



Board Report

File #: 2022-0459, File Type: Contract

Agenda Number: 41.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE SEPTEMBER 15, 2022

**SUBJECT: TECHNICAL AND PROGRAM MANAGEMENT SUPPORT SERVICES FOR THE
P2000 LIGHT RAIL VEHICLE OVERHAUL/MIDLIFE MODERNIZATION PROGRAM**

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute Modification No. 19 to Contract No. PS20113000, a cost plus fixed-fee contract with CH2M Hill, Inc. for technical and program management support services in support of the P2000 Light Rail Vehicle (LRV) Overhaul/Midlife Modernization Program to increase the Not-To-Exceed (NTE) contract price by \$1,231,187.71 from \$5,829,626 to \$7,060,813.71 to support project activities for 9 months, through June 30, 2023.

ISSUE

This Contract provides program and technical consultant support for the P2000 LRV Modernization/Overhaul Contract that was awarded in March 2017. Due to the global pandemic which impacted the supply chain, availability of resources, and the limited opportunity for staff to travel to support design review meetings, inspections, and test activities, the project schedule has been impacted and final acceptance of all existing P2000 LRVs (fifty-two LRVs total) were deferred from November 2021 to December 2023.

To provide program and technical consultant support to the P2000 LRV Modernization/Overhaul contract staff requests approval of Modification No. 19 to increase the contract NTE amount by \$1,231,187.71 to provide consultant support through June 30, 2023.

BACKGROUND

In March 2017, the Board approved (#2017-0149) Contract No. PS20113000, a cost plus fixed fee contract to CH2M Hill, Inc., in the amount of \$5,829,626 for technical and program management services in support of the P2000 LRV Overhaul/Midlife Modernization Project. This contract provides technical and program management support to Metro staff engaged in managing the overhaul/midlife modernization of the existing P2000 fleet ensuring all fifty-two (52) LRVs and project deliverables comply with the contract requirements.

CH2M Hill Inc. currently provides staff support in the following disciplines, as directed by Metro:

- Project Management
- Systems Engineering
- Systems Integration
- Design Conformance Tests
- Inspection Activities at LRV Production/Modernization Site
- LRV Commissioning and acceptance Activities.
- Quality Assurance
- Document Control

All work and assignments are on an as-needed basis, and directed by the Metro P2000 Project Team through issuing Task Orders using fixed labor rates. The Consulting staff are managed daily by Metro's P2000 Project Manager.

DISCUSSION

Findings

Since the contract award of the P2000 LRV Overhaul/Midlife Modernization Project in March 2017, CH2M Hill, Inc. has been providing Metro's Project Team with technical and program management support, including review of all technical documents, oversight of system, and combined-system level integration efforts, a witness of verification and validation tests, and inspection of workmanship at the production/ Modernization site. The Project is now entering the Conditional Acceptance phase, an essential gateway to allow the Modernized LRVs to enter revenue service in Metro.

The Project schedule was and continues to be impacted by the pandemic. Examples of the impacts include:

- Supply chain disruptions which delayed the start and completion of manufacturing, assembly, inspection, and test activities.
- Ability of staff to travel to support in-person events such as design review meetings, inspections, tests, and audits. As a result, these events had to either be rescheduled or performed virtually with reduced efficiency.
- Complying with pandemic measures, including quarantine for two weeks when traveling and limiting close contact when supporting test & inspection activities, also impacted completing tasks efficiently.

Approval of the recommendation modifies Contract No. PS20113000 allows for the continuation of technical and program management support for the P2000 LRV Overhaul/Midlife Modernization Project. Metro staff requires this Project support to navigate and mitigate the remaining technical issues to achieve final delivery and acceptance of the 52 P2000 LRVs.

This is an existing professional services support contract required to ensure continuity, proper project execution, and completion of the LRV Overhaul/Midlife Modernization project and does not have any impact on the previously approved Life-of-Project (LOP) budget. Approving the recommendation ensures the successful completion of the Overhaul/Midlife Modernization Project,

which provides accessible and affordable transportation for all who ride our light rail system.

DETERMINATION OF SAFETY IMPACT

The approval for the additional NTE funds for the consultant services will ensure team continuity and maintain overall system safety, service quality, system reliability, maintainability, and customer satisfaction.

