



## **Staff Report**

**Date:** May 10, 2016

**To:** City Council

**From:** Valerie Barone, City Manager

**Reviewed By:** Victoria Walker, Director of Community and Economic Development

**Prepared by:** Mario Camorongon, CIP Manager  
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(925) 671-3021

**Subject:** **Approve Professional Services Agreement Amendment No. 5 with AECOM of Sacramento in the amount of \$281,939.76 for civil engineering design and environmental services for the Citywide Bridge Preventative Maintenance Program (BPMP) 5135 (039), Project No. 2060; extend the Agreement to June 30, 2017; and authorize the City Manager to execute the Amendment (Funded by Cal Trans Grant and Measure J Local)**

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### **Report in Brief**

Staff recommends that the City Council approve the proposed Amendment No. 5 to the Professional Services Agreement with AECOM of Sacramento to authorize preparation of the final design and environmental clearance of maintenance repairs to 11 City-owned bridge structures for a fee not to exceed \$281,939.76. Design of the repair and preventative maintenance work to the bridges includes, but is not limited to: repair of concrete spalling, replacement of joint seals, replacement of unsound concrete, deck sealing, and slope protection repairs.

The 17 bridges included in the Citywide Bridge Repair Program (Project No. 2060) were split into two groups. Group 1 includes six bridges for which the design and construction of repairs has been substantially completed, and a request for acceptance of this completed work will be presented to City Council at a future date. The remaining 11 bridges were categorized as Group 2 due to the extensive environmental analysis required as part of the repair project. The 17 bridges are grouped as follows:

**Group-1:**

28C-0034, Willow Pass Road Bridge over Mount Diablo Creek  
28C-0189L, Diamond Boulevard Bridge over Walnut Creek Left  
28C-0189R, Diamond Boulevard Bridge over Walnut Creek Right  
28C-0427, Cowell Road Bridge over Galindo Creek  
28C-0436, Walnut Avenue Bridge over Contra Costa Canal  
28C-0116, Kirker Pass Road Bridge over Mount Diablo Creek

**Group-2**

28C-0091L, Concord Avenue Bridge over Walnut Avenue Left  
28C-0091R, Concord Avenue Bridge over Walnut Avenue Right  
28C-0115, Ygnacio Valley Road Bridge over Galindo Creek  
28C-0183, Willow Pass Road Bridge over Walnut Creek  
28C-0221, Court Lane Bridge over Galindo Creek  
28C-0222, Saint Francis Drive over Galindo Creek  
28C-0224, Whitman Road Bridge over SDM Channel  
28C-0278, Claudia Drive Bridge over Holbrook Channel  
28C-0357, San Miguel Road Bridge over Pine Creek  
28C-0361, Concord Boulevard Bridge over Mount Diablo Creek  
28C-0362, Ayers Road Bridge over Mount Diablo Creek

On February 5, 2016, the City received environmental clearance under the National Environmental Protection Act (NEPA) to proceed with the final design of repairs to the Group 2 bridges. The City is now authorized by Caltrans to proceed with this portion of the project, and to authorize AECOM to design the repairs for the Group 2 bridges, using Federal funding from Caltrans.

**Recommended Action**

Staff recommends that the City Council approve a Professional Services Agreement (PSA) Amendment No. 5 with AECOM for the Citywide Bridge Repair Program – Bridge Preventative Maintenance Program (BPMP) 5135 (039), (Project No. 2060) in the not-to-exceed amount of \$281,939.76; extend the PSA from June 30, 2016 to June 30, 2017; and authorize the City Manager to execute the Agreement (Attachment 1).

**Background**

On September 26, 2006, the City Council adopted Resolution No. 06-63, approving the City's Bridge Preventive Maintenance Program (BPMP), Project No. 2060 and accepted a \$24,235 grant from Caltrans that was used to fund the costs of evaluating the preventive maintenance needs for 31 City-owned bridges. The evaluation resulted in a prioritized bridge repair needs list and was the first step in establishing eligibility for Caltrans' BPMP funding.

The Caltrans BPMP provides funding for certain activities that have been pre-approved by the Federal Highway Administration (FHWA) that extend the life of bridges. Of the 31 City-owned bridges originally evaluated, 17 were deemed eligible for funding through Caltrans BPMP.

After receiving the initial authorization to proceed with Preliminary Engineering (PE) from Caltrans, on May 17, 2010 the City released a Request for Qualifications (RFQ) for design and environmental services for the repair of the 17 bridges (Project No. No. 2060).

Eight firms submitted Statement of Qualifications (SOQs) for consideration. A selection committee comprised of five registered civil engineers, City staff and Contra Costa Transportation Authority staff reviewed the eight SOQs and interviewed four firms on August 3, 2010. Based on the interviews, the committee recommended AECOM to City Council to provide design services for the project. On January 11, 2011 the City approved a Professional Services Agreement (PSA) with AECOM in the amount of \$306,783.48 for PE Services.

It was determined during the preliminary engineering phase of the project that based on environmental analysis and documentation requirements, it would be best to split the bridges into two groups. Therefore, on December 6, 2011 staff authorized a PSA Amendment No.1 in the amount of \$20,000 with AECOM to fund the added effort for splitting the bridges into two groups. PSA Amendment No. 2, was issued on December 21, 2012 to extend the term of the agreement with AECOM to June 30, 2014. PSA Amendment No. 3, was issued on January 28, 2014 to authorize AECOM to complete the final design of the Group 1 bridge repairs and to complete the required Environmental Services for both Groups 1 and 2 Bridges. PSA Amendment No. 4, was issued on July 1, 2015 to extend the term of PSA Amendment No. 3 to June 30, 2016.

## **Analysis**

The City received Environmental Clearance from Caltrans for Group 1 bridge repairs on October 17, 2013 and shortly thereafter received authorization to proceed with final design. The City subsequently arranged to have the bridge repair design completed and, with additional authorization, initiated construction of the Group 1 bridge repairs and preventative maintenance. On October 17, 2013, Caltrans also authorized the expenditure of the approved funds associated with completing the Environmental Documents for the Group 2 bridges. Authorization to proceed with final design for the Group 2 bridges was contingent upon Caltrans' issuance of environmental clearance pursuant to the National Environmental Protection Act, or NEPA, for Group 2.

The City received NEPA clearance to complete the designs for the repair and maintenance of the Group 2 bridges on February 5, 2016 and is now authorized to proceed with final design. Compliance with the environmental requirements pursuant to the California Environmental Policy Act (CEQA) will be completed prior to start of any

construction activities. The proposed PSA Amendment No. 5 authorizes AECOM to conduct design services only.

As previously discussed, prior to the bridges being split into two groups, AECOM received Council's approval to provide design services for all 17 bridges. Having received the required NEPA clearance from Caltrans, staff recommends that the City Council approve the AECOM proposal to prepare the final design package and provide construction support services for the remaining Group 2 bridges for a fee not to exceed \$281,939.76 (Attachment 1).

### **Financial Impact**

The project budget of \$281,939.76 is sufficient to fully fund the cost of the design services. The project is predominantly funded by a federal grant, with an 11.47% required local match (\$32,338). The local match will be provided from Measure C (Contra Costa County 1/2 cent sales tax funds used to fund transportation projects), Gas Tax and Measure J Local and is not general fund money. These three funds are the typical funding sources for roadway and transportation programs.

### **Public Contact**

The City Council Agenda was posted.

### **Attachments**

Attachment 1 - Professional Services Agreement Amendment No. 5

**FIFTH AMENDMENT TO AGREEMENT  
FOR PROFESSIONAL SERVICES**

THIS AMENDMENT, made and entered into this 11<sup>th</sup> day of May, 2016, by and between the City of Concord (hereinafter "CITY"), located in the County of Contra Costa, State of California, and **AECOM** (hereinafter "CONSULTANT"), whose address is 2020 L Street, Suite 300, Sacramento, California, 95811.

THE PARTIES ENTER INTO THIS AGREEMENT based upon the following facts, understandings and intentions:

The CITY desires to contract with CONSULTANT and CONSULTANT to contract with CITY for provision by CONSULTANT to CITY for professional services for **Citywide Bridge Repair Program, Project No. 2060**, further described herein, upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants and promises of the parties herein contained, the parties hereto agree as follows:

1. SERVICES

CONSULTANT shall provide design services, including the preparation of the PS&E bid package, for the Citywide Bridge Repair Program, Project No. 2060, per Exhibit A attached hereto and made of part hereof. All services and conditions in the Professional Services Agreement dated January 11, 2011, Contract No. 5124, and the First Amendment to Professional Services dated December 6, 2011, Contract No. 5124-A, and the Second Amendment to Professional Services Agreement dated February 13, 2013, Contract No. 5124-B, and the Third Amendment to Professional Services Agreement dated February 10, 2014, Contract No. 5124-C, and the Fourth Amendment to Professional Services Agreement dated July 1, 2015, Contract No. 5124-D, shall remain in full force and effect.

