

**PROCUREMENT SUMMARY**  
**HR5000 Heavy Rail Vehicle (HRV) Procurement**

1.	<b>Contract Number: HR5000</b>	
2.	<b>Recommended Vendor: HYUNDAI ROTEM</b>	
3.	<b>Type of Procurement (check one):</b> IFB    RFP    RFP-A&E Non-Competitive                      Modification                      Task Order	
4.	<b>Procurement Dates:</b>	
	<b>A.Issued:</b> 12.05.22	
	<b>B.Advertised/Publicized:</b> 12.10.22	
	<b>C.Pre-proposal/Pre-Bid Conference:</b> 12.15.22	
	<b>D.Proposals/Bids Due:</b> 04.17.23	
	<b>E. Pre-Qualification Completed:</b> 10.24.23	
	<b>F. Conflict of Interest Form Submitted to Ethics:</b> 04.18.23	
	<b>G.Protest Period End Date:</b> 11.30.23	
5.	<b>Solicitations Picked up/Downloaded:</b> 121	<b>Bids/Proposals Received:</b> 3
6.	<b>Contract Administrator:</b> Robert Pennington	<b>Telephone Number:</b> (213) 922-5527
7.	<b>Project Manager:</b> Annie Yang	<b>Telephone Number:</b> (213) 922-3254

#### **A. Procurement Background**

LACMTA is currently expanding its rail network and services, including extending the Purple Subway Line (PLE). The Westside Purple Line Extension, previously named the Westside Subway Extension, extends service from the terminus at Wilshire and Vermont Station to Westwood (UCLA and Veteran's Administration Hospital). This extension, consisting of nearly nine (9) miles of track and seven (7) stations, is planned to be constructed in three (3) segments.

To meet this extension of service needed for the Purple Line Extensions, replacement of retiring fleets, and planned service expansions, LACMTA anticipates procuring a Base Order of one hundred eighty-two (182) Heavy Rail Vehicles (HRVs). Included in its solicitation is an Option quantity of fifty (50) HRVs needed for possible additional service expansions.

The Contractor's primary responsibility under the Contract is to deliver to LACMTA up to two hundred thirty-two (232) HRVs (Base Order plus Options subject to Board approval) Model HR5000 Heavy Rail Vehicles ready for revenue service. The Contractor shall design, test for design conformance, manufacture, test for production conformance, Deliver, perform First Article acceptance tests on the first three (3) Married-Pair Vehicles (the Pilot Vehicles) pursuant to the HR5000 Validation and Testing, furnish Spare Parts and tooling as listed in the Contractual Requirements, and warrant the quality, performance, maintainability, interface, operational reliability and intended purpose of all HR5000 HRV's produced and delivered to LACMTA.

This Board Action to approve Contract No. HR5000 issued in support of the HR5000 Heavy Rail Vehicle (HRV) Program, is subject to the resolution of any properly submitted protest(s), if any.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Ten (10) Amendments were issued during the solicitation phase of this RFP:

<b>Amend.</b>	<b>Date</b>	<b>Document Title</b>	<b>Section</b>	<b>Revision/Change</b>
<b>No. 1</b>	<b>7-Dec-22</b>	Letter of Invitation	Section One	Letter of Invitation – Correction of the Solicitation Title
<b>No. 2</b>	<b>24-Jan-23</b>	Letter of Invitation	Paragraph 2	Change date: Proposal submission clarifications, and TF-3 Form
<b>No. 3</b>	<b>4-Feb-23</b>	Technical Specifications	Multiple Technical Specifications	Modify requirements
<b>No. 4</b>	<b>24-Feb-23</b>	Price Sheet	PF-1 through PF-7	Replace all pricing forms to clarify column header
		Commercial Terms	Liquidated Damages, Compensation, General Conditions	Correct references to other clauses
		Technical Specifications	Multiple Requirements	Modify requirements
<b>No. 5</b>	<b>7-Mar-23</b>	Technical Specifications	Multiple requirements	Modify requirements
<b>No. 6</b>	<b>15-Mar-23</b>	Letter of Invitation	Section One	Change proposal submission date and number of proposal copies
<b>No. 7</b>	<b>29-Mar-23</b>	Commercial Terms	General Conditions	Modify requirements
		Technical Specifications	Multiple Requirements	Modify requirements
<b>No. 8</b>	<b>2-Oct-23</b>	Letter of Invitation	BAFO Proposal Submittal Instructions	New instructions for BAFO submission
		Commercial Terms	General Conditions and Escrow	Modify requirements
<b>No. 9</b>	<b>9-Oct-23</b>	Commercial Terms	General Conditions	Modify requirements
<b>No. 10</b>	<b>10/12/2023</b>	Commercial Terms	General Conditions	Modify requirements