The P2000 LRV Modernization Project permits Metro to maintain the P2000 LRV fleet in a State of Good Repair (SGR).

FINANCIAL IMPACT

The requested new contract value of \$7,060,813.71 is within the Board-approved LOP budget of \$7,969,680 for consultant services.

The Contract Price increase of \$1,231,187.71 has been included in the Cost Center 3043, Rail Vehicle Acquisition, Account 50316, under project number CP 206044, P2000 LRV Overhaul Program. This Contract Price increase is within the overall available Consulting Services expenditure.

Since this is a multi-year contract, the Cost Center Manager and Project Manager will be responsible for allocating and budget the overall expenditure across subsequent years until project completion, including any options exercised.

Impact to Budget

The current source of funds for the Modernization program and Consulting Services is Proposition A (35%). Federal funds from the Transportation Improvement Program (TIP) will make up 90% of the source of funds for this Consulting Services Contract. Staff will pursue additional federal funds that may become available through MAP-21 and/or other federal sources for this project to maximize and conserve the use of local funding sources before considering debt financing.

Since multi-year projects are funding this recommendation, the Chief Operations Officer, Chief Program Management Officer, and respective Project Managers will be responsible for future fiscal year budgeting.

EQUITY PLATFORM

This is an existing Consulting Services contract needed to ensure continuity and proper project closeout of the P2000 LRV Overhaul/Midlife Modernization Project and allows for the successful delivery of those vehicles for use on Metro's existing light rail vehicle lines that serve a majority of Equity Focus Communities (EFCs) who rely on public transit for their daily jobs. EFC areas along the light rail alignments included areas in Downtown LA, Chinatown, parts of Long Beach, etc. Please refer to Attachment D for Metro's current rail line map showing areas of the EFCs that will benefit from this board decision.

CH2M Hill Inc. made a 24.81% Disadvantaged Business Enterprise (DBE) commitment. The project is 89.69% complete based on payments, and the current DBE participation is 13.38%, representing an 11.43% shortfall. CH2M Hill Inc. submitted an updated shortfall mitigation plan on July 8, 2022, and projects to exceed the 24.81% utilization by the end of all anticipated contract and task extensions. CH2M Hill Inc. remains committed to meeting the 24.81% DBE commitment by the end of vehicle production.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports strategic plan Goal #1.2 - Optimize the speed, reliability, and performance of the existing system by revitalizing and upgrading Metro's transit assets. The completion and rollout of the P2000 LRVs are state-of-the-art assets that will significantly reduce trip disruptions on rail networks and improve the integrity of the overall network.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the recommendation for increasing the contract amount. This is not recommended as critical project activities currently supported by consulting staff will be interrupted, directly impacting the overall project schedule. These activities include but are not limited to; inspection at the production/modernization site, witnessing commissioning tests, reviewing test reports, reviewing Project Schedule, and providing LRV commissioning acceptance and warranty support. The Metro Project Team does not have the in-house resources to undertake all the necessary Project tasks as described.

Disapproving the recommendation will also adversely impact the P2000 LRV Overhaul/Midlife Modernization Project completion due to the loss of the required technical expertise, labor, and manpower provided through this Consulting Services contract. The potential adverse impacts may include compromised quality and SGR of the Modernized LRVs, and a reduced number of available LRVs for rollout to meet the passengers' demand that is trending positively towards the pre-pandemic levels.

NEXT STEPS

Upon Board approval, staff will execute Contract Modification No. 19 to increase the contract NTE amount by 1,231,187.71 with CH2M Hill, Inc. for the continuation of services.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification Log
Attachment C - DEOD Summary
Attachment D - Metro Rail Line Map

