Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2023-0488, **File Type:** Contract **Agenda Number:** 30.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
OCTOBER 19, 2023

SUBJECT: INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS)

ACTION: CONTRACT AWARD

RECOMMENDATION

CONSIDER authorizing the Chief Executive Officer:

A. to award a firm-fixed price Contract No. TS83056-2 Integrated Data and Communication System (IDCS) to Siemens Mobility, Inc., for the design, manufacture, test, installation, and commission of the IDCS system for the A650 heavy rail fleet as base contract and the P3010, P2000, and P2550 light rail fleets, and the HR4000 heavy rail fleet as Options. The base contract amount for the A650 fleet is $5,043,855 inclusive of sales tax Option 1 for the P3010 fleet is $18,051,025 inclusive of sales tax; Option 2 for the P2000 fleet is $4,415,668 inclusive of sales tax; Option 3 for the P2550 fleet is $4,775,826 inclusive of sales tax; and Option 4 for the HR4000 fleet is $6,417,348 inclusive of sales tax, for a total Not-to-Exceed (NTE) contract amount of $38,703,722, subject to the resolution of all properly submitted protest(s), if any.

B. to increase the Life of Project (LOP) by $10,456,129 from $33,971,532 to $44,427,661.

ISSUE

The IDCS will provide real-time access to information on the train, which will reduce operations and maintenance response and diagnostics time. Further, the IDCS will improve real time arrival predictions by tracking the vehicle location using the Global Positioning System (GPS) and will calculate the vehicle location when GPS is not available, such as in tunnels. The system will also allow for more automatic retrieval of historical maintenance data and CCTV video. In addition, live viewing of the CCTV system will be possible enabling security personnel to respond faster to incidents. Finally, this System will employ the latest in cybersecurity technology to prevent disruption from external and internal threats while providing our passengers with Wi-Fi access.

BACKGROUND

Metro is seeking to acquire the IDCS to provide real-time access to information on the train. Implementing the IDCS will greatly improve service reliability, customer experience and security. The

IDCS aims to improve train arrival prediction information; improve security and safety personnel response time and evidence collection by providing remote access to each vehicle's CCTV system; provide passenger Wi-Fi; and improve maintenance response time to vehicle reducing in-service delays.

The IDCS is comprised of two distinct subsystems: the physical device onboard, i.e., hardware; and the data management system, i.e., software. The Onboard device will monitor the train equipment to retrieve data and store it on Metro's IT-related sources and authorized servers but must not have the capability to control any other onboard system.

DISCUSSION

There are 4-key elements to the IDCS project:

1. Real-time download of on-board train systems data.
2. Accurate train location in the tunnels.
3. On-demand and remote access to downloading video clips or on-demand live streaming of a specific train's CCTV system.
4. Provides customers with Wi-Fi access.

Metro trains log a large amount of performance-related data in each of its major systems. Metro needs to install the IDCS hardware on the trains to be able to automatically access this data to provide better customer service, support better maintenance turn-around and recovery times to mainline incidents and obtain streaming surveillance video from the trains at any time to assist law enforcement. The equipment will communicate to a data management system through software allowing for data transfer to local servers for analysis.

Improving the customer experience is one of Metro's tenets and having Wi-Fi access is an amenity that many customers expect whenever they occupy a building or vehicle. The Metro trains do not currently have free public Wi-Fi, the IDCS will enable this feature. In addition, train reliability and quick return to service after an incident can greatly improve service reliability.

This state-of-the-art project is extremely critical to provide improved train arrival predictions, remote access to CCTV video, passenger Wi-Fi, and vehicle health monitoring.

DETERMINATION OF SAFETY IMPACT

The approval of this Contract award will have a direct and positive impact to system safety, service quality, system reliability, maintainability, and overall customer satisfaction. The IDCS project will permit Metro to embrace technological improvements to improve maintenance capabilities, improve the train arrival prediction algorithm, and provide access to real-time CCTV video.

FINANCIAL IMPACT

The Project LOP for project 214004 includes funds for the IDCS equipment and installation, software services for one year, spares, Metro labor, and project contingency, for a total of $44,427,661.

Currently, there is $ 2,500,000 budgeted in the FY24 budget in Cost Center 3942, under CP-214004, IDCS project.

Since this is a multi-year contract, the cost center manager will be responsible for dispersing the cost for subsequent years.

Impact to Budget

The current source of funds for this action is State funding that is eligible for Bus and Rail Operation and Capital activities. Concurrently, staff is actively pursuing additional State and Federal sources such as the FAST Act and other eligible federal sources to further supplement this project. Staff is also pursuing additional State and Local funding sources such as Cap and Trade and similar sources as they become available to meet the project funding needs.

