



**Metro**

Metropolitan Transportation Authority

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**34**

**OPERATIONS COMMITTEE  
NOVEMBER 20, 2008**

**SUBJECT: TRACTION MOTOR REPAIR AND OVERHAUL**

**ACTION: AWARD A CONTRACT FOR BRED A650 TRACTION MOTOR REPAIR  
AND OVERHAUL**

**RECOMMENDATION**

Authorize the Chief Executive Officer to award a firm fixed-price unit rate contract under Bid No. 08-0025 with RAM Industrial Services, Inc., the lowest responsive and responsible bidder, for the overhaul of 306 Breda A650 (Option) heavy rail vehicle traction motors for an amount not-to-exceed \$1,447,855.

**RATIONALE**

The Breda A650 (Option) Heavy Rail Vehicle (HRV) fleet is in its twelfth year of operation. To ensure a continued level of safety and reliability, we overhaul the traction motor equipment consistent with the Original Equipment Manufacturer's (OEM) suggested overhaul interval. Wear and tear on these units in normal service requires both ongoing maintenance, which is performed by our personnel, and periodic overhaul, which is beyond the level of in-house maintenance capability.

In support of the daily rail revenue service requirements, Rail Fleet Services Engineering developed an equipment overhaul specification based upon OEM recommendations and our requirements. It is designed to provide safe and reliable HRV operation, prolong equipment life, and increase the Mean Time Between Failures (MTBF). The contractor will perform services in accordance with our specifications and the Rail Fleet Services' scheduled requirements.

**FINANCIAL IMPACT**

The funding of \$120,000 for this procurement is included in the FY09 budget in Rail cost center 3942, rail maintenance/operations under project number 300044 (Red Line), Line Item 50441. Since this is a multi-year contract, the cost center manager and General Manager, Rail Operations will be accountable for the budget cost in the future fiscal years. In FY08, no funds were expended on this category for repairs.

## **ALTERNATIVES CONSIDERED**

An alternative is not to perform the overhaul. This would compromise safety and reliability of the entire rail-car fleet. Unscheduled maintenance repairs for this system on a component per component level per assembly will result in higher expenditures versus scheduled and planned maintenance.

## **ATTACHMENTS**

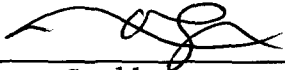
- A Procurement Summary
- A-1 Procurement History
- A-2 List of Subcontractors
- B Bid Tabulation

Prepared by: Nick Madanat, Acting Engineering Manager, Rail Vehicle Engineering  
Richard Bachman, Contract Administration Manager



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Mike Cannell  
General Manager, Rail Operations



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Roger Snoble  
Chief Executive Officer

**BOARD REPORT ATTACHMENT A  
PROCUREMENT SUMMARY**

**TRACTION MOTOR REPAIR AND OVERHAUL**

1.	Contract Number: 08-0025		
2.	Recommended Vendor: RAM Industrial Services, Inc.		
3.	Cost/Price Analysis Information:		
	A. Bid/Proposed Price: \$1,447,855	Recommended Price: \$1,447,855	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Firm Fixed Price		
5.	Procurement Dates:		
	A. Issued: June 30, 2008		
	B. Advertised: July 3, 2008		
	C. Pre-bid Conference: N/A		
	D. Bids Due: October 7, 2008		
	E. Pre-Qualification Completed: Yes		
	F. Conflict of Interest Form Submitted to Ethics: Yes		
6.	Small Business Participation:		
	A. DALP: 10%	Small Business Evaluation Completed: Yes	
	B. Small Business Commitment: TBD		
7.	Invitation for Bid/Request for Proposal Data:		
	Notifications Sent: 13	Bids/Proposals Picked up: 12	Bids/Proposals Received: 4
8.	Evaluation Information:		
	<u>A. Bidders/Proposers Names:</u>  RAM Industrial Services, Inc. Walco Electric Co. Swiger Coil Systems LLC Dahl-Beck Electric	<u>Bid/Proposal Amount:</u>  \$1, 447,855.00 \$1, 557,552.00 \$1, 607,756.00 \$1, 751,003.00	<u>Best and Final Offer Amount:</u>  NA
	B. Evaluation Methodology: Selection of the lowest responsive, responsible bidder. Details are in Attachment A-1.C		
9.	Protest Information:		
	A. Protest Period End Date: October 28, 2008		
	B. Protest Receipt Date: TBD		
	C. Disposition of Protest Date: TBD		
10.	Contract Administrator: Juelene Close	Telephone Number: 213-922-1066	
11.	Project Manager: Joseph Iskander	Telephone Number: 323-224-4047	

