

# Memorandum



**Date:** May 6, 2008

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

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

**Subject:** Resolution Approving an Amendment to the People's Transportation Plan (PTP) to Regarding the Purchase of New Metrorail Vehicles, in lieu of their Rehabilitation

Agenda Item No. 8(J)(1)(H)

## **RECOMMENDATION**

It is recommended that the Board of County Commissioners (Board) accept the recommendation of the Citizens' Independent Transportation Trust (CITT) regarding an amendment to the People's Transportation Trust Plan (PTP) for the purchase of new Metrorail vehicles, in lieu of their rehabilitation. The CITT forwarded a revised favorable recommendation on this amendment during a special meeting held on April 14, 2008.

## **SCOPE**

While the existing Metrorail guideway is physically located within Commission Districts 2, 3, 5, 6, 7, 8, 12 and 13, its service impact benefits the riding public and is, therefore, countywide.

## **FISCAL IMPACT/FUNDING SOURCE**

The new rail car purchase is proposed to be funded 100% with proceeds from the Charter County Transit System Surtax (Surtax) through the issuance of bonds. The estimated contract cost for 136 new Metrorail vehicles is \$345,440,000 based on an estimated per vehicle price of \$2.419 million plus a 5% contingency. In addition, the following project support costs will also be required: Engineering support, \$17,139,000; contracted Quality Control inspection services, \$5,566,000; MDT project oversight \$18,006,000; as well as \$15,300,000 to improve the reliability of the current fleet until the arrival of the new vehicles for a total required funding of approximately \$401,451,000. County staff is currently developing the contract award specifications for this future solicitation and refining cost estimates for the future advertisement.

In the face of increasing capital and operational costs, MDT's capital project needs are currently being re-prioritized to identify critical infrastructure needs. MDT has been working in concert with the CITT and County Manager to prioritize these projects and refine the pro forma. As a result, only those items which have been deemed critical will be moving forward while others will be deferred. The Metrorail vehicle procurement has been identified as a critical project of the PTP and the estimated cost for this procurement is budgeted in the current departmental projections.

## **TRACK RECORD/MONITOR**

The MDT employee responsible for managing the future project is Richard Snedden, Assistant Director for Rail Services.

## **BACKGROUND**

MDT's current fleet of 136 heavy rail vehicles was placed in service in 1984. The recommended midlife overhaul of the fleet, which would allow the vehicles to operate reliably over their 30-year life cycle, was not executed by MDT due to the lack of available capital funding. Following voter approval of the

Surtax in November 2002, MDT presented a list of capital improvement projects authorizing PTP investment in existing facilities. This listing was approved by the CITT on July 29, 2003 (R-03-004), and included funding for the rehabilitation of the 136 heavy rail vehicles and other projects. The listing was subsequently approved by the Board via Resolution No. R-1154-03, on October 9, 2003.

On September 9, 2004, the Board approved Resolution No. R-1097-04 authorizing a Request to advertise (RTA) the MDT Heavy Rail Vehicle Rehabilitation project (RFP No. 439). The selection process ensued and continued to negotiations with the top ranked proposer through the end of 2006. After a careful review of the results of the negotiations, a thorough assessment of the current marketplace for the rail industry, an evaluation of MDT's current rail service performance measures and an analysis of upcoming requirements for New Start vehicles for the planned Metrorail extensions, I directed staff to perform a Life Cycle Cost analysis to ascertain whether or not it was more cost-effective to continue with the rehabilitation solicitation or if market conditions now made the purchase of new, replacement vehicles the best value procurement alternative. The results of that Life Cycle Cost analysis were detailed in memoranda forwarded to the Board of County Commissioners (Board) and CITT (dated September 27, 2007 and later in the March 18, 2008 item rejecting all bids as attached). As you are aware, that analysis yielded an overall savings in favor of new vehicles ranging from \$40 million to \$140 million, depending on the specific terms of the future new car procurement and led to the recommendation presented to the Board on March 18, 2008 to reject all bids on the existing rehabilitation solicitation in favor of a new car purchase. At this time, the advantages of new vehicle procurement continue to be significant.

As relayed to the Board via memorandum dated April 8, 2008 (attached), on Wednesday, March 26, 2008, the CITT did not approve the PTP amendment recommending the purchase of new vehicles; since that time, the CITT convened a special meeting on April 14, 2008 where they reconsidered their decision. This item reflects the revised favorable recommendation adopted at that meeting.