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Chief Executive Officer

PROCUREMENT SUMMARY

**P2000 LIGHT RAIL VEHICLE MIDLIFE MODERNIZATION/OVERHAUL SUPPORT
SERVICES
/ CONTRACT NO. PS20113000**

1.	Contract Number: PS20113000		
2.	Contractor: CH2M Hill, Inc.		
3.	Mod. Work Description: Increase the not-to-exceed contract price by \$1,231,187.71 from \$5,829,626 to \$7,060,813.71.		
4.	Contract Work Description: Provide technical and program management support to the Metro Project Team on managing the existing P2000 Light Rail Vehicle (LRVs) Midlife Modernization Project to ensure timely modernization works and successful delivery of the modernized P2000 LRVs and the associated deliverables.		
5.	The following data is current as of: 07.27.22		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	04.17.17	Not-to-Exceed Contract Award Amount: \$5,829,626.00
	Notice to Proceed (NTP):	N/A	Total of Modifications Approved: 18
	Original Complete Date:	12.31.21	Pending Modifications (including this action): 1
	Current Est. Complete Date:	12.31.23	Current Contract Value (with this action): \$7,060,813.71
7.	Contract Administrator: Nicole Banayan		Telephone Number: 213-922-7438
8.	Project Manager: Jason Yaw		Telephone Number: 213-922-3325

A. Procurement Background

This Contract was executed on April 17, 2017, to CH2M Hill, Inc. (CH2M) for a 55 months and 14 days period of performance for a total Not-To-Exceed (NTE) contract price of \$5,829,626 to provide technical and program management support to Metro's P2000 Project Team on the P2000 LRV Midlife Modernization Project. The contract period of performance was extended to December 31, 2023, from December 31, 2021, under Modification No. 15 dated July 12, 2021, due to the global pandemic that impacted the supply chain, availability of resources, and the limited opportunity for staff to travel to support design review meetings, inspections, and test activities. For these reasons, the project schedule was impacted and final acceptance of all existing P2000 LRVs extended to December 31, 2023.

A Request for Proposal was issued to CH2M on May 25, 2022. Metro received a proposal on June 21, 2022. Metro completed its negotiation on June 30, 2022.

In the effort to allow for continued support on the midlife modernization project, this board action approval is requested to allow staff to execute Contract Modification No. 19 and issuance of Task Order No. 8 to CH2M from October 1, 2022, through June 30, 2023. This will increase the contract value from \$5,829,626 to \$7,060,813.71 with an increase of \$1,231,187.71.

This Modification will be processed in accordance with Metro’s Acquisition Policy and the contract type is a cost-plus fixed fee.

(Refer to Attachment B – Contract Modification/Change Order Log)

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon cost analysis, an Independent Cost Estimate (ICE), and technical evaluation. The not-to-exceed price of \$1,231,187.71 comprises of CH2M and its subcontractor’s labor rates, audited labor overhead, fees, and expenses as this is a cost-plus-fixed-fee contract type. The only factor affecting the NTE price of \$1,231,187.71 were labor hours and fees, which were reviewed and negotiated by Metro staff to align with the P2000 LRV Modernization Program’s project schedule from October 1, 2022, through June 30, 2023.

The negotiated amount of \$1,231,187.71 for this increase is \$55,085.71 higher than the Metro ICE. This amount represents a reasonable difference of less than five percent (5%) between the negotiated amount and the Metro ICE further supporting the recommended price as fair and reasonable.

Proposal Amount	Metro ICE	Negotiated Amount
\$1,329,468.57	\$1,173,102.00	\$1,231,187.71

C. Contractor Information

CH2M has a local office in Los Angeles and was an engineering company that provided consulting, design, construction, and operation services for corporations and governments. In 2017, it was acquired by Jacobs Engineering Group but kept its CH2M name for existing contracts. Under this Contract, the Consultant will maintain the CH2M reference.

In addition to providing technical and program management supports for the P2000 LRV Modernization Project, CH2M currently provides program management support for the P3010 LRV Project and is also one of the qualified consulting firms on the Rail Vehicle Bench.

