**. A daily clearance survey for the presence or absence of western snowy plovers, within a 500 foot radius of the site, shall be performed prior to construction each day. If plovers are found within this radius, and pile driving activities are expected, work shall stop until the bird relocates itself, or work will be relocated to another area of the site outside of the 500 foot radius area. If plover nests and/or plover protective nesting habits are observed within a 500 foot radius on the beach during breeding season (March-August), further surveys may be required. If plover disturbance behavior is observed within the 500 foot radius on the beach during construction activities, the qualified biologist on-site will have the authority to further evaluate the behavior, and/or determine if any action needs to be taken including requiring a stop work order until relocation has occurred (BIO-18).

37. **California Brown Pelican.** Construction workers would be informed that construction activities would halt if a California brown pelican enters the active construction area. Upon self relocation, work may be reinitiated (BIO-19).

38. **Survey – Least Turns.** A clearance survey for least terns shall be conducted by a qualified biologist prior to the commencement of construction activities on the beach area. If least terns are present, any construction activities, debris, or discharge of any construction materials would require a distance of at least 200 feet from the foraging area. Additionally, the biological monitor would be given authority to stop work if a least tern is seen within 200 feet of construction (BIO-20).

39. **Monitoring - Southwestern Pond Turtles**. During systematic fish surveys at dewatering, monitoring for presence of southwestern pond turtles shall occur when the water level reaches a depth for visual observation of turtles. If southwestern pond turtles are observed in dewatering areas, a qualified biologist with required relocation certification shall perform relocation to an appropriate location (BIO-21).

40. **Bird Surveys.** Prior to any trees being removed during bird nesting season (February 1 to September 1) a survey shall be conducted of the trees to ensure that there are no nesting birds in the trees. Outside of bird nesting season the trees can be removed without a survey (BIO-22).

41. **Unanticipated Archaeological Features.** Standard discovery measures shall be implemented per the City Master Environmental Assessment throughout grading and construction:

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.

If during any grading or construction on the site such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and a City-approved archaeologist shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for archaeological resource treatment, including but not limited to redirection of grading and/or excavation activities. If the findings are potentially significant, further analysis and/or other mitigation shall be prepared and accepted by the Environmental Analyst and the Historic Landmarks Commission, and implemented by the project Work in the area may only proceed after the Environmental Analyst grants authorization.

If prehistoric or other Native American remains are encountered, a Native American representative shall be consulted, and the archaeologist and Native American representative shall monitor all further subsurface disturbances in the area of the find.

If the discovery consists of potentially human remains, the Santa Barbara County Coroner and the California Native American Heritage Commission must also be contacted.

A final report on the results of the archaeological monitoring shall be submitted by the City-approved archaeologist to the Environmental Analyst within 180 days of completion of the monitoring and prior to the issuance of final City permits (CR-5).

42. **Foundation Requirements.** The project shall utilize the foundation and bridge construction recommendations of the Preliminary and Final Geological Investigations that include the following:

    a. Bridge be supported on Cast in Steel Shell (CISS) piles

    b. Diameter, length and other specifications of piles for bridge support and for bank restoration

    c. Bridge engineering design (G-1).

43. **Construction Notice**. At least 20 days prior to commencement of construction, the contractor shall provide written notice to all property owners and residents within 450 feet of the project area. The notice shall contain a description of the proposed project, a construction schedule including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) who can answer questions, and provide additional information or address problems that may arise during construction. A 24-hour construction hot line shall be provided. Informational signs with the PEC's name and telephone number shall also be posted at the site (N-1).

44. **Construction Hours.** Noise-generating construction activities (which may include preparation for construction work) shall be permitted weekdays between the hours of 8:00 a.m. and 5:00 p.m., excluding holidays observed by the City as legal holidays:

New Year's Day	January 1st
Martin Luther King Jr.'s Birthday	3rd Monday in January
President's Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4th
Old Spanish Days Fiesta Week	Late July/early August
Labor Day	1st Monday in September
Thanksgiving Day	4th Thursday in November
Following Thanksgiving Day	Friday following Thanksgiving
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 (N-2)

Occasional night work may be approved for the hours between 5 p.m. and 8 a.m. by the Chief of Building and Zoning per Section 9.13.015 of the Municipal Code) between the hours of 5 p.m. and 8 a.m. weekdays. In the event of such night work approval, the applicant shall provide written notice to all property owners and residents within 450 feet of the project property boundary and the City Planning and Building Divisions at least 48 hours prior to commencement of any such work. Night work shall not be permitted on weekends and holidays.

45. **Construction Equipment Sound Control.** All construction equipment, including trucks, shall be professionally maintained and fitted with standard manufacturers' muffler and silencing devices (N-30).

46. **Sound Barriers.** The project shall employ sound control devices and techniques such as noise shields and blankets during the construction period to reduce the level of noise generated by pile driving and demolition. Sound barriers shall be installed as shown in the noise study design and locations, provided landowners agree to the installation of the noise barriers. Sound barriers or temporary construction zones shall be used to reduce pile driving and demolition noise levels to 120 dB where members of the public have access (N-4)

47. **Vibration.** The Rusty's Restaurant support shall be separated from the bridge and supported independently to preclude direct transmission of vibration from the bridge to the structure resulting from pavement discontinuities created by patches on the bridge deck and work on the deck (N-5)

48. **Cracks.** A photographic survey of adjacent structures shall be completed prior to, during, and after construction to identify any cracking caused by the project.

Any cracking occurring due to the project shall be repaired or compensation shall be provided to the owner for any damage due to project vibration (N-6).

49. **Worker Hearing Protection.** Worker hearing conservation requirements shall be included in contract documents and used by construction workers (N-7).

50. **Nighttime Noise.** Any equipment that must be operated during nighttime hours must be individually reviewed and treated with an enclosure, barriers, silencers or other treatments as required to limit noise at any noise sensitive use to 50 dB (A-weighted) based on measured nighttime ambient noise 45 dB and the City restriction of ambient plus 5 dB (N-8).

51. **Interior Noise**. The applicant shall negotiate an arrangement to provide noise shields (secondary windows) for adjacent businesses due to noise from pile driving and demolition or use of the front portions of the Rusty's Pizza Restaurant shall be temporarily discontinued during pile driving and demolition (N-9).

52. **Construction Truck Trips.** Prohibit large scale movements of debris or materials by trucks during nighttime hours (10 p.m. to 7 a.m.) (N-10).

53. **Warning Signs.** Post noise hazard signs at locations within 150 ft of the pile-driving areas so that passers-by would be aware that high noise levels are possible. The sigh would read: "WARNING, NOISE HAZARD AHEAD, YOU ARE ADVISED TO AVOID THE AREA, USE EAR PROTECTION OR STAY FOR LESS THAN 30 MINUTES." (N-11)

54. **Recycling.** Green waste, concrete, and steel from construction and operation shall be sent to a local recycling facility and be recycled, as proposed by the applicant (PS 1).

55. **Art and Craft Show.** Designated spaces will be created in the current "first come first served" areas of the show where members without an assigned space set up and a second row of spaces will be created where possible. Displaced artists and artisans who are left without their space due to the bridge project will be temporarily reassigned to these areas. (REC-1 Revised).

56. **Construction Traffic.** The haul routes for all construction related trucks, three tons or more, entering or exiting the site, shall be approved by the Transportation Engineer. Construction-related truck trips 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.) to help reduce truck traffic and noise on adjacent streets and roadways. The route of construction-related traffic shall be established to minimize trips through surrounding residential neighborhoods (T-1).

57. **Construction Parking.** Construction parking and vehicle/equipment/materials storage shall be provided as follows:

a. During construction, free parking spaces for construction workers shall be provided in a location subject to the approval of the Transportation and Parking Manager.

b. Storage area shall be provided for construction materials, equipment, and vehicles (T-2).

58. **Pedestrian Bridge.** The pedestrian bridge shall be constructed prior to pile driving for the main bridge to allow an alternative route for pedestrians and cyclists (T-3).

59. **Erosion Control.** Prior to construction a detailed Erosion Control Plan shall be prepared for implementation during construction, including basic requirements as follows:

- Proposed schedule
- Description of potentially affected areas
- Description of soils, geology, vegetation, and creeks
- Site Plan including contours, elevations, limits of clearing, grading, and creek configuration
- Description of erosion control measures
- Description of sediment detention basins
- Description of emergency erosion and sediment control measures (WQ-3).

60. **Water Discharge.** During dewatering of the construction area, the removed water will be discharged to temporary infiltration areas on the beach near the lagoon. The discharge shall occur in accordance with NPDES General Permit (Order No. 01-119) for Low Threat Discharges, issued by the Regional Water Quality Control Board (RWQCB) (WQ-4).

