

# Memorandum



**Date:** March 18, 2008

**To:** Honorable Chairman Bruno A. Barreiro  
and Members, Board of County Commissioners

Agenda Item No. 8(O)(1)(A)

**From:** George M. Burgess  
County Manager

**Subject:** Request to reject all proposals received in response to the County's Request For Proposals (RFP No. 439: PTP-Heavy Rail Vehicle Rehabilitation) and Waiving Bid Protest Procedures

## **RECOMMENDATION**

It is recommended that approval be granted to reject all proposals received in response to RFP 439: PTP-Heavy Rail Vehicle Rehabilitation for Miami-Dade Transit (MDT). It is further recommended that the Board waive bid protest procedures in accordance with Section 2-8.3 and 2-8.4 of the County Code with respect to the decision to reject all proposals. Upon approval of this recommendation, MDT will seek the Board's approval for a new rail vehicles solicitation.

## **SCOPE**

While the existing Metrorail guideway is physically located within Commission Districts 2, 3, 5, 6, 7, 8 and 13, its service impact benefits the riding public and is, therefore, countywide.

## **FISCAL IMPACT/FUNDING SOURCE**

As detailed in a memorandum to the Board dated September 27, 2007, staff performed a Life Cycle Cost analysis which examined rail vehicle maintenance needs over a 30 year period to ascertain whether or not it was more cost-effective to continue with the current rehabilitation solicitation or if current market conditions made the purchase of new, replacement vehicles the best value procurement alternative. That analysis has since been completed and has yielded an overall savings in favor of new vehicles ranging from \$40 to \$140 million, depending on the specific terms of the future new car procurement. Factors considered in this analysis are described in further detail below.

Contingent upon the approval of a People's Transportation Plan (PTP) amendment, a new vehicle procurement would be funded with the Charter County Transit System Surtax (Surtax) funds allocated to the original rehabilitation effort approved for inclusion in the PTP via Resolution No. R-1154-03, Miscellaneous Capital Improvement Projects List, adopted on October 9, 2003.

## **TRACK RECORD/MONITOR**

The prior rehabilitation effort was monitored by Delroy Tomlinson and Ivor Myers, MDT.

## **BACKGROUND**

MDT's current fleet of 136 heavy rail vehicles was placed in service in 1984. The recommended 15-year midlife overhaul of the fleet, which would allow the vehicles to operate reliably over its 30-year life cycle, was not executed by MDT due to the lack of available capital funding. Following voter approval of the Surtax five years ago in November 2002, MDT presented a list of capital improvement projects authorizing PTP investment in existing facilities. This list included funding for the rehabilitation of the 136 heavy rail vehicles, among other projects, and was approved by the Board via Resolution No. R-1154-03, on October 9, 2003.

On September 9, 2004, the Board of County Commissioners (Board) approved Resolution No. R1097-04 authorizing a Request to Advertise (RTA) the MDT Heavy Rail Vehicle Rehabilitation project (RFP No. 439). The cost to rehabilitate 136 heavy rail vehicles was estimated at \$211 million by Washington Infrastructure Services, Inc. (now known as URS Corporation – Washington Division), MDT's

engineering consultant for the Metrorail vehicle rehabilitation. The estimate included a per vehicle cost of \$1.406 million, and included \$650,000 for costs to support a Vehicle Monitoring and Control System (VMCS) and general contract spare parts. A 10% contingency allowance was also included for \$19.2 million.

In 2005, the estimate was updated to account for design and technical changes. The revised estimate to rehabilitate the 136 vehicles was adjusted to \$258.4 million (\$1.9 million per vehicle). This revised estimate included the spare parts, but did not include pricing for four spare truck frame assemblies, eight fully assembled spare trucks, the rehabilitation of eight spare trucks, and the restoration of ten damaged vehicles to their original condition (these additional items were requested in the solicitation to rehabilitate the vehicles).