2. COMPENSATION

CONSULTANT shall be compensated on a time and materials basis not to exceed \$281,939.76 for basic services. All other terms and conditions in the Professional Services Agreement dated January 11, 2011, Contract No. 5124, and the First Amendment to Professional Services

1 Agreement dated December 6, 2011, Contract No. 5124-A, and the Second Amendment to  
2 Professional Services Agreement dated February 13, 2013, Contract No. 5124-B, and the Third  
3 Amendment to Professional Services Agreement dated February 10, 2014, Contract No. 5124-C, and  
4 the Fourth Amendment to Professional Services Agreement dated July 1, 2015, Contract No. 5124-D,  
5 shall remain in full force and effect.

6 3. TERM.

7 The term of this agreement shall be extended **through June 30, 2017**. All other terms and  
8 conditions in the Professional Services Agreement dated January 11, 2011, Contract No. 5124, and the  
9 First Amendment to Professional Services Agreement dated December 6, 2011, Contract No. 5124-A  
10 and the Second Amendment to Professional Services Agreement dated February 13, 2013, Contract  
11 No. 5124-B, and the Third Amendment to Professional Services Agreement dated February 10, 2014,  
12 Contract No. 5124-C, and the Fourth Amendment to Professional Services Agreement dated July 1,  
13 2015, Contract No. 5124-D, shall remain in full force and effect.

14 Except as expressly amended herein, all other terms and conditions in the Professional Services  
15 Agreement dated January 11, 2011, Contract No. 5124, and the First Amendment to Professional  
16 Services Agreement dated December 6, 2011, Contract No. 5124-A, and the Second Amendment to  
17 Professional Services Agreement dated February 13, 2013, Contract No. 5124-B, and the Third  
18 Amendment to Professional Services Agreement dated February 10, 2014, Contract No. 5124-C, and  
19 the Fourth Amendment to Professional Services Agreement dated July 1, 2015, Contract No. 5124-D,  
20 shall remain in full force and effect.

21 **IN WITNESS WHEREOF**, the parties hereto have accepted, made, and executed this Agreement  
22 upon the terms, conditions, and provisions above stated, the day and year first above written.

23 CONSULTANT

CITY OF CONCORD

24 By: \_\_\_\_\_  
25 Name: Neil Harris, PE  
26 Title: Vice President  
27 Address: 2020 L Street, Suite 300  
Sacramento, CA 95811  
28 Telephone: (916) 414-5800

By: \_\_\_\_\_  
Name: Valerie Barone  
Title: City Manager  
Address: 1950 Parkside Drive  
Concord, CA 94519  
Telephone: (925) 671-3150

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APPROVED AS TO FORM:

ATTEST:

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City Clerk

FINANCE DIRECTOR'S CERTIFICATION:  
Concord California

Date: \_\_\_\_\_, 2016

I HEREBY CERTIFY THAT ADEQUATE FUNDS EXIST OR WILL BE RECEIVED DURING THE CURRENT FISCAL YEAR 2016/17 TO PAY THE ANTICIPATED EXPENSES TO BE INCURRED PURSUANT TO THIS CONTRACT. TO WIT:

THE SUM OF \$281,939.76

ACCOUNT CODES: 4029500C999-74500/4022060211-74500 = \$275,000.00  
4759500C999-74500/4752060111-74500 = \$ 6,939.76  
\$281,939.76

\_\_\_\_\_  
Finance Director's Signature

*AECOM – Amendment #5 to PSA PJ# 2060 Citywide Bridge Repair Program*

**AMENDMENT TO SCOPE OF WORK**  
**GROUP 2 BRIDGES**

February 12, 2016

**City of Concord Citywide Bridge Repair Program**

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## Project Description:

To qualify for BPMP funds, the City of Concord has developed a Bridge Preventive Maintenance Plan (BPMP), and is now prepared to move forward with permitting, design, and development of Plans, Specifications, and Estimates (PS&E) for construction of repair measures covered by the preventive maintenance program for the Group 2 bridges.

The City’s BPMP identifies and prioritizes needed preventive bridge maintenance for 17 of the City’s 33 bridges, 11 of which are to be addressed in Group 2. It is anticipated that repair measures will include the following:

- Repair of cracked and spalled concrete at deck, abutments, piers, and slope protection
- Grading of streambeds/repair or installation of erosion control measures
- Sealing and overlaying of bridge decks
- Repair of timber abutments
- Repair of AC dike and drainage improvements
- Replacement/repair of failed joint seals
- Extend wingwall and slope protection at various locations
- Repair AC on bridge approaches
- Replacement/Repair of fence posts, railing, and sidewalk

Bridge Name	Bridge Number
Concord Ave Bridge over Walnut Creek	28C-0091R
	28C-0091L
Ygnacio Valley Rd Bridge over Galindo Creek	28C-0115
Willow Pass Rd Bridge over Walnut Creek	28C-0183
Court Lane Bridge over Galindo Creek	28C-0221
St Francis Bridge over Galindo Creek	28C-0222
Whitman Road Bridge over SDM Channel	28C-0224
Claudia Drive Bridge over Holbrook Channel	28C-0278
San Miguel Road Bridge over Pine Creek	28C-0357
Concord Blvd Bridge over Mount Diablo Creek	28C-0361
Ayers Road Bridge over Mount Diablo Creek	28C-0362

## Task 1 – Project Management

### Task 1.1 – Project Management

This task generally includes communication and coordination with the City of Concord (City). The objective of this task is to provide overall management of the Engineering Services.

All project communication will be coordinated between the City Project Manager and the Consultant Project Manager. No communication between any Consultant team members (prime consultant or sub-consultant) will take place with City Staff, City Leadership, Local Media, or outside agencies without the express written permission of the City Project Manager.

Project management activities will also include preparation and submittal of invoices and progress reports. AECOM proposes to prepare and submit on a monthly basis invoices and project progress reports for all work completed during the previous month, including labor costs and direct expenses, and percent completion of work during that reporting period.

A project delivery schedule will be developed in coordination with the City. The schedule will identify major milestones, including the permits, plans, specifications, and estimate. The schedule will be in the critical path method format using Microsoft Project. Progress for each of the milestones will be discussed in reference to the project schedule at each team meeting. A plan will be developed to deal with issues that arise, which could delay the schedule.

## **Task Deliverables: Work Plan, Invoices and Progress Reports, Schedule**

### **Task 1.2 – Meetings**

Regularly scheduled meetings are a key to keeping projects on schedule, avoiding pitfalls, and keeping the lines of communication open with the City so that surprises do not occur during the final stages of the project. The AECOM Team will coordinate and attend bi-weekly PDT meetings, beginning with a project kick-off meeting with the City Staff to define the project, determine the requirements for design, review, and coordination. The AECOM Team Project Manager will attend other meetings as required to facilitate the project development process.

The AECOM Project Manager will prepare meeting agendas to be provided to the City Project Manager at least one week in advance of each meeting. In addition, meeting minutes will be prepared for each meeting by the AECOM Project Manager and will be submitted to the City Project manager within one week after each meeting.

## **Task Deliverables: Meeting Agendas and Minutes**

### **Task 4 – Funding Application Assistance**

AECOM will assist the City with applications for reprogramming of currently programmed funds to match the planned delivery schedule. In addition, AECOM will assist the City in completing the Change of Cost/Scope/Schedule form if necessary to request additional funds for the proposed repairs.

### **Task 5 – HBP Bridge Replacement Assistance (Optional Task)**

If Caltrans recommends and the City agrees that Bridge Nos 28C0034 and 28C0222 should be replaced instead of implementing repairs under the BPMP, AECOM will assist the City in completing the necessary HBP application process. Assistance will include development of bridge replacement costs and preliminary drawings to support the application.

### **Task 6 – Environmental Services**

These bridges have been determined to require repairs under the City's BPMP. As a result, environmental review was implemented per the Caltrans Local Assistance Procedures Manual and subject to both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) with the City acting as the CEQA lead agency and Caltrans as the NEPA lead agency (as delegated by FHWA and subject to the SAFETEA-LU program).

Under NEPA, rehabilitation or repair of the bridge projects qualifies for a NEPA Categorical Exclusion (CE), provided it meets the definitions contained in 40 CFR 771.117 and does not involve significant impacts. Based on our review of the proposed actions, it appears that a NEPA CE would be appropriate for the proposed bridge repairs. Caltrans will complete the NEPA CE for the project.

Under CEQA, bridge repairs are eligible for a CEQA Categorical Exemption (CE) provided the actions meet the definition contained in Section 15300 and 15301 of the CEQA Guidelines and the project has no environmental impacts that require mitigation. However, because the project requires mitigation for biology and cultural resources, these criteria are not met and for this set

of bridges the appropriate level of CEQA documentation is an Initial Study/Mitigated Negative Declaration (IS/MND).

## APPROACH

LSA utilizes a multi-disciplinary approach where specialists from various offices contribute in various ways to the environmental process. For this project their Rocklin and Pt. Richmond offices will utilize their individual specialties, coordinated by the project manager, who will provide a single point of contact, ensuring the best environmental process and service.

Their scope of work involves completion of the following tasks. A comprehensive discussion of the expected tasks is provided below.

- Complete the preparation of environmental clearance forms and/or documentation (Draft IS/MND and Final IS/MND)
- Prepare regulatory permits

### Task 6.4 – Environmental Clearance Forms/Documentation

Mitigated Negative Declaration (MND). The project will be processed through the use of an MND for CEQA purposes. The impact evaluation would be focused on biological resources and cultural resources. The following outlines the MND tasks that remain to be completed:

*Preliminary Draft IS/MND.* Following review by the City, LSA will prepare a Preliminary Draft IS/MND. This second version will evaluate each of the City's comments on the Administrative Draft IS.