NOTICE OF COASTAL DEVELOPMENT PERMIT TIME LIMITS:

The (Planning Commission's)(Staff Hearing Officer's) action approving the Coastal Development Permit shall expire two (2) years from the date of approval, per Santa Barbara Municipal Code §28.45.009.q, unless:

1. Otherwise explicitly modified by conditions of approval of the development permit, or unless construction or use of the development has commenced.
2. A Building permit for the work authorized by the coastal development permit is issued prior to the expiration date of the approval.
3. A one (1) year time extension may be granted by the Planning Commission if the construction authorized by the permit is being diligently pursued to completion and issuance of a Certificate of Occupancy. Not more than three (3) extensions may be granted.

This motion was passed and adopted on the 12th day of July, 2007 by the Planning Commission of the City of Santa Barbara, by the following vote:

AYES: 5 NOES: 0 ABSTAIN: 0 ABSENT: 2 (Myers, Jostes)

I hereby certify that this Resolution correctly reflects the action taken by the City of Santa Barbara Planning Commission at its meeting of the above date.

Julie Rodriguez

Julie Rodriguez, Planning Commission Secretary

August 16, 2007

Date

THIS ACTION OF THE PLANNING COMMISSION CAN BE APPEALED TO THE CITY COUNCIL WITHIN TEN (10) DAYS AFTER THE DATE THE ACTION WAS TAKEN BY THE PLANNING COMMISSION.

Cabrillo Bridge Replacement Project (MST2004-00878/CDP2007-00001)

MITIGATION MONITORING AND REPORTING PROGRAM

PURPOSE

The purpose of the Cabrillo Bridge Replacement Project Mitigation Monitoring and Reporting Program (MMRP) is to ensure compliance with all mitigation measures identified in the Addendum to the Final Mitigated Negative Declaration 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 Permit for the Cabrillo Bridge Replacement 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 Cabrillo Bridge Replacement 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 Cabrillo Bridge Replacement 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 Cabrillo Bridge Replacement 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 backg

EXHIBIT C

Exhibit 2
Mitigation Monitoring and Reporting Program from Final Mitigated Neg. Declaration No. MST2004-00878
CDP No. 4-13-1176

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.

B. 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 Cabrillo Bridge Replacement 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.

CABRILLO STREET BRIDGE REPLACEMENT (MST2004-00878/CDP2007-00001)
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE

MITIGATION MEASURE	PARTY RESPONSIBLE FOR IMPLEMENTATION	VERIFICATION		
		Date	Accomplished?	Comments
A-1 Design Review. Prior to building permit issuance, proposed project grading and landform alteration, structural design, landscaping, and lighting is subject to preliminary and final review and approval by the Historic Landmarks Commission for consistency with design guidelines for views, visual aesthetics and compatibility with the Historic appearance of the entryway to the City..				
A-2 Lighting. Lighting design shall conform with City Lighting Ordinance requirements, including shielding and direction to the ground to avoid off-site lighting and glare effects, and shall be approved by the Historic Landmarks Commission.				
AQ-1 Construction Dust Control – Minimize Disturbed Area/Speed. Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.				
AQ-2 Construction Dust Control - Watering. During site grading and transportation of fill materials, regular water sprinkling shall occur using reclaimed water whenever the Public Works Director determines that it is reasonably available. During clearing, grading, earth moving or excavation, sufficient quantities of water, through use of either water trucks or sprinkler systems, shall be applied to prevent dust from leaving the site. Each day, after construction activities cease, the entire area of disturbed soil shall be sufficiently moistened to create a crust. Throughout construction, water trucks or sprinkler systems shall also be used to keep all areas of vehicle movement damp enough to prevent dust raised from leaving the site. At a minimum, this will include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency will be required whenever the wind speed exceeds 15 mph.				
AQ-3 Construction Dust Control – Tarping. Trucks transporting fill material to and from the site shall be covered from the point of origin.				
AQ-4 Construction Dust Control – Gravel Pads. Gravel pads shall be installed at all access points to prevent tracking of mud on to public roads.				
AQ-5 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.				
AQ-6 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				

		VERIFICATION		
crust and prevent dust pickup by the wind; D. Other methods approved in advance by the Air Pollution Control District.				
AQ-7 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.				
AQ-8 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.				
AQ-9 Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible.				
AQ-10 The engine size of construction equipment shall be the minimum practical size.				
AQ-11 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				
AQ-12 Construction equipment shall be maintained in tune per the manufacturer's specifications.				
AQ-13 Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines.				
AQ-14 Catalytic converters shall be installed on gasoline-powered equipment, if feasible.				
AQ-15 Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed, if available.				
AQ-16 Diesel powered equipment should be replaced by electric equipment whenever feasible.				
AQ-17 Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units should be used whenever possible.				
AQ-18 Construction worker trips shall be minimized by requiring carpooling and by providing for lunch onsite.				
BIO-1 Except for installation of sheet piles (Porta Dam or equivalent) for partial dewatering and diversion of three areas for 1) pile installation (including the temporary beachway bridge), 2) abutment construction, and 3) bank protection construction work in the Mission Creek channel and on the banks, including construction of the cofferdams, shall not occur during the period October/November 1 to mid March/April 30 during an average or above-average rainfall year. The exact schedule is subject to				

		VERIFICATION		
revision dependent on weather conditions and monitoring for goby spawning. Construction work requiring dewatering/diversion in the creek shall not begin until forecasts from the National Weather Service provide reasonable assurance that the winter rainfall has ended, and/or tidewater goby monitoring shows no reasonable evidence of initiation of spawning season.				
BIO-2 Pile driving and construction for the center line of piles on the north side of the road (Stage 1) shall be completed during the period October 1 to December 1 to avoid vibration impact in the creek during the adult steelhead migration period, which can begin as early as December 1 if there are suitable runoff conditions. Weather and other possible delays permitting, the center row of piles for the north side of the bridge will be driven and filled with concrete with the existing bridge deck intact and while the creek is not dewatered. This date may be moved forward as late as December 31 if the lagoon remains closed (i.e., has not breached by its own forces). If all the center row of pilings cannot be completed in Stage 1, the center piles on the south side of Cabrillo Boulevard currently identified for Stage 3, will be driven and filled while the cofferdams are installed and the creek is dewatered during Stage 2.				
BIO-3 Bridge demolition, center bent construction, north side abutment construction, and deck placement on the north side (Stage 2) shall occur when the creek is dewatered and diverted to the flume. Bent construction and deck placement on the south side may occur before cofferdams are constructed or after the cofferdams are removed, provided the erosion and water quality protection measures (see Water Quality section) are implemented.				
BIO-4 Piles will be driven and filled with concrete in Stage 1 when the creek is flowing. During the phase of breaching the bridge deck, a plywood deck, construction diaper, or other method will be used underneath the bridge to collect any falling debris or concrete. To prevent the generation of silt from the physical movement of the pile into the creek bottom sediments, and to prevent leakage of concrete when filling the hollow pile, a temporary impermeable containment sleeve will be placed surrounding the base of the pile, before insertion (embedded in the creek bottom) to capture silt or leaking concrete. The containment sleeve will be wrapped at the bottom with 1/8-inch mesh screen before insertion to prevent fish from being trapped inside. The sleeve shall be connected to the bridge deck with a thick plastic sleeve to prevent concrete or debris from falling into the creek during piling installation. A monitor provided by the contractor shall ensure that the sleeve remains intact during pile construction operations, and shall inspect for leakage. If leakage occurs, the captured turbid water or concrete fluids will be tested for pH and will be pumped from between the sleeve and pipe to a portable tank (Baker tank). The waste fluids will be treated and disposed of off-site in the sewer system or other approved location.				
BIO-5 A cofferdam or equivalent barrier shall be placed between the abutment being installed and the open creek channel during construction to prevent spillage of construction materials and concrete. A plywood deck or construction diaper shall be				

		VERIFICATION		
placed above Mission Creek bed when constructing the bent and placing the bridge deck. The barrier shall be designed to capture all dry or liquid materials (including concrete) and prevent discharge to the creek.				
BIO-6 No construction work or storage of materials is allowed in the Mission Creek lagoon for installation and removal of the temporary beachway bridge. No workers shall enter the lagoon; work may occur from a boat or platform during installation of the temporary utility bypasses and temporary bridge installation. Prior to installation of piles for the temporary bridge footing, erosion control fiber blankets or a sediment barrier shall be placed around the abutment locations to prevent discharge of soil or concrete into the dewatered area.				
BIO-7 An environmental monitor shall be present during pile installation and pouring of concrete to address any discharges of concrete. The contractor will maintain spill contingency materials onsite to be mobilized in the event of a concrete spill during pile and bridge construction. These materials may include straw bales, Visqueen, gravel bags, absorbent pads, and additional fiber rolls. Any concrete spilled during construction will be removed and disposed of prior to removal of the cofferdam.				
BIO-8 The cofferdams shall be constructed of silt-free gravel bags stacked in a stable configuration with Visqueen, or similar waterproof fabric or interlocking steel plates, or a flexible temporary barrier equivalent or better than the device constructed by Portadam, Inc. may also be used to create a dry work area within the channel. Use of other inert materials shall be allowed if necessary to create a better barrier or reduce leaks, but must be approved by the California Department of Fish and Game (CDFG) and United States Fish and Wildlife Service (USFWS). The cofferdams shall be placed approximately at the locations shown in the project description. They shall form a seal along the bottom and banks of the creek and lagoon, to the maximum extent feasible. The top elevations of the cofferdams shall be at least 9 feet NAVD 88 (North American Vertical Datum, 1988), which would be sufficient to contain water in the creek and lagoon during the summer when the sandbar is closed at the beach. The downstream cofferdam will be reinforced as necessary to withstand the impact of tidal surge from Mission Creek lagoon.				
BIO-9 The installation/removal of the cofferdams and flume shall follow this sequence of tasks: • The Contractor shall submit to the USFWS in writing, at least four weeks prior to the onset of work, the qualifications of a biologist familiar with tidewater goby biology. This biologist will be responsible for implementing measures that involve handling and relocation of tidewater gobies. The USFWS will provide written authorization of the individual, if qualified, or denial, if unqualified. • The qualified biologist shall conduct a training session for all personnel associated with cofferdam construction and operations within the dewatered area prior to the onset of work.				