I want to reiterate that use of Surtax funding for this project is consistent with staff recommendations to the Board. The need for a rail rehabilitation project of some form was always contemplated and disclosed as revealed by a review of the Board proceedings on July 23, 2002 during consideration of a resolution expressing the County's commitment to financing of a rail rehabilitation. The purchase of new rail vehicles for Metrorail is a sound business decision even if an overdue one and funding this purchase out of Surtax is appropriate and consistent with the public record on the subject.



Assistant County Manager



# MEMORANDUM

(Revised)

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

**DATE:** May 6, 2008

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

**SUBJECT:** Agenda Item No. 8(J)(1)(H)

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  
Veto \_\_\_\_\_  
Override \_\_\_\_\_

Agenda Item No. 8(J)(1)(H)  
5-6-08

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

RESOLUTION AMENDING THE PEOPLE'S  
TRANSPORTATION PLAN (PTP) TO INCLUDE THE  
PROCUREMENT OF NEW METRORAIL VEHICLES, IN LIEU  
OF THEIR REHABILITATION

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

**WHEREAS**, a public hearing was held at the Transit Committee; and

**WHEREAS**, the Board accepts the recommendation of the Citizens' Independent Transportation Trust,

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA**, that this Board approves an amendment to the People's Transportation Plan (PTP) to include the procurement of 136 new Metrorail vehicles, in lieu of rehabilitation, in an amount not to exceed \$401,451,000.

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
Dorin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 6<sup>th</sup> day of May, 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.



Bruce Libhaber

Office of the  
Citizens' Independent  
Transportation Trust

# Memo

**To:** Miles E. Moss, P.E., Chairperson  
and Members, Citizens' Independent Transportation Trust (CITT)

**From:** *mef*  
Nan A. Markowitz, Executive Director

**cc:** Ysela Llorc, Assistant County Manager  
Bruce Libhaber, Assistant County Attorney

**Date:** March 17, 2008

**Re:** Resolution Recommending an **Amendment** to the People's Transportation Plan (PTP) Modifying the People's Transportation Plan's Miscellaneous Capital Improvement Projects List in Exhibit 1 to Include the Procurement of 136 New Metrorail Vehicles, in lieu of Rehabilitation

---

This item was prepared by Miami-Dade Transit (MDT). **The Surtax impact is not to exceed \$401,451,000.00.**

It is recommended that the Citizens' Independent Transportation Trust (CITT) approve the attached resolution supporting the amendment of the People's Transportation Plan (PTP) modifying the Miscellaneous Capital Improvement Projects List to include the procurement of 136 Metrorail vehicles in lieu of rehabilitation.

On July 29, 2003 the CITT, through Resolution R-03-004, approved a listing of Miscellaneous Capital Improvement Projects, which included funding for the rehabilitation of the Metrorail vehicles. At the start of the vehicle rehabilitation effort, the procurement of new vehicles was not considered a feasible alternative due to contributing factors such as cost, budget constraints, vehicle life and New Starts vehicles and compatibility. The initial cost to rehabilitate 136 heavy rail vehicles was estimated at \$211 million and in 2005 the estimate was updated to \$258.4 million (\$1.9 million per vehicle) to account for design and technical changes. This revised estimate did not include pricing for four (4) spare truck frame assemblies, eight (8) fully assembled spare trucks, the rehabilitation of eight (8) 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. The rehabilitated contract price from Bombardier, the highest ranked proposer, was \$274.5 million or \$2.018 million per vehicle.

After careful review of the negotiations results, assessment of the rail industry market, and MDT's current rail service performance measures and New Starts vehicles requirements, a Life Cycle Cost analysis was conducted by Miami-Dade County staff to examine rail maintenance needs over a 30-year period and ascertain the cost-effectiveness of continuing with the current rehabilitation solicitation versus purchasing new replacement vehicles. That final analysis showed an overall savings in favor of new vehicles of up to \$140

million over a 30 year period, depending on the specific terms of the future new car procurement. The cost analysis includes the New Starts vehicles needed for the Orange Line. 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 estimated to be more than \$2.86 million per vehicle versus 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 the quantity of vehicles needed for each phase of the Orange Line.