*Public Review Draft IS/MND.* The purpose of this task will be to respond to the City's comments on the Preliminary Draft IS/MND, complete necessary revisions, submit the document for City approval, and publish for public review. The Draft IS/MND will be circulated for review by the City. The City will be responsible for publishing all legal notices and advertisements. LSA will assist the City in the preparation of notices including the notice of availability for public review, public notice of intent to adopt the MND, and the Notice of Completion for the State Clearinghouse.

*Response to Comments on Final MND.* It is expected that all comments received by the City through the public review process will be addressed by the City in staff reports. LSA will prepare a Mitigation Monitoring Program that outlines timing and responsibility assignments for implementing each measure.

This item is ongoing and the scope falls under the current contract.

### Task 6.5 – Regulatory Permit Identification

Bridge repairs affecting wetlands or other jurisdictional waters that are under the jurisdiction of the ACOE, RWQCB, and/or CDFW may require permits from these regulatory agencies, as described below. It is expected that the repair projects will require regulatory permits; LSA proposes that all repair projects will be permitted together. However, CDFW may require separate processing fees for each site.

*Nationwide Permit Verification (Clean Water Act, Section 404).* The remaining bridge repair projects will likely result in discharge of material into waters of the U.S. In the event this occurs, the project will require authorization from the ACOE. It is likely that any discharge resulting from this project can be authorized using one or more Nationwide Permits (NWP). LSA will prepare a Preconstruction Notification (PCN) to submit to the ACOE requesting verification that the project can be authorized using the specified NWP(s). LSA will also submit the jurisdictional delineation

and request verification by the ACOE. We propose to utilize the ACOE Preliminary Jurisdictional Delineation Form for submittal of the preliminary delineation.

*Water Quality Certification (Clean Water Act, Section 401)*. The remaining bridge repair projects will also likely require a Water Quality Certification from the RWQCB for the proposed project to certify that the project is consistent with water quality goals and objectives. LSA will prepare an application package for submittal to RWQCB. A processing fee must be included with each submittal (to be provided by the City, amount to be determined).

*Streambed Alteration Agreement (Fish and Game Code, Section 1602)*. Some of the proposed repairs will likely require notification of proposed streambed alteration to the CDFW. LSA will prepare an application package for submittal to CDFW. A processing fee must be included with each submittal (to be provided by the City, amount to be determined). NOTE: CDFW may require a separate processing fee for each repair project.

CDFW and RWQCB will require a final environmental (i.e., CEQA) document and Notice of Determination in order to process the 1602 Agreement and 401 Certification, respectively. Therefore, applications to these agencies will be submitted after the CEQA process is complete.

## **Task 7 – Engineering Studies**

### **Task 7.1 – Hydraulics**

WRECO will review and provide comments on AECOM’s proposed scour mitigation measures design for four bridges. The four bridges include:

- Bridge # 28C0091 Concord Avenue crossing of Walnut Creek
- Bridge # 28C0361 Concord Blvd crossing of Mount Diablo Creek
- Bridge # 28C0183 Willow Pass road crossing of Walnut Creek
- Bridge # 28C0222 St Francis Rd crossing of Galindo Creek

WRECO will also perform a visual inspection of the four bridges to confirm current conditions and the adequacy and suitability of proposed scour mitigation measures.

#### **Task 7.1.1 – Data Review**

WRECO will review the 2013 Location Hydraulic Study forms, the 2011 Draft Hydrologic and Hydraulic Investigation Summary, and AECOM’s proposed scour mitigation design plans.

#### **Task 7.1.2 – Field Reconnaissance**

WRECO will conduct a field reconnaissance to assess the existing conditions in vicinity of the Project sites. WRECO will identify any new or changing conditions relative to the 2011 investigation.

#### **Task 7.1.3 – Review Findings**

WRECO will prepare a summary of the Scour Mitigation Measures review. The review will be in the format of electronic mail, and will include a discussion of the field observations, review comments on the proposed mitigation measures, and any suitable recommendations to improve the scour mitigation design that will aid in reducing the risk of scour while minimizing the environmental impacts.

**Task 7.1.4 – Project Meetings**

WRECO will participate in a total of three conference calls with AECOM to discuss findings and recommendations.

**Deliverables: Scour Mitigation Measures****Task 7.2 – Geotechnical**

For bridge sites requiring bridge scour countermeasure design, Parikh will work with the Project Team's bridge and hydraulic engineers to evaluate the need for countermeasures for bridge local scour and long-term stream instability. AECOM will be responsible for the drafting and PS&E Package.

**Task 7.3 – Survey**

Because surveying and mapping fall routinely on the critical path for project delivery, the AECOM Team includes CBC Surveys to perform structure and channel surveys as needed.

**Task 7.3.2 – Channel Surveys**

Most channel repairs are small in area and assumed to be of only a minor local effect to the channels hydraulics. However, should additional channel cross section information be required for either hydraulic analysis or for purposes of designing the channel repair, CBC will perform channel cross-section surveys.

**Task 7.3.3 – Utility Surveys**

If necessary, CBC will perform surveys to locate and map existing utilities that may be in conflict with proposed bridge repairs.

**Task 8 – Bridge Maintenance Repair PS&E****Task 8.1 – Regulatory Permitting**

Bridge repairs affecting wetlands or other jurisdictional waters that are under the jurisdiction of the ACOE, RWQCB, and/or CDFG may require permits from these regulatory agencies, as described below.

*Nationwide Permit Verification (Clean Water Act, Section 404).* Some of the proposed repairs will likely result in discharge of material into waters of the U.S. In the event this occurs, the project will require authorization from the ACOE. It is likely that any discharge resulting from this project can be authorized using one or more Nationwide Permits (NWP). LSA will prepare a Preconstruction Notification (PCN) to submit to the ACOE requesting verification that the project can be authorized using the specified NWP(s). LSA will also submit the jurisdictional delineation (i.e., a letter report) and request verification by the ACOE. The various creeks and channels crossed by the bridges on this project are clearly a water of the U.S. and we propose to utilize the ACOE Preliminary Jurisdictional Delineation Form for submittal of the preliminary delineation. As part of the PCN submittal, LSA will also prepare a brief, conceptual mitigation proposal to describe how the project will offset impacts to waters of the U.S. (if necessary).

*Water Quality Certification (Clean Water Act, Section 401).* A Water Quality Certification will likely be required from the RWQCB for the proposed project to certify that the project is consistent with water quality goals and objectives. LSA will

prepare an application package for submittal to RWQCB. A processing fee must be included with the submittal (to be provided by the City, amount to be determined).

*Streambed Alteration Agreement (Fish and Game Code, Section 1602)*. The proposed project will likely require notification of proposed streambed alteration to the CDFG if the creeks or channels, or adjacent riparian vegetation is affected. LSA will prepare an application package for submittal to CDFG. A processing fee must be included with the submittal (to be provided by the City, amount to be determined).

The ACOE will need to certify compliance with Section 7 of the ESA and Section 106 of the National Historic Preservation Act prior to issuing a permit. Since Caltrans will be the designated federal lead agency for Section 7 and Section 106, the PCN will be submitted to the ACOE after Caltrans completes these consultations.

CDFG and RWQCB will require a final environmental (i.e., CEQA) document and Notice of Determination in order to process the 1602 Agreement and 401 Certification, respectively. Therefore, applications to these agencies will be submitted after the CEQA process is complete.

This task involves one field meeting with agency staff to review the project and responses to agency comments on the applications.

### **Task 8.2 - Plans & Special Provisions (P&S) (65% Complete)**

In compliance with the appropriate design criteria, AECOM shall be responsible for all direct and related work with the design of the bridge repair and maintenance plans. Said design shall include traffic control plans depicting detours; temporary signing and striping; location of removable temporary barrier rails; crash cushions; and other items necessary for the construction project.

AECOM's analysis of the existing structure repairs shall take into consideration current CALTRANS design criteria such as, but not limited to, Load and Resistance Factor Design (LRFD).

AECOM shall prepare plans and special provisions for the construction of the bridge rehabilitation and maintenance construction associated with said work, and traffic control plans. Where applicable, engineering design of all PROJECT improvements shall be compatible and in accordance with the following:

- a. CEQA and/or NEPA Determination (To be provided by LSA);
- b. Regulatory permits (which will be obtained by LSA);
- c. Bridge Rehabilitation/Maintenance Strategy Report
- d. Contra Costa County Flood Control District Hydrology & Design Manuals;
- e. Caltrans Bridge Design Manuals;
- f. AASHTO Bridge Design Specifications as modified by CALTRANS;
- g. City of Concord Standards;
- h. Caltrans Standard Specifications;
- i. Caltrans Standard Plans;

Where feasible, AECOM shall try to accommodate utility impacts and; make modifications to the design, plans, and/or special provisions as directed by the CITY to avoid any impact to utility facilities, however, if rehabilitations affect a utility, AECOM will send a notice to all affected utility agencies within the limits of work. For utilities identified, special provisions for PROJECT shall incorporate utility modification or relocation windows as necessary. The CITY will issue a Notice-to-Relocate to affected utility agencies requiring such.