		VERIFICATION		
• A qualified biologist will assist in the preparation of the drawings and specifications for the preliminary and final engineering plans for the project that will include plans, details, and specifications for the placement/removal of cofferdams, dewatering/diversion operations, and fish capture and relocations procedures.. The fish rescue and relocation will follow the procedures included in the Natural Environmental Study. Rescued fish will be relocated to adjacent channel areas in the estuary that are not dewatered or subject to construction disturbance. The dewatering and fish rescue plans will be submitted to the USFWS for review and approval to ensure that the proper procedures and safeguards are included to avoid unnecessary take of gobies. After blocking nets have been placed to control fish access to the area a biologist will use nets to remove any remaining fish in the area where the dewatering and flume would be constructed. • The authorized biologist shall complete initial surveys for tidewater gobies in Mission Creek within the project area one week prior to the onset of work. • Two parallel fish blocking nets (mesh size 1/8 inch or less) shall be placed across the creek channel immediately upstream of the upstream cofferdam to prevent fish from traveling downstream to the work area. • Qualified biologists with federal permits to handle gobies or personnel under the supervision of a permitted biologist shall insert a seine net at the upstream cofferdam location and conduct a sweep of the channel to herd and capture all fish in the work area, ending the sweep at the downstream cofferdam location. As the sweep is ended, two parallel fish blocking nets shall be placed across the lagoon to prevent fish from traveling upstream into the work area. The authorized biologist will be approved by USFWS and CDFG for relocating tidewater goby and native species that may occur in the work area to be dewatered. • As the initial dewatering/diversion is occurring, fish biologists shall systematically survey for fish through the work area, including tidewater gobies and western pond turtles. Fish shall be captured with a dipping net and immediately relocated upstream of the upper cofferdam. The number and species of fish shall be recorded. This fish rescue operation shall occur until the work area is completely dewatered, or until the fish biologists are confident that no fish remain in any standing water in the work area. • A silt fence shall be placed inside the fish blocking nets (after fish survey and relocation has occurred) when the cofferdams are being constructed to prevent silt, if any, from migrating through the meshes to the creek and lagoon outside the work area. • The cofferdams shall be constructed with water in the creek and lagoon. This will require construction personnel to work in standing water. The flume (a narrow centralized channel created by installation of metal sheet piles, Porta dam, or equivalent) shall be placed or constructed in the creek. The system may be a continuous flexible barrier (Portadam device equivalent or better). Once the cofferdams and creek flume are installed in the wetted channel, pumping to dewater the work area between the cofferdams shall begin. Because tidewater gobies are most often on the bottom of the estuary, the intake on the pumps used for water diversion shall be covered with mesh 1/8 inch or less, and floated as long as possible to prevent tidewater gobies from being entrained and killed.				

		VERIFICATION		
• The mesh size on the pump intake shall be 1/8 inch or less. The mesh shall be checked by the qualified biologist prior to use each day and twice daily during operation to determine that it is intact. If the mesh develops holes or other conditions that impair its function, it shall be replaced or repaired immediately. • Once it is dewatered, the construction area may need continuous dewatering to maintain a dry working area. Three to six dewatering pits will need to be excavated within the planned work area. This will create localized low points at which to collect the water. The dewatering pits will be limited in size and depth to the maximum extent possible to achieve a dry work area. • Each dewatering pit will be constructed using 1/8-inch or less mesh anchored by a circle of rocks. The mesh will be suspended on the perimeter of the dewatering pits and shall cover the rocks and be anchored underneath on the outside. Work area creek water shall be discharged to the beach into an excavated depression or bermed area near the lagoon. An environmental monitor with applicable USFWS and CDFG permits or authorizations shall monitor the discharge location on a continuous basis to determine if any fish are inadvertently contained in the discharge. If present, these fish shall be captured with a small net and placed in the lagoon immediately after identifying species and numbers of fish. • The cofferdam and flume diversion shall be removed by first blocking the downstream terminus of the flume. An authorized biologist shall then conduct a sweep to clear the diversion area of fish. Once clear, the upstream end of the flume shall also be blocked. The work area will be policed by the contractor and reviewed by a biological monitor to ensure that all construction material is removed. The flume will then be dewatered and relocated to accommodate construction access or removed. During low tide the downstream cofferdam will be removed first and followed by the upstream cofferdam.				
BIO-10 An environmental monitor shall inspect any ponded water in the dewatered portion of the work area on a daily basis (three times – before work begins, midday, and at the end of the day) to search for any fish that may have traveled through gaps in the cofferdams. Fish (excluding mosquito fish) shall be removed on an as-needed basis and relocated above the upper cofferdam. The number and species of fish shall be recorded.				
BIO-11 The dewatering system shall be inspected prior to leaving the work site at night. It shall be inspected and maintained by the contractor during non-work days (i.e., Saturdays, Sundays, holidays).				
BIO-12 The flume shall be constructed as follows: • The flume will be installed with the cofferdams and be constructed similar to a Portadam, Inc. device or better, or of plywood, inert material, or Visqueen-wrapped, silt-free gravel bags. • The flume will be continuous and may be constructed to retain a natural sediment or manmade bottom. • The contractor will prepare the final flume design for agency review and approval. • The flume will maintain natural water levels and avoid potential dry spots from forming that would not naturally occur within the channel.				

		VERIFICATION		
• The flume shall be 3 to 6 feet wide and constructed to maintain the existing channel water stratification for water temperature, salinity, pH, and natural tidal depth. • The flume shall not disturb more than a 6-inch depth into the streambed or create the potential for scour. • It is expected that flow rates within the flume will be higher than the existing channel. Therefore, one or two silt free gravel bags or a small pile of cobble shall be placed every ten feet alternating along the sides of the flume to provide refuge for tidewater gobies. • Shade cloth shall be placed over the top of the flume and draped over each end to maintain the existing temperature stratification and to prevent birds from entering the flume. • While the streambed through the work area is generally a continuous grade, slight microtopography or a low-flow channel may be present; to address this, the flume bottom will be installed to achieve the lowest possible elevation from downstream to upstream.				
BIO-13 During the pre-construction conference with the contractor, a biologist shall conduct a training session for all construction personnel. The training shall include: • A description of the tidewater goby, southern steelhead, brown pelican, California least tern, western snowy plover, southwestern pond turtle, and associated habitats; the general provisions of the Endangered Species Act (ESA), including species relocation by a qualified biologist and documentation requirements • The necessity for adhering to the provisions of the ESA • The penalties associated with violating the provisions of the ESA • The specific measures that are being implemented to conserve the tidewater goby and southern steelhead as they relate to the project, and measures that would be required if unexpected special status species, such as southwestern pond turtle, least tern, or snowy plover are on site during construction • The boundaries of the project				
BIO-14 The following native plants shall be used in the upstream bank protection: Atriplex lentiformis var. lentiformis – Brewer's Saltbush, Encelia californica – Bush Sunflower, Rhus integrifolia – Lemonadeberry, Mimulus auranticus – sticky monkey flower, Suaeda taxifolia – Wooly Sea Blite, Eriogonum parvifolium – Seaside Buckwheat, and Limonium californicum – Western Marsh-Rosemary. The saltbush and dwarf willow (Salix Exigua), used to create brush mattresses for erosion control (from a local source) shall also be planted above and among the ungrouted boulders on the downstream banks. Cocoanut fiber mats would be used to stabilize the soils above the boulders providing an opportunity for the native plants to get established. Other native plant species may be used if these are not readily available, subject to approval by a City-approved biologist and CDFG. Restoration efforts may also refer to "Guidelines to Evaluate, Modify and Develop Estuarine Restoration				