The estimated contract cost for 136 new Metrorail vehicles is \$345,440,000 based on an estimated per vehicle price of \$2.419 million plus a 5% contingency. In addition, the following project support costs will be required: Engineering support, \$17,139,000; contracted Quality Control inspection services, \$5,566,000; MDT project oversight \$18,006,000; as well as \$15,300,000 to improve the reliability of the current fleet until the arrival of the new vehicles for a total required funding of approximately \$401,451,000.

Approval of this amendment will allow for a new vehicle procurement to be funded with the Surtax funds originally allocated for the rehabilitation effort included in the PTP Miscellaneous Capital Improvement Projects List, in an amount not to exceed \$401,451,000.00.

This item was forwarded with no recommendation at the March 13, 2008, Project and Financial Review Committee.

If you have any questions, or need additional information, please do not hesitate to contact me.

RESOLUTION NO. 08-027

RESOLUTION BY THE CITIZENS' INDEPENDENT TRANSPORTATION TRUST (CITT) RECOMMENDING THAT THE BOARD OF COUNTY COMMISSIONERS (BCC) AMEND THE PEOPLE'S TRANSPORTATION PLAN (PTP) AND MODIFY MIAMI-DADE TRANSIT'S MISCELLANEOUS CAPITAL IMPROVEMENT PROJECTS LIST IN EXHIBIT 1 OF THE PTP TO INCLUDE THE PROCUREMENT OF 136 NEW METRORAIL VEHICLES IN AN AMOUNT NOT TO EXCEED \$401,451,000.00

**WHEREAS**, the CITT desires to accomplish the purposes outlined in the accompanying OCITT Executive Director's memorandum, a copy of which is incorporated herein by reference,

**NOW, THEREFORE, BE IT RESOLVED BY THE CITT**, that this Trust recommends an amendment to the People's Transportation Plan's (PTP) Miami-Dade Transit Miscellaneous Capital Improvement Projects modifying Miami-Dade Transit's Miscellaneous Capital Improvement Projects list to include the procurement of 136 new Metrorail vehicles in an amount not to exceed \$401,451,000.00, as outlined in the corresponding document in substantially the form attached hereto and made a part hereof.

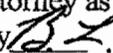
The foregoing resolution was offered by Hon. Anna E. Ward, Ph.D., who moved its adoption. The motion was seconded by Jorge E. Cueto, Esq. and upon being put to vote, the vote was as follows:

Miles E. Moss, P.E., Chairperson – Aye  
Hon. Linda Zilber, Vice-Chairperson – Aye

Harold Braynon, Jr. – Aye  
LtCol Antonio Colmenares – Aye  
Peter L. Forrest – Nay  
Hon. Jorge Rodriguez-Chomat – Nay  
Rodney Sanders – Aye  
Marilyn Smith – Absent

Marc A. Buoniconti – Nay  
Jorge E. Cueto, Esq. – Aye  
Hon. James A. Reeder – Nay  
William Sancho – Aye  
Paul J. Schwiep, Esq. – Absent  
Hon. Anna E. Ward, Ph.D. – Aye

The Chairman thereupon declared the resolution duly passed and adopted this 14<sup>th</sup> day of April 2008.

Approved by the County Attorney as  
to form and legal sufficiency 

  
By: \_\_\_\_\_  
Executive Director

**Date:** April 8, 2008

# Memorandum



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

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

**Subject:** People's Transportation Plan Amendment Regarding Use of Surtax for New Metrorail Vehicles

This memorandum serves to address the issue of the appropriateness of the use of the People's Transportation Plan (PTP) Surtax funds for the purchase of new Metrorail cars as there has been some debate on this point. The PTP has been amended on several occasions; in many cases, the amendments have resulted from legal interpretations of the enacting PTP Ordinance No. 02-116. For example, the PTP amendments for the Miscellaneous Capital Improvements List and Special Transportation Services, among others, were expenditures that had been contemplated as Surtax-funded in initial pro formas but were ultimately submitted to this Board as PTP amendments due to interpretations of the enacting Ordinance. In the case of the rail rehabilitation, I bring to your attention the attached Board agenda item dated July 23, 2002, the Board meeting immediately after the July 9, 2002 Board vote which placed the PTP before the voters and adopted the PTP Ordinance.

