



MEMORANDUM

TO: CITY COUNCIL

FROM: TERESA MCCLISH, COMMUNITY DEVELOPMENT DIRECTOR

BY: JILL MCPEEK, SENIOR CONSULTANT ENGINEER

SUBJECT: CONSIDERATION OF AMENDMENT NO. 1 TO CONSULTANT SERVICES AGREEMENT WITH QUINCY ENGINEERING, INC.

DATE: MAY 27, 2014

RECOMMENDATION:

It is recommended the City Council:

1. authorize the Mayor to execute Amendment No. 1 to the agreement with Quincy Engineering, Inc. for Phase I - Preliminary Engineering & Environmental Clearance work on the Bridge Street Bridge project; and
2. Appropriate an additional \$50,000 of Local Highway Bridge Program (HBP) grant funds in the FY 2013-14 capital improvement program budget for the Bridge Street Bridge project.

FINANCIAL IMPACT:

The City was successful in securing an additional \$50,000 of Local Highway Bridge Program (HBP) funds for Phase I of Preliminary Engineering work on the Bridge Street Bridge project. No local match is required. It is anticipated that \$43,500 will be used for the consultant contract and \$6,500 will be used for City staff time, costs of copies and exhibits, and consultant contract management and quality assurance. Although the majority of staff work will be performed by contact engineering staff that is covered by the grant, additional in-house time will be required for staff management, public participation, and environmental review.

BACKGROUND:

In May 2012, the Council approved a consultant services agreement with Quincy Engineering, Inc. to refine feasible alternatives, provide visual displays and conduct public review, perform necessary engineering and environmental studies (Phase I), and prepare plans, specifications and estimates for the preferred alternative (Phase II). The project is currently in Phase I and most technical studies are complete. As a result, the consultant team has developed three replacement alternatives, one retrofit alternative, and a no-build alternative.

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These alternatives have been presented twice to both the community and the Stakeholder Group established by the Council on June 11, 2013. During the course of these meetings, how much of the rehabilitation alternative would be eligible for funding through the Local Highway Bridge Program (HBP). City staff believes this is a question that will need to be answered in order for Council to select a preferred alternative(s).

ANALYSIS OF ISSUES:

The City's consultant team has been informed by CalTrans Headquarters that they cannot determine funding eligibility of the rehabilitation alternative without additional analysis and more detailed cost estimates. It is estimated that this analysis, which will consist of multiple loading analyses combined with the existing supplemental truss and historical evaluation, will cost about \$50,000. Therefore, this analysis, and the Council cannot make a decision without an answer from Caltrans HQ, it is imperative that this analysis be performed now in order to proceed with the process.

Should the Council choose the rehabilitation alternative, this analysis would normally be part of Phase II – Detail Design PS&E and Permitting. However, since the analysis is needed to select an alternative(s), it will need to be an amendment to the consultant team's Phase I agreement. If the rehabilitation alternative is chosen, there may be a \$50,000 savings in Phase II.

Earlier this month, City staff submitted a request to the Caltrans Local Assistance office requesting an additional \$50,000 to conduct the analysis in order to provide Caltrans Headquarters the needed information. On May 20, 2014, Caltrans Local Assistance notified the City that their request had been approved. Staff is recommending the analysis be performed by the current Bridge Street Bridge project consultant team.

ALTERNATIVES:

The following alternatives are provided for the Council's consideration:

- Approve staff's recommendations to appropriate funding and Amendment No. 1 to the agreement with Quincy Engineering, Inc.;
- Do not approve staff's recommendations to appropriate funding and Amendment No. 1 to the agreement with Quincy Engineering, Inc.;
- Approve staff's recommendations to appropriate funding, but do not approve Amendment No. 1 to the agreement with Quincy Engineering, Inc.; or
- Provide direction to staff.