A Pre-Proposal Conference was held on December 15, 2022, at the USG Building and was also conducted via Microsoft Teams for those proposers that could not attend in person.

Three (3) qualified proposals were received on Monday, April 17, 2023. Proposer Site Visits and Interviews were conducted at each proposer's manufacturing facility located in the United States and overseas between July 17, 2023, and September 2, 2023. The purpose of the visit was to inspect and qualify the proposed manufacturing and assembly facilities and interview the Proposer's prospective Project Team.

Proposers' questions were received throughout the solicitation period. Those questions not resulting in an Amendment were grouped and posted to the project data repository accessible to all planholders as Clarification responses. Six (6) sets of Clarification responses were uploaded to the site from January 10, 2023, to March 28, 2023. All available drawings, manuals, and other reference material were also posted to the site.

## **B. Evaluation of Proposals/Bids**

A Source Selection Committee (SSC) consisting of staff from LACMTA Operations convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

Proposal Evaluation Criteria	Points
1. Experience and Past Performance	300
2. Project Management Experience	250
3. Technical Compliance	200
4. Price	200
5. U.S. Employment Plan (USEP)	50
Total Available Points	1,000

The evaluation criteria are appropriate and consistent with criteria developed for other similar vehicle acquisition and overhaul procurements. The USEP is included as a mandatory criterion in accordance with the January 2018 Board Motion (File 2017-0904 Agenda Number 45). Proposers were provided with the opportunity to augment their proposal scoring by participating in an additional Evaluation Criteria element by proposing additional U.S. component content greater than the Federal Buy America requirement of 70%. Proposers may choose not to participate in this element and may still be considered responsive if they meet all other requirements of the RFP.

The evaluation criteria and their Subfactors were numerically scored and ranked for all responsive Proposers. Numerical scores will indicate the degree to which the Proposer's technical and price offer have met the standard for each criterion evaluated. The standard for each numerical value defined was used by the SSC as a guide during the evaluation process. Each SSC member also provided brief narratives in their evaluation that support the numerical scoring they presented. Several factors were considered when developing these weights, giving the greatest importance to past experience and past performance on rail vehicle overhaul and integration or new rail vehicle acquisition projects.

All three of the proposals received were determined to be within the competitive range. The firms are listed below in alphabetical order:

1. Hitachi Rail, Los Angeles
2. Hyundai Rotem
3. Stadler US

The proposal evaluation kick-off meeting was conducted on April 25, 2023, with the SSC and Subject Matter Experts (SMEs) present, however the SSC evaluation process did not start until May 30, 2023. The SMEs were used to support the SSC with their expertise in the relevant subject matter on various subsystems. Comments from the SMEs were compiled and presented to the SSC on June 15, 2023. Request for Clarification, instructions for oral presentations and site inspection visits agendas were sent to the Proposers the week of June 26, 2023.

For scheduling purposes, site inspection visits were defined by geographic area into U.S. manufacturing/assembly facilities, Asia manufacturing facilities, and European manufacturing facilities. Proposer oral presentations and LACMTA clarification requests were combined with site inspection visits. Except for requests for clarifications, the meeting agenda for each Proposer was identical. The SSC conducted site visits to each of the firm's proposed manufacturing and assembly locations. The first site was to Hyundai Rotem fabrication facility in Korea, the week of July 15, 2023. The SSC team next visited Stadler's U.S. manufacturing/assembly facility in Salt Lake City, UT the week of July 24, 2023. SSC visits to Hyundai Rotem's and Hitachi's U.S. assembly facilities were conducted the week of August 14, 2023. The last round of site visits occurred the week of August 26, 2023, to Hitachi's and Stadler's manufacturing facilities in Italy, Switzerland and Hungary, respectively. The SSC were able to evaluate and assess each of the Proposer's facilities along with the corresponding capability and capacity of the location.