EQUITY PLATFORM

The IDCS will be installed on all rail vehicles and operate on all Lines. However, the project will commence with the A650 fleet which is operated on Metro's B and D Lines. As seen in Attachment C, each of Metro's rail lines service EFCs and nearly all the B and D Line stations are located within EFC areas.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Metro's Strategic Plan Goal 5) Provide responsive, accountable, and trustworthy governance within the Metro organization. The completion and rollout of the IDCS project will provide state-of-the-art assets that will provide train location, passenger WIFI, real-time CCTV viewing, and vehicle health monitoring for all Metro trains.

ALTERNATIVES CONSIDERED

Staff considered using in-house Metro resources to perform this work. This approach is not recommended as Metro does not have sufficient resources and subject matter experts available to perform this work.

The Board of Directors may choose not to authorize the Options award for this project; however, this alternative is not recommended by Metro staff because this IDCS project is new to all the rail fleets in Metro. Delay in exercising the Options will cause a delay in providing these improved services to the remaining Metro rail fleets.

NEXT STEPS

Upon Board approval, Metro will issue the contract.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Metro EFC Map 2022

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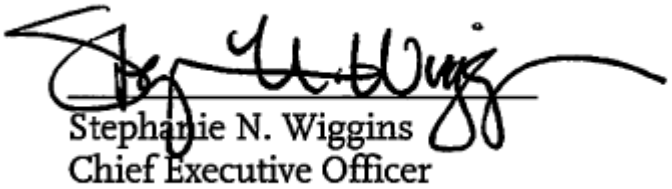

Stephanie N. Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

INTEGRATED DATA AND COMMUNICATIONS SYSTEM (IDCS) – (TS83056-2)

1.	**Contract Number**: TS85036-2	
2.	**Recommended Vendor**: SIEMENS MOBILITY, INC	
3.	**Type of Procurement (check one):** ☐ **IFB** ☒ **RFP** ☐ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 02-03--2022	
	B. Advertised/Publicized: 02-01-2022	
	C. Pre-Bid Conference: 02-24-2022	
	D. Bids Due: 05-19-2023	
	E. Pre-Qualification Completed: 03-22-2023	
	F. Conflict of Interest Form Submitted to Ethics: 05-26-2023	
	G. Protest Period End Date: 11-10-23	
5.	**Solicitations Picked up/Downloaded**: 66	**Bids Received**: 2
6.	**Contract Administrator**: Aniza Wan nawang, Contract Administrator	**Telephone Number**: 213 922 4677
7.	**Project Manager**: Bob Spadafora	**Telephone Number**: 213 922 3144

A. Procurement Background

This Board Action is to approve Contract No. TS83056-2 to design, develop, install, integrate, commission, operate and test an Integrated Data and Communication System (IDCS) with two distinct subsystems which are the monitoring system (hardware) and the data management system (software) for the A650 heavy rail vehicle fleet as the base contract requirement with the remaining four (4) fleets:the P3010, P2000 and P2550 light rail vehicles, and the HR4000 heavy rail vehicle, included as options to the contract, subject to resolution of any properly submitted protests. The contract type is a Firm Fixed Price for the base contract and each of the four (4) options and is expected to be completed in 5 years after the issuance of Notice to Proceed.

The Request for Proposal (RFP) document (TS83056-2) was initially issued on January 28, 2022, downloaded by 66 interested firms, and responded by two (2) proposers; Siemens Mobility Inc and Quester Tangent. A total of twelve (12) amendments were issued in order to ensure clear requirements and compliant submissions from the proposers.

Negotiations were conducted after initial proposal reviews resulting in BAFO III proposals received on May 19, 2023 from both proposers. The BAFO proposals were reviewed and contained no apparent exceptions or qualifications and were therefore both considered in the final evaluation by the PET. However, the proposal submitted by Quester Tangent was ultimately determined as non-responsive for failing to meet the DBE goal requirement in the solicitation.

During the solicitation phase of this RFP through BAFO III, Metro issued twelve (12) amendments and nine (9) sets of clarifications, answering a total of sixty-five (65) questions received from the bidders.

