



Board Report

File #: 2025-0506, File Type: Contract

Agenda Number: 33.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE JULY 17, 2025

**SUBJECT: P2000 LIGHT RAIL VEHICLE (LRV) OVERHAUL PROGRAM CONSULTANT
SUPPORT SERVICES**

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. EXECUTE Contract Modification No. 31 to Contract No PS20113000, a cost plus fixed-fee contract with CH2M Hill, Inc. for the P2000 Light Rail Vehicle (LRV) Overhaul Program Consultant Support Services, increasing the Not-To-Exceed (NTE) contract price by \$1,448,394.00 from \$9,563,696.20 to \$11,012,090.20, and extending the period of performance from December 31, 2025, to June 30, 2026; and
- B. EXECUTE individual contract modifications within the Board-approved contract modification authority.

ISSUE

This Contract provides the agency with program and technical consultant support for the P2000 LRV Modernization Contract that is set to expire on December 31, 2025. Due to the newly identified obsolete components, unforeseen technical issues and systems impacting performance and the global pandemic recovery, which continue to impact the supply chain, availability of resources, inspections, and test activities, the project schedule continues to be affected with the Final Acceptance of all existing P2000 LRVs (52 LRVs total) deferred to June 2026.

BACKGROUND

The P2000 LRV Midlife Modernization Project permits Metro to maintain the P2000 LRV fleet in a State of Good Repair (SGR). At its March 2017 meeting, the Board approved Contract No. PS20113000, a cost plus, fixed fee contract to CH2M Hill, Inc., in the amount of \$5,829,626 (base contract) for technical and program management services in support of the P2000 LRV Modernization Project. The base contract duration was five years. A no-cost contract modification was issued in February 2022, extending the base contract from March 2022 through September 2022.

At its September 2022 meeting, the Board approved an extension of project support activities for the additional amount of \$1,231,187.71, from October 1, 2022, through June 30, 2023. This contract modification was issued through June 2023 to align with anticipated project activities and Metro's fiscal year for project budgeting purposes.

At its May 2023 meeting, the Board once again approved an extension of project support activities through June 30, 2024, for an additional \$1,861,372.68, with subsequent contract modifications within staff authority, issued to extend the period of performance up to December 31, 2025, per Attachment B.

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

- Project Management
- Systems Engineering
- Systems Integration
- Inspection & Testing 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 issued Task Orders using fixed labor rates. The Consulting staff is managed daily by Metro's P2000 Project Manager.

DISCUSSION

Since the subject contract was awarded in March 2017, CH2M Hill, Inc. has provided 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, witnessing verification and validation tests, and inspection of workmanship at the production/modernization site. The Project is now concluding the Conditional Acceptance phase, which enables the Modernized LRVs to enter revenue service. The next phases include the LRV's Reliability Demonstration, which measures the performance of the Conditionally Accepted LRVs in revenue service against contractual reliability targets, LRV Final Acceptance, and Warranty.

The Project schedule continues to be impacted by the remaining effects of the pandemic. Examples of the effects include supply chain disruptions, which delayed the start and completion of manufacturing, assembly, inspection, and test activities.

Approval of the recommendation modifies Contract No. PS20113000 to allow for the continuation of technical and program management support for the P2000 LRV Modernization Project. Metro staff requires this Project support to help navigate and mitigate the remaining technical issues to achieve final delivery and acceptance of the 52 modernized P2000 LRVs. The final delivery and acceptance is forecasted to complete by June 2026.

This is an existing professional services support contract required to ensure continuity, seamless project execution, and completion of the LRV Modernization project. Approving the recommendation ensures the successful completion of the Overhaul/Midlife Modernization Project, which provides accessible and affordable transportation for all who ride Metro's light rail system.

DETERMINATION OF SAFETY IMPACT

The approval of 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.

FINANCIAL IMPACT

The requested new NTE contract price of \$11,012,090.20 is within the overall Board-approved LOP budget of \$180.9 million for project 206044, P2000 LRV Overhaul Program.

The Contract Price increase of \$1,448,394.00 has been included in Cost Center 3043, Rail Vehicle Acquisition, under project number CP 206044, P2000 LRV Overhaul Program.

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.

Impact to Budget

The current budget for this action includes Proposition A, Measure M, and Federal 5337. These funds are eligible for rail operating and capital projects. Using these funding sources maximizes the allocation intent given the fund guidelines and provisions.