On September 8, 2023, the SSC met to consider the proposals, oral presentations, and the site visits in their initial proposal evaluation score. The SSC Chair compiled the SSC evaluation scores based on technical merit. The price proposals were then revealed to the SSC members and the SMEs to review and discuss the technical merit against the prices. Pre-negotiation positions were established based on technical clarifications and proposer deviations/exceptions, and using pricing variations from LACMTA's Independent Cost Estimate (ICE). Although Proposer pricings were within the overall ICE and project budget, certain component pricing needed to be reviewed. The basis of LACMTA's ICE was reexamined and determined to be sound.

Notices were sent to all three of the Proposers targeting September 24 through September 26, 2023, for the discussions/negotiations to be held virtually due to scheduling constraints. The Proposers were notified of their respective strengths and weaknesses that could be enhanced in a Best and Final Offer (BAFO), this would also include any Proposer deviation/exception to the RFP documents or Technical Specifications. Negotiations were completed on October 12, 2023, after reviewing with County Counsel to finalize agreements on outstanding Proposer commercial exceptions. Amendment numbers nine (9) and ten (10) were the results of these agreements. The BAFO request was released on October 2, 2023, with a due date of October 16, 2023.

The SCC Team met on October 23, 2023, with the SME's updated report on the technical merits of each Proposer's BAFO submittal and all previously presented factors. The SSC Team was charged to evaluate and score each of the Proposers' technical proposals and provide their score to the SSC Chair to be compiled. The SSC team and Chair met on October 26, 2023, to review the Team's evaluation and scores. The Team discussed the factors in the

scores and reached a consensus on a final technical evaluation. The SSC Chair then revealed the BAFO price proposals to the SSC Team for review and discussion.

Final evaluations and discussion of the BAFO submittals were held on Friday, October 27, 2023, and were used as the basis of the recommendation for award.

### **C. Qualifications Summary of Firms:**

#### Hitachi Rail, Los Angeles LLC

Hitachi Rail STS Los Angeles LLC, is an incorporated Joint Venture between Hitachi Rail STS USA Inc. and Hitachi Rail STS S.p.A., both of which are a part of the Hitachi Rail STS global organization. Hitachi Rail was created to allow Hitachi to utilize the TVM certification of Hitachi Rail STS USA and the car building experience from Hitachi Rail SYS S.p.A, leveraging the capabilities and facilities of both regional divisions of Hitachi Rail STS on this project. Hitachi Rail recently built a new \$70M US permanent and fully owned rail car manufacturing facility and test rack in Washington County in the City of Hagerstown, Maryland where Hitachi Rail proposes to complete final assembly and testing of the HR5000 vehicles.

#### Hyundai Rotem

Hyundai Rotem USA Corporation (HRU) will be the main contractor for LACMTA HR5000 Project, a subsidiary of Hyundai Rotem Company (HRC), which is the parent company of the HRU for engineering, subsystem procurement, quality assurance and pilot car and carbody manufacturing. Hyundai Precision Industry, founded in 1977, was relaunched in 1999 as Hyundai Rotem Company ("Hyundai Rotem") as a consequence of the Korean Government's 'Bid Deal No.1'. This deal merged three domestic companies in the railway vehicle sector to reinforce the competitiveness of the business through a single Hyundai Rotem brand. Then, in 2001 Hyundai Rotem was incorporated into Hyundai Motor Group and has become a global top tier railway systems provider in a relatively short period of time due to its world-class technology and high-quality products. Hyundai Rotem entered the North American market in 1998, Hyundai Rotem USA Corporation was established in 2005 in advance of the first equipment orders from Southeastern Pennsylvania Transportation Authority (SEPTA). Hyundai Rotem is the parent company of Hyundai Rotem USA Corporation