CONTRACT MODIFICATION/CHANGE ORDER LOG

**P2000 LIGHT RAIL VEHICLE OVERHAUL SUPPORT SERVICES
/ CONTRACT NO. PS20113000**

Mod. no.	Description	Status (approved or pending)	Date	\$ Amount
1	Administrative Changes	Approved	11.16.17	\$0.00
2	Update Exhibit 1 with Exhibit 1.1 to add new staff	Approved	12.21.17	\$0.00
3	Update Exhibit 1.1 with Exhibit 1.2 to add new staff	Approved	03.6.18	\$0.00
4	Update Exhibit 1.2 with Exhibit 1.3 to add new staff	Approved	04.18.18	\$0.00
5	Update Exhibit 1.3 with Exhibit 1.4 to add new staff	Approved	08.16.18	\$0.00
6	Update Exhibit 1.4 with Exhibit 1.5 to add new staff	Approved	04.12.19	\$0.00
7	Update Exhibit 1.5 with Exhibit 1.6 to add new staff	Approved	04.16.19	\$0.00
8	Update Exhibit 1.6 with Exhibit 1.7 to add new staff	Approved	07.24.19	\$0.00
9	Update Exhibit 1.7 with Exhibit 1.8 to add new staff	Approved	09.05.19	\$0.00
10	Update Exhibit 1.8 with Exhibit 1.9 to add new staff	Approved	11.13.19	\$0.00
11	Update Exhibit 1.9 with Exhibit 1.10 to add new staff	Approved	03.13.20	\$0.00
12	Update Exhibit 1.10 with Exhibit 1.11 to add new staff	Approved	03.20.20	\$0.00
13	Update Exhibit 1.11 with Exhibit 1.12 to add new staff	Approved	09.09.20	\$0.00
14	Update Exhibit 1.12 with Exhibit 1.13 to add new staff	Approved	11.03.20	\$0.00
15	Update Exhibit 1.13 with Exhibit 1.14 to add new staff and Extend the Period of Performance through December 31, 2023.	Approved	07.12.21	\$0.00
16	Update Exhibit 1.14 with Exhibit 1.15 to add new staff	Approved	02.15.22	\$0.00

17	Update Exhibit 1.15 with Exhibit 1.16 to add new staff	Approved	05.11.22	\$0.00
18	Update Exhibit 1.16 with Exhibit 1.17 to add new staff	Approved	07.06.22	\$0.00
19	Increase \$1,231,187.71 to the Not-to-Exceed Contract Price	Pending	Pending	\$1,231,187.71
	Modification Total:			\$1,231,187.71
	Original Contract:			\$5,829,626.00
	Total:			\$7,060,813.71

DEOD SUMMARY

**P2000 LIGHT RAIL VEHICLE TECHNICAL AND PROGRAM
MANAGEMENT SUPPORT SERVICES
CONTRACT NO. PS20113000**

A. Small Business Participation

CH2M Hill, Inc. made a 24.81% DBE overall commitment for this contract. The overall DBE participation is based on the cumulative value of all task orders issued. To date, seven (7) task orders have been awarded. Based on payments reported the contract is 67% complete, CH2M Hill, Inc's current level DBE participation is 12.03%, representing a shortfall of 12.78%.

CH2M Hill, Inc. has a shortfall mitigation plan on file and contends that the DBE shortfall is due to the decreased amount of light rail vehicle (LRV) inspection work to-date on the project. As COVID-19 had a major impact on the car builder's LRV production rates, thus the inspection activities to be performed by Virginkar and Rail Quality Services has been lower than expected. Additionally, CH2M further contends that the scope of services to be performed by Langford & Carmichael has also been delayed, which is the reason for the inactivity. CH2M forecasts the scope to be performed by Langford and Carmichael to begin, at the earliest, in January 2023.

CH2M Hill, Inc. expects to meet or exceed the DBE commitment by the end of the contract and projects DBE utilization to be 34%.

Small Business Commitment	DBE 24.81%	Small Business Participation	DBE 12.03%
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	DBE Subcontractors	Ethnicity	% Committed	Current Participation¹
1.	Virginkar & Associates	Asian-Pacific American	18.36%	0.90%
2.	Parthenon Corporation	Hispanic American	6.00%	6.57%
3.	Langford & Carmichael	Asian-Pacific American	0.45%	0.00%
4.	Railcar Quality Services	Black American	Added	4.56%
	Total		24.81%	12.03%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

A review of the current service contract indicates that the Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) was not applicable at the time of award. Therefore, the LW/SCWRP is not applicable to this modification.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction related value in excess of \$2.5 million.