Plans for the bridge, channel, roadway approaches, and traffic control shall be prepared in accordance with CITY and CALTRANS recommended practice for detailing and items in this Scope of Work. CALTRANS Standard Plans for the bridge shall be utilized where applicable and shall be called out on the plans as a reference. CITY Standards for the approach roadways shall be utilized where applicable and shall be called out on the plans as a reference. Plans shall be computer drafted on standard 24" x 36" sheets using Bentley MicroStation (Version-8 in AutoCAD v. 2011 Format). Bridge PS&E shall be prepared in accordance with Chapter 3 of the CALTRANS Office of Specially Funded Projects, Information and Procedures Guide, using CITY borders and title blocks. Road PS&E shall be prepared in accordance with CITY CAD Standards.

AECOM shall prepare a draft set of Special Provisions (using Caltrans method of no deletions; use hidden/strike through to omit; and red text to add) per CITY format (three (3) hard copies and its electronic file on MS Word format) for the bridge and all associated items of work. Bridge Special Provisions shall be based upon the CALTRANS Latest Standard Specifications (currently 2015) edition. All other Special Provisions shall be based on the Standard Specifications for Public Works Construction ("Green Book").

Upon completion of the PS&E (65% Complete), AECOM shall distribute copies to reviewing parties and/or agencies identified by CITY. Reviewing parties' and/or agency's request or direction regarding modifications or revisions to the PS&E (65% Complete) will be relayed to the AECOM through CITY for incorporation. AECOM shall respond to requests or direction as directed by CITY.

- Deliverable:**
- Draft P&S (65% Complete).**
  - 11X17 Size Plans (pdf)..... on CD**
  - 24X36 Size Plans..... 1 copy**
  - Draft Special Provisions (paper) ..... 3 copies**
  - Draft Special Provisions (MS Word Format)..... on CD**
  - Draft Caltrans Construction Authorization..... on CD**

### **Task 8.3 – PS&E (90% Complete – Including WQMP)**

Upon receipt of comments and recommended revisions to the PS&E (65% Complete) from the CITY, AECOM shall proceed with revising the plan set, special provisions, and design.

AECOM shall prepare calculations, if required, for the rehabilitation of the bridge, channel, roadway, and traffic control plans. Calculations performed shall be signed and stamped by a Registered Civil Engineer who is licensed by the State of California. All calculations shall be neat and orderly; and reference appropriate formulas, assumptions, and procedures used.

AECOM is also responsible for preparing a set of Quantity Calculations. All bid items used in the construction cost estimate shall be described in the quantity calculations. Calculations shall be neat, orderly, and show required sketches, diagrams, and dimensions. The cover sheet of the Quantity Calculations shall be signed and stamped by a Registered Civil Engineer who is licensed in the State of California and in responsible charge of PROJECT.

Other items required for the PS&E (90% Complete) are:

- a. Bridge Calculations: Prepare and furnish to CITY one (1) bound copy of the bridge calculations.
- b. Independent Check (Bridge): Prepare and furnish to CITY one (1) bound copy of the independent check performed for the bridge calculations. All bridge independent calculations shall be checked/confirmed, signed, and stamped by a Registered Civil Engineer who is licensed by the State of California and not involved with the original

# EXHIBIT "A"



design. The independent checker shall re-analyze the structure and complete the following:

- i. Review relevant background and supporting information.
  - ii. Verify member capacities.
  - iii. Review plans for completeness and consistency with the design.
  - iv. Resolve design issues with the designer. Final design will reflect agreement between the designer and checker.
  - v. Check the corrected plans for conformance with prior comments.
  - vi. Review PROJECT Special Provisions to ensure all bridge improvements and associated items of work are adequately addressed.
  - vii. Prepare independent quantity calculations.
- c. Quality Assurance/Quality Control (QA/QC) Statement & Plan: Prepare and furnish to CITY, one (1) copy each of a QA/QC Statement and Plan.

AECOM shall also prepare a Cost Estimate using CALTRANS marginal estimate format, which includes all bid items described within the Special Provisions as noted above. The estimate shall use the same nomenclature and units of pay as indicated in the Special Provisions. The estimate shall reflect current Cost Data prices as described in publications used by CITY, COUNTY, and CALTRANS. CITY understands that AECOM has no control of the actual cost of construction or the successful bidder's method of pricing. AECOM's cost estimate is made solely on the basis of the AECOM's qualifications and experience as a design professional. The AECOM professional, registered Civil Engineer in responsible charge of Project shall sign the cover sheet of the Cost Estimate.

Upon completion of the PS&E (90% Complete) and structural calculations, AECOM shall distribute half-size copies thereof to reviewing parties and/or agencies identified by CITY. Reviewing parties and/or agencies request or direction regarding modifications or revisions to the PS&E (90% Complete) and structural calculations will be relayed to AECOM through the CITY for incorporation. AECOM shall respond to requests or direction of CITY.

**Deliverable: PS&E (90% Complete and WQMP).**

11X17 Size Plans (pdf) .....	on CD
24X36 Size Plans .....	1 copy
Special Provisions (paper).....	3 copies
Special Provisions (electronic, MS Word) .....	on CD
Memo to Specification Engineer/Estimator .....	1 copy
Design Calculations .....	1 copy
Check Calculations .....	1 copy
Marginal Cost Estimate & Summary Sheets.....	2 copies
in MS Excel Format.....	on CD
Quantity Calculations.....	1 copy
Consultant Quality Control Statement .....	1 copy
Working Day Schedule.....	2 copies
Revised E16 Forms (pdf) .....	on CD

## Task 8.4 – PS&E (Final)

Upon receipt of comments and recommended revisions to the PS&E (90% Complete) from CITY, AECOM shall proceed with revising the plan set, special provisions, design, and calculations.

Other items required for the PS&E (Final) are:

- a. Letter to the Resident Engineer (RE), including:
  - i. Issues requiring the RE’s attention (“Pending File”)
  - ii. Joint Movement Calculations sheet, for joint seal replacement.
- b. Construction Package/RE Pending File: The package and transmittal memo describing PROJECT, procedures, and documents attached will be used by field personnel during construction.

Upon completion of the PS&E (Final) and structural calculations, AECOM shall distribute copies to parties and/or agencies identified by CITY.

<b>Deliverable:</b>	<b>PS&amp;E (Final) and WQMP.</b>
	<b>24x36 Size Plans (bond reproduced) ..... 6 copies</b>
	<b>Full Sized Reproducible (4 mil Mylar) ..... 1 copy</b>
	<b>Drawing Files in AutoCAD v. 2011 format ..... on CD</b>
	<b>Special Provisions (paper)..... 3 copies</b>
	<b>Special Provisions (MS Word format)..... on CD</b>
	<b>Design Calculations ..... 1 copy</b>
	<b>Check Calculations ..... 1 copy</b>
	<b>Marginal Cost Estimate &amp; Summary Sheets..... 2 copies</b>
	<b>    In MS Excel format..... on CD</b>
	<b>Quantity Calculations..... 1 copy</b>
	<b>Consultant Quality Control Statement..... 1 copy</b>
	<b>RE Pending File ..... 2 copies</b>

## Task 9 – Bid and Construction Support

### Task 9.1 – Bid Support

AECOM will answer construction-related questions from prospective bidders. This includes:

- Responding to written questions in a “General Response to Bidders Questions”
- Attending a Pre-Bid Meeting and Distributing the “General Response to Bidders Questions”
- Bid Evaluation (if requested)
- Attending a Pre-Construction Meeting.

## **Task 9.2 – Support During Construction**

- AECOM will be available to respond to a reasonable number of requests for design related activities during the construction phase of the project. This is difficult to quantify, but is generally a function of the experience of the Resident Engineer.
- AECOM will perform a review of the bridge working drawings in accordance with the Caltrans Office of Special Funded Projects Information and Procedures Guide Chapter 5. Anticipated working drawings to review include:
  - Joint Seals

**Deliverables: As requested per above scope of work.**

## **Task 10 – Additional Services**

### **Task 10.1 – Additional Services**

The AECOM team will perform additional services as directed by the City.