		VERIFICATION		
Projects for Tidewater Goby Habitat" (USFWS, Stillwater Science, Arcata, CA, May 2006), and the approved Adaptive Maintenance Plan for Mission Creek (ACOE, URS, Channel Design Recommendations 2005).				
BIO-15 A qualified biologist shall conduct daily inspections of the construction work areas to ensure that the cofferdams remain intact, and that no gobies have entered the work areas. The biologist shall also monitor and inspect erosion control measures to be implemented as part of the project. The biologist shall conduct periodic visual surveys of the unaffected portions of the estuary to monitor the abundance and conditions of fish during construction. Weekly reports shall be provided to the USFWS to apprise them of the status of the goby and the effectiveness of the protection measures during construction.				
BIO-16 During flume operations, decreased through-flow in Mission Creek may alter indicator parameters such as salinity, dissolved oxygen, and temperature. Although it is unlikely that the flume will alter concentrations of indicator parameters outside of historic ranges, monitoring would establish if operations were having serious effects on water quality. Indicator parameter monitoring in Mission Creek can be implemented either as a stand alone requirement or as part of the general construction permit as follows: • Monitoring for dissolved oxygen, salinity, and temperature will be performed twice daily at a point directly upstream and downstream of the flume. If values are found outside of historic ranges, the cause shall be identified and steps shall be taken to return the parameter to the historic range. • The flume will be monitored visually daily to ensure that flow is present at all times.				
BIO-17 Pre-construction monitoring surveys for tidewater goby would be implemented at the upstream, downstream, and mid-lagoon bridge areas, one year prior to construction, including one pre-spawn survey in April, and one post-spawn in August. In addition, tidewater goby monitoring surveys also would be conducted at the same time at Arroyo Burro Estuary. Pre-construction monitoring allows for collection of baseline information at the site, along with control sites trend analysis. Post-construction surveys for tidewater goby would be implemented for one year following completion of the project. A total of four surveys would be conducted including one pre-spawn survey in April/May and one post-spawn survey in August each year. Pre- and post-construction surveys would be conducted by a biologist approved to handle tidewater gobies under a Section 10a1a recovery permit to determine the general abundance of tidewater gobies. Survey methods would follow those currently being used to measure population densities at Arroyo Burro Estuary.				
BIO-18 A pre-construction clearance survey for the presence or absence of western snowy plover, within a 100-meter radius of the site shall be provided prior to construction occurring on the sandy beach. If plovers are found within this radius, work shall stop until the bird relocates itself, or work will be relocated to another area of the site outside of the 100-meter radius areas. If plover nests and/or plover protective nesting habits are observed within a 100-meter radius on the beach during breeding season (March–August) further surveys may be required. Plovers and/or nests are not anticipated during the construction.				
BIO-19 Construction workers would be informed that construction activities would halt if a California brown pelican enters the active construction area. Upon self relocation, work may be reinitiated.				

CABRILLO STREET BRIDGE REPLACEMENT (MST2004-00878/CDP2007-00001)
MITIGATION MONITORING AND REPORTING PROGRAM MATRIX TABLE

		VERIFICATION		
BIO-20 A clearance survey for least terns shall be conducted by a qualified biologist prior to the commencement of construction activities on the beach area. If least terns are present, any construction activities, debris, or discharge of any construction materials would require a distance of at least 200 feet from the foraging area. Additionally, the biological monitor would be given authority to stop work if a least tern is seen within 200 feet of construction.				
BIO-21 During systematic fish surveys at dewatering, monitoring for presence of southwestern pond turtles shall occur when the water level reaches a depth for visual observation of turtles. If southwestern pond turtles are observed in dewatering areas, a qualified biologist with required relocation certification shall perform relocation to an appropriate location.				
BIO-22 Prior to any trees being removed during bird nesting season March 1 to August 1) a survey shall be conducted of the trees to ensure that there are no nesting birds in the trees. Outside of bird nesting season the trees can be removed without a survey.				
CR-1 Archive Plans and Photos. Prior to demolition the bridge will be recorded in accordance with the National Park Service guidelines for Historic American Engineering Record (HAER) documentation. The documentation will include historic research, a narrative report of the history of the bridge, and photo documentation of the bridge. The HAER document will be submitted to the Library of Congress.-				
CR-2 HLC Review. Bridge and restoration plans shall be subject to HLC review and approval to ensure that they are compatible with the East Cabrillo Boulevard Parkway District.				
CR-3 Design Elements: The bridge railings shall utilize the same design and finish as the 1928 bridge railing (a pipe or wrought iron above the existing railing is permitted to achieve increased height required by code and the openings between pillars in the railing may be tapered to four inches on the interior of the railing, also to meet code), the bridge deck shall be similar in appearance to the existing structure with arch like structures, piers shall be round in one row, the existing monument shall be removed and replaced on the bridge, and all rip-rap on the channel banks, downstream of the project, would use stone rather than concrete.				
CR-4 Replacement Trees. The project shall replace all palm trees removed as result of project construction on a one for one basis, with trees of the same variety and approximately 30 feet in height.				
CR-5 Discovery Procedures and Mitigation. Standard discovery measures shall be implemented per the City Master Environmental Assessment throughout grading and construction: 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. If during any grading or construction on the site such archaeological resources are encountered or suspected, work shall be halted immediately, the City Environmental Analyst shall be notified and a City-approved archaeologist shall be employed to assess the nature, extent and significance of any discoveries and to develop appropriate management recommendations for				

		VERIFICATION		
archaeological resource treatment, including but not limited to redirection of grading and/or excavation activities. If the findings are potentially significant, further analysis and/or other mitigation shall be prepared and accepted by the Environmental Analyst and the Historic Landmarks Commission, and implemented by the project Work in the area may only proceed after the Environmental Analyst grants authorization. If prehistoric or other Native American remains are encountered, a Native American representative shall be consulted, and the archaeologist and Native American representative shall monitor all further subsurface disturbances in the area of the find. If the discovery consists of potentially human remains, the Santa Barbara County Coroner and the California Native American Heritage Commission must also be contacted. A final report on the results of the archaeological monitoring shall be submitted by the City-approved archaeologist to the Environmental Analyst within 180 days of completion of the monitoring and prior to the issuance of final City permits.				
G-1 The project shall utilize the foundation and bridge construction recommendations of the Preliminary and Final Geological Investigations that include the following: • Bridge be supported on Cast in Steel Shell (CISS) piles • Diameter, length and other specifications of piles for bridge support and for bank restoration • Bridge engineering design				
N-1 Construction Notice. At least 20 days prior to commencement of construction, the contractor shall provide written notice to all property owners and residents within 450 feet of the project area. The notice shall contain a description of the proposed project, a construction schedule including days and hours of construction, the name and phone number of the Project Environmental Coordinator (PEC) who can answer questions, and provide additional information or address problems that may arise during construction. A 24-hour construction hot line shall be provided. Informational signs with the PEC's name and telephone number shall also be posted at the site.				
N-2: Construction Hours. Noise-generating construction activities (which may include preparation for construction work) shall be permitted weekdays between the hours of 8:00 a.m. and 5:00 p.m., excluding holidays observed by the City as legal holidays: New Year's Day (January 1st); Martin Luther King Jr.'s Birthday (3rd Monday in January); President's 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); Day Following Thanksgiving Day (Friday following Thanksgiving); 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. Occasional night work may be approved for the hours between 5 p.m. and 8 a.m. by the Chief of Building and Zoning per Section 9.13.015 of the Municipal Code) between the hours of 5 p.m. and 8 a.m. weekdays In the event of such night work approval, the applicant shall provide written notice to all property owners and residents within 450 feet of the project property				

		VERIFICATION		
boundary and the City Planning and Building Divisions at least 48 hours prior to commencement of any. Night work shall not be permitted on weekends and holidays.				
N-3: Construction Equipment Sound Control. All construction equipment, including trucks, shall be professionally maintained and fitted with standard manufacturers' muffler and silencing devices.				
N-4 Sound Barriers. The project shall employ sound control devices and techniques such as noise shields and blankets during the construction period to reduce the level of noise generated by pile driving and demolition. Sound barriers shall be installed as shown in the noise study design and locations, provided landowners agree to the installation of the noise barriers. Sound barriers or temporary construction zones shall be used to reduce pile driving and demolition noise levels to 120 dB where members of the public have access.				
N-5 Vibration. The Rusty's Restaurant support shall be separated from the bridge and supported independently to preclude direct transmission of vibration from the bridge to the structure resulting from pavement discontinuities created by patches on the bridge deck and work on the deck.				
N-6 Cracks. A photographic survey of adjacent structures shall be completed prior to, during, and after construction to identify any cracking caused by the project. Any cracking occurring due to the project shall be repaired or compensation shall be provided to the owner for any damage due to project vibration.				
N-7 Worker Hearing Protection. Worker hearing conservation requirements shall be included in contract documents and used by construction workers.				
N-8 Nighttime Noise. Any equipment that must be operated during nighttime hours must be individually reviewed and treated with an enclosure, barriers, silencers or other treatments as required to limit noise at any noise sensitive use to 50 dB (A-weighted) based on measured nighttime ambient noise 45 dB and the City restriction of ambient plus 5 dB.				
N-9 Interior Noise. The applicant shall negotiate an arrangement to provide noise shields (secondary windows) for adjacent businesses due to noise from pile driving and demolition or use of the front portions of the Rusty's Pizza Restaurant shall be temporarily discontinued during pile driving and demolition.				
N-10 Construction Truck Trips. Prohibit large scale movements of debris or materials by trucks during nighttime hours (10 p.m. to 7 a.m.)				
N-11 Warning Signs. Post noise hazard signs at locations within 150 ft of the pile-driving areas so that passers-by would be aware that high noise levels are possible. The sigh would read: "WARNING, NOISE HAZARD AHEAD, YOU ARE ADVISED TO AVOID THE AREA, USE EAR PROTECTION OR STAY FOR LESS THAN 30 MINUTES.				
PS 1 Green waste, concrete, and steel from construction and operation shall be sent to a local recycling facility and be recycled, as proposed by the applicant.				

