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

Metro

Board Report

File #: 2024-1143, **File Type:** Contract **Agenda Number:** 31.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
FEBRUARY 20, 2025**

SUBJECT: KINKYSHARYO P3010 LIGHT RAIL VEHICLE BALL BEARING SLEWING RING ASSEMBLY

ACTION: APPROVE CONTRACT AWARD

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 48-month firm fixed price Contract No. OP125304000 to Jamaica Bearings, the lowest responsive and responsible bidder, in the amount of $1,691,769.20 for the purchase of Ball Bearing Slewing Ring Assemblies in support of the P3010 Light Rail Vehicle (LRV) fleet, subject to the resolution of any properly submitted protest(s), if any.

ISSUE

The Original Equipment Manufacturer (OEM) identified and established a component overhaul schedule for all vehicle systems occurring at the 600,000-mile interval. The ball-bearing slewing ring is an integral component of the rail car that allows the vehicle center truck articulation and mechanically connects the A and B car halves.

The P3010 LRV fleet is Metro's largest LRV fleet, which averages 38,000 fleet miles per month. Currently, there are 4 LRVs with over 600,000 car miles, and by July 2025, nine others will reach or surpass the target overhaul mileage. The ball-bearing slewing ring replacement project must coincide with the truck overhaul. In May 2024, under a separate contract, the Board approved awarding a contract to ORX. The truck system overhaul and slewing ring replacement are considered heavy overhauls performed in conjunction with each other while the LRV is stationary on the lifting hoist.

BACKGROUND

The P3010 LRV fleet is Metro's newest and most reliable light rail fleet, with consistent performance, reliability, and safety at over 92,059,251 fleet miles. The manufacturer, along with its sub-suppliers, identified component level overhauls to vehicle systems, such as friction brake, propulsion, doors, truck assembly including traction motor and gearbox, auxiliary power supply, coupler, master controller, pantograph, as well as Heating Ventilation and Air Conditioning (HVAC) equipment. Therefore, the P3010 component-level overhaul project will require Board authorization for 10 separate vendors and new component contracts to complete the project over five years.

To date, friction brake, truck systems, and battery replacement contracts have been awarded. On August 7, 2012, Kinkysharyo International, LLC was awarded the P3010 LRV Contract for a base order of 78 LRVs. Four options were subsequently exercised in this contract, including an additional 157 LRVs for 235 vehicles.

DISCUSSION

The rail car manufacturer recommends overhauling or replacing the ball-bearing slewing ring at the 600,000-mile interval. The slewing ring is a mechanical race that supports the vehicle's maneuverability and ride quality. The race contains bearings that wear and require overhaul or replacement at the 600,000-mile target interval. If not performed, the quality of the entire vehicle will be impacted, which could result in catastrophic failure of the slewing ring, resulting in possible derailment. Transit Vehicle Engineering (TVE) and Rail Fleet Services (RFS) performed a cost-benefit analysis to determine whether an overhaul of the slewing ring or a new purchase is needed. In addition, TVE and RFS conducted a technical review of the OEM component overhaul tasks and concurred with the work, scope, and overhaul schedule described in the Heavy Repair Maintenance Manual. TVE has since developed the Statement of Work for this project, ensuring the Contractors followed the Federal Transit Administration (FTA), Association of American Railroad (AAR), California Public Utilities Commission (CPUC), and Metro's Corporate Safety Standards.

However, based on the materials and labor charges for the Contractor to perform the work, it was decided to purchase new slewing rings as the cost offset is negligible and has advantages in meeting the production schedules. The P3010 Fleet Component Overhaul project will primarily consist of repairing and replacing vehicle parts that require an overhaul or complete replacement due to the targeted mileage intervals of 600,000 miles. RFS staff will remove, install, and test the overhauled or new equipment.

DETERMINATION OF SAFETY IMPACT

Passenger safety is of the utmost importance to Metro's ridership and staff. The P3010 ball-bearing slewing ring component is integral to the vehicle's safe and reliable operation. This vehicle component ensures that safety is preserved through standard replacements, as defined by the OEM while maintaining regulatory compliance with state and federal regulations and Metro's safety standards.