Evaluation of proposals received in response to the RFP was completed. The evaluation process included the opportunity for proposers to submit a Best and Final Offer (BAFO), and a BAFO process was conducted. Prices submitted by Proposers participating in the RFP process and BAFO are as follows:

<b>Proposer</b>	<b>Initial RFP Price Submitted</b>	<b>BAFO Price Submitted</b>	<b>Plus or Minus Initial vs BAFO Pricing</b>
Bombardier Mass Transit Corp.	\$394,879,226	\$298,529,310	Reduced \$96,349,916
CAF USA, Inc.	\$289,832,762	\$311,291,300	Increased \$21,458,538
Ansaldobreda	\$332,203,425	\$331,192,354	Reduced \$1,011,071
ALSTOM	\$312,941,076	Did not participate in BAFO	N/A

The County initiated negotiations with the highest ranked proposer following the BAFO with Bombardier Mass Transit Corporation ("Bombardier"). During October and November 2006, the County held six negotiation sessions with Bombardier. Bombardier's negotiated price of \$274,495,000 or \$2.018 million per vehicle (exclusive of contingency), reflected a reduction of \$24 million from the BAFO price submitted by Bombardier. This reduction in price was achieved primarily as a result of a reduction in the requirements of the interior design of the vehicles, changes in the schedule of payments to Bombardier, and changes in Bombardier's production schedule.

The solicitation provided flexibility in determining best value in order to reach an agreement in the County's best interest, and allowed the County various options, at its discretion. The results of negotiations with Bombardier have been carefully reviewed and analyzed. The solicitation document did not commit the County to making a decision arising out of the results of the solicitation. The County is afforded the latitude to pursue other avenues determined to be in its best interest.

The County's options included:

- To enter into an agreement with Bombardier based on a negotiated agreement;
- To negotiate with the next highest ranked proposer;
- To issue a second BAFO;
- To reject all bids; or
- To take any measure determined to be in its best interest, if the price is determined to be financially infeasible.

### **JUSTIFICATION FOR REJECTION OF ALL BIDS**

As noted above, the procurement of new vehicles in lieu of rehabilitation was not considered a feasible alternative at the inception of the rehabilitation project due to a number of contributing factors:

- Cost – during the specifications development phase, the mid-life rail rehab was estimated at \$1.4 million per vehicle, or approximately 50% of the new vehicle prices estimated to range from \$2.6 to \$3.0 million per vehicle for a contract for 136 vehicles;
- Budget constraints – funding for 136 new vehicles at a cost ranging from a projected \$354 to \$408 million was not available;
- Vehicle life – it was estimated that the life of the rehabilitated vehicle would be extended by another 20 years; based on the estimated rehabilitation cost at that time, rehabilitation of the vehicles was considered a more cost-effective option.
- New Starts vehicles – Since Metrorail extensions were in the early planning stage, New Starts vehicle quantities needs could not be projected at that time. However, given the County's intention to procure new rail vehicles, there now exists an opportunity for greater economies of scale with a planned purchase of 62 vehicles in addition to the 136 required to replace the existing fleet (for a total 198 new vehicles).

After a careful, detailed review and analysis of the factors listed below, it is recommended that purchasing new vehicles, in lieu of rehabilitation of existing fleet, would be in the County's best interest. The factors considered in reaching this determination include:

#### **Life Cycle Cost Analysis**

As noted above, a Life Cycle Cost analysis was conducted by MDT and OSBM staff based on an MDT stand-alone solicitation of new vehicles versus rehabilitated vehicles over a 30 year period. The preliminary results of this analysis were forwarded to the Board on September 27, 2007. The analysis considered comparative administrative and engineering costs on a go-forward basis; the cost of maintenance and disposal of the existing vehicles within a new car acquisition; comparative financing costs; operating expenditures which were assumed to be the same for both alternatives over the analysis period, except for the mid-life overhauls; and an adjustment in order to account for the need to replace the rehabilitated vehicles at 20 years versus the 30 year life of newly manufactured vehicles (and included provision of a future midlife overhaul on a new vehicle). It is important to note that this analysis also considered the effort already expended by staff on the current solicitation, in addition to charges incurred on the existing consultant contract with WGI. Further, a thorough assessment of the marketplace for programs and pricing of new vehicles was conducted. Two cost price analysis models were used to determine the fair price estimate for new vehicles up to year 2006. The unit prices in the analyses were based on subsystems pricing, vehicle assembly and testing model, and comparative vehicle pricing models in similar vehicle contracts. These unit prices were normalized for any difference in MDT specifications compared to the models, plus escalation from 2006 to 2008, to arrive at a fair MDT price estimate. In the final analysis, the County's results favor purchasing new vehicles over pursuing rehabilitation, yielding an estimated savings of \$140 million over a 30 year period.