		VERIFICATION		
REC-1: The City will allow vacancies due to attrition to be filled with vendors displaced by the project. Displaced vendors who are left without a space would be provided vendor spaces at the east end of the vendor area.				
T-1 Construction Traffic. The haul routes for all construction related trucks, three tons or more, entering or exiting the site, shall be approved by the Transportation Engineer. Construction-related truck trips 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.) to help reduce truck traffic and noise on adjacent streets and roadways. The route of construction-related traffic shall be established to minimize trips through surrounding residential neighborhoods. spaces for construction workers shall be provided in a location subject to the approval of the Transportation and Parking Manager.				
T-2 Construction Parking. Construction parking and vehicle/equipment/materials storage shall be provided as follows: A. During construction, free parking B. Storage area shall be provided for construction materials, equipment, and vehicles.				
WQ-1 The creek shall be dewatered to allow for the installation of upstream and downstream bank protection, demolition of the existing bridge, construction of the center bent, abutments, and placement of the new bridge deck. The following measures shall be implemented during these activities to prevent water quality impacts. • Any concrete (or grout) or other construction materials that are discharged to the dewatered creek shall be removed and disposed of off site. If the material is dry, it shall be physically removed from the work site by equipment or manual labor. If the material is liquid discharged to ponded water in the work area, the water shall be pumped and discharged to a Baker tank, and the affected muddy sediments shall be removed by equipment and disposed offsite. The contaminated water shall be tested and ph adjusted before it is disposed of at the sewer treatment plant or other approved location. • An environmental monitor, or other qualified contractor personnel, shall be present during the construction activities listed above to monitor for discharges to the dewatered creek, particularly discharges of concrete. The monitor shall measure pH levels in any standing water near the work area on a regular basis during the day to determine if there is any discharge of concrete into the groundwater below the ground surface. Ponded water with elevated pH shall be pumped to a Baker tank and not discharged to the beach. A biological monitor will document compliance. • The contractor shall maintain spill contingency materials onsite to be mobilized in the event of a concrete spill to the dewatered channel. These materials shall include weed-free, straw bales, Visqueen, gravel bags, and absorbent pads. They would be deployed if concrete is spilled in the channel, even if it is fully dewatered, to immediately isolate and remove the concrete. • Limited equipment is expected to be operated within the dewatered work area. Equipment may include rubber tire backhoes and loaders or other equipment that can be lifted into the creek bed. The contractor will be required to minimize streambed disturbance. The substrate of the creek bed may be disturbed to a depth of 6 inches by equipment and personnel				

		VERIFICATION		
movement. If the streambed is too saturated even with dewatering then the contractor will work from creosote-free wood planks or other temporary inert platform typical for wetland construction Best Management Practices.				
WQ-3 Prior to construction a detailed Erosion Control Plan shall be prepared for implementation during construction, *including basic requirements as follows:* • Proposed schedule • Description of potentially affected areas • Description of soils, geology, vegetation, and creeks • Site Plan including contours, elevations, limits of clearing, grading, and creek configuration • Description of erosion control measures • Description of sediment detention basins • Description of emergency erosion and sediment control measures				
WQ-4 During dewatering of the construction area, the removed water will be discharged to temporary infiltration areas on the beach near the lagoon. The discharge shall occur in accordance with NPDES General Permit (Order No. 01-119) for Low Threat Discharges, issued by the Regional Water Quality Control Board (RWQCB).				

Exhibit 3
Vicinity Map
CDP No. 4-13-1176

Exhibit 4
Aerial Photo
CDP No. 4-13-1176

Aerial of Cabrillo Bridge over Mission Creek

Exhibit 5
Aerial of Cabrillo Blvd. Bridge &
Mission Creek
CDP No. 4-13-1176

City of Santa Barbara • Public Works Department

8 Bridge View Looking North from Stearns Wharf- Before

Note: Photo Zoomed In To Show Architectural Features, Not Representative Of Bulk And Scale From Public Viewing Locations

Exhibit 6
Cabrillo Blvd. Bridge (Existing)
CDP No. 4-13-1176

9 Bridge View Looking North from Stearns Wharf - After

Note: Photo Zoomed In To Show Architectural Features, Not Representative Of Bulk And Scale From Public Viewing Locations

Exhibit 7
Cabrillo Blvd. Bridge
(Proposed/After)
CDP No. 4-13-1176

1 Bridge Roadway Looking Southeast

Exhibit 8
Existing Cabrillo Blvd. Bridge
Looking Southeast
CDP No. 4-13-1176

5 Bridge Roadway Looking Northwest

Exhibit 9
Existing Cabrillo Blvd. Bridge
Looking Northwest
CDP No. 4-13-1176

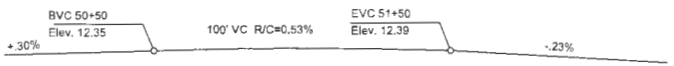
2

Mission Creek Looking Downstream From Bridge Toward Restoration Area

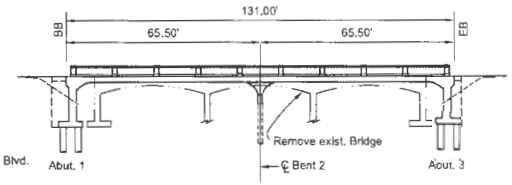
Exhibit 10
Mission Creek
Looking Downstream From Bridge
CDP No. 4-13-1176

3 Mission Creek Looking Upstream From Bridge

Exhibit 11
Mission Creek
Looking Upstream From Bridge
CDP No. 4-13-1176



PROFILE ALONG "CAB" LINE
Scale: 1" = 20'



ELEVATION
Scale: 1" = 20'

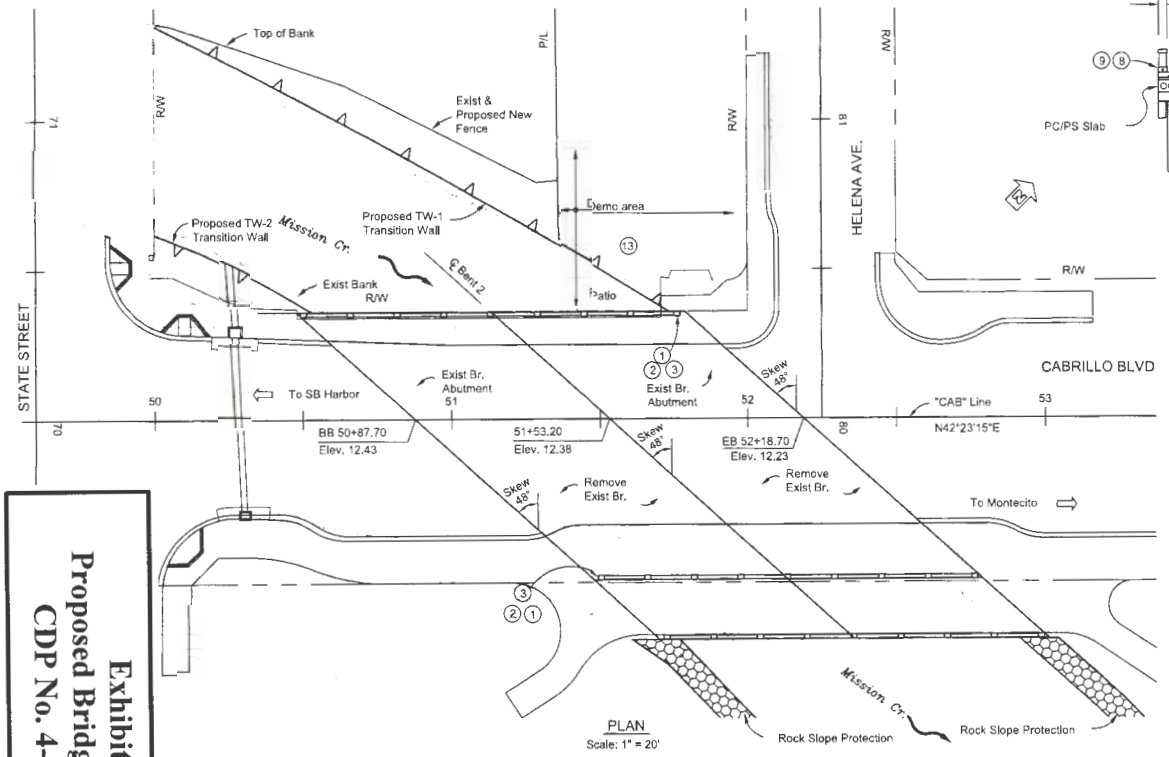
Notes for Elevation View:
1. Bridge skew not shown.
2. Upstream barrier rail shown.
3. See barrier rail aesthetic details for railing architecture.
4. See special provisions regarding building at 13 East Cabrillo Blvd.