ADVANTAGES:

Approving appropriation of the HBP funds will allow the City to request 100% reimbursement for the additional rehabilitation analysis for the Bridge Street Bridge project. Using the current consultant to perform the analysis is the most cost effective

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and will ensure consistency. The analysis will provide valuable information to assist the Council in selecting preferred alternative(s) that will be best suited for the community.

DISADVANTAGES:

The Bridge Street Bridge project will require some time and effort of existing City staff. In addition, if Preliminary Engineering work is not completed in a timely manner, it is possible that the grant funding could be deobligated by Caltrans or that 100% funding for construction may not be available due to other projects in the State completing their projects first. However, staff believes this is unlikely.

ENVIRONMENTAL REVIEW:

The Preliminary Engineering work being requested in this staff report includes environmental studies and National Environmental Policy Act (NEPA) approval with Caltrans as the lead agency. The City will be the lead agency for California Environmental Quality Act (CEQA) approval and an environment determination will be presented to Council at the time of the selection of the preferred alternative.

PUBLIC NOTIFICATION AND COMMENTS:

The Agenda was posted in front of City Hall on Thursday, May 22, 2014. The Agenda and staff report were posted on the City's website on Friday, May 23, 2014. No public comments were received.

CONSULTANT SERVICES AGREEMENT

AMENDMENT NO. 1

This First Amendment ("First Amendment") to Consultant's Services Agreement ("CSA") by and between the CITY OF ARROYO GRANDE and **QUINCY ENGINEERING, INC.**, is made and entered into this _____ day of May 2014, based on the following facts:

WHEREAS, the parties entered into a CSA dated May 22, 2012, for preliminary engineering work on the Bridge Street Bridge project; and

WHEREAS, the parties desire to modify the CSA as set forth herein.

NOW THEREFORE, for valuable consideration the receipt and sufficiency of which is acknowledged, the parties agree as follows:

1. To include the additional services at the increased cost as specified in Exhibit "A" attached hereto and incorporated herein by this reference.
2. Except as modified herein, all other terms and conditions set forth in the CSA, as amended, shall remain unchanged.

IN WITNESS WHEREOF, CITY and **CONSULTANT** have executed this First Amendment the day and year first above written.

QUINCY ENGINEERING, INC.,

By: _____

CITY OF ARROYO GRANDE

By: _____
TONY FERRARA, MAYOR



BRIDGE STREET BRIDGE (49C-0196) OVER ARROYO GRANDE CREEK

Quincy Engineering Inc. (QUINCY) is providing the following additional scope of work to the City of Arroyo Grande (City) for the on-going Bridge Street Bridge project:

PHASE 1 – PRELIMINARY ENGINEERING TASKS

The purpose of this additional scope is to better understand the viability and costs for rehabilitation of the existing historic and supplemental truss, as well as the consideration of a new supplemental truss in lieu of full replacement. This analysis will consist of evaluation of the existing historic truss without rehabilitation and possible rehabilitation alternatives that would be acceptable and not endanger the historic eligibility. Cost estimates will be generated for all rehabilitation alternatives.

TASK 1 - Rehabilitation of Historic Truss without Supplemental Truss

This task involves dead and live load analysis of the existing historic truss without the supplemental truss. Rehabilitation options to be considered include deck replacement, protective barrier installation, approach span analysis and associated costs.

Task 1.1 – Historic Truss Feasibility Analysis (Dead/Live Load Analysis)

QUINCY will develop a model using SAP to analyze the demands on the existing truss without the supplemental truss. It is assumed the existing supports will be replaced/repared to support the truss. The loads to be considered will be self-weight of the structure as well as AASHTO HS20 and Legal truck loading to determine the maximum demands on the existing truss components. The evaluation will consider both one and two lanes on the bridge. The demands will be compared with specific truss member capacities to determine the existing truss vulnerabilities and overall load carrying capacity. Load Factor Design (LFD) code will be used for all checks. Once the live load analysis is complete, QUINCY will assess all vulnerabilities discovered during the analysis and determine the most cost effective rehabilitation strategy. Rehabilitation measures could include deck replacement, painting, and member strengthening or replacement. The effect of all rehabilitation measures on the bridge Sufficiency Rating will also be evaluated. The rehabilitation measures considered will attempt to maintain the existing historical features of the bridge. QUINCY will be available to attend a conference call to discuss the rehabilitation/strategy meeting with Caltrans Local Assistance to obtain concurrence on the proposed strategy.