A review of the proceedings from this item reveal an exchange between former Transit Director Danny Alvarez and several Commissioners where it was clearly articulated by staff that the rail rehabilitation would be funded by the PTP if the Surtax was approved by the voters in November. The item before the Board at that time was a resolution expressing the County's intent to finance the rail rehabilitation through one of a number of possible funding sources, including the half penny Surtax which had yet to be presented to the voters on November 5, 2002. As explained by the Director at that meeting (and noted in the item) this was in response to interactions with the Federal Transit Administration (FTA) which had asked the County to identify and commit funding for this project since the rail rehabilitation project was overdue. However, both in the item and on the record, it was noted that due to actual use of the vehicles, MDT had delayed the mid-life point by several years -from 12 to 20 years. That extension of useful life, which was based on actual hours of operation of the fleet, put the mid-life rehab as due in 2004. In response to a direct question from Commissioner Seijas asking if this project was included in the half penny tax, former Director Alvarez unequivocally responded that it was. He further stated later on in the discussion that the FTA had requested this commitment precisely because we did not have a dedicated source of funding for Transit.

As you are aware, on Wednesday, March 26, 2008, the Citizens' Independent Transportation Trust (CITT) did not approve the PTP amendment recommending the purchase of new Metrorail vehicles in lieu of their rehabilitation. Since that time, the CITT has decided to convene a meeting on April 14 in order to reconsider its decision. The recommendation to purchase new vehicles came on the heels of an extensive Life Cycle Cost Analysis that concluded that the purchase of new cars yielded a \$40 to \$140 million savings over a 30 year period; funding for infrastructure renewal was a key issue cited by the Federal Transit Administration in its recent downgraded rating of the Phase II Orange Line. It is my hope that the CITT membership considers these issues as they revisit their decision, particularly in the midst of the effort to restore the North Corridor's rating. However, because the April 14 meeting is after the printing of the April 16 Transit Committee agenda, the current unfavorable recommendation from the CITT will be published. Should the CITT reconsider its decision, a substitute item will be submitted reflecting that revised recommendation.

I want to reiterate that use of Surtax funding for this project is consistent with staff recommendations to the Board. The need for a rail rehabilitation project of some form was always contemplated and disclosed. The purchase of new rail vehicles for Metrorail is a sound business decision even if an overdue one and funding this purchase out of Surtax is appropriate and consistent with the public record on the subject.

c: Honorable Carlos Alvarez, Mayor  
Denis Morales, Chief of Staff, Office of the Mayor  
Ysela Llort, Assistant County Manager  
Harpal Kapoor, Director, Miami-Dade Transit  
Nan Markowitz, Executive Director, Office of the CITT

10



## Miami-Dade Legislative Item File Number: 022097

<b>File Number:</b> 022097	<b>File Type:</b> Resolution	<b>Status:</b> Adopted
<b>Version:</b> 0	<b>Reference:</b> R-831-02	<b>Control:</b> County Commission
<b>File Name:</b> MID-LIFE REHABILITATION FUND OF METRORAIL AND METROMOVER		<b>Introduced:</b> 7/3/2002
<b>Requester:</b> Miami-Dade Transit Agency	<b>Cost:</b>	<b>Final Action:</b> 7/23/2002
<b>Agenda Date:</b> 7/23/2002 <b>Agenda Item Number:</b> 6I1C		

**Notes: Title:** RESOLUTION AUTHORIZING COUNTY MANAGER TO COMMIT LOCAL OPTION GAS TAX OR OTHER APPROPRIATE SOURCES OF FUNDING TO FINANCE UP TO \$205 MILLION FOR THE PURPOSE OF FUNDING THE MID-LIFE REHABILITATION OF THE METRORAIL AND METROMOVER VEHICLES

**Indexes:** FUNDS **Sponsors:** NONE

**Sunset Provision:** No                      **Effective Date:**                      **Expiration Date:**  
**Registered Lobbyist:** None Listed

### Legislative History

Acting Body	Date	Agenda Item	Action	Sent To	Due Date	Returned	Pass/Fail
-------------	------	-------------	--------	---------	----------	----------	-----------

Board of County Commissioners	7/23/2002	6I1C	Adopted				P
-------------------------------	-----------	------	---------	--	--	--	---

**REPORT:** Commissioner Seijas expressed concern with approving the foregoing item without being provided a listing of transit projects that would not receive funding as a result of this proposal. Miami-Dade Transit Agency Director Danny Alvarez stated the foregoing proposed resolution was being presented as a result of the Federal Transit Administration's request that the County commit to the mid-life rehabilitation of its Metrorail and Metromover vehicular fleet. He indicated no decision had yet been made as to the funding source, however, should the half-penny transit tax be approved by the voters in November 2002, neither a bond issuance or local gas tax option would be necessary to implement the project. Mr. Alvarez indicated all funding options would be analyzed before presentation to the Board. Chairperson Margolis noted the foregoing item proposed the use of savings expected from Article V costs as an option to fund the mid-life rehabilitation of the Metrorail and Metromover vehicles. She spoke of the efforts exhausted by the County in reducing Article V related expenditures in order to realize these savings and questioned the appropriateness of using those savings for transportation related projects.