Notes for Plan View:
1. For design notes see "Deck Contours" sheet.
2. The contractor shall verify all controlling field dimensions before ordering or fabricating any materials.
3. For Pile Data Table, see "Deck Contour" sheet.
4. Not all utilities shown. See roadway plans for utility locations.
5. See road plans for lane and sidewalk layout.

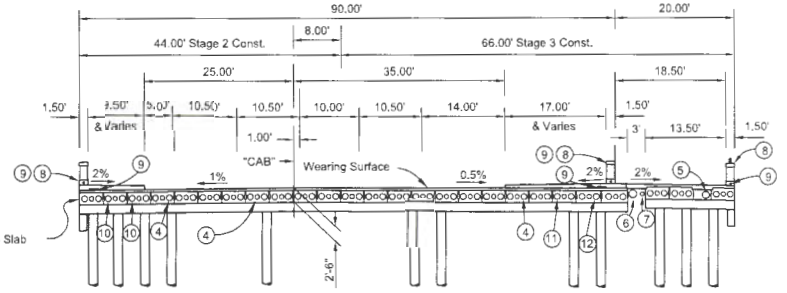
Section identification

Standard plan sheet No.
Detail number

INDEX TO PLANS



PLAN
Scale: 1" = 20'



TYPICAL SECTION
Scale: 1" = 10'-0"

Notes for Typical Section:
1. Not all piles shown.
2. Upstream Transition Walls and portion of Bridge Piles Installation constitutes Stage 1 Construction.
3. Existing Structure and Utilities not shown.

STANDARD PLANS, DATED MAY, 2006

A10-A,B	ACRONYMS AND ABBREVIATIONS
A62-A	EXCAVATION AND BACKFILL MISCELANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B2-8	PILE DETAILS-CLASS 200
B6-10	UTILTY OPENINGS, T-BEAM
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING =2")
B7-10	UTILITY OPENING - BOX GIRDER
B11-51	TUBULAR HAND RAILING
B11-54	CONCRETE BARRIER TYPE 26

1. Cast "Br. No. 51C-350" and year completed
2. Cast "Cabrillo Blvd. Bridge"
3. Barrier Rail Aesthetics and Layout, See Civil Plans
4. 4" Ø Future utility opening through PC/PS Slab (Typ.)
5. 14" Ø Recycled Water
6. 16" Ø High Pressure Gas (by others)
7. 8" Ø Water
8. Concrete Barrier
9. Future Utility Opening through sidewalk & barrier rail (Typ.)
10. 4" SCE Conduit
11. 1-4" Ø Verizon
12. 1-3" Ø Cox Cable
13. Demolition, see building demolition plans

Exhibit 12
Proposed Bridge Site Plan
CDP No. 4-13-1176

DESIGN	MW
DRAWN	RT
CHECKED	SI
FLD.BK.NO.	
PAGE	
ATLAS	

DESCRIPTION	DATE	APPROVED
REVISIONS		

BENGAL ENGINEERING
250 BIG SUR DRIVE, GOLETA, CA 93117
(805) 563-0788
Reg. Civil Eng. _____ Approval Date: _____

Cabrillo Boulevard Bridge (Replacement)
at Mission Creek

Original Scale Is In Inches 0 1 2 3

GENERAL PLAN

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION
Approved: _____ Date _____
City Engineer

CITY PROJ. No. 7661
FA No. BRLS-5007(034)
SHT. 71 OF ___ SHTS.
DWG. NO. C-1-4200

HYDROLOGIC SUMMARY

Drainage Area: = 13.1 square miles

	Design Flood	Base Flood	Overtopping Flood
Frequency (years)	20	100	50
Discharge (CFS)	3,400	7,050	5,500
Water Surface (elev. at bridge)	8.3	9.5	9.3

Flood plain data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the City and interested or affected parties should make their own investigation.

The hydraulic conveyance capacity is consistent with the USACE Lower Mission Creek Flood Control Project 20-year design capacity.

NOTES:

XX.X Indicates bottom of abutment, footing or anchor block elevation.

Indicates Pile (Not all piles shown)

○ Indicates Piles at Pier 2

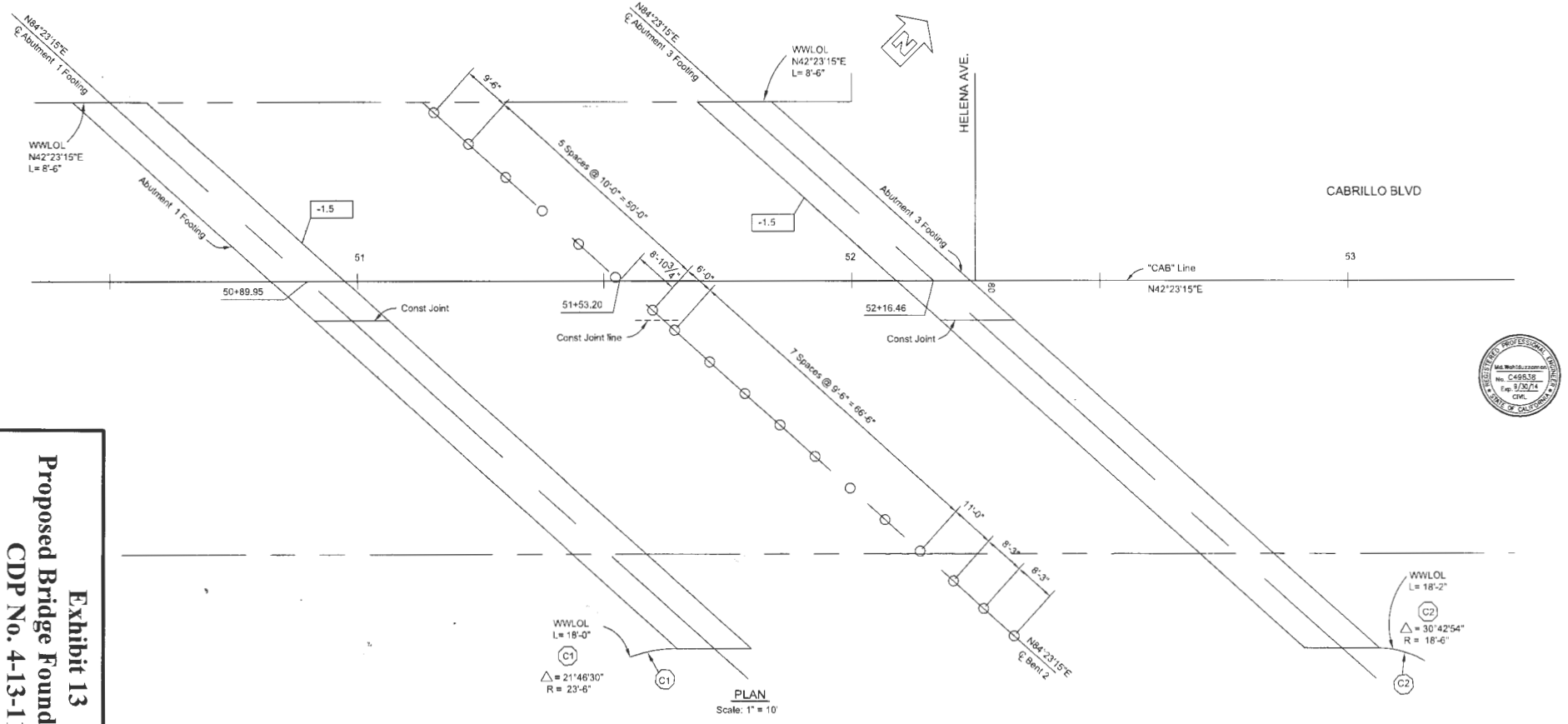
Utility locations shown are approximate.
See Road Plans for additional information.
See City Office for Complete R/W & TCE Maps.

BENCH MARK:

TIDAL 1 – 3-⅝" BRASS DISK STAMPED "USC&GS BM 1 1930", SOUTHERLY SIDE OF CABRILLO BOULEVARD, SET IN EASTERLY POST OF CONCRETE GUARDRAIL OVER MISSION CREEK, 312' NORTHEASTERLY OF THE CENTERLINE OF THE INTERSECTION OF CABRILLO BOULEVARD AND STATE STREET.