#### Stadler US

Stadler Rail US is the US based manufacturing facility for Stadler Rail which produces railway rolling stock. Stadler Rail is headquartered in Bussnang, Switzerland. In June of 2015, Stadler was awarded an order for 8 new FLIRT model diesel-electric low-floor multiple unit vehicles. Since federal funds were being used for the order, it made it subject to the Buy America Act, and Stadler quickly found a former Union Pacific plant in Salt Lake City, and built a permanent 230,000 ft<sup>2</sup>, \$50 million state-of-the-art facility on a 62-acre property, just five minutes from the Salt Lake City International Airport, completed in 2018.

Technical Evaluation Scores (alphabetical order)

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE	RANK
HITACHI RAIL LOS ANGELES, LLC				
Proposal Evaluation Criteria				
Experience & Past Performance	74.04	300	222.12	
Project Management Experience	75.30	250	188.25	
Technical Compliance	81.38	200	162.76	
TOTAL TECHNICAL SCORE		750	573.13	3

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE	RANK
HYUNDAI ROTEM				
Proposal Evaluation Criteria				
Experience & Past Performance	84.93	300	254.79	
Project Management Experience	83.36	250	208.40	
Technical Compliance	86.13	200	172.26	
TOTAL TECHNICAL SCORE		750	635.45	1

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE	RANK
STADER RAIL US				
Proposal Evaluation Criteria				
Experience & Past Performance	78.03	300	234.09	
Project Management Experience	74.91	250	187.28	
Technical Compliance	79.20	200	158.40	
TOTAL TECHNICAL SCORE		750	579.77	2

\*Weight Factor is total number of points out of 1,000

#### US Employment Program

All Proposers were required to propose a level of participation in the United States Employment Program (USEP). This participation resulted in a normalized distribution of the 50 points allocated in accordance with their respective commitment value of the new and sustained jobs retained by each firm and the value of U.S. facility investments and added to the final evaluation score. The Proposer with the highest combined USEP commitment value therefore received the maximum incentive score.

PROPOSER	Hitachi Los Angeles	Hyundai Rotem	Stadler US
USEP Labor (Prime/Sub)	\$100,823,613	\$ 94,931,644	\$104,000,000
USEP Facility Improvement	\$ 2,000,000	\$ 26,994,012	\$ 77,200,000
Net Evaluation Amount	\$102,823,613	\$121,925,656	\$181,200,000
Evaluation Score	28.37	33.64	50.00

### Buy American Pre-Award Audit

As required by the RFP Buy America Requirements and in accordance with FTA requirements as stated in 49 CFR 663, an initial Buy America Pre-Award Audit was conducted during the weeks of August 17, 2023, through September 2, 2023. As a precaution, all three proposer firms were audited, and all were determined to satisfy the stated Buy America requirements. As part of the Audit process, the auditor confirmed the proposer's Enhanced U.S. Component Content valuation. A second Buy America Pre-Award Audit was conducted the week of October 24 through October 27, 2023, to reconfirm the Buy America content and the Enhanced U.S. Component Content value.

### Enhanced U.S. Component Content Program

All the Proposers participated in the Enhanced U.S. Component Content Program, submitting proposals with additional U.S. component content above that required by R-15 Buy America, currently at seventy percent (70%), and were verified by an independent pre-award audit in accordance with 49 C.F.R. Part 663. The U.S. Component Content was not part of any direct evaluation scoring but was considered in the overall pricing evaluation and its Best Value trade-off analysis on a dollar-for-dollar formula of "Total Price – (Value of U.S. content greater than 70%) = Evaluation Price.

LACMTA conducted Buy America Audits after receipt of the initial proposal submittal and after the BAFO proposal submittal to verify the cost component of the Enhanced U.S. Component Content Program. The value of participation was included in the overall price evaluation.