11

Commissioner Barreiro clarified that the foregoing item provided the Board and county staff with various funding options available for the rehabilitation and expansion of the Metrorail and Metromover system of vehicles. He stated the actual funding mechanism would be identified and presented for the Board's consideration at a later date. Commissioner Sorenson suggested that the Board had the discretion to use Article V savings in any manner it deemed appropriate. She noted that the County was funding Article V costs for part of the court system that was the responsibility of the State of Florida. Commissioner Moss spoke of the high visibility of the transit system and of using the system to reflect the County's commitment to the future and to increase the community's confidence. He asked that staff take a futuristic look at its transit vehicles and consider vehicles that resemble monorails or rehabilitating existing vehicles in such a way that the transit system appeared new. Commissioner Barreiro spoke regarding the idea of seamless transit systems using third-generation vehicles. He noted the need for staff to have flexibility to consider options for this type of system. The Board by motion duly made, seconded and carried, adopted the foregoing proposed resolution.

---

Transportation Infrastructure & Environment Cmte	7/16/2002	3Q	Forwarded to BCC with a favorable recommendation	P
---	-----------	----	--	---

**REPORT:** Mr. Danny Alvarez, Director, Miami-Dade Transit Agency, noted that the foregoing resolution would not commit the County Commission to rehabilitate or replace the Metrorail fleet.

---

County Attorney	7/3/2002	Assigned	Bruce Libhaber	7/3/2002
--------------------	----------	----------	-------------------	----------

---

County Manager	7/3/2002	Assigned	Bill Johnson	7/3/2002	7/3/2002
-------------------	----------	----------	-----------------	----------	----------

---

County Manager	7/3/2002	Assigned	County Attorney	7/23/2002
-------------------	----------	----------	--------------------	-----------

**REPORT:** MDT (TIE 7/16/2002)

---

### Legislative Text

---

**TITLE**

RESOLUTION AUTHORIZING COUNTY MANAGER TO COMMIT LOCAL OPTION GAS TAX OR OTHER APPROPRIATE SOURCES OF FUNDING TO FINANCE UP TO \$205 MILLION FOR THE PURPOSE OF FUNDING THE MID-LIFE REHABILITATION OF THE METRORAIL AND METROMOVER VEHICLES

**BODY**

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 hereby authorizes the County Manager to commit Local Option Gas Tax or other appropriate sources of funding to finance up to \$205 million for the purpose of funding the mid-life rehabilitation of the Metrorail and Metromover vehicles.

**HEADER**

12

To: Honorable Chairperson and Members Date:  
Board of County Commissioners

From: Steve Shiver Subject: Authorize the County Manager  
County Manager to Commit Local Option Gas Tax, or Other Appropriate Funding Sources, to Finance  
Up To \$205 Million to Fund Mid-Life  
Rehabilitation of Metrorail and  
Metromover Vehicles

#### **STAFF RECOMMENDATION**

It is recommended that the Board authorize the County Manager to commit Local Option Gas Tax (LOGT) funds, or other appropriate sources of funding, to finance up to \$205 million for the purpose of funding the mid-life rehabilitation of the Miami-Dade Transit (MDT) Metrorail and Metromover vehicles. Revenue options may include a penny or a half-penny sales tax or a bond issue. This Metrorail and Metromover mid-life rehabilitation is not a discretionary item. The commitment expressed in the accompanying Resolution is a requirement of the Federal Transit Administration.

#### **MANAGER'S BACKGROUND**

All Metrorail vehicles and the vehicles of the original Metromover Loop systems were manufactured in the early 1980's and became operational on the MDT system during the mid-eighties. The Federal Transit Administration (FTA) maintenance requirements for fixed guideway rolling stock established a minimum normal service life of 25 years, with a mid-life overhaul required when the vehicles have been in service for 12 years. According to the FTA guidelines, the service life of rolling stock begins when vehicles are placed in revenue service and continues until they are removed from service. This service life is defined as time spent in normal transit service, not time spent stockpiled or otherwise unavailable for regular transit use. Specific safety-related maintenance items will be addressed during this rehabilitation process, including such important items as brakes in the rail vehicles.