**Attachment A: Construction Cost Summary and Backup**  
**Showing Items of Work**

## City of Concord BPMP Project

### Group 2 Bridges - Construction cost estimate summary

Bridge No.	Name	Base Cost	Contingency 10%	Extra Work 10%	Total	Use
28C0091 L	CONCORD AVE BR OVER WALNUT CREEK	313,683.57	31,368.36	31,368.36	376,420.28	376,500.00
28C0091 R	CONCORD AVE BR OVER WALNUT CREEK	397,461.87	39,746.19	39,746.19	476,954.25	477,000.00
28C0115	YGNACIO VALLEY ROAD BR OVER GALINDO CREEK	108,184.22	10,818.42	10,818.42	129,821.07	129,900.00
28C0183	WILLOW PASS ROAD BR OVER WALNUT CRK	1,040,046.52	104,004.65	104,004.65	1,248,055.83	1,248,100.00
28C0221	COURT LANE BR OVER GALINDO CREEK	93,098.39	9,309.84	9,309.84	111,718.07	111,800.00
28C0222	ST FRANCIS BR OVER GALINDO CREEK	128,160.15	12,816.01	12,816.01	153,792.18	153,800.00
28C0224	WHITMAN RD BR OVER SDM CHANNEL	65,569.46	6,556.95	6,556.95	78,683.35	78,700.00
28C0278	CLAUDIA DR BR OVER HOLBROOK CHANNEL	140,224.81	14,022.48	14,022.48	168,269.77	168,300.00
28C0357	SAN MIGUEL RD OVER PINE CREEK	181,405.70	18,140.57	18,140.57	217,686.84	217,700.00
28C0361	CONCORD BLVD BR. / MOUNT DIABLO CREEK	61,701.85	6,170.18	6,170.18	74,042.22	74,100.00
28C0362	AYERS RD BR OVER MT DIABLO CREEK	12,126.24	1,212.62	1,212.62	14,551.48	14,600.00
Totals:		2,541,662.78	254,166.28	254,166.28	3,049,995.33	3,050,500.00

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** CONCORD AVE BR OVER WALNUT CREEK **BR. No.:** 28C0091 L

**DISTRICT:** 04

**TYPE:** CIGFF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 380.25 **WIDTH:** 86.00 **AREA (SF)=** 32,702

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$4,106.00	\$4,106.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$3,000.00	\$3,000.00
3	PUBLIC SAFETY PLAN	LS	1	\$825.00	\$825.00
4	TRAFFIC CONTROL SYSTEM	LS	1	\$1,220.00	\$1,220.00
5	CLEAN BRIDGE DECK	SQFT	12,929	\$0.22	\$2,844.38
6	CLEAN EXPANSION JOINT	LF	129	\$55.00	\$7,095.00
7	JOINT SEAL (MR 1/2")	LF	129	\$77.00	\$9,933.00
8	FURNISH POLYESTER CONCRETE OVERLAY	CF	809	\$91.00	\$73,619.00
9	PLACE POLYESTER CONCRETE OVERLAY	SQFT	12,929	\$3.05	\$39,433.45
10	REMOVE CONCRETE CURB AND SIDEWALK	CY	2	\$990.00	\$1,980.00
11	REMOVE UNSOUND CONCRETE	CF	66	\$275.00	\$18,150.00
12	PORTLAND CEMENT CONCRETE (PATCH)	CF	66	\$1,100.00	\$72,600.00
13	MINOR CONCRETE (CURB AND SIDEWALK)	CY	2	\$1,210.00	\$2,420.00
14	WATER QUALITY CERTIFICATION	LS	1	\$4,956.00	\$4,956.00
15	STREAMBED ALTERATION AGREEMENT	LS	1	\$4,912.25	\$4,912.25
16	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$38,072.80	\$38,072.80
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					

**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

SUBTOTAL	\$285,167
TIME RELATED OVERHEAD	\$28,517
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$313,684
CONTINGENCIES (@ 20%)	\$62,737
BRIDGE TOTAL COST	\$376,420
COST PER SQ. FOOT	\$11.51
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$376,420
BUDGET ESTIMATE AS OF	<b>\$376,500</b>

**COMMENTS:** \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$398,000
2	\$420,000
3	\$444,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$469,000
5	\$495,000

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** CONCORD AVE BR OVER WALNUT CREEK **BR. No.:** 28C0091 R

**DISTRICT:** 04

**TYPE:** CIGFF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 380.25 **WIDTH:** 86.00 **AREA (SF)=** 32,702

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$6,050.00	\$6,050.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$3,000.00	\$3,000.00
3	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$10,200.00	\$10,200.00
4	PUBLIC SAFETY PLAN	LS	1	\$825.00	\$825.00
5	TRAFFIC CONTROL SYSTEM	LS	1	\$1,220.00	\$1,220.00
6	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	292	\$28.60	\$8,351.20
7	ROCK SLOPE PROTECTION (1/2 TON, METHOD B)	CY	206	\$82.50	\$16,995.00
8	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	86	\$198.00	\$17,028.00
9	ROCK SLOPE PROTECTION FABRIC	SQYD	243	\$5.50	\$1,336.50
10	CLEAN BRIDGE DECK	SQFT	14,146	\$0.22	\$3,112.08
11	CLEAN EXPANSION JOINT	LF	137	\$55.00	\$7,535.00
12	JOINT SEAL (MR 1/2")	LF	137	\$77.00	\$10,549.00
13	FURNISH POLYESTER CONCRETE OVERLAY	CF	885	\$91.00	\$80,535.00
14	PLACE POLYESTER CONCRETE OVERLAY	SQFT	14,146	\$3.05	\$43,144.79
15	REMOVE CONCRETE CURB AND SIDEWALK	CY	4	\$990.00	\$3,960.00
16	REMOVE UNSOUND CONCRETE	CF	67	\$275.00	\$18,425.00
17	STRUCTURAL CONCRETE, RETAINING WALL	CY	0.10	\$1,210.00	\$121.00
18	DRILL AND BOND DOWEL	LF	5	\$22.00	\$99.00
19	PORTLAND CEMENT CONCRETE (PATCH)	CF	67	\$1,100.00	\$73,700.00
20	BAR REINFORCING STEEL (BRIDGE)	LB	20	\$0.83	\$16.50
21	MINOR CONCRETE (CURB AND SIDEWALK)	CY	4	\$1,210.00	\$4,840.00
22	MISCELLANEOUS METAL (BRIDGE)	LB	169	\$12.10	\$2,044.90
23	WATER QUALITY CERTIFICATION	LS			
24	STREAMBED ALTERATION AGREEMENT	LS			
25	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$48,241.00	\$48,241.00
26					
27					

SUBTOTAL	\$361,329
TIME RELATED OVERHEAD	\$36,133
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$397,462
CONTINGENCIES (@ 20%)	\$79,492
BRIDGE TOTAL COST	\$476,954
COST PER SQ. FOOT	\$14.59
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$476,954
BUDGET ESTIMATE AS OF	<b>\$477,000</b>

**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$504,000
2	\$532,000
3	\$562,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$593,000
34	\$626,000

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** YGNACIO VALLEY ROAD BR OVER GALINDO CREE **BR. No.:** 28C0115

**DISTRICT:** 04

**TYPE:** CB2UF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 142.00      **WIDTH:** 22.66      **AREA (SF)=** 3,218

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21      **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish      **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_      **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish      **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$5,519.00	\$5,519.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$3,100.00	\$3,100.00
3	TEMPORARY CULVERT	LF	130	\$115.00	\$14,950.00
4	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$9,600.00	\$9,600.00
5	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	74	\$26.00	\$1,924.00
6	CONCRETE (CONCRETED-ROCK SLOPE PROTECTION)	CY	3	\$800.00	\$2,400.00
7	CONCRETED-ROCK SLOPE PROTECTION (1/4 TON, METHOD A)	CY	5	\$550.00	\$2,780.56
8	ROCK SLOPE PROTECTION (1/4 TON, METHOD B)	CY	64	\$90.00	\$5,760.00
9	ROCK SLOPE PROTECTION (BACKING NO. 2, METHOD B)	CY	24	\$380.00	\$9,120.00
10	ROCK SLOPE PROTECTION FABRIC	SQYD	623	\$5.00	\$3,115.00
11	REMOVE ASPHALT CONCRETE SURFACING	CY	1	\$11.00	\$11.00
12	REMOVE UNSOUND CONCRETE	CF	1	\$250.00	\$250.00
13	ASPHALT CONCRETE	TON	1	\$2,000.00	\$2,000.00
14	TIEBACK ANCHOR	EA	3	\$5,500.00	\$16,500.00
15	STRUCTURAL CONCRETE, BRIDGE	CY	1	\$2,700.00	\$2,700.00
16	DRILL AND BOND DOWEL	LF	6	\$20.00	\$120.00
17	PORTLAND CEMENT CONCRETE (PATCH)	CF	2	\$1,000.00	\$2,000.00
18	BAR REINFORCING STEEL (BRIDGE)	LB	198	\$0.75	\$148.84
19	STREAMBED ALTERATION AGREEMENT	LS	1	\$1,351.50	\$1,351.50
20	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$14,999.40	\$14,999.40
21					
22					
23					
24					
25					
26					
27					

SUBTOTAL	\$98,349
TIME RELATED OVERHEAD	\$9,835
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$108,184
CONTINGENCIES (@ 20%)	\$21,637
BRIDGE TOTAL COST	\$129,821
COST PER SQ. FOOT	\$40.37
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$129,821
BUDGET ESTIMATE AS OF	<b>\$129,900</b>

**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$137,200
2	\$144,900
3	\$153,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$161,600
34	\$170,600