EQUITY PLATFORM

The P2000 LRV Modernization Project enables the successful delivery of these vehicles for use on Metro's existing LRV lines, such as the A and E lines. These lines serve Equity Focus Communities (EFCs) across LA County, in areas such as Downtown LA, Chinatown, Long Beach, and others. Having safe, reliable LRVs provides transit options to our majority low-income and BIPOC customer base, which often relies on public transit to seamlessly commute to work, school, and other opportunities.

CH2M Hill, Inc. (CH2M) made an overall 24.81% Disadvantaged Business Enterprise (DBE) commitment, and the current DBE participation is 21.13%, representing a 3.68% shortfall. CH2M's efforts to mitigate the shortfall can be found in Attachment C - DEOD Summary.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends

due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

This item supports Metro's systemwide strategy to reduce VMT through rail vehicle modernization activities that will improve and further encourage transit ridership, ridesharing, and active transportation. Metro's Board-adopted VMT reduction targets were designed to build on the success of existing investments, and this item aligns with those objectives.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

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 improve the integrity of Metro's overall transit 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, with direct impacts on the overall project schedule. These activities include, but are not limited to: witnessing commissioning tests, reviewing test reports, reviewing the Project Schedule, and providing LRV commissioning acceptance, LRV reliability, and LRV warranty support. The Metro Project Team does not have the in-house resources to undertake all the necessary Project tasks as described.

Not approving the recommendation will also adversely impact the P2000 LRV Modernization Project completion due to the loss of the required technical expertise and manpower provided through this Consultant Support Services contract. The potential adverse impacts may include compromised quality and SGR of the Modernized LRVs, and a reduction in available LRVs for rollout to meet the evolving passenger demands that continue to inch towards pre-pandemic levels.

NEXT STEPS

Upon Board approval, staff will execute Contract Modification No. 31 to increase the contract NTE amount by \$1,448,394.00 with CH2M Hill, Inc. for the continuation of services.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification Log
Attachment C - DEOD Summary

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Reviewed by: Conan Cheung, Chief Operations Officer, (213) 418-3034



Stephanie Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

**P2000 LIGHT RAIL VEHICLE (LRV) OVERHAUL PROGRAM CONSULTANT
SUPPORT SERVICES / CONTRACT NO. PS20113000**

1.	Contract Number: PS20113000		
2.	Contractor: CH2M Hill, Inc.		
3.	Mod. Work Description: Increase the Not-To-Exceed (NTE) contract price by \$1,448,394.00 from \$9,563,696.20 to \$11,012,090.20.		
4.	Contract Work Description: Provide technical and program management support to Metro Project Team managing the existing P2000 Light Rail Vehicle (LRVs) Midlife Modernization Project to ensure timely modernization work and successful delivery of the modernized P2000 LRVs and the associated deliverables.		
5.	The following data is current as of: June 6, 2025		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	04/17/17	Original Not-to-Exceed Contract Award Amount: \$5,829,626.00
	Notice to Proceed (NTP):	N/A	Total of Modifications Approved: 30
	Original Complete Date:	12/31/21	Pending Modifications (including this action): 1
	Current Est. Complete Date:	6/30/26	Current Contract Value (with this action): \$11,012,090.20
7.	Contract Administrator: Mildred Martinez		Telephone Number: 213-922-4753
8.	Project Manager: Jason Yaw		Telephone Number: 213-922-3325

A. Procurement Background

This Board Action is to approve Contract Modification No. 31 to increase the total authorized funding for Contract No. PS20113000, to CH2M Hill, Inc. for technical and program management support to Metro's P2000 Project Team on the P2000 LRV Midlife Modernization Project, in the Not-To-Exceed (NTE) amount of \$1,448,394.00, increasing the Contract total from an NTE amount of \$9,563,696.20, to an NTE amount of \$11,012,090.20.

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

On April 17, 2017, the Board awarded Contract No. PS20113000 to CH2M Hill, Inc.

for technical and program management support to Metro's P2000 Project Team on the P2000 LRV Midlife Modernization Project, in the total NTE amount of \$5,829,626.00.

Contract Modification Nos. 1 through 30 were issued with staff delegated authority.