The FTA has strongly expressed their concern that the County identify and commit funding for this process. By moving forward at this time, the County makes a commitment to this expenditure.

MDT has developed a methodology, accepted by FTA, that converts regularly measured lifespan by hours of operation into years of service. Although the Metrorail vehicles all began revenue service in 1984, the 136 vehicles have been rotated in and out of service to extend the life of the vehicles. As a result, the mid-life point was delayed by several years.

However, as of now, all 136 vehicles in service have accumulated the service life exceeding the minimum 12 years necessary to qualify for mid-life rebuild and modernization. The original 12 Metromover vehicles, which began revenue service in 1986, have also reached the mid-life point.

The mid-life overhaul of the rail vehicles is estimated to cost approximately \$205 million. The rebuilds will occur in an orderly programmed manner so as not to affect ongoing service demands. MDT will conduct the ongoing mid-life overhaul and modernization in conjunction with a professional organization that will be selected at a later time, based on a procurement process that will take into consideration the firm's plant or facility, industry experience, and capabilities, and a Quality Assurance Program plan.

Prior to that selection process, MDT will engage a consultant firm to provide specification development and management services for the project. The selected consultant firm will be required to have extensive experience in specification development and program management of mass transit

13

vehicle overhaul and modernization, including light and heavy rail passenger vehicles, as well as, automated guideway vehicles.

The firm will provide detailed specification for component repair or replacement and systems upgrades where necessary and will coordinate with MDT in assessing fleet condition and requirements, including specific cost options. Additional tasks of the consultant may include providing assistance with the development of a program management plan, coordinating shipment of vehicles to the production plant, providing in-plant inspections of work progress, performing qualification and acceptance testing at MDT as required, providing training programs to MDT operations and maintenance personnel for new and upgraded equipment, and overseeing warranty administration.

The consultant selection process should be completed by the summer of 2002, to be followed by the process of seeking a professional transit industry firm to perform the rail modernization. Based on current assumptions, the modernization rate of production is expected to be approximately four to six vehicles per month and take about three years to complete. The initiation of the mid-life overhaul would begin in 2004 and be completed in 2008. The duration of the modernization process may be adjusted once a contract package is prepared, taking into consideration such elements as spare ratios, headways, and funding availability.

Currently the County uses LOGT and other funds to pay for transportation-related activities incurred by MDT and the Public Works Department. This project is too expensive to fund on a pay-as-you go basis. Therefore, a financing mechanism is required. Without a new revenue source or capital program, existing funds would have to be found to back the financing. Once funds are committed to finance the rehabilitation of the Metrorail and Metromover vehicles, general fund monies will be required to offset expenditures currently covered by them. However, the scheduled implementation of Article V of the State Constitution in July 2004 (as amended in 1998) is expected to reduce the County's net cost for the court system by as much as \$60 million (annually). In light of recent state action, it is likely that the actual savings will be significantly less than that amount. However, we do anticipate sufficient savings to cover transportation expenditures. These freed-up funds can be used to finance the mid-life rehabilitation. Although the full fiscal impact of the implementation of Article V will not be felt until FY 2004-05, the County will generate a quarter of the expected savings in FY 2003-04 due to the overlapping State and County's fiscal years. These partial savings will be enough to cover any debt obligation required by MDT in FY 2003-04.

Although financing would incorporate funds for the entire vehicle mid-life overhaul, additional capital costs for infrastructure improvements related to the overhaul will be required. Those costs will generally be included as part of MDT's capital expenditures funded from FTA formula and fixed guideway modernization grants awarded annually.

Funds provided through those federal grants are soft-matched through the use of State toll revenue credits. Generally, no County match is required for those annual capital costs.

---

[Home](#) | [Agendas](#) | [Minutes](#) | [Legislative Search](#) | [Lobbyist Registration](#) | [Legislative Reports](#)  
[2008 BCC Meeting Calendar](#) | [Miami-Dade County Code of Ordinances](#)

[Home](#) | [Using Our Site](#) | [About](#) | [Phone Directory](#) | [Privacy](#) | [Disclaimer](#)

---

E-mail your comments, questions and suggestions to [Webmaster](#)

Web Site © 2008 Miami-Dade County.  
All rights reserved.

