



Agenda Item No. (3)

To: Building and Operating Committee/Committee of the Whole
Meeting of January 21, 2021

From: John R. Eberle, Deputy District Engineer
Ewa Z. Bauer-Furbush, District Engineer
Denis J. Mulligan, General Manager

Subject: **AUTHORIZE AMENDMENTS TO PROFESSIONAL SERVICES
AGREEMENT NOS. 2014-B-7, 2014-B-8 AND 2014-B-9, GOLDEN GATE
BRIDGE SEISMIC RETROFIT PHASE IIIB TECHNICAL REVIEW PANEL
MEMBER SERVICES**

Recommendation

The Building and Operating Committee recommends that the Board of Directors authorize execution of the following Amendments to Professional Services Agreement (PSA) Nos. 2014-B-7, 2014-B-8 and 2014-B-9, *Golden Gate Bridge Seismic Retrofit Project Phase IIIB Technical Review Panel Member Services*:

1. Sixth Amendment to PSA No. 2014-B-7 with Mr. Michel Bruneau, Ph.D., P.Eng., in an amount not to exceed \$100,000;
2. Sixth Amendment to PSA No. 2014-B-8 with Mr. Karl H. Frank, P.E., Ph.D., in an amount not to exceed \$100,000; and,
3. Sixth Amendment to PSA No. 204-B-9 with Mr. David J. Nash, P.E., in an amount not to exceed \$100,000;

to continue providing technical review services of the Golden Gate Bridge Seismic Retrofit Phase IIIB Project design through the Construction Manager/General Contractor (CMGC) preconstruction phase of the Project, with the understanding that sufficient funds to finance these Amendments to the PSAs are available in the budget for the Golden Gate Bridge Seismic Phase IIIB CMGC Project (Project #1923).

This matter will be presented to the Board of Directors at its January 22, 2021, meeting for appropriate action.

Summary

Seismic Retrofit Phase IIIB is the last phase of the multiphase Golden Gate Bridge Seismic Retrofit Project and involves the retrofit of the Suspension Bridge and the Toll Plaza Undercrossing and Lincoln Boulevard Undercrossing structures.

The District has retained services from HDR Engineering, Inc., to prepare the final design and plans and technical specifications for the Phase IIIB Project.

By Resolution No. 2018-049, the Board approved the use of the Construction Manager/General Contractor (CMGC) procurement method, authorized by and in conformance with Section 6970 et seq. of the Public Contract Code, for the construction of the Golden Gate Bridge Seismic Retrofit Phase IIIB project. CMGC is a project delivery method in which a construction manager (CM) is chosen to provide preconstruction services during the design phase (also called a preconstruction Phase) of the project and, if agreed to by the parties, construction services as a general/prime contractor (GC) during the construction phase of the project. During the preconstruction phase, the CM provides input on the design including, but not limited to, scheduling, pricing and phasing, to assist the agency in designing a more constructible project. The expectation is that this arrangement fosters a greater understanding between the design firm and the construction firm so that misunderstandings and future claims are kept to a minimum, and construction change orders are significantly reduced. By the same resolution, the Board authorized the establishment of the Seismic Retrofit Phase IIIB CMGC Project (Project #1923) in the Bridge Division Capital Budget. Phase IIIB CMGC Project is financed with 100% of Federal funds and its budget is set at \$9,861,845.38.

Because of the Federal funding participation in the Phase IIIB Project financing, FHWA, Caltrans, and the Bridge District have implemented a project oversight process that results from the Federal-aid program requirements. The project oversight process includes technical reviews of the project design and its plans and specifications. These reviews will provide the basis for FHWA/Caltrans' approval to proceed with the construction phase. The technical review process consists of the following elements:

- Independent Technical Review Panel (TRP)
- Design Quality Control/Quality Assurance by the design consultant and District's engineering staff
- Project Oversight Committee consisting of FHWA, Caltrans and District's engineering staff

Consistent with the project oversight process, the technical complexity of the Suspension Bridge retrofit required the engagement of engineering professionals with extensive expertise in seismic ground motions, behavior of steel structures, retrofit of major steel bridges and in complex marine construction to provide independent technical reviews of the project retrofit strategies and design. In conformance with the Board of Directors Resolution No. 2014-022, the District executed Professional Services Agreements with three technical experts to comprise the members of the Phase IIIB Technical Review Panel (TRP): Mr. Michel Bruneau, Ph.D., P.Eng., Mr. Karl H. Frank, P.E., Ph.D., and Mr. David J. Nash, P.E. As the design of the Phase IIIB Project progressed, these experts were tasked with (1) conducting reviews of the project background documents, among them Project Specific Design Criteria for Seismic Retrofit Measures for the Golden Gate Bridge, Reports on the Project Site Specific Ground Motions, and reports on the Suspension Bridge Wind Retrofit; (2) conducting reviews and providing recommendations concerning the structural modeling and analyses of the Suspension Bridge; (3) conducting reviews and issuing approval of the bridge retrofit strategies; and, (4) conducting reviews of the design for consistency with the approved retrofit strategy.