Task 1.2 – Evaluation of lighter Deck Replacement

QUINCY will evaluate the replacement of the existing concrete deck with embedded steel floor beams and AC overlay with a lighter more efficient reinforced concrete deck slab. The lighter deck is expected to reduce the overall self-weight of the structure and improve the live load carrying capacity of the bridge. The effects of the lighter deck will be analyzed to determine the maximum live load carrying capacity of the bridge. This will determine whether additional retrofits will be required to increase the load carrying capacity of the historic trusses. The extent of the

additional retrofits required will determine the viability of reusing the historic truss without the use of supplemental trusses.

Task 1.3 – Develop Protective Barrier

QUINCY will evaluate a protective barrier system to protect the trusses from vehicular impact. It is imperative to choose a barrier which has minimal width, provides adequate protection from vehicular impact, and is visually non-intrusive. It is anticipated a metal tube type railing can be used and mounted to the concrete bridge deck. The railing chosen will have a minimum crash tested rating of TL-2.

Task 1.4 – Approach Span Analysis

QUINCY will evaluate the existing approach span to ensure it has at least as much load carrying capacity as the historic truss span. Based upon the analysis possible rehabilitation could include deck replacement, repainting, and the installation of new railings.

Task 1.5 – Develop Rehabilitation Costs

QUINCY will develop preliminary quantities for the rehabilitation items and generate associated costs. The costs will then be compiled and compared to rehabilitation costs for the other alternatives.

TASK 2 - Rehabilitation of Historic Truss with Supplemental Truss

This task involves dead and live load analysis of the existing historic truss with a new supplemental truss. Rehabilitation options to be considered include deck replacement, protective barrier installation, approach span analysis and associated costs.

Task 2.1 – Historic Truss Feasibility Analysis (Dead/Live Load Analysis)

QUINCY will develop a model using SAP to analyze the demands on a new supplemental truss. It is assumed the existing supports will be replaced/repared to support the new supplemental truss bearings. The loads to be considered will be self-weight of the structure (including the historic truss) as well as AASHTO HS20 and Legal truck loading to determine the maximum demands on the supplemental truss components. The evaluation will consider both one and two lanes on the bridge. The



demands will be compared with specific truss member capacities to determine the required member sections and provide the required load carrying capacity. Rehabilitation measures could include deck replacement, replacement of the existing supplemental truss, painting, and specific member strengthening or replacement. The effect of all rehabilitation measures on the bridge Sufficiency Rating will also be evaluated. The rehabilitation measures considered will attempt to maintain the existing historical features of the bridge. QUINCY will be available to attend a conference call to discuss the rehabilitation/strategy meeting with Caltrans Local Assistance to obtain concurrence on the proposed strategy.

Task 2.2 – Evaluation of lighter Deck Replacement

QUINCY will evaluate the replacement of the existing concrete deck with embedded steel floor beams with a lighter more efficient reinforced concrete deck slab. The lighter deck is expected to reduce the overall self-weight of the structure and optimize the live load carrying capacity of the bridge. The effects of the lighter deck will be analyzed to determine the maximum live load carrying capacity of the bridge.

Task 2.3 – Develop Protective Barrier

QUINCY will evaluate a protective barrier system to protect the trusses from vehicular impact. It is imperative to choose a barrier which has minimal width, provides adequate protection from vehicular impact, and is visually non-intrusive. It is anticipated a metal tube type railing can be used and mounted to the concrete bridge deck. The railing chosen will have a minimum crash tested rating of TL-2. This task will be completed in Task 1.3.