14

# 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

+

15

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:

Proposer	Initial RFP Price Submitted	BAFO Price Submitted	Plus or Minus Initial vs BAFO Pricing
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.

2

16

### **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

3

17

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.

*[Handwritten signature]*

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

5

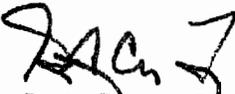
19



**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

*6*

*20*

Approved \_\_\_\_\_ Mayor  
Veto \_\_\_\_\_  
Override \_\_\_\_\_

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

03-18-08

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
Dorin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa
Sen. Javier D. Souto	

7

21

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

8

22

# Memorandum



**Date:** SEP 27 2007

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

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

**Subject:** Status of Request for Proposals (RFP) No. 439: Heavy Rail Vehicle Rehabilitation

This is to advise the Board of the status of RFP No. 439: Heavy Rail Vehicle Rehabilitation. Since the time of the issuance of the RFP, new considerations and alternatives have emerged that have affected my ability to forward a finalized recommendation to the Board. After a careful review of the results of the negotiations, a thorough and ongoing assessment of the current marketplace for the rail industry, an evaluation of MDT's current rail service performance measures and an analysis of upcoming requirements for New Start vehicles for the planned Metrorail extensions, I directed staff to perform a Life Cycle Cost analysis to ascertain whether or not it was more cost-effective to continue with the current rehabilitation solicitation or if market conditions now made the purchase of new, replacement vehicles the best value procurement alternative. While the cone of silence is still in effect for this procurement and will remain in effect until a final recommendation is filed with the Clerk of the Board, I wanted to share the preliminary results of the Life Cycle Cost analysis in the event that this review ultimately leads us to a policy shift on this very important project.

## Background

On September 9, 2004, the Board approved Resolution No. R-1097-04 authorizing the issuance of the RFP for the Miami-Dade Transit (MDT) Heavy Rail Vehicle Rehabilitation Project. At that time, the estimated cost to rehabilitate 136 vehicles was \$211 million. This estimate was made in collaboration with the consultant firm, Washington Infrastructure Services, Inc., now known as Washington Group International (WGI), and included a per vehicle cost of \$1.406 million in addition to a contingency and other ancillary needs. During that time, estimates reviewed by staff for new vehicle prices were well above budget constraints and ranged from \$2.6 to \$3.0 million per vehicle based on existing procurements adjusted for scope differences. While the life of a new fleet would have been extended 30 years versus the 20 years expected from a rehabilitated vehicle, rehabilitation was still considered a more cost effective option.

On March 18, 2005, four proposals were received from firms determined to be qualified to perform the work required in the RFP. The subsequent evaluation/selection process led to negotiations with Bombardier Mass Transit Corporation (Bombardier) as the highest ranked proposer after evaluation of technical proposal and price. During October and November 2006, the County held six negotiations sessions with Bombardier to arrive at a negotiated price of \$274,495,000 (\$2.018 million per vehicle). This price was well above the 2004 estimate and still higher than the revised Engineer's estimate (updated in 2005 to account for design and technical changes) of \$258.4 million (\$1.9 million per vehicle).

In light of this increased rehabilitation price, MDT began the process of exploring what other agencies were paying for rail vehicles and the comparative life cycle advantages. It soon became apparent that it was imperative to reevaluate what a true "best value" approach would be for this project. Since that time, 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. While this analysis has not

yet been completed, some preliminary data is detailed below. At this time, the advantages of a new vehicle procurement seem significant; nevertheless, further research is required in order to finalize a recommendation to the Board.

**Preliminary Findings**

To date, we have learned that several large transit agencies are contemplating large scale vehicle procurements to replace their existing fleets. All of these agencies maintain vehicle volumes at least triple that of MDT, hence, the per vehicle unit price expected to be obtained from the economies of scale would place any joint solicitation with these agencies at a more competitive edge. The Life Cycle Cost (LCC) analyses performed by staff comparing new versus rehabilitation determined that either a joint or MDT stand-alone procurement to acquire new vehicles would be much more cost effective than rehabilitation. This was based on a unit price of \$2.415 million (including contingency) under a joint procurement and \$2.7 million (including contingency) for an MDT stand-alone procurement for 198 vehicles (136 from the original fleet plus 62 additional for the future Orange Line) with a 30 year life. This contrasts with the final price negotiated with the top ranked proposer for the rail rehabilitation at \$2.219 million per car (including contingency) for a car with a 20 year life. The analyses 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 were assumed to be the same for both alternatives over the analysis period except for the mid-life overhauls; and an adjustment was made in order to account for the need to replace the rehabilitated vehicles at 20 years versus the 30 year life of newly manufactured vehicles.