PROPOSER	Hitachi Los Angeles	Hyundai Rotem	Stadler US
BAFO PRICE – Inclusive of Alternate and Vehicle Options	\$ 758,876,554	\$ 842,911,729	\$ 831,533,201
Credit For Enhanced US Component \$	(\$22,408,911)	(\$ 35,515,832)	(\$125,758,236)
Net Evaluation Price	\$ 736,467,643	\$ 807,395,897	\$ 705,774,965
Price Evaluation Score	191.66	174.83	200.00

### **D. Cost/Price Analysis**

The proposed prices have been determined to be fair and reasonable based upon adequate competition, technical evaluation, fact finding, and negotiations. All the proposed price offers submitted were below LACMTA's ICE and project budget. All proposed pricing was at least 1.8% below LACMTA's ICE and were within 9.8% from the highest to lowest price. The SSC considered all price aspects in relationship to their technical evaluations and analysis to develop their evaluation that would present LACMTA with its best overall value when all evaluation factors are considered, including schedule risk, past performance, technical expertise, project management and U.S. jobs creation.



Proposer	Base Proposal	Alternate Technology Option	Option 1 – 50 Vehicles	Total BAFO Price Proposal
ICE	\$693,244,129	\$ 0	\$165,070,250	\$858,314,379
Hitachi Los Angeles	\$603,184,082	\$ 4,780,695	\$150,911,777	\$758,876,554
Hyundai Rotem	\$663,688,303	\$ 7,792,744	\$171,430,682	\$842,911,729
Stadler US	\$659,637,349	\$ 8,863,000	\$163,032,852	\$831,533,201

The RFP for the new HRV acquisition project contained work elements that could be exercised as an option. The Option 1 elements consisted of 50 HRVs and PF-7 Alternate Technology which were included in the technical and price evaluation. These options can be unilaterally exercised at Metro's discretion.

#### **E. Technical and Price Evaluation**

The tables below combine the technical evaluation scores with the price scores achieved based on calculations.

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE
HITACHI RAIL LOS ANGELES, LLC			
Proposal Evaluation Criteria			
Experience & Past Performance	74.04	300	222.12
Project Management Experience	75.30	250	188.25
Technical Compliance	81.38	200	162.76
Price		200	191.66
U.S. Employment Plan Evaluation		50	28.37
TOTAL SCORE		1000	793.16

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE
HYUNDAI ROTEM			
Proposal Evaluation Criteria			
Experience & Past Performance	84.93	300	254.79
Project Management Experience	83.36	250	208.40
Technical Compliance	86.13	200	172.26
Price		200	174.83
U.S. Employment Plan Evaluation		50	33.64
TOTAL SCORE		1000	843.92

PROPOSER	AVERAGE WEIGHTED SCORE	WEIGHT FACTOR*	WEIGHTED SCORE
STADLER RAIL US			
Proposal Evaluation Criteria			
Experience & Past Performance	78.03	300	234.09
Project Management Experience	74.91	250	187.28
Technical Compliance	79.20	200	158.40
Price		200	200.00
U.S. Employment Plan Evaluation		50	50.00
TOTAL SCORE		1000	829.77

\*Weight Factor is total number of points out of 1,000

## **F. Recommended Contractor**

In following the instructions in the RFP document, Instructions to Proposer (IP-25) the SSC Team will make its recommendation for an award of a contract resulting from responses to this RFP to a responsive and responsible Proposer whose offer conforms to the RFP and will be most advantageous to LACMTA, with price and other factors specified elsewhere in this RFP being considered.

Recommendation for award may or may not be made to the lowest-priced Proposal. Although technical, project management, past performance and experience are considered vital to a successful project, LACMTA may not necessarily make an award to the Proposer with the highest technical ranking nor award to the Proposer with the lowest price proposal if doing so would not be in the overall best interest of LACMTA.

Based on the technical evaluation and economic analysis, the recommendation for award addresses all cost elements and presents the best overall value when all evaluation factors are considered, including schedule risk, past performance, technical expertise, project management and U.S. jobs creation, therefore the SSC Team recommends an award to Hyundai Rotem. Although the recommendation for award is being recommended to a proposer other than the lowest price offeror, the SSC Team believes that the Hyundai Rotem proposal represents the best opportunity to meet LACMTA's project goals.