FINANCIAL IMPACT

The FY25 budget includes $1,691,769.20 in funding for the ball-bearing slewing ring under the approved Capital Project (CP) 214009 - P3010 Fleet Component Overhaul. The total project LOP is $36,000,000.

Since this is a multi-year project, the cost center Component Overhaul Superintendent, Division Director, and Sr. Executive Officer of Rail Fleet Services will ensure that the balance of funds is budgeted in future years.

Impact to Budget

The current source of funds for this action is Measure M State of Good Repair 2%. This funding is eligible for Capital Projects. Given approved funding provisions and guidelines, using these funding sources maximizes project funding intent.

EQUITY PLATFORM

Metro's P3010 LRV fleet provides vital transportation services throughout the City and County of Los Angeles via A, C, E, and L lines. This includes many underserved communities where regional disparities exist between residents' access to jobs, housing, education, health, and safety. In addition, Metro's light rail vehicle maintenance programs maintain the fleet's operations within federally mandated State of Good Repair standards for those within the communities that rely on public transportation.

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise /Disabled Veteran Enterprise (SBE/DVBE) goal for this procurement due to the lack of availability of small businesses.

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 equipment purchase activities that will maintain 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

Approval of the P3010 ball bearing slewing ring procurement supports Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. The P3010 LRV Assembly provides sustainable fleet reliability, including safe, accessible, and affordable transportation for Metro's light rail system riders. The recommendation also supports Metro's Strategic Plan Goal 5) Provide Responsive, Accountable, and Trustworthy governance within Metro organization. Contract Modification Authority and Contract extension safeguard overhaul production continuance while meeting passenger safety and fleet reliability.

ALTERNATIVES CONSIDERED

An alternative to this recommendation is to defer the replacement of the ball-bearing slewing ring. However, this approach is considered high risk due to degraded ride quality, with the potential for ball -bearing seizure and LRV derailment impacting passenger safety.

NEXT STEPS

Upon the Board's approval, staff will execute procurement under Contract No. OP125304000 for the purchase of a P3010 fleet ball-bearing slewing ring assembly with Jamaica Bearing. The staff will return to the Board for approval of future contract awards, including coupler, heating, ventilation, air conditioning, high-speed circuit breaker, master controller, low-voltage power supply, propulsion, and pantograph overhauls.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

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Stephanie N. Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

KINKYSHARYO P3010 LIGHT RAIL VEHICLE BALL BEARING SLEWING RING ASSEMBLY /OP125304000

1.	**Contract Number**: OP125304000	
2.	**Recommended Vendor**: Jamaica Bearings	
3.	**Type of Procurement (check one):** ☒ **IFB** ☐ **RFP** ☐ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 07-12-2024	
	B. Advertised/Publicized: 07-12-2024	
	C. Pre-Bid Conference: N/A	
	D. Bids Due: 09-11-2024	
	E. Pre-Qualification Completed: 10-09-2024	
	F. Ethics Declaration Forms Submitted to Ethics: 12-16-2024	
	G. Protest Period End Date: 02-26-2025	
5.	**Solicitations Downloaded**: 12	**Bids Received**: 2
6.	**Contract Administrator**: Jessica Omohundro	**Telephone Number**: (213) 922-4790
7.	**Project Manager**: Richard Lozano	**Telephone Number**: (323) 224-4042

A. Procurement Background

This Board Action is to approve Contract No. OP125304000 issued for the procurement of two-hundred-twenty (220) Ball Bearing Slewing Ring Assemblies in support of the P3010 Fleet Component Overhaul project, subject to the resolution of any properly submitted protest(s), if any.

Invitation for Bids (IFB) No. OP125304 was issued in accordance with Metro's Acquisition Policy and the contract type is firm-fixed price. The Diversity & Economic Opportunity Department did not recommend a Small Business Enterprise (SBE) goal or a Disabled Veteran Business Enterprise (DVBE) goal for this procurement due to lack of subcontracting opportunities.