#### **New Starts Vehicles Requirements & Future Compatibility**

MDT's New Starts vehicles requirements and pricing for the planned Metrorail extensions also figured significantly into the Life Cycle Cost Analysis. In order to provide the required level of revenue operations planned for the Metrorail Orange Lines Phase I (Earlington-Heights/Miami Intermodal Center Connector) and Phase II (North Corridor), MDT requires 44 New Starts vehicles and an estimated 18 New Starts vehicles for Phase III (East West Corridor), for a total of 62 New Starts vehicles. It is projected that in order to meet the anticipated opening dates of the Orange Line Metrorail extensions (with the exception of Phase I), MDT would have to award a New Starts vehicle contract (Notice to Proceed) by the first quarter of 2010. If the County decides to rehabilitate the existing fleet of 136 vehicles, the per vehicle price on a stand-alone procurement for the 62 New Starts vehicles is projected to escalate to more than \$2.86 million per vehicle vs. the \$2.419 projected per vehicle cost under a new procurement for 198 vehicles where New Starts prices could be locked in. Such pricing would be much lower than prices realized if a single stand alone RFP is executed for each quantity of vehicles needed

for the various phases of the Orange Line. Maintenance for the future fleet would also be complicated by a lack of uniformity from the 62 new versus 136 rehabilitated vehicles. This could result in future sole source issues and additional costs for uncommon systems and inventories. Additionally, if a different car builder produces the New Starts vehicles, additional extensive training would be required for the vehicle maintenance and train operations workforce. If the County decides to rehabilitate the existing fleet, consideration must be given to awarding a bid waiver contract for New Starts vehicles in order to make these vehicles fully compatible with a rehabilitated fleet. The County would additionally need to seek a waiver from FTA if federal funds were sought for a non-competitive contract.

#### **MDT Operating Peak Vehicle Requirements & Age of Existing Fleet**

Another factor weighing heavily in the new car analysis has been the expected impact of rehabilitation on customer service. MDT's current fleet was placed into service in 1984. A mid-life rehabilitation should have been initiated when the fleet was 15 years old based on its 30 year anticipated useful life at the time of acquisition. However, as noted above, this rehabilitation was never initiated due to funding constraints. In the interim, while MDT has continued to perform routine maintenance on the fleet, the department has experienced a marked decline in vehicle availability for service due to the age of the vehicles. This "Peak Vehicle Requirement" or PVR is the number of vehicles that MDT must have available during peak service hours in order to maintain headways. Fewer available rail cars translates into an inability to maintain headways, resulting in a reduction of service and, consequently, greater inconvenience to MDT patrons. Under a rehabilitation scenario, a minimum of 24 vehicles would need to be rotated out of the existing fleet in order for the carbuilder to deliver four (4) rehabilitated vehicles per month to MDT. A reduction of the existing fleet by 24 vehicles would impact Metrorail's revenue vehicle availability when the Miami Intermodal Center (MIC) extension commences revenue operations in 2011. However, a new vehicle procurement delivery schedule would have no impact on revenue service vehicle requirements and would have no significant impact on transit patrons. The existing fleet would undergo a minor rehabilitation to improve reliability until the new vehicles begin to be delivered and would then be decommissioned accordingly (an estimated \$10.5 million will be required to maintain the existing fleet until receipt of the new vehicles and the net savings in the Life Cycle Cost analysis has been offset by this amount). The delivery timeline for the 136 new vehicles is 1 year longer than that of the rehabilitation schedule but with the advantage of not affecting existing service or requirements for the future Phase I Orange Line needs.

#### **Selected Proposer (Bombardier Mass Transportation, Inc.) Inquiry**

In response to correspondence received from Bombardier's legal counsel concerning the status of the solicitation for the rehabilitation of heavy rail vehicles, I personally met with Bombardier at a publicly noticed meeting on October 24, 2007. Bombardier presented its opinions on program assumptions that County staff made for the Life Cycle Cost analysis of the purchase of new vehicles versus the rehabilitation of the current fleet. Based on this meeting, I directed staff to conduct another meeting with Bombardier's representatives to discuss, in greater detail, the assumptions by both the County and Bombardier.

A second meeting was held on October 25, 2007. Staff determined that some of Bombardier's assumptions did not eliminate significant risks associated with rehabilitating the 25-year old fleet. Based on MDT's assumptions, and assumptions communicated by Bombardier, staff revised the Life Cycle Cost analysis. Nevertheless, the revised analysis continues to favor procurement of new vehicles over rehabilitation, and demonstrates that the procurement of new vehicles, even with Bombardier's assumptions, represents the best value option for the County at a savings of \$40 million over a 30 year period. More importantly, if the County chooses to rehabilitate the existing fleet, there would be inherent risks of cost escalations because the rehab, as structured, would require that MDT maintain and rehabilitate the old car shell, truck frames, gear boxes and door opening mechanisms. Failures in these parts would result in significant cost increases. Such risks would not be present under a new vehicle solicitation.