B. Evaluation of Proposals

This procurement was conducted in accordance with LACMTA Acquisition Policy for a competitively negotiated procurement. The two (2) proposals received are listed below in alphabetical order:

1. Quester Tangent Corporation
2. Siemens Mobility, Inc

The PET is comprised of Metro staff members from Transit Vehicle Engineering, Information Technology and Rail Fleet Services who performed an evaluation of the technical proposal in accordance with the RFP. The PET conducted a full evaluation and ranking of the technical proposals. The technical evaluation consisted of evaluating, scoring and ranking of each of the proposer's technical capabilities, their proposed design, previous performance and experience, and project management team and key personnel in accordance with the evaluation criteria set forth in the RFP. The proposals required multiple rounds of clarifications and discussions but were eventually found to be technically and commercially acceptable and in compliance with the requirements of the RFP. The final evaluation scoring was as follows:

Evaluation	Weightage	Weighted Score	
		Quester Tangent	Siemens Mobility
Technical Proposal (80 points)			
1. Technical capability	20	14.3	18.8
2. Proposed design	30	21.8	27.6
3. Experience	20	14.9	19.5
4. Project Management	10	7.1	9.3
Total Technical Proposal Score		58.1	75.2
Price Proposal (20 points)	20	4.7	20.0
Total Weighted Score	100	62.7	95.2
Rank		2	1

The firm recommended for award; Siemens Mobility Inc was found to be responsive with the RFP requirements.

Quester Tangent Corporation was determined to be non-responsive since they did not meet the Disadvantaged Business Enterprise (DBE) commitment of eighteen percent (18%) of the total contract price.

C. Price Analysis

In accordance with Metro's Acquisition Policy and Procedures for a competitive acquisition, a price analysis is required. Therefore, staff performed a Price Analysis in compliance with Metro's Acquisition Policy for competitive acquisitions. The Price Analysis consisted of a comparison of the proposed price against the Independent Cost Estimate (ICE).

Item	Quester Tangent	Siemens Mobility	ICE
Base A650	$30,240,559	$5,043,855	$6,177,237
Option 1 P3010	$59,347,449	$18,051,025	$16,643,101
Option 2 P2000	$29,458,008	$4,415,668	$4,787,895
Option 3 P2550	$24,574,264	$4,775,826	$4,290,175
Option 4 HR4000	$22,154,480	$6,417,348	$4,801,592
Total Proposal Price	$165,774,759	$38,703,722	$36,700,000

Based on the final offer received, Siemens Mobility submitted the lowest price at $38,703,722 which is 5.5% higher than the ICE while Quester Tangent's Price Proposal at $165,774,759 is over 350% higher than the ICE.

It is determined that the proposed price from Siemens Mobility is the best attainable, fair and reasonable, based on adequate price competition, technical evaluation and price analysis using the ICE.

D. Background on Recommended Contractor

Siemens Mobility Inc. is a subsidiary of Siemens AG and has established North America's only permanent design, manufacturing, test and service facility for light rail vehicles, locomotives, and coaches specifically to guide our customers over the 30+ year design life of modern rail vehicles. Siemens Mobility is headquartered in McClellan Park, California. The McClellan Park Facility houses a full vehicle service center which provides services such as accident repair, high and low voltage repairs, overhaul, and refurbishment, as well as a dedicated Bogie Service Center which specializes in bogie overhauls, repairs, and upgrades.

Siemens Mobility employs 140+ engineers in the USA, whose expertise in maintenance, system integration, and cyber security. Siemens on going contract includes the Monitoring and Diagnostic System Upgrade for Bombardier LRV with Metropolitan Council, MIN, Fleet Monitoring and Diagnostic System Update for Valley Metro, Phoenix AZ, Amtrak ACS-64 Technical Support and Spares Supply Agreement (TSSSA) for Amtrak USA and Full Service Contract for Brightline, FL. These contracts are anticipated to finish by 2029 with exception to the Brightline contract which is ongoing for 30 years.

DEOD SUMMARY

INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS) / TS83056-2

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established an 18% Disadvantaged Business Enterprise (DBE) goal for this solicitation. Siemens Mobility Inc. made an 18% DBE commitment.

Small Business Goal	18% DBE	Small Business Commitment	18% DBE

	DBE Subcontractor	Ethnicity	% Committed
1.	Kambrian Corporation	Asian Pacific	18%
		Total Commitment	**18%**

B. Local Small Business Enterprise (LSBE) Preference

The LSBE preference is not applicable to federally funded procurements. Federal law (49 CFR § 661.21) prohibits the use of local procurement preferences on FTA-funded projects.

C. Living Wage and Service Contract Worker Retention Policy Applicability

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

D. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

E. Project Labor Agreement/Construction Careers Policy

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

Attachment C - Metro EFC Map 2022