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

B. Cost/Price Analysis

A Request for Proposal was issued to CH2M on March 11, 2025. Metro received a proposal on April 28, 2025. Staff completed negotiations on May 16, 2025. The recommended price has been determined to be fair and reasonable based upon an Independent Cost Estimate (ICE), negotiations, and a technical evaluation. The negotiation of the NTE amount comprised validation of CH2M and its subcontractor's current labor rates, audited labor overhead, travel and other direct costs, and a negotiated fixed fee for this cost plus fixed-fee contract type. The approved labor rate for each consultant is based on a cost analysis, which has resulted in a fair and reasonable price determination. The factors affecting the NTE amount were anticipated level of effort, travel and other direct costs, which have been reviewed and negotiated by the Contracting Officer to align with the P2000 LRV Modernization Program's extended project schedule.

Proposal Amount	Metro ICE	Negotiated Amount
\$1,558,829.96	\$1,449,268.40	\$1,448,394.00

C. Contractor Information

CH2M is an engineering company that provides consulting, design, construction, and operation services for corporations and governments across the world. In 2017, it was acquired by Jacobs Engineering Group but kept its name for existing contracts. Under this Contract, they requested to keep CH2M. For Systems and Rolling Stock, they support bus and rail system projects with a focus on requirements definition, procurement, technical advisory services, modification designs, performance simulations, testing and commissioning efforts, condition assessments, manufacturer audits, maintenance optimization, and major overhaul and modification programs.

In addition to providing technical and program management support 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 (LRV) OVERHAUL PROGRAM CONSULTANT
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	07.11.22	\$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. Update Exhibit 1.17 with Exhibit 1.18 with increase Not-to-Exceed Contract Price	Approved	09.27.22	\$1,231,187.71
20	Update Exhibit 1.18 with Exhibit 1.19 to add new staff	Approved	09.27.22	\$0.00
21	Update Exhibit 1.19 with Exhibit 1.20 to add new staff	Approved	11.16.22	\$0.00
22	Update Exhibit 1.20 with Exhibit 1.21 with years 8 and 9 labor rates	Approved	02.28.23	\$0.00
23	Extended the Period of Performance through December 31, 2025.	Approved	04.05.23	\$0.00
24	Increase \$1,861,372.68 to the Not-to-Exceed Contract Price	Approved	06.27.23	\$1,861,372.68
25	Update Exhibit 1.22 to add new staff	Approved	08.23.23	\$0.00
26	Update Exhibit 1.22 to add new staff	Approved	04.23.24	\$0.00
27	Update Exhibit 1.22 with Exhibit 1.23 to add new staff	Approved	05.31.24	\$0.00
28	Update Exhibit 1.23 to add new staff	Approved	09.06.24	\$0.00
29	Update Exhibit 1.23 to add new staff	Approved	06.13.25	\$0.00
30	Increase the Not-to-Exceed Contract Price by adding the CMA limit	Approved	06.13.25	\$641,509.81
31	Increase \$1,448,394.00 to the Not-to-Exceed Contract Price and extend the Period of Performance to June 30, 2026	Pending	Pending	\$1,448,394.00
	Modification Total:			\$5,182,464.20
	Original Contract:			\$5,829,626.00
	Total:			\$11,012,090.20

DEOD SUMMARY

**P2000 LIGHT RAIL VEHICLE (LRV) OVERHAUL PROGRAM CONSULTANT
SUPPORT SERVICES / PS20113000**

A. Small Business Participation

CH2M Hill, Inc. (CH2M) made an overall 24.81% Disadvantaged Business Enterprise (DBE) commitment under this Task Order-based contract. To date, CH2M has been awarded eight (8) Task Orders. Based on payments the overall contract is 48% complete and the current DBE participation is 21.13%, representing a 3.68% shortfall.

CH2M has a shortfall mitigation plan on file and contends that the shortfall is due to the delay in the railcar builder's production schedule impacting the ability of DBE subcontractor, Virginkar & Associates Inc., to perform inspections, as confirmed by Metro's project manager. CH2M demonstrated an increase in the utilization of Virginkar by 2.96%, since the last report to the board. CH2M reported it anticipates to mitigate the shortfall by or before June 2026.

Small Business Commitment	24.81% DBE	Small Business Participation	21.13% DBE
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	DBE Subcontractors	% Committed	Current Participation¹
1.	Parthenon Corporation	6.00%	7.17%
2.	Virginkar & Associates Inc.	18.36%	4.81%
4.	Omni Strategy LLC	Added	0.53%
5.	Railcar Quality Services, Inc.	Added	8.62%
	Total	24.81%	21.13%

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

The Living Wage and Service Contract Worker Retention Policy is not applicable to this modification.