Revised - December 3, 2007

RCVD BY: \_\_\_\_\_

IN EST: \_\_\_\_\_

OUT EST: \_\_\_\_\_

BRIDGE: WILLOW PASS ROAD BR OVER WALNUT CRK BR. No.: 28C0183

DISTRICT: 04

TYPE: CTGFF / PIGFF

RTE: LOC

CU: \_\_\_\_\_

CO: CC

EA: \_\_\_\_\_

PM: \_\_\_\_\_

LENGTH: 316.00 WIDTH: 91.33 AREA (SF)= 28,860

DESIGN SECTION: AECOM

# OF STRUCTURES IN PROJECT : 21 EST. NO. 1

PRICES BY : T. DUDLEY / B. Fish COST INDEX: 2011

PRICES CHECKED BY : \_\_\_\_\_ DATE: \_\_\_\_\_

QUANTITIES BY: T. DUDLEY / B. Fish DATE: 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$18,265.00	\$18,265.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$4,900.00	\$4,900.00
3	TEMPORARY CULVERT	LF	240	\$126.50	\$30,360.00
4	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$11,200.00	\$11,200.00
5	PUBLIC SAFETY PLAN	LS	1	\$1,650.00	\$1,650.00
6	TRAFFIC CONTROL SYSTEM	LS	1	\$1,480.00	\$1,480.00
7	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	2,706	\$28.60	\$77,391.60
8	ROCK SLOPE PROTECTION (1/2 TON, METHOD B)	CY	1,894	\$82.50	\$156,255.00
9	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	812	\$198.00	\$160,776.00
10	ROCK SLOPE PROTECTION FABRIC	SQYD	1,353	\$5.50	\$7,441.50
11	CLEAN BRIDGE DECK	SQFT	25,912	\$0.22	\$5,700.64
12	CLEAN EXPANSION JOINT	LF	467	\$55.00	\$25,685.00
13	JOINT SEAL (MR 1/2")	LF	466	\$77.00	\$35,901.25
14	FURNISH POLYESTER CONCRETE OVERLAY	CF	1,620	\$91.00	\$147,420.00
15	PLACE POLYESTER CONCRETE OVERLAY	SQFT	25,912	\$3.05	\$79,031.60
16	REMOVE CONCRETE CURB AND SIDEWALK	CY	5	\$990.00	\$4,950.00
17	REMOVE UNSOUND CONCRETE	CF	24	\$275.00	\$6,600.00
18	PORTLAND CEMENT CONCRETE (PATCH)	CF	98	\$1,100.00	\$107,800.00
19	MINOR CONCRETE (CURB AND SIDEWALK)	CY	5	\$1,210.00	\$6,050.00
20	MISCELANEOUS METAL (BRIDGE)	LB	48	\$12.10	\$580.80
21	STREAMBED ALTERATION AGREEMENT	LS	1	\$4,912.25	\$4,912.25
22	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$51,146.20	\$51,146.20
23					
24					
25					
26					
27					

**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

SUBTOTAL	\$945,497
TIME RELATED OVERHEAD	\$94,550
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$1,040,047
CONTINGENCIES (@ 20%)	\$208,009
BRIDGE TOTAL COST	\$1,248,056
COST PER SQ. FOOT	\$43.25
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$1,248,056
BUDGET ESTIMATE AS OF	<b>\$1,248,100</b>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$1,318,000
2	\$1,392,000
3	\$1,470,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$1,552,000
5	\$1,639,000

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** COURT LANE BR OVER GALINDO CREEK

**BR. No.:** 28C0221

**DISTRICT:** 04

**TYPE:** CB2UF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 48.00      **WIDTH:** 22.66      **AREA (SF)=** 1,088

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21      **EST. NO.** 1

**PRICES BY :** T. DUDLEY      **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_      **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY      **DATE:** 06/09/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$5,130.00	\$5,130.00
2	TEMPORARY CULVERT	LF	95	\$115.00	\$10,925.00
3	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$6,000.00	\$6,000.00
4	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	154	\$28.60	\$4,404.40
5	ROCK SLOPE PROTECTION (1/2 TON, METHOD B)	CY	120	\$82.50	\$9,900.00
6	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	65	\$198.00	\$12,870.00
7	CONCRETE (CONCRETED-ROCK SLOPE PROTECTION)	CY	10	\$282.70	\$2,827.00
8	CONCRETED-ROCK SLOPE PROTECTION (1/4 TON, METHOD A)	CY	20	\$605.00	\$12,100.00
9	ROCK SLOPE PROTECTION FABRIC	SQYD	67	\$5.50	\$368.50
10	STREAMBED ALTERATION AGREEMENT	LS	1	\$921.00	\$921.00
11	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$19,189.00	\$19,189.00
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SUBTOTAL	\$84,635
TIME RELATED OVERHEAD	\$8,463
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$93,098
CONTINGENCIES (@ 20%)	\$18,620
BRIDGE TOTAL COST	\$111,718
COST PER SQ. FOOT	\$102.79
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$111,718
BUDGET ESTIMATE AS OF	<b>\$111,800</b>

**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

Years Beyond Midpoint	Escalated Budget Est.
1	\$118,100
2	\$124,700
3	\$131,700

Years Beyond Midpoint	Escalated Budget Est.
4	\$139,100
5	\$146,900

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** ST FRANCIS BR OVER GALIDO CREEK **BR. No.:** 28C0222

**DISTRICT:** 04

**TYPE:** CSLFF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 24.21 **WIDTH:** 47.08 **AREA (SF)=** 1,140

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY **DATE:** 06/09/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$5,504.00	\$5,504.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$1,600.00	\$1,600.00
3	TEMPORARY CULVERT	LF	70	\$115.00	\$8,050.00
4	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$3,600.00	\$3,600.00
5	PUBLIC SAFETY PLAN	LS	1	\$1,650.00	\$1,650.00
6	TRAFFIC CONTROL SYSTEM	LS	1	\$4,180.00	\$4,180.00
7	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	65	\$28.60	\$1,859.00
8	ROCK SLOPE PROTECTION (1/4 TON, METHOD B)	CY	39	\$99.00	\$3,861.00
9	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	11	\$198.00	\$2,178.00
10	BROKEN CONCRETE INVERT REHABILITATION	CY	3	\$1,650.00	\$4,950.00
11	ROCK SLOPE PROTECTION FABRIC	SQYD	33	\$5.50	\$181.50
12	CLEAN BRIDGE DECK	SQFT	872	\$0.22	\$191.84
13	FURNISH BRIDGE DECK TREATMENT MATERIAL (LOW ODOR)	GAL	10	\$58.30	\$583.00
14	TREAT BRIDGE DECK	SQFT	872	\$0.22	\$191.84
15	REMOVE CONCRETE CURB AND SIDEWALK	CY	3	\$990.00	\$2,970.00
16	STRUCTURE EXCAVATION (BRIDGE)	CY	10	\$70.40	\$704.00
17	STRUCTURE BACKFILL (BRIDGE)	CY	5	\$66.00	\$327.95
18	BRIDGE REMOVAL (PORTION)	LS	1	\$4,400.00	\$4,400.00
19	MINOR CONCRETE (CURB AND SIDEWALK)	CY	3	\$1,210.00	\$3,630.00
20	SHOTCRETE	CY	30	\$550.00	\$16,500.00
21	SOIL NAIL ASSEMBLY	LF	160	\$110.00	\$17,600.00
22	MISCELLANEOUS METAL (BRIDGE)	LB	210	\$12.10	\$2,541.00
23	STREAMBED ALTERATION AGREEMENT	LS	1	\$1,351.50	\$1,351.50
24	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$27,904.60	\$27,904.60
25					
26					
27					

SUBTOTAL	\$116,509
TIME RELATED OVERHEAD	\$11,651
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$128,160
CONTINGENCIES (@ 20%)	\$25,632
BRIDGE TOTAL COST	\$153,792
COST PER SQ. FOOT	\$134.93
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$153,792
BUDGET ESTIMATE AS OF	<b>\$153,800</b>

**ROUTING**

- DES SECTION
- OFFICE OF BRIDGE DESIGN - NORTH
- OFFICE OF BRIDGE DESIGN - CENTRAL
- OFFICE OF BRIDGE DESIGN - SOUTH
- OFFICE OF BRIDGE DESIGN - WEST
- OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$162,400
2	\$171,500
3	\$181,100

Years Beyond Midpoint	Escalated Budget Est.
4	\$191,200
5	\$201,900

Revised - December 3, 2007

RCVD BY: \_\_\_\_\_

IN EST: \_\_\_\_\_

OUT EST: \_\_\_\_\_

BRIDGE: WHITMAN RD BR OVER SDM CHANNEL BR. No.: 28C0224

DISTRICT: 04

TYPE: CB3UF

RTE: LOC

CU: \_\_\_\_\_

CO: CC

EA: \_\_\_\_\_

PM: \_\_\_\_\_

LENGTH: 42.00 WIDTH: 71.00 AREA (SF)= 2,982

DESIGN SECTION: AECOM

# OF STRUCTURES IN PROJECT : 21 EST. NO. 1

PRICES BY : T. DUDLEY COST INDEX: 2011

PRICES CHECKED BY : DATE:

QUANTITIES BY: T. DUDLEY DATE: 06/09/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$4,149.00	\$4,149.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$1,600.00	\$1,600.00
3	TEMPORARY CULVERT	LF	130	\$126.50	\$16,445.00
4	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$5,000.00	\$5,000.00
5	TRAFFIC CONTROL SYSTEM	LS	1	\$2,330.00	\$2,330.00
6	REMOVE CHAIN LINK RAILING POST	EA	10	\$715.00	\$7,150.00
7	REPLACE CHAIN LINK RAILING POST	EA	10	\$176.00	\$1,760.00
8	REMOVE UNSOUND CONCRETE	CF	5	\$275.00	\$1,375.00
9	PORTLAND CEMENT CONCRETE (PATCH)	CF	5	\$1,100.00	\$5,500.00
10	STREAMBED ALTERATION AGREEMENT	LS	1	\$921.00	\$921.00
11	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$13,378.60	\$13,378.60
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**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