One (1) amendment and one (1) set of clarifications was issued during the solicitation phase of this IFB:

- Clarification No. 1, issued on August 21, 2024, in response to questions;
- Amendment No. 1, issued on August 26, 2024, revised technical specifications and Schedule of Quantities and Prices.

A total of twelve (12) firms downloaded the IFB and were included in the planholder's list. There were three (3) questions received for this IFB, and responses were provided prior to the bid due date.

A total of two (2) bids were received on 09-11-2024.

B. Evaluation of Bids

This procurement was conducted in accordance and complies with LACMTA's Acquisition Policy for a competitive sealed bid. The two (2) bids received are listed below in alphabetical order:

1. Jamaica Bearings
2. Motion

The recommended firm, Jamaica Bearings, was the lowest bidder and was determined to be both responsive and responsible, and found to be in full compliance with the technical and commercial requirements. The bid from Motion was determined to be non-responsive as it did not comply with the requirements specified in the IFB and therefore ineligible for contract award.

C. Price Analysis

The recommended bid price from Jamaica Bearings has been determined to be fair and reasonable based upon adequate price competition, Independent Cost Estimate (ICE) and selection of the lowest responsive and responsible bidder.

The recommended bid amount is $948,231 or 36% lower than the ICE and was developed based on past procurement history. Metro's Transit Vehicle Engineering (TVE) has reviewed and confirmed the product being offered meets the requirements listed in the technical specifications. The delta between the ICE and the bid is due to two key factors including the use of local funds that relieved certain cost-driving federal requirements and the higher purchase quantity (over previous purchases) resulting in a more competitive unit price due to economies of scale. The ICE did not consider these factors that resulted in a lower price which is determined to be fair and reasonable.

Bidder Name	Metro ICE	Bid Amount
Jamaica Bearings	$2,640,000.00	$1,691,769.20
Motion	$2,640,000.00	$1,739,414.60

D. Background on Recommended Contractor

The recommended firm, Jamaica Bearings, which operates with facilities and sales offices throughout North America with headquarters in Hyde Park, New York was founded in 1934 and has been in business for over 50 years. Jamaica Bearings is a global value-added distributor for over 200 leading manufacturers of highly engineered, long-lead product types ranging from bearings, kitting, seals and rings and is a trusted supplier to a diverse marketplace that includes aerospace, defense, high-tech industrial, rail and transit.

Jamaica Bearings has provided services for Metro and performance has been satisfactory.

DEOD SUMMARY

KINKYSHARYO P3010 LIGHT RAIL VEHICLE BALL BEARING SLEWING RING ASSEMBLY / OP125304000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE)/Disabled Veteran Business Enterprise (DVBE) participation goal for this procurement due to the lack of availability of small businesses. Jamaica Bearings will perform the work with its own workforce.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

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.

RAIL FLEET SERVICES

Kinkysharyo P3010 Light Rail Vehicle Ball Bearing Slewing Ring Assembly Component Overhaul

Metro

Operations, Safety, & Customer Experience Committee Meeting
February 20, 2025

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ISSUE & DISCUSSION

AWARDEE

Jamaica Bearings

NUMBER OF BIDS

Bidders	Bid Amount
Jamaica Bearings	$1,691,769.20
Motion	$1,739,414.60

DEOD COMMITMENT

The DEOD did not recommend a Small Business Enterprise (SBE) goal or a Disabled Veteran Enterprise (DVBE) goal for this procurement due to lack of subcontracting opportunities.

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ISSUE & DISCUSSION

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The Original Equipment Manufacturer (OEM) identified and established a component overhaul schedule for all vehicle systems occurring at the 600,000-mile interval. The ball-bearing slewing ring is an integral component of the rail car that allows the vehicle center truck articulation and mechanically connects the A and B car halves.

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If not performed, the quality of the entire vehicle will be impacted, which could result in catastrophic failure of the slewing ring, resulting in possible derailment. Transit Vehicle Engineering (TVE) and Rail Fleet Services (RFS) performed a cost-benefit analysis to determine whether an overhaul of the slewing ring or a new purchase is needed.

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