C. Prevailing Wage Applicability

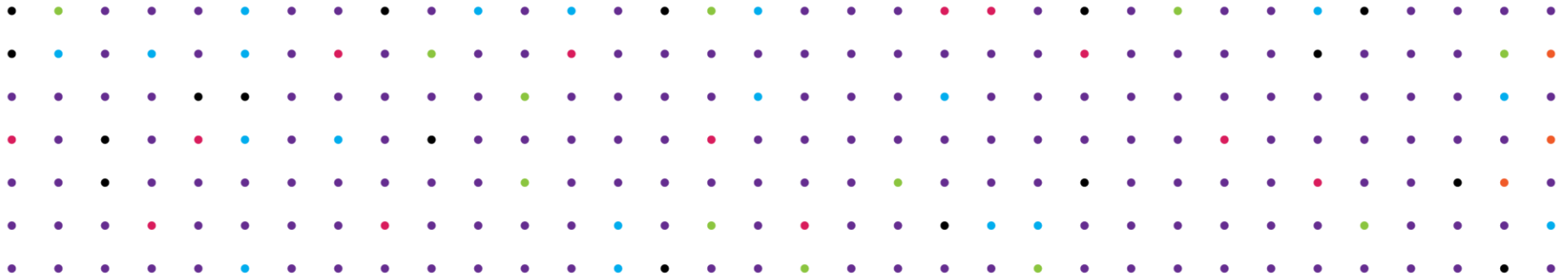
Prevailing Wage is not applicable to this modification.

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.

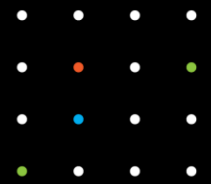
P2000 LIGHT RAIL VEHICLE (LRV) OVERHAUL PROGRAM CONSULTANT SUPPORT SERVICES CONTRACT PS20113000

July 17, 2025



Operations, Safety, & Customer Experience Committee Meeting

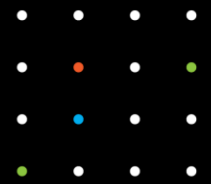
RECOMMENDATION



AUTHORIZE the Chief Executive Officer to:

- A. EXECUTE Contract Modification No. 31 to Contract No PS20113000, a cost plus fixed-fee contract with CH2M Hill, Inc. for the P2000 Light Rail Vehicle (LRV) Overhaul Program Consultant Support Services, increasing the Not-To-Exceed (NTE) contract price by \$1,448,394.00 from \$9,563,696.20 to \$11,012,090.20, and extending the period of performance from December 31, 2025 to June 30, 2026.
- B. EXECUTE individual contract modifications within the Board-approved contract modification authority.

ISSUE & DISCUSSION

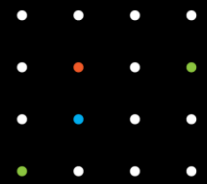


PROJECT: P2000 Light Rail Vehicle Overhaul Program Consultant Support Services

AWARDEE : CH2M Hill, Inc. (JACOBS)

DEOD COMMITMENT: DBE Participation is 24.81%. CH2M Hill is expected to meet and comply to this requirement.

ISSUE & DISCUSSION

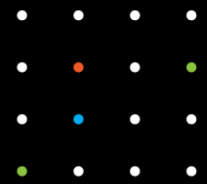


ISSUE

The P2000 LRV Modernization Project continues to experience unanticipated delays due to obsolete components, technical challenges, and supply chain disruptions. This existing consulting support services contract is required to ensure continuity, seamless project execution, and completion of the LRV Modernization project.

The Metro Project Team does not have the in-house resources to undertake the described support.

ISSUE & DISCUSSION



DISCUSSION

This existing professional service support provides Metro the technical and program management support during the Project's remaining phases, including Conditional Acceptance of remaining three LRVs, fleet Reliability Demonstration, Final Acceptance and concluding contract Warranty.

Approval of the recommendation modifies Contract No. PS20113000 to allow continuation of technical and program management support for the P2000 LRV Modernization Project. Metro staff requires this Project support to navigate and mitigate the remaining technical issues to achieve final delivery and acceptance of the fifty-two (total) modernized P2000 LRVs.