ELEVATION: 16.16' NAVD 88; 13.52' NGVD 29

BASIS OF BEARINGS: R/S BOOK 147, PAGES 70 – 74



PLAN
Scale: 1" = 10'

REGISTERED PROFESSIONAL ENGINEER
Md.Wahidu.zzaman
No. C49838
Exp. 9/30/14
CIVIL
STATE OF CALIFORNIA

Exhibit 13
Proposed Bridge Foundation Plan
CDP No. 4-13-1176

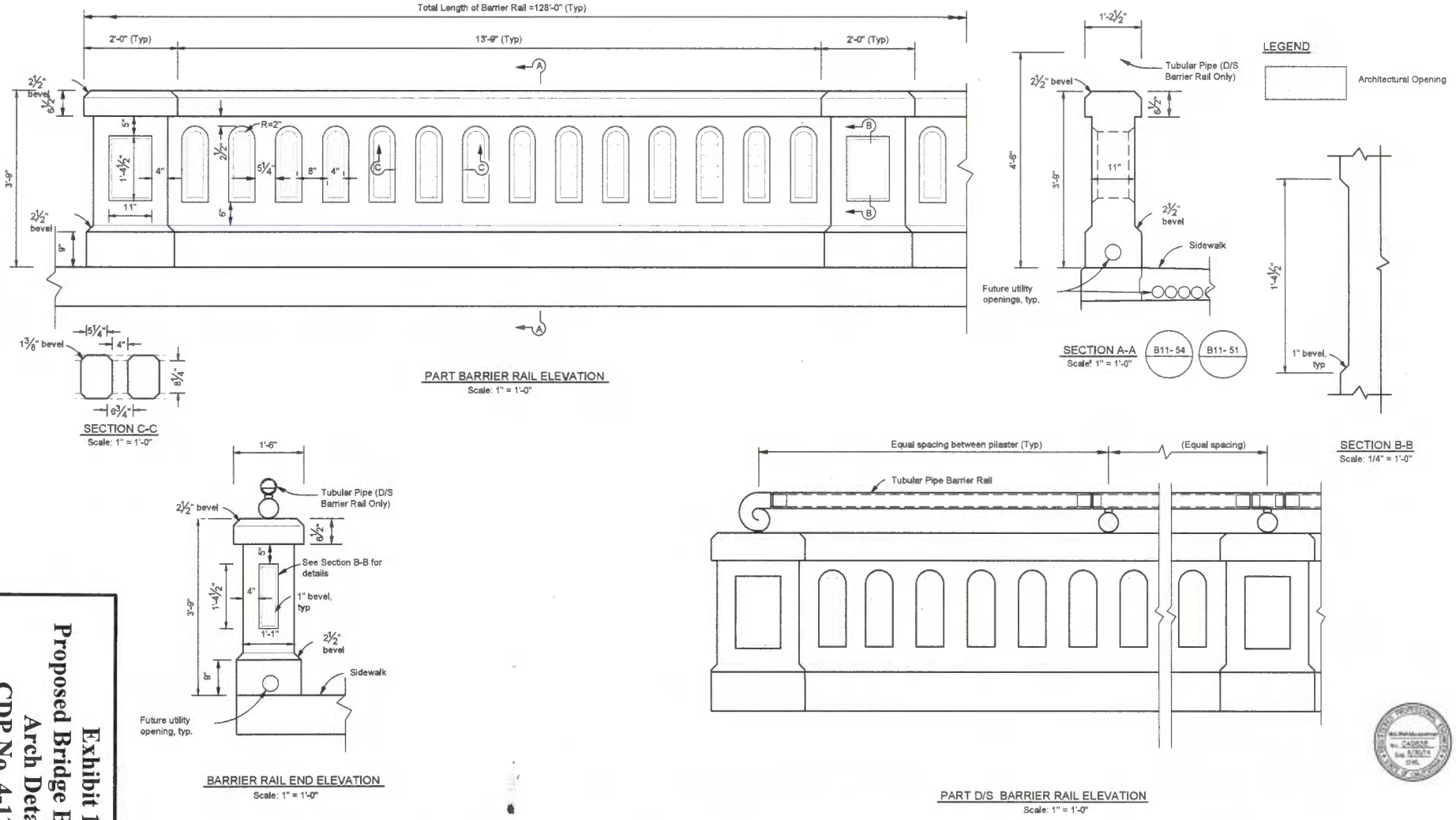
DESIGN M.W.	BENGAL ENGINEERING	Cabrillo Boulevard Bridge (Replacement)	FOUNDATION PLAN
DRAWN R.T.	250 BIG SUR DRIVE, GOLETA, CA 93117	at Mission Creek	
CHECKED S.I.	(805) 563-0788		
FLD.BK.NO.			
PAGE	Reg. Civil Eng.: Approval Date:	Original Scale is in Inches 0 1 2 3	
ATLAS			

PTION	DATE	APPROVED
REVISIONS		

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION
Approved: Date:
City Engineer

CITY PROJ. No. 7661
FA No. BRLS-5007(034)
SHT. 73 OF SHTS.
DWG. NO. C-1-4200

Exhibit 14
Proposed Bridge Barrier Rail
Arch Details
CDP No. 4-13-1176



PART BARRIER RAIL ELEVATION
Scale: 1" = 1'-0"

SECTION C-C
Scale: 1" = 1'-0"

SECTION A-A
Scale: 1" = 1'-0"

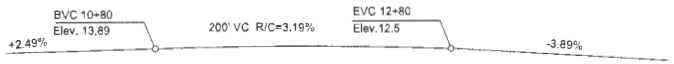
B11-54 B11-51

SECTION B-B
Scale: 1/4" = 1'-0"

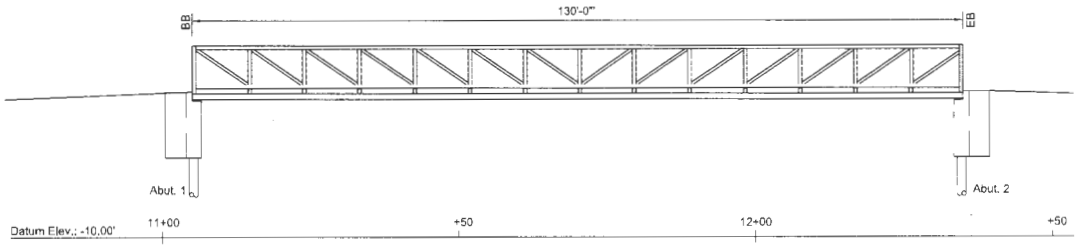
BARRIER RAIL END ELEVATION
Scale: 1" = 1'-0"

PART D/S BARRIER RAIL ELEVATION
Scale: 1" = 1'-0"

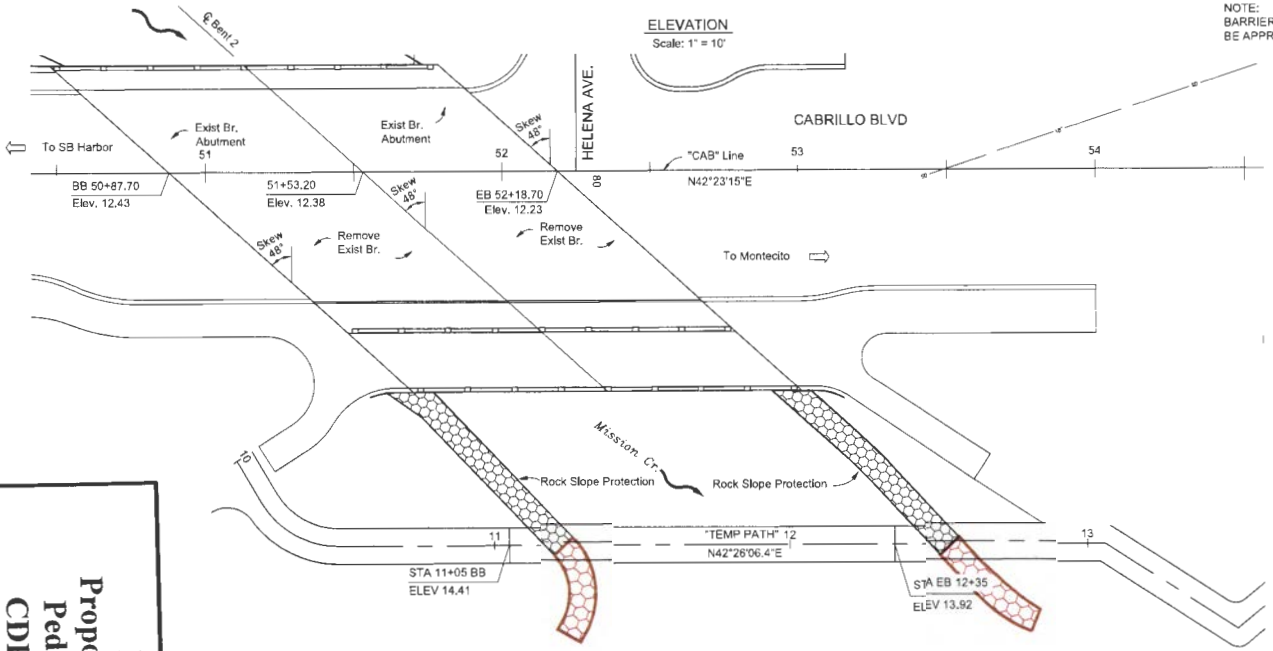
DESIGN MW DRAWN RT CHECKED SI FLD.BK.NO. PAGE ATLAS	BENGAL ENGINEERING 250 BIG SUR DRIVE, GOLETA, CA 93117 (805) 563-0788 Reg. Civil Eng.____ Approval Date:____	Cabrillo Boulevard Bridge (Replacement) at Mission Creek Original Scale Is In Inches 0 1 2 3	BARRIER RAIL ARCH DETAILS	CITY OF SANTA BARBARA PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION Approved:____ Date:____ City Engineer	CITY PROJ. No. 7661 FA No. BRLS-5007(034) SHT. 80 OF SHTS. DWG. NO. C-1-4200
DATE APPROVED ONS					