SUBTOTAL	\$59,609
TIME RELATED OVERHEAD	\$5,961
MOBILIZATION	
SUBTOTAL BRIDGE ITEMS	\$65,569
CONTINGENCIES (@ 20%)	\$13,114
BRIDGE TOTAL COST	\$78,683
COST PER SQ. FOOT	\$26.39
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$78,683
BUDGET ESTIMATE AS OF	<b>\$78,700</b>

COMMENTS: \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Years Beyond Midpoint	Escalated Budget Est.
1	\$83,100
2	\$87,800
3	\$92,700

Years Beyond Midpoint	Escalated Budget Est.
4	\$97,900
Page 27 of 34	\$103,400

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** CLAUDIA DR BR OVER HOLBROOK CHANNEL **BR. No.:** 28C0278

**DISTRICT:** 04

**TYPE:** CB2UF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 25.50 **WIDTH:** 48.10 **AREA (SF)=** 1,227

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$4,309.00	\$4,309.00
2	TEMPORARY CULVERT	LF	120	\$115.00	\$13,800.00
3	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$4,600.00	\$4,600.00
4	TRAFFIC CONTROL SYSTEM	LS	1	\$550.00	\$550.00
5	REMOVE CONCRETE CURB AND SIDEWALK	CY	3	\$990.00	\$2,970.00
6	REMOVE UNSOUND CONCRETE	CF	55	\$275.00	\$15,125.00
7	PORTLAND CEMENT CONCRETE (PATCH)	CF	55	\$1,100.00	\$60,500.00
8	MINOR CONCRETE (CURB AND SIDEWALK)	CY	3	\$1,210.00	\$3,630.00
9	STREAMBED ALTERATION AGREEMENT	LS	1	\$1,351.50	\$1,351.50
10	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$20,641.60	\$20,641.60
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**ROUTING**

- 1. DES SECTION
- 2. OFFICE OF BRIDGE DESIGN - NORTH
- 3. OFFICE OF BRIDGE DESIGN - CENTRAL
- 4. OFFICE OF BRIDGE DESIGN - SOUTH
- 5. OFFICE OF BRIDGE DESIGN - WEST
- 6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

SUBTOTAL	\$127,477
TIME RELATED OVERHEAD	\$12,748
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$140,225
CONTINGENCIES (@ 20%)	\$28,045
BRIDGE TOTAL COST	\$168,270
COST PER SQ. FOOT	\$137.21
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$168,270
BUDGET ESTIMATE AS OF	<b>\$168,300</b>

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year 5.6%

Years Beyond Midpoint	Escalated Budget Est.
1	\$177,700
2	\$187,700
3	\$198,200

Years Beyond Midpoint	Escalated Budget Est.
4	\$209,300
34	\$221,000

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** SAN MIGUEL RD OVER PINE CREEK **BR. No.:** 28C0357

**DISTRICT:** 04

**TYPE:** CB2UF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 93.33 **WIDTH:** 47.00 **AREA (SF)=** 4,387

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$5,890.00	\$5,890.00
2	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$3,900.00	\$3,900.00
3	TRAFFIC CONTROL SYSTEM	LS	1	\$21,500.00	\$21,500.00
4	STRUCTURE EXCAVATION (BRIDGE)	CY	13	\$70.40	\$915.20
5	STRUCTURE BACKFILL (BRIDGE)	CY	13	\$66.00	\$858.00
6	REMOVE CHAIN LINK RAILING	LF	118	\$22.00	\$2,596.00
7	REMOVE HEADWALL	LF	118	\$528.00	\$62,304.00
8	REMOVE UNSOUND CONCRETE	CF	16	\$275.00	\$4,455.86
9	STRUCTURAL CONCRETE, BRIDGE	CY	12	\$2,970.00	\$35,640.00
10	PORTLAND CEMENT CONCRETE (PATCH)	CF	1	\$1,100.00	\$773.44
11	BAR REINFORCING STEEL (BRIDGE)	LB	2,355	\$0.83	\$1,942.88
12	CHAIN LINK RAILING	LF	118	\$66.00	\$7,788.00
13	STREAMBED ALTERATION AGREEMENT	LS	1	\$1,351.50	\$1,351.50
14	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$14,999.40	\$14,999.40
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**ROUTING**

1. DES SECTION
2. OFFICE OF BRIDGE DESIGN - NORTH
3. OFFICE OF BRIDGE DESIGN - CENTRAL
4. OFFICE OF BRIDGE DESIGN - SOUTH
5. OFFICE OF BRIDGE DESIGN - WEST
6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

SUBTOTAL	\$164,914
TIME RELATED OVERHEAD	\$16,491
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$181,406
CONTINGENCIES (@ 20%)	\$36,281
BRIDGE TOTAL COST	\$217,687
COST PER SQ. FOOT	\$49.63
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$217,687
BUDGET ESTIMATE AS OF	<b>\$217,700</b>

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year 5.6%

Years Beyond Midpoint	Escalated Budget Est.
1	\$230,000
2	\$243,000
3	\$257,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$271,000
34	\$286,000

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Revised - December 3, 2007

RCVD BY: \_\_\_\_\_

IN EST: \_\_\_\_\_

OUT EST: \_\_\_\_\_

BRIDGE: CONCORD BLVD BR. / MOUNT DIABLO CREEK BR. No.: 28C0361

DISTRICT: 04

TYPE: CSLFF

RTE: LOC

CU: \_\_\_\_\_

CO: CC

EA: \_\_\_\_\_

PM: \_\_\_\_\_

LENGTH: 75.50 WIDTH: 74.00 AREA (SF)= 5,587

DESIGN SECTION: AECOM

# OF STRUCTURES IN PROJECT : 21 EST. NO. 1

PRICES BY : T. DUDLEY / B. Fish COST INDEX: 2011

PRICES CHECKED BY : DATE:

QUANTITIES BY: T. DUDLEY / B. Fish DATE: 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$4,364.00	\$4,364.00
2	TEMPORARY CONSTRUCTION ROADWAY	LS	1	\$1,600.00	\$1,600.00
3	TEMPORARY CULVERT	LF	40	\$126.50	\$5,060.00
4	TEMPORARY WATER DIVERSION STRUCTURE	LS	1	\$4,000.00	\$4,000.00
5	STRUCTURE EXCAVATION (ROCK SLOPE PROTECTION)	CY	181	\$28.60	\$5,176.60
6	ROCK SLOPE PROTECTION (1/2 TON, METHOD B)	CY	127	\$82.50	\$10,477.50
7	ROCK SLOPE PROTECTION (BACKING NO. 1, METHOD B)	CY	53	\$198.00	\$10,494.00
8	ROCK SLOPE PROTECTION FABRIC	SQYD	113	\$5.50	\$620.89
9	STREAMBED ALTERATION AGREEMENT	LS	1	\$921.00	\$921.00
10	MITIGATION, MONITORING, & REPORTING PROGRAM	LS	1	\$13,378.60	\$13,378.60
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**ROUTING**

- 1. DES SECTION
- 2. OFFICE OF BRIDGE DESIGN - NORTH
- 3. OFFICE OF BRIDGE DESIGN - CENTRAL
- 4. OFFICE OF BRIDGE DESIGN - SOUTH
- 5. OFFICE OF BRIDGE DESIGN - WEST
- 6. OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

COMMENTS: \_\_\_\_\_

SUBTOTAL	\$56,093
TIME RELATED OVERHEAD	\$5,609
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$61,702
CONTINGENCIES (@ 20%)	\$12,340
BRIDGE TOTAL COST	\$74,042
COST PER SQ. FOOT	\$13.26
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$74,042
BUDGET ESTIMATE AS OF	<b>\$74,100</b>

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year 5.6%

Years Beyond Midpoint	Escalated Budget Est.
1	\$78,000
2	\$82,000
3	\$87,000

Years Beyond Midpoint	Escalated Budget Est.
4	\$92,000
34	\$97,000

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

Revised - December 3, 2007

**RCVD BY:** \_\_\_\_\_

**IN EST:** \_\_\_\_\_

**OUT EST:** \_\_\_\_\_

**BRIDGE:** AYERS RD BR OVER MT DIABLO CREEK **BR. No.:** 28C0362

**DISTRICT:** 04

**TYPE:** ISLFF

**RTE:** LOC

**CU:** \_\_\_\_\_

**CO:** CC

**EA:** \_\_\_\_\_

**PM:** \_\_\_\_\_

**LENGTH:** 60.00 **WIDTH:** 54.00 **AREA (SF)=** 3,240

**DESIGN SECTION:** AECOM

**# OF STRUCTURES IN PROJECT :** 21 **EST. NO.** 1

**PRICES BY :** T. DUDLEY / B. Fish **COST INDEX:** 2011

**PRICES CHECKED BY :** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**QUANTITIES BY:** T. DUDLEY / B. Fish **DATE:** 06/08/2011