**BOARD REPORT ATTACHMENT A-1  
PROCUREMENT HISTORY**

**TRACTION MOTOR REPAIR AND OVERHAUL**

**A. Background on Contractor**

RAM Industrial Services, Inc. (RAM) is based in Camp Hill, Pennsylvania, and has been in business since 2000. The original RAM Industries was founded in 1950. RAM carries all types of AC/DC Motors, Bearings, Power Transmission Components, Gear Reducers, Brakes, Clutches, Hoists, Hoist Parts, Industrial Pumps, Municipal Pumps, Variable Speed Drives, Motor Controls, Welder Parts, Replacement Parts and Accessories. RAM also offers full turn-key projects including removal, installation, and equipment start up to refurbish and/or rewind of motors and generators to the customer's or manufacturer's specification. In the past, they have performed work for San Diego Trolley, Southern California Regional Rail Authority, Amtrak and Metro Red Line High Rail Vehicle Direct Current traction motor repair and overhaul.

**B. Procurement Background**

Invitation for Bid (IFB) No. 08-0025 was issued on June 30, 2008 and advertised on July 3, 2008. The bid deadline was October 7, 2008. In addition to newspaper advertising, 13 potential bidders were notified. Twelve firms requested and received the IFB solicitation package and four firms submitted bids prior to the stated deadline.

The Diversity & Economic Opportunity Department (DEOD) recommends a 10% DBE Anticipated Level of Participation (DALP) goal for this procurement.

**C. Evaluation of Bids**

In accordance with Procurement Policies and Procedures, staff performed an evaluation of the bids that were received. RAM Industrial Services' bid was found to be in full compliance with the terms and conditions of the solicitation. RAM was determined to be a responsible bidder capable of performing the services per our requirements.

**D. Cost/Price Analysis**

The recommended not-to-exceed bid amount of \$1,447,855 has been determined to be fair and reasonable based upon adequate price competition and selection of the lowest responsive and responsible bidder.

**BOARD REPORT ATTACHMENT A-2  
LIST OF SUBCONTRACTORS**

**TRACTION MOTOR REPAIR AND OVERHAUL**

**PRIME CONTRACTOR – RAM Industrial Services, Inc.**

**Small Business Commitment**

**Other Subcontractors**

N/A

N/A

**Total Commitment TBD**

# LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY BID TABULATION

## Bid No: 080025 Traction Motor Repair and Overhaul

Issued: 06/30/08 Total 13  
 Bids Opened: 10/07/08 Total 4  
 Advertisement Date(s): 07/03/08  
 Newspaper: Daily News, La Opinion and L.A. Watts Times