Generally, the analysis finds an overall savings in favor of new vehicles of approximately \$198.5 million to the County over a 30 year period under the joint procurement assumptions and approximately \$150 million for the MDT stand-alone procurement. The need for 62 additional vehicles as the three phases of the Orange Line are opened figures significantly into this projection (8 for the Phase I (EH-MIC); 36 for Phase II (North); and 18 for Phase III (East-West). If an option to purchase the 62 new start vehicles is included in a replacement vehicle contract, these prices would be locked in and 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.

It is also important to note that the LCC analysis does consider the effort already expended by staff on this solicitation, in addition to charges incurred on the existing consultant contract with WGI. Further, any joint procurement would result in the assignment of contracts overseen by the respective agencies in accordance with their respective State and local guidelines as applicable, and would not preclude either party from seeking FTA funding. Finally, FTA guidelines prescribe 25 years as the useful life of a rail vehicle; MDT's fleet will be at that stage in 2009 and, hence, MDT could retire all vehicles with no federal penalty.

Another factor that has weighed heavily in the new car analysis has been the expected impact of rehabilitation on customer service. As you are aware, MDT's current fleet was placed in service in 1984. A mid-life rehabilitation of the fleet should have been initiated when the fleet was fifteen years old based on its thirty year anticipated useful life at the time of acquisition. However, 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. The Peak Vehicle Requirement (PVR) increased to 102 with the opening of the Palmetto

Station in May 2003. With 136 existing vehicles, this translated into an operating spare ratio of 33.3%. However, even with that spare ratio, fleet vehicle availability was an increasing challenge. There was a significant decline in the number of times that the PVR was met during the first 5 months of this year when compared to the same period last year (fleet availability was at 97.3% of PVR in the mornings from January through May 2006 versus 92.5% during the same period in 2007; Afternoon availability was at 96.8% from January through May 2006 versus 90.7% during the same period in 2007). MDT's inability to meet its PVR has a direct impact on its ability to meet its on time performance goals. Fewer available rail cars means an inability to maintain headways, resulting in a reduction of service and, consequently, greater inconvenience to MDT patrons. Under the planned rehabilitation, 24 cars would be in rotation for the 5 year duration of the rehabilitation project, further straining MDT's ability to maintain current headways. Inevitably, MDT would be forced to adjust operating service levels by shifting to 4 car trains and lowering service frequency. A reduction from 6 to 4 car trains during peak service is expected to reduce passenger capacity by approximately 3,800 passengers per hour.

However, if new vehicles are procured in lieu of rehabilitation, the existing fleet of 136 vehicles 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 LCC analysis has been offset by this amount). Although operating service levels would still need to be adjusted when the MIC is opened with a PVR of 104 (reduction to 4 car trains and service frequency), the spare ratio would be 31% and current peak service frequency could be maintained at 7.5 minutes for the Palmetto — Dadeland South (DLS) trips and 6 minutes between the future MIC - DLS trips. Consequently, a PVR of 102-104 could be maintained and service frequency on the MIC trips improved from 12 minutes to 6 minutes with the new vehicle procurement option. 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 MIC.

No doubt, there are significant costs associated with the procurement of new rail cars. There are also significant costs associated with managing a long term rail car procurement contract. Nevertheless, the advantages of a single larger volume order cannot be ignored. The lower per unit cost, extended vehicle life, sharing of ancillary costs, and short and long term maintenance service needs will factor heavily into the final analysis. We anticipate a final recommendation to be before the Board before the end of the year. In the interim, staff will continue to analyze all viable alternatives to determine the best value option for Miami-Dade County.

c: Honorable Carlos Alvarez, Mayor  
Denis Morales, Chief of Staff  
Susanne Torriente, Chief Assistant County Manger  
Ysela Llort, Assistant County Manager  
Harpal Kapoor, Director, MDT  
Miriam Singer, Director, Department of Procurement Management  
Hugo Benitez, Assistant County Attorney  
Jason Bloch, Assistant County Attorney  
Bruce Libhaber, Assistant County Attorney  
Kay Sullivan, Clerk of the Board