	CONTRACT ITEMS	UNIT	QUANTITY	PRICE	AMOUNT
1	WQCP (including SWPPP and BMP)	LS	1	\$3,334.00	\$3,334.00
2	PUBLIC SAFETY PLAN	LS	1	\$1,500.00	\$1,500.00
3	TRAFFIC CONTROL SYSTEM	LS	1	\$1,890.00	\$1,890.00
4	CLEAN BRIDGE DECK	SQFT	2,400	\$0.22	\$528.00
5	FURNISH BRIDGE DECK TREATMENT MATERIAL (LOW ODOR)	GAL	27	\$58.30	\$1,574.10
6	TREAT BRIDGE DECK	SQFT	2,400	\$0.66	\$1,584.00
7	STREAMBED ALTERATION AGREEMENT	LS	1	\$613.75	\$613.75
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SUBTOTAL	\$11,024
TIME RELATED OVERHEAD	\$1,102
MOBILIZATION ( @ 10 % )	
SUBTOTAL BRIDGE ITEMS	\$12,126
CONTINGENCIES (@ 20%)	\$2,425
BRIDGE TOTAL COST	\$14,551
COST PER SQ. FOOT	\$4.51
BRIDGE REMOVAL (CONTINGENCIES INCL.)	
WORK BY RAILROAD OR UTILITY FORCES	
GRAND TOTAL	\$14,551
BUDGET ESTIMATE AS OF	<b>\$14,600</b>

**ROUTING**

- DES SECTION
- OFFICE OF BRIDGE DESIGN - NORTH
- OFFICE OF BRIDGE DESIGN - CENTRAL
- OFFICE OF BRIDGE DESIGN - SOUTH
- OFFICE OF BRIDGE DESIGN - WEST
- OFFICE OF BRIDGE DESIGN SOUTHERN CALIFORNIA

**COMMENTS:** \_\_\_\_\_

**Escalated Budget Estimate to Midpoint of Construction \***

Escalation Rate per Year

5.6%

Years Beyond Midpoint	Escalated Budget Est.
1	\$15,400
2	\$16,300
3	\$17,200

Years Beyond Midpoint	Escalated Budget Est.
4	\$18,200
5	\$19,200

\* Escalated budget estimate is provided for information only, actual construction costs may vary. Escalated budget estimates provided do not replace Departmental policy to update cost estimates annually.

**Attachment B: AECOM Design Cost Estimate Breakdown**

**City of Concord  
Citywide Bridge Repair Program  
COST PROPOSAL FOR ENGINEERING SERVICES - Group 2 - Phase 2, PS&E**



Overhead % = 158.26%	Fee = 10%	AECOM	Category->	OIC	PM	Deputy PM	Sr. Bridge Eng	Bridge Eng	Sr Highway Eng	Highway Eng	Sr CADD	CADD	Const. Review	Specs QA/QC Review	QA/QC Review	Admin	AECOM Roll-Up			Subconsultants			Total	
			Rate->															Hours	Labor	ODC	Hours	Labor	ODC	
			Hours ->															Totals->						
			\$ -	\$ 113.67	\$ 52.73	\$ 52.73	\$ 41.20	\$ 49.98	\$ 41.17	\$ 43.09	\$ 34.62	\$ 73.49	\$ 73.49	\$ 69.24	\$ 24.00									
		Prime		\$322.92	\$149.80	\$149.80	\$117.04	\$141.99	\$116.96	\$122.41	\$98.35	\$208.77	\$208.77	\$196.70	\$68.18									
					79	175	370	258	64	144	75	316	12	60	12									

**SUMMARY BY TASK**

Task	Description	Firm	Manhour													AECOM Roll-Up			Subconsultants			Subtotal															
1.00	Engineering		Categories													Hour	Labor	ODC	Hour	Labor	ODC	Subtotal															
<b>1.0</b>	<b>Project Management</b>																																				
1.1	Project Management	AECOM																116	\$26,032.73	\$1,500.00														\$27,532.73			
1.2	Meetings	AECOM																36	\$8,508.94															\$8,508.94			
<b>4.0</b>	<b>Task 4 – Funding Application Assistance</b>	AECOM																20	\$3,861.58															\$3,861.58			
<b>6.0</b>	<b>Task 6 – Environmental Services</b>																	14	\$2,097.18															\$2,097.18			
6.1	Project management																																				
6.5	Regulatory Permitting	LSA																																			
6.5.1	401 Certification	LSA																																			
6.5.2	404 Permit	LSA																																			
6.5.3	1602 Agreement	LSA																																			
6.5.4	RTC/Information Request	LSA																																			
6.5.5	Mitigation Bank Coordination	LSA																																			
6.5.6	Field Meeting	LSA																																			
6.5.7	Support during Design PS&E	LSA																																			
<b>7.0</b>	<b>Engineering Studies</b>																																				
7.1	Hydraulics																	8	\$1,198.39															\$1,198.39			
7.1.1	Data Review	WRECO																																			
7.1.2	Field Reconnaissance	WRECO																																			
7.1.3	Review Findings	WRECO																																			
7.1.4	Project Meetings	WRECO																																			
7.2	Geotechnical	Parikh																4	\$599.19																\$599.19		
7.3	Survey																	4	\$599.19																		
7.3.2	Channel Surveys	CBC																																			
7.3.3	Utility Surveys	CBC																																			
<b>8.0</b>	<b>Bridge Maintenance Repair PS&amp;E</b>																																				
8.2	Design 65% + 90%	AECOM																242	\$31,529.91																\$31,529.91		
8.3	Check 90%	AECOM																97	\$14,530.46																	\$14,530.46	
	Specs	AECOM																68	\$10,123.80																	\$10,123.80	
	Cost Estimate	AECOM																84	\$11,140.49																		\$11,140.49
	Drafting	AECOM																391	\$40,689.84																		\$40,689.84
	QC	AECOM																64	\$13,313.29																		\$13,313.29
8.4	Final PS&E	AECOM																92	\$12,744.44																		\$12,744.44
	Traffic	AECOM																159	\$19,395.66																		\$19,395.66
				</																																	

**CITY OF CONCORD**  
**Group 2 - Phase 2, PS&E**

Contract No. Citywide Bridge Repair Program  
Consultant AECOM Technical Services, Inc.

Date: 02/12/2016

**DIRECT LABOR**

Classification	Name*	Range	Hours	Initial Hourly Rate	Total
Principal		*	0	@	\$ 0
Project Manager	Walt LaFranchi	*	79	@ \$113.67	\$ 8,980
Deputy Project Manager	Natalie Calderone	*	175	@ \$52.73	\$ 9,228
Senior Bridge Eng.	Natalie Calderone	*	370	@ \$52.73	\$ 19,510
Bridge Engineer	Zuri Abajian	*	258	@ \$41.20	\$ 10,630
Senior Highway Eng.	Rashod Gibson	*	64	@ \$49.98	\$ 3,199
Highway Engineer	Andrew Huang	*	144	@ \$41.17	\$ 5,928
CADD	Lynette Davis	*	75	@ \$43.09	\$ 3,232
CADD	Hope Sullivan	*	316	@ \$34.62	\$ 10,940
Constructibility Review	David Harnagel	*	12	@ \$73.49	\$ 882
Specs QA/QC Review	David Harnagel	*	60	@ \$73.49	\$ 4,409
QA/QC Review	Jan Hueser	*	12	@ \$69.24	\$ 831
Administrative	**	*	0	@ \$24.00	\$ 0
			<b>Tot Hrs</b>	<b>1,565</b>	<b>\$</b>

\* Person used for estimate.

Actual person working this category may differ.

\*\* Average Rate of Potential personnel used for estimate

Subtotal Direct Labor Costs \$ 77,768  
Anticipated Salary Increases (%) \$

**Total Direct Labor Costs \$ 77,768**

**FRINGE BENEFITS**

Rate	Total
40.00 %	\$ 31,107
<b>Total Fringe Benefits</b>	<b>\$ 31,107</b>

**INDIRECT COSTS**

Rate	Total
98.00 %	\$ 76,213
20.26 %	\$ 15,756
<b>Total</b>	<b>118.26 %</b>
<b>Total Indirect Costs</b>	<b>\$ 91,969</b>

FEE (Profit on Direct Labor + Fringe Benefits + Indirect)

Rate	Total
10.00 %	\$ 20,084
<b>Fee (DC+FB+I)</b>	<b>\$ 20,084</b>

**OTHER COSTS**

1. Reproduction (*)	\$ 650
2. Copying (*)	\$
3. Plotting (*)	\$
4. Transportation / Travel	\$ 750
5. Special Deliveries (*)	\$ 100
6. Computer Costs	\$
<b>(*) Estimate only - item to be billed at actual cost and supported by a vendor invoice.</b>	
	<b>\$ 1,500</b>

FEE (Other Costs)

Rate	Total
0.00 %	\$ 0
<b>Fee (OC)</b>	<b>\$ 0</b>

**SUBCONTRACTOR COSTS**

LSA Associates	Environmental	\$ 0
	Permits	\$ 31,967
WRECO	Hydraulics	\$ 6,128
CBC Surveys	Survey	\$ 9,097
Parikh Consultants	Geotechnical	\$ 2,319
		\$
		\$

**SUBCONTRACTOR SUBTOTAL COST**

**\$ 49,511**

**ADDITIONAL SERVICES COST**

**\$ 10,000**

**TOTAL COST**

**\$ 281,939.76**