Attachment D: Metro EFC Map

ArcGIS Metro EFC Map 2022 (Web Map)

Open in Map Viewer Modify Map Sign In

Details Basemap

Share Print Measure Find address or place

About Content Legend

Legend

Metro Rail and Busway

Metro Rail

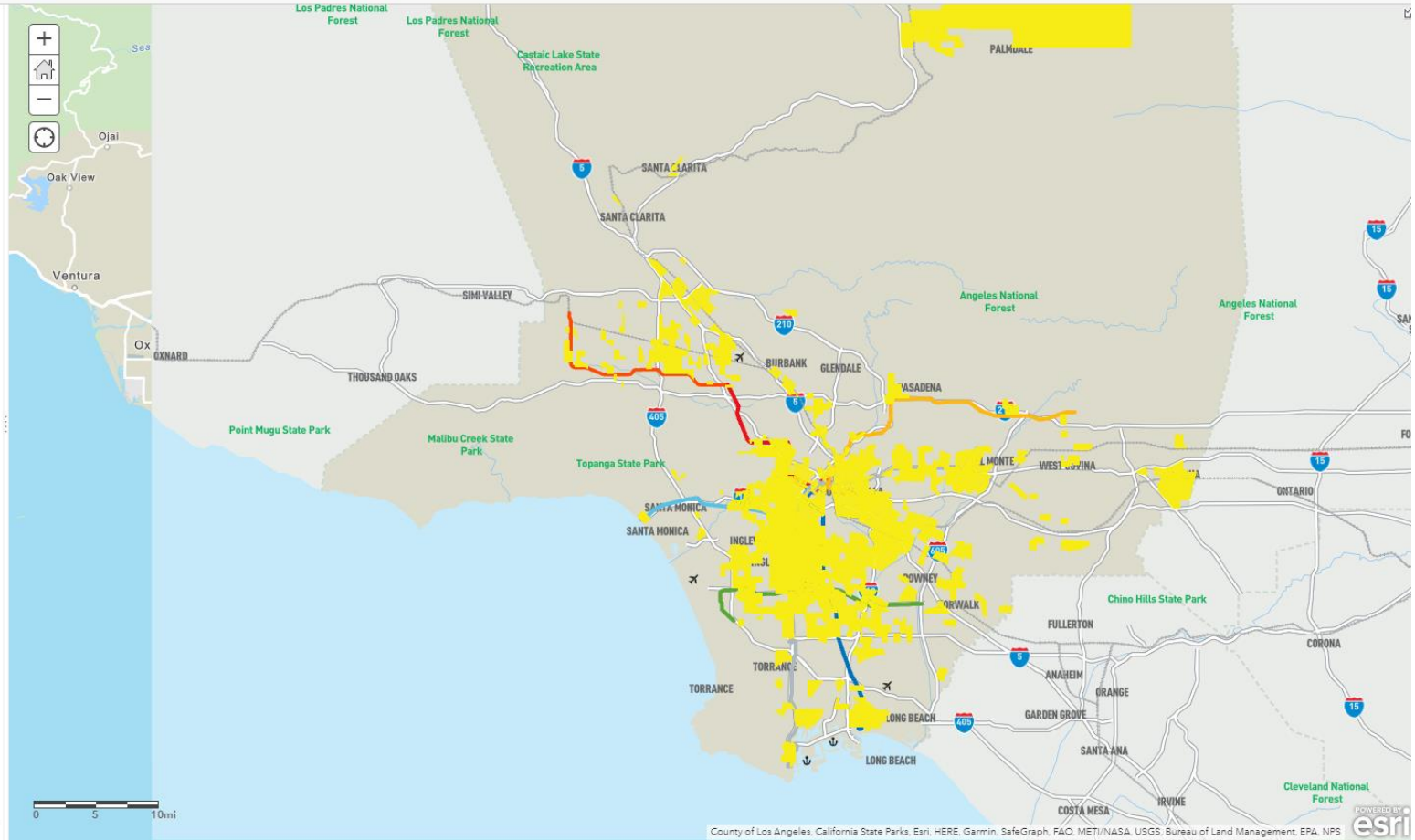
- A Line (Blue)
- B Line (Red)
- C Line (Green)
- D Line (Purple)
- E Line (Expo)
- L Line (Gold)

Metro Busway

- G Line (Orange)
- J Line (Silver)

Metro EFC Map 2022

- EFCs (Updated 2022)



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