Task 2.4 – Approach Span Analysis

QUINCY will evaluate the existing approach span to ensure it has at least

as much load carrying capacity as the historic truss with supplemental truss span. Based upon the analysis possible rehabilitation could include deck replacement, repainting, and the installation of new railings. This task will be completed in Task 1.4.

Task 2.5 – Develop Rehabilitation Costs

QUINCY will develop preliminary quantities for the rehabilitation items and generate associated costs. The costs will then be compiled and compared to rehabilitation costs for the other alternatives.

TASK 3 - Reconstruction of Existing Support

Task 3.1 – Complete Bent Replacement with Layout

QUINCY will complete a layout for a replacement bent to replace the damaged existing pier which supports the steel girder approach span and supplemental truss span.

Task 3.2 – Super Bent Option

It may be necessary to consider a "super-bent" type support for the intermediate support. This and other alternatives will be evaluated to determine the most appropriate solution.

Task 3.3 – Develop New Support Costs

QUINCY will develop preliminary quantities for the new support and generate associated costs. The costs will then be compiled and added to rehabilitation costs for the other alternatives.

City of Arroyo Grande
BRIDGE STREET BRIDGE REHABILITATION FEASIBILITY STUDY - AMENDMENT #1

QUINCY ENGINEERING, INC.

CONTRACT No. _____
SUB CONSULTANT: QUINCY ENGINEERING, INC.

CONSULTANT COST PROPOSAL
May 8, 2014

DIRECT LABOR

Name	Classification	Range	Hours	Initial Hourly Rate	Total	
John Quincy	Principal in Charge	\$60-\$75	0	\$74.37	\$0.00	
Mark Reno	Project Manager	\$60-\$75	4	\$74.37	\$297.48	
Greg Young	Senior Engineer- Bridge Project Engineer	\$45-\$70	24	\$58.06	\$1,393.47	
Brent Lemon	Senior Engineer- Roadway Project Engineer	\$60-\$75	0	\$74.37	\$0.00	
Martin Pohl	Senior Engineer - Bridge Specialist	\$55-\$70	44	\$66.50	\$2,926.00	
Danny Mossman	Senior Engineer - Bridge	\$45-\$70	24	\$51.87	\$1,244.88	
Scott McCauley	Associate Engineer - Bridge	\$32-\$55	48	\$48.81	\$2,342.88	
Andy Chou	Assisstant Engineer	\$25-\$40	148	\$32.00	\$4,736.00	
Mike Sanchez	Senior Engineer - Roadway	\$45-\$70	0	\$56.00	\$0.00	
			0	\$0.00	\$0.00	
Jim Foster	Senior Engineer - QA/QC	\$60-\$75	0	\$74.37	\$0.00	
Staff	Engineering Detailer		0	\$30.00	\$0.00	
Staff	Office Support Staff		0	\$20.00	\$0.00	
Staff	Admin		0	\$28.00	\$0.00	
			292			
					Subtotal Direct Labor Costs	\$12,940.71
					0% Anticipated Salary Increases	\$0.00
					TOTAL - Direct Labor	\$12,940.71
INDIRECT COSTS						
				<u>Rate</u>	<u>Total</u>	
Overhead				173.10%	\$22,400.37	
Fringe Benefit (Included in OH)				0.00%		
General & Administrative (Included in OH)				0.00%		
				<u>173.10%</u>		
					TOTAL - Indirect Costs	\$22,400.37
FEE		(10.00%)	(FIXED)		TOTAL - Fee	\$3,534.11
OTHER DIRECT COSTS						
				<u>Total</u>		
Travel Costs			0 @	\$0.56	\$ -	
Photocopies						
Overnight Service			1 @	\$20.00	\$ 20.00	
Graphic Presentation Boards			4 @	\$250.00	\$ 1,000.00	
					\$1,020.00	
					TOTAL COST	\$39,895.19
Subcontractor Costs					\$ -	
Total Contract					\$ 39,895.19	