A joint purchase of new vehicles with the Washington Metropolitan Area Transit Authority (WMATA) was also considered. A decision not to pursue a joint procurement was made for several significant reasons, the foremost of which was the possible incompatibility of MDT's procurement timetable with WMATA's. Hence, it was determined that for the purchase of new vehicles, the County's interests in the near term would be best served by managing its own process.

**Summary**

Staff has extensively researched current rail procurement projects in order to analyze all available options and arrive at the recommendation that would be both cost effective and best serve this County's transit patrons. In light of the increased rehabilitation price, it has become apparent that it was imperative to re-evaluate what a true "best value" approach would be for this project. At this time, the advantages of a new vehicles procurement are significant. After careful review of rail services requirements for the current system, market options for providing the County the best rail service possible, and cost factors related to rail service delivery, including a through life cycle analysis of rehabilitating the existing fleet versus purchasing new vehicles, a decision to purchase new vehicles is recommended as the best value option for Miami-Dade County.

Upon approval of this recommendation, MDT will seek approval of a PTP amendment for the procurement of 136 new replacement vehicles (in lieu of the existing rehabilitation project in the Miscellaneous Capital Projects List), and funding for required minor rehabilitation to maintain the existing fleet until receipt of the new vehicles. A solicitation will also be prepared for a new vehicle procurement consistent with this recommendation for the 136 replacement vehicles and options for New Starts fleet. Replacement rail cars would be estimated to arrive beginning approximately 3 years from Notice to Proceed on a new contract.



Assistant County Manager



# MEMORANDUM

(Revised)

**TO:** Honorable Chairman Bruno A. Barreiro  
and Members, Board of County Commissioners

**DATE:** March 18, 2008

**FROM:** R. A. Cuevas, Jr.  
County Attorney

**SUBJECT:** Agenda Item No. 8(O)(1)(A)

Please note any items checked.

- "4-Day Rule" ("3-Day Rule" for committees) applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Bid waiver requiring County Manager's written recommendation
- Ordinance creating a new board requires detailed County Manager's report for public hearing
- Housekeeping item (no policy decision required)
- No committee review

Approved \_\_\_\_\_ Mayor

Agenda Item No. 8(O)(1)(A)

Veto \_\_\_\_\_

03-18-08

Override \_\_\_\_\_

RESOLUTION NO. \_\_\_\_\_

RESOLUTION AUTHORIZING THE REJECTION OF ALL PROPOSALS RECEIVED IN RESPONSE TO REQUEST FOR PROPOSALS NO. 439 FOR PTP HEAVY RAIL VEHICLE REHABILITATION; AND WAIVING THE REQUIREMENTS OF SECTIONS 2-8.3 AND 2-8.4 OF THE MIAMI-DADE COUNTY CODE PERTAINING TO BID PROTEST PROCEDURES BY TWO-THIRDS (2/3) VOTE OF THE BOARD MEMBERS PRESENT

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board authorizes the rejection of all proposals received in response to Request for Proposals No. 439 for the People’s Transportation Plan Heavy Rail Vehicle Rehabilitation; and waiving the requirements of Sections 2-8.3 and 2-8.4 of the Miami-Dade County Code pertaining to bid protest procedures by two-thirds (2/3’s) vote of the Board Members present.

The foregoing resolution was offered by Commissioner \_\_\_\_\_, who moved its adoption. The motion was seconded by Commissioner \_\_\_\_\_ and upon being put to a vote, the vote was as follows:

- |                      |                                    |
|----------------------|------------------------------------|
|                      | Bruno A. Barreiro, Chairman        |
|                      | Barbara J. Jordan, Vice-Chairwoman |
| Jose "Pepe" Diaz     | Audrey M. Edmonson                 |
| Carlos A. Gimenez    | Sally A. Heyman                    |
| Joe A. Martinez      | Dennis C. Moss                     |
| Dorrin D. Rolle      | Natacha Seijas                     |
| Katy Sorenson        | Rebeca Sosa                        |
| Sen. Javier D. Souto |                                    |

The Chairperson thereupon declared the resolution duly passed and adopted this 18<sup>th</sup> day of March, 2008. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA  
BY ITS BOARD OF  
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: \_\_\_\_\_  
Deputy Clerk

Approved by County Attorney as  
to form and legal sufficiency.

B.L.

Bruce Libhaber