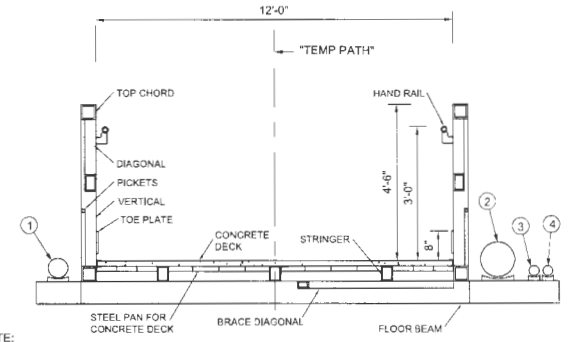
PROFILE ALONG "TEMP PATH" LINE
No Scale



ELEVATION
Scale: 1" = 10'



PLAN
Scale: 1" = 20'



NOTE:
BARRIER RAIL DIMENSIONS AND MATERIALS SHALL BE SIMILAR TO ABOVE DETAILS AND BE APPROVED BY CITY AS PART OF SUBMITTAL PROCESS PRIOR TO FABRICATION.

TYPICAL SECTION
No Scale

1. 8" Ø Gas
2. 14" Ø Recycled Water
3. City Electric
4. Communication (Verizon)

CALTRANS STANDARD PLANS, 2010

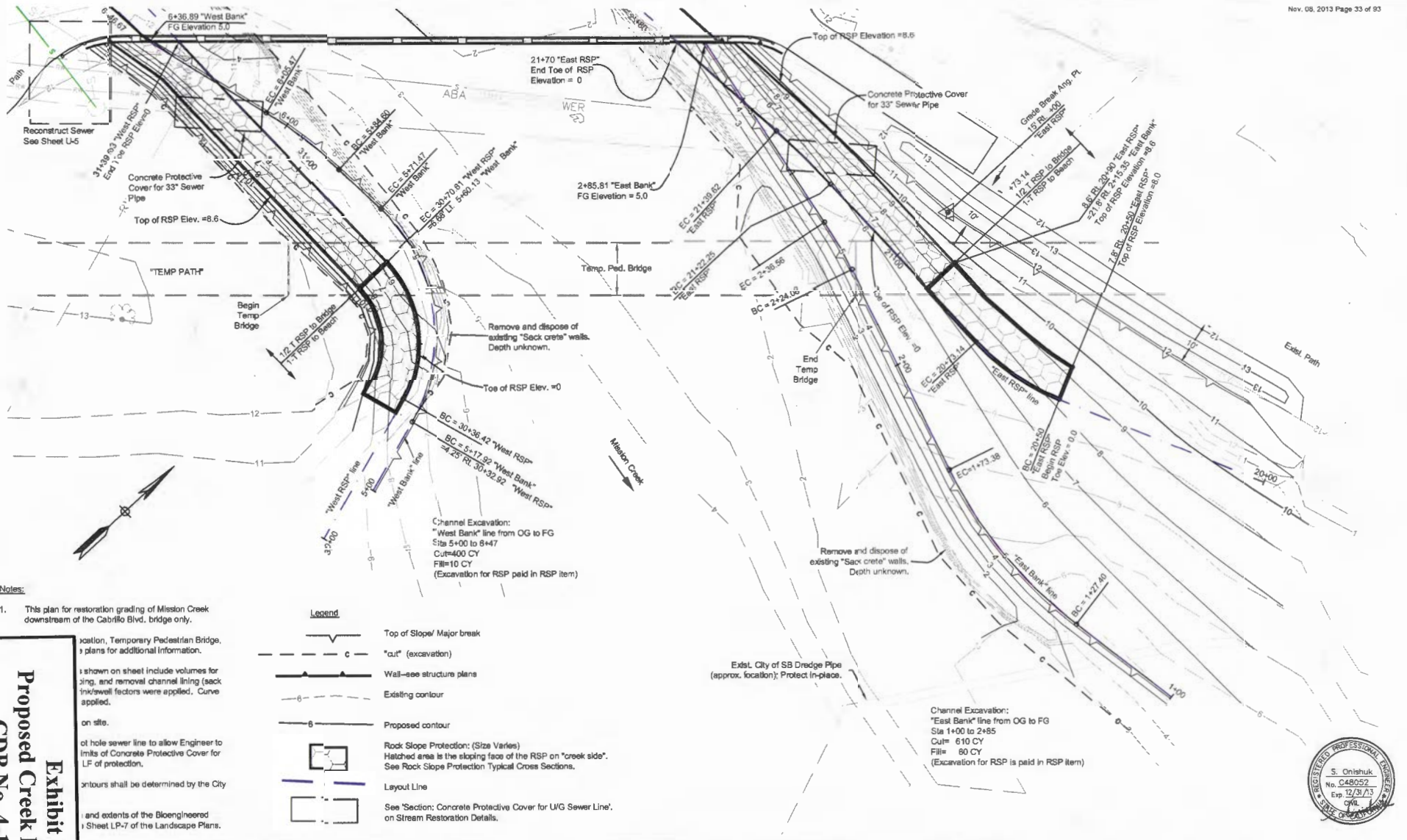
A10-A,B	ACRONYMS AND ABBREVIATIONS
A10 - C,D	SYMBOLS
A62-A	EXCAVATION AND BACKFILL - MISCELANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B2-3	16" AND 24" CAST-IN-DRILLED-HOLE CONCRETE PILE
B2-5	PILE DETAILS CLASS 90 AND CLASS 140

APPROVED PREFABRICATED BRIDGE VENDORS:

1. CONTECH ENGINEERED SOLUTIONS, LLC
   ATTN: BRUCE LELAND
   PH: (320) 852-5330
2. EXCEL BRIDGE COMPANY
   ATTN: MARK A. BECKER
   PH: (320) 762-1784
3. BIG R BRIDGE
   ATTN: RANDY GASKILL
   PH: (970) 356-9600

Exhibit 15
Proposed Temporary Pedestrian Bridge
CDP No. 4-13-1176

1/21	DESIGN MW	BENGAL ENGINEERING	Cabrillo Boulevard Bridge (Replacement)	GENERAL PLAN	CITY OF SANTA BARBARA	CITY PROJ. No. 7661
	DRAWN RT	250 BIG SUR DRIVE. GOLETA, CA 93117	at Mission Creek	TEMPORARY PEDESTRIAN BRIDGE	PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISON	FA. No. BRLS-5037(034)
	CHECKED SI	(805) 563-0788				SHT. 86 OF SHTS.
DATE APPROVED	FLD BK NO.	Reg. Civil Eng._____ Approval Date:_____	Original Scale Is In Inches 0 1 2 3		Approved:_____ Date_____ City Engineer	DWG. NO. C-1-4200
IONS	PAGE					
	ATLAS					



Notes:

1. This plan for restoration grading of Mission Creek downstream of the Cabrillo Blvd. bridge only.

ocation, Temporary Pedestrian Bridge,
plans for additional information.

shown on sheet include volumes for
ping, and removal channel lining (sack
ink/swell factors were applied. Curve
applied.

on site.

ot hole sewer line to allow Engineer to
limits of Concrete Protective Cover for
LF of protection.

ontours shall be determined by the City

and extents of the Bioengineered
Sheet LP-7 of the Landscape Plans.

Exhibit 16
Proposed Creek Restoration
CDP No. 4-13-1176

DESCRIPTION	DATE	APPROVED
REVISIONS		

DESIGN SO
DRAWN EPB
CHECKED MDW
FLD.BK.NO.
PAGE
ATLAS

BENGAL ENGINEERING
250 BIG SUR DRIVE, GOLETA, CA 93117
(805) 563-0788
Project Eng. S. Onishuk Date

Cabrillo Boulevard Bridge (Replacement)
at Mission Creek
Original Scale is in Inches 0 1 2 3

GRADING PLAN
STREAM RESTORATION
Scale: 1" = 10'
G-1

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION
Approved: _____ Date _____
City Engineer

CITY PROJ. No. 7661
FA No. BRLS-5007(034)
SHT. 33 OF SHTS.
DWG. NO. C-1-4200

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
Exp. 12/31/13
CIVIL
STATE OF CALIFORNIA

7/16/2013 1:15 AM