

OPERATIONS COMMITTEE APRIL 20, 2006

## SUBJECT: 2550 RAIL VEHICLE PROGRAM

ACTION: RECEIVE AND FILE

#### **RECOMMENDATION**

Metro

Receive and file the 2550 Rail Vehicle Program quarterly status report for the period ending March 2006.

#### **ISSUE**

On April 24, 2003, the Board awarded two key contracts to the Program:

- A five-year contract to Ansaldobreda S.p.A. (Ansaldobreda) for a base buy fleet of 50 LRVs (LRV). These 50 LRVs will be utilized on all existing and future Metro light rail lines.
- A rail-consulting contract to LTK Engineering Services (LTK) for as-needed technical support to the Program.

In addition, the Board directed periodic updates on the status of the Program.

#### BACKGROUND

Based on the lessons-learned from operational experience with the P2000 LA Standard Car contract, Rail Operations created an LRV Integrated Project Team (IPT) responsible for managing the Program. The IPT is organized under Metro Rail Fleet Services and consists of the Project Manager, Deputy Project Manager, Contract Administration Manager, Senior Contract Administrator and fully dedicated staff from other Metro departments including Engineering. The IPT also benefits from the support of as-needed specialty engineering services through the Program's IPT contract with the LTK Consulting firm.

The IPT's primary focus is dedicated towards the successful business operations and the long-range technical integration of the systems and subsystems affecting the LRV. The aim of the IPT is to produce a quality vehicle that is reliable and economically maintainable within the Program budget and delivered in such time as to be available for the required operational windows.

IPT accomplishment to date includes the arrival of the first two "proof of design" vehicles. Both vehicles have been successfully tested on all three operating Metro rail lines. The contract price was reduced significantly through a sales tax exemption, and the Option No. 1 ordering period was extended by 12 months to April 2007. The IPT is currently working with Government Relations to pursue further reductions in import tariffs.

## PROGRAM STATUS

## 1. Summary Status through March 2006:

The various activities and accomplishments noted below were designed to expedite and maintain the 2550 Rail Vehicle Program schedule to effect the delivery of the LRVs to Metro in time for operation on the Metro Gold Line Eastside Extension and the Metro Exposition Line.

The IPT Activities on the 2550 LRV Contract with Ansaldobreda	
Recent Activities/Accomplishments	
Description	
suppliers in	mpleted all First Article reviews with Ansaldobreda and its subcontractors and Europe and the U.S. for the 2550 LRV.
New York, I production,	nducted on-going weekly conference calls with project staff in Los Angeles, Pistoia, and Naples Italy. The teleconferences discuss the Project status of shipments to U.S. final assembly plant in Pittsburg, California, specific issues, testing of the first two LRVs in LA and other planned activities.
3. Proof of Des	sign Testing of the first two 2550 LRVs has continued in Los Angeles on all at rail lines. Performance of the vehicles has been outstanding.
4. A detailed P	rogram Overview regarding delays to the Project Schedule was conducted obreda in Los Angeles. Review and negotiations continue.
5. The Contrac vehicles was	ctual window for exercising Option No. 1 for the Metro Exposition Line extended by 12 months to April 2007. Negotiations for additional in from Ansaldobreda continue.
is en route t	ht Rail Vehicle to be final assembled in the U.S. was shipped from Italy and o Pittsburg, California. Further shipments follow.
7. The 2550 IP	T currently has members in the production plants witnessing production, oly, final system testing, and carborne integration testing.
P2550, LRV Contract paid to date: \$36,639,157 out of \$147, 332,141*	
*As of 3/31/06	

# LTK Activities through the PS 8310-1267, Rail Consulting Contract with Metro Recent Activities/Accomplishments

- 1. Participated in most weekly IPT technical meetings. These are the in-house meetings to discuss status and Metro technical positions prior to the weekly teleconferences with Ansaldobreda.
- 2. Reviewed and provided comments and recommendations to all Ansaldobreda Technical Submittals.
- 3. Provided full-time on-site inspection services at the Pistoia, Italy plant and the Pittsburg, California Plant as well as on-site inspection at other facilities and subcontractors plants as requested.

PS 8310-1267, Rail Consulting Contract Paid to Date: \$4,457,826 out of \$8,588,537\*\*

#### 2. Discussion of Status

The Proof of Design testing of the first two 2550 LRVs in Los Angeles provides empirical evidence that this vehicle is fully capable of operating on all of Metro's existing light rail lines. The first two 2550 vehicles to arrive at Metro have successfully performed numerous tests on the Metro Gold Line, Green Line and Blue Line. The vehicle has performed at speeds in excess of the operational requirement, successfully demonstrated its ability to prevent roll-back, started on a grade greater than 6%, operated in three different signaling environments, interfaced with three different train control systems, and functioned effectively with three distinctly different traction power systems. This vehicle not only has met all of Metro's requirements for the Eastside Extension and Exposition Line but undoubtedly will be a viable candidate for replacement of aging fleet vehicles.

### **SCHEDULE DISCUSSION**

In March 2006, Ansaldobreda presented the IPT with a proposed revised scheduled displaying a 16-month slip in the Contract Schedule but sufficient to meet the operational schedule of the next two light rail lines that are in early construction. The IPT has not accepted this proposed schedule yet as Ansaldobreda has presently offered no consideration to Metro for this potential schedule extension. To date Ansaldobreda has incurred over \$14 million in Liquidated Damages based upon Ansaldobreda-established Contract milestones not yet achieved. These damages will be deducted from future payments.

In May, the IPT and Ansaldobreda have scheduled negotiations to pursue solutions to schedule delays, consideration or compensation to Metro for any such delays. Dialogue will also continue toward resolution of the Contract Option price based upon time-based escalation provisions in the Contract and Ansaldobreda's alleged cost impacts due to devaluation of the dollar against the Euro over the last three years.

## FINAL SUMMARY

The IPT is in the midst of negotiating the appropriate contractual consideration from Ansaldobreda for the present forecast delay to the Contract Schedule. In addition, the Liquidated Damages will be deducted from future payments to Ansaldobreda. The IPT will continue closely monitoring Ansaldobreda's activities in Italy and California and expediting action as necessary to maintain 2550 rail vehicle deliveries sufficient to meet Metro's needs for the present 2009 Revenue Operation Dates of the Metro Gold Line Eastside Extension and the Metro Exposition Line.

The LRV car shell production continues in Pistoia, Italy with over 40 carshells and frames built. Presently structural floors, sidewalls, and roofs are being assembled on the Pistoia, Italy production line using automated and manual cutting, welding, and modern manufacturing methods prior to shipment to Pittsburg, California. The final assembly commencing in Pittsburg consists of final truck and propulsion assembly, major subassembly installation and testing, and preliminary operation testing and shipment to Metro in Los Angeles.

There are full-time Metro on-site inspectors to monitor the quality and attention to detail during the manufacturing and final assembly of all phases of production. This inspection

program will continue in Italy and Pittsburg, California through Contract completion, including any Option production if necessary.

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