Technical reviews of the project plans and technical specifications by the TRP will be required to continue during the preconstruction phase of the Phase IIIB CMGC, particularly the reviews of any proposed new or changed construction details and/or construction material details to assure that such changes do not alter the approved retrofit strategy. The TRP's scope of work during the preconstruction phase would be as follows:

1. Participate in meetings
2. Review and comment on construction details
3. Review and comment on construction specifications
4. Review and comment on meeting minutes
5. Prepare final report

Staff recommends that the Building and Operating Committee recommend that the Board of Directors authorize the execution of the Sixth Amendment to PSA No. 2014-B-7 with Mr. Michel Bruneau Ph.D., P.Eng, the Sixth Amendment to PSA No. 2014-B-8 with Mr. Karl H. Frank, P.E., Ph.D., and the Sixth Amendment to PSA No. 2014-B-9 with Mr. David J. Nash, P.E., each amendment in the not-to-exceed amount of \$100,000, to continue performing technical review services of the Phase IIIB design through the CMGC preconstruction phase as presented in this report. The TRP members will be compensated for actual time expended and expenses incurred.

Fiscal Impact

The budget for the Golden Gate Bridge Phase IIIB CMGC Project (Project #1923) in an amount of \$9,861,844.32 (100% federal funds) is included in the FY 20/21 Bridge Division Capital Budget. Sufficient funds are available in the Project's budget to finance the proposed Amendments to the PSAs with the TRP members, each in the amount of \$100,000.

The Phase IIIB CMGC Project budget is as follows:

DESCRIPTION	PROPOSED PROJECT BUDGET
District Staff (Labor + Fringe Benefits)	\$1,700,000
Indirect Cost (ICAP)	1,200,000
Consultant Independent Cost Estimator (<i>to be selected</i>)	550,000
Consultant CMGC (<i>to be selected</i>)	2,000,000
Consultant CMGC Contingency	200,000
Design Services by HDR	2,500,000
Design Services Contingency	250,000
Technical Review Panel (<i>this report</i>)	300,000
Delivery Expense - Financing	207,000
Environmental Compliance	200,000
Permits and Fees	500,000
Printing & Advertising	50,000
General/Misc. Project Expenditures	204,844.32
TOTAL	\$9,861,844.32

The following is the history of PSA No. 2014-B-7:

DESCRIPTION	DATE APPROVED	RESOLUTION NO.	AMOUNT	SOURCE OF FUNDS
Original Contract PSA No. 2014-B-7	01/28/2014	2014-002	\$147,000	100% Federal (part of the Phase IIIB Design budget)
No Cost Time Extension				
1 st Amendment	7/24/2015		\$0	
2 nd Amendment	10/30/2017		\$0	
3 rd Amendment	11/2/2018		\$0	
4 th Amendment	11/07/2019		\$0	
and				
5 th Amendment	12/08/2020		\$0	
Technical Review Services during CMGC				100% Federal (part of the Phase IIIB Design budget)
<i>6th Amendment - proposed</i>			<i>\$100,000</i>	
		TOTAL PSA AMOUNT proposed	<i>\$247,000</i>	

The following is the history of PSA No. 2014-B-8:

DESCRIPTION	DATE APPROVED	RESOLUTION NO.	AMOUNT	SOURCE OF FUNDS
Original Contract PSA No. 2014-B-8	01/24/2014	2014-002	\$147,000	100% Federal (part of the Phase IIIB Design budget)

No Cost Time Extension				
1 st Amendment	7/24/2015		\$0	
2 nd Amendment	10/30/2017		\$0	
3 rd Amendment	11/02/2018		\$0	
4 th Amendment	11/07/2019		\$0	
and				
5 th Amendment	12/08/2020		\$0	
Technical Review Services during CMGC				100% Federal (part of the Phase IIIB Design budget)
<i>6th Amendment - proposed</i>			<i>\$100,000</i>	
		TOTAL PSA AMOUNT proposed	\$247,000	

The following is the history of PSA No. 2014-B-9:

DESCRIPTION	DATE APPROVED	RESOLUTION NO.	AMOUNT	SOURCE OF FUNDS
Original Contract PSA No. 2014-B-9	01/28/2014	2014-002	\$147,000	100% Federal (part of the Phase IIIB Design budget)
No Cost Time Extension				
1 st Amendment	7/24/2015		\$0	
2 nd Amendment	10/30/2017		\$0	
3 rd Amendment	11/02/2018		\$0	
4 th Amendment	11/09/2019		\$0	
and				
5 th Amendment	12/08/2020		\$0	

Technical Review Services during CMGC <i>6th Amendment - proposed</i>			<i>\$100,000</i>	100% Federal (part of the Phase IIIB Design budget)
		TOTAL PSA AMOUNT proposed	<i>\$247,000</i>	

Background Information

The CMGC project delivery process consists of two contracting phases:

1. Design/Preconstruction Phase

During the preconstruction phase, the CM acts as a consultant and works collaboratively with the designer and the owner to identify risks and provide advice on constructability, cost and time efficient means and methods, work sequencing, construction work access, price and schedule. Once the construction plans and specifications are complete, the CM negotiates with the project owner a construction contract price. The development of the construction price by the CM is an “open book” process that allows the owner to review all details of the cost - such as labor rates, overhead and mark-ups and price proposals for specialty work obtained by the CM from prospective subcontractors. The reasonableness of the negotiated price is determined by comparing it to cost estimates prepared by the design consultant and an independent cost estimator retained by the owner under a separate contract.

2. Construction Phase

If the owner and the CM agree on a guaranteed maximum price and other contract conditions, the two parties enter into a contract to construct the project. If the parties do not agree on the price or other conditions of the contract, the negotiations are formally terminated and the owner has an option to advertise the project for bids utilizing the “low bid” process.