Item No.	Description	%	Qty	Unit	Ram Industrial Services, Inc		Walco		Swiger Coil Systems LLC		Dahl-Beck Electric		
					Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	
<b>BASIC OVERHAUL</b>													
1	Breda A650 HRV Traction Motor Overhaul		306	EA	\$1,985.00	\$607,410.00	\$2,800.00	\$856,800.00	\$1,790.00	\$547,740.00	\$5,250.00	\$1,606,500.00	
<b>Subtotal A</b>						<b>\$607,410.00</b>	<b>\$856,800.00</b>	<b>\$547,740.00</b>		<b>\$547,740.00</b>		<b>\$1,606,500.00</b>	
<b>REPAIR/REPLACEMENT</b>													
<b>Stator/Frame</b>													
1	Stator		10	30	EA	\$4,760.00	\$142,800.00	\$5,950.00	\$178,500.00	\$6,900.00	\$207,000.00	\$4,800.00	\$144,000.00
2	Stator Core Replacement		10	30	EA	\$2,525.00	\$75,750.00	\$3,590.00	\$107,700.00	\$14,000.00	\$420,000.00	\$1.00	\$30.00
3	Leads Replacement		15	46	EA	\$160.00	\$7,360.00	\$395.00	\$18,170.00	\$90.00	\$4,140.00	\$1.00	\$46.00
4	Replace Lead Bushings		15	46	EA	\$95.00	\$4,370.00	\$102.00	\$4,692.00	\$11.00	\$506.00	\$1.00	\$46.00
5	Replace Lead Plate		10	30	EA	\$300.00	\$9,000.00	\$100.00	\$3,000.00	\$90.00	\$2,700.00	\$1.00	\$30.00
6	Threaded Hole Repair		5	15	EA	\$296.00	\$4,440.00	\$60.00	\$900.00	\$40.00	\$600.00	\$1.00	\$15.00
<b>Subtotal B</b>						<b>\$243,720.00</b>	<b>\$312,962.00</b>	<b>\$408,570.00</b>		<b>\$634,946.00</b>		<b>\$144,167.00</b>	
<b>Rotor</b>													
7	Broken Bar Repair		10	30	EA	\$100.00	\$3,000.00	\$440.00	\$13,200.00	\$2,200.00	\$66,000.00	\$1.00	\$30.00
8	Rotor Replacement		10	30	EA	\$8,825.00	\$264,750.00	\$7,985.00	\$239,550.00	\$8,500.00	\$255,000.00	\$1.00	\$30.00
9	Shaft Replacement		20	61	EA	\$3,550.00	\$216,550.00	\$720.00	\$43,920.00	\$650.00	\$39,650.00	\$1.00	\$61.00
10	Cooling Fan Replacement		7	20	EA	\$2,100.00	\$42,000.00	\$1,565.00	\$31,300.00	\$1,055.00	\$21,100.00	\$1.00	\$20.00
11	Shaft Extension Encoder		5	15	EA	\$1,565.00	\$23,475.00	\$2,340.00	\$35,100.00	\$1,566.00	\$23,490.00	\$1.00	\$15.00
12	Replacement Bearing Lock Nut		10	30	EA	\$130.00	\$3,900.00	\$75.00	\$2,250.00	\$7.00	\$210.00	\$1.00	\$30.00
13	Replace Bearing Stop		10	30	EA	\$210.00	\$6,300.00	\$75.00	\$2,250.00	\$40.00	\$1,200.00	\$1.00	\$30.00
14	Replace Grease Singer		10	30	EA	\$375.00	\$11,250.00	\$75.00	\$2,250.00	\$64.00	\$1,920.00	\$1.00	\$30.00
<b>Subtotal C</b>						<b>\$571,225.00</b>	<b>\$369,620.00</b>	<b>\$408,570.00</b>		<b>\$408,570.00</b>		<b>\$246.00</b>	
<b>Injection End (CE) Frame-Head</b>													
15	CE Bearing Cartridge Repair		5	15	EA	\$350.00	\$5,250.00	\$160.00	\$2,400.00	\$150.00	\$2,250.00	\$1.00	\$15.00
16	CE Frame-Head Repair		5	15	EA	\$350.00	\$5,250.00	\$160.00	\$2,400.00	\$280.00	\$4,200.00	\$1.00	\$15.00
17	Screen Repair		5	15	EA	\$55.00	\$825.00	\$108.00	\$1,620.00	\$80.00	\$1,200.00	\$1.00	\$15.00
18	Screen Replacement		5	15	EA	\$140.00	\$2,100.00	\$450.00	\$6,750.00	\$120.00	\$1,800.00	\$1.00	\$15.00
<b>Subtotal D</b>						<b>\$13,425.00</b>	<b>\$13,170.00</b>	<b>\$9,450.00</b>		<b>\$9,450.00</b>		<b>\$60.00</b>	
<b>Drive End (DE) Frame-Head</b>													
19	DE Bearing Fit Repair		5	15	EA	\$455.00	\$6,825.00	\$160.00	\$2,400.00	\$180.00	\$2,700.00	\$1.00	\$15.00
20	DE Frame-Head Repair		5	15	EA	\$350.00	\$5,250.00	\$160.00	\$2,400.00	\$290.00	\$4,350.00	\$1.00	\$15.00
<b>Subtotal E</b>						<b>\$12,075.00</b>	<b>\$4,800.00</b>	<b>\$7,050.00</b>		<b>\$7,050.00</b>		<b>\$30.00</b>	
<b>GRAND TOTAL</b>						<b>\$1,447,855.00</b>	<b>\$1,557,552.00</b>	<b>\$1,607,756.00</b>		<b>\$1,607,756.00</b>		<b>\$1,751,003.00</b>	

I hereby certify RAM Industrial Services, Inc. as being the lowest responsive, responsible bidder and recommend the award to them for total price, including sales tax, of

0/24/08  
Date

*L.A. Beckman*  
Signature

