QUARTERLY PROJECT STATUS REPORT

2550 Rail Vehicle Program

June 2008





2550 RAIL VEHICLE PROGRAM

QUARTERLY PROJECT STATUS REPORT

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED AND WITH FUNDS FROM THE STATE OF CALIFORNIA

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PROJECT OVERVIEW

The 2550 Light Rail Vehicle Base Contract for a Base order of 50 LRVs was awarded to Ansaldobreda, S.p.A. of Pistoia and Naples, Italy (A.B.). The 2550 Contract also includes two 50-LRV pre-priced options for future growth, expansions, and new lines. These options are subject to specific U.S. Department Of Labor Producer Price Index escalation and will require future Metro Board approval in order to become a binding contract requirement.

As a result of the project status evaluation by the new Project Team, AB continues to make several changes to AB's Project Management staff organization and increased supervision of the project from US by the addition of new expert vehicle consultants and Engineers to AB's team. As of July 15, 2008, four vehicles have been conditionally accepted for operation on the Metro Gold Line.

Project accomplishments for this period:

- 1. The Project Team continued evaluation of the overall project status. A series of critical technical items list was identified as a basis of discussions with Ansaldobreda (AB). Numerous meetings have been held with AB engineers to determine the status and to close engineering open items. The work is ongoing.
- 2. The Project Team is continuing meetings with the Project Director of Ansaldobreda, and AB's Senior Project Management members regarding vehicle production issues. Metro received Ansaldobreda's pledge to improve their Final Assembly and Delivery performance.
- 3. Ansaldobreda resumed shipment of car shells from Italy to Pittsburg, and from Pittsburg to Los Angeles.
- 4. The Project Team visited the Pittsburg Final Assembly Plant to focus on vehicle assembly issues and conducted first article inspection on remaining open items during the period. Additionally the Project Team met AB Management and Engineering staff in Pistoia Italy to discuss numerous open items and remaining QA/QC issues.
- 5. To date Metro has received a total of eleven (11) vehicles at Los Angeles from the Pittsburg Final Assembly Facility. Further to date ten (10) assembled vehicles are at Pittsburg Facility. An additional 26 one half car shells are in Pittsburg, CA. for a total of 13 additional vehicles. One additional car (703) is held in Italy to be used as a test car until such time as all qualification testing have been approved.
- 6. AB informed Metro that all future shipments of car shells from Italy to U.S. will use American Flag Vessels.
- 7. Metro Conditionally Accepted vehicle numbers 710 and 711 for operation on Metro Gold Line for a total of four vehicles. Accepted vehicles have been operating in revenue service since acceptance, however, some propulsion and low voltage power supply issues have been encountered, requiring additional engineering work by AB.

MANAGEMENT ISSUES

Concern No. 1: The Ansaldobreda proposed revised "worse-case" schedule displays a considerable slip in the Contract Schedule but still sufficient to meet the operational schedules of the next two light rail lines that are scheduled for substantial completion from 2009 onward.

<u>Status/Action No. 1:</u> With the acceptance of the first four vehicles, AB was able to finalize vehicle configuration and finalized its delivery schedule for the remainder of vehicles by the end of 2009. AB has designated car number 704 and 713 as to the next two cars to be delivered to Metro for Conditional Acceptance. Per AB's schedule the 50th car will be delivered by December 2009.

Concern No. 2: Resolution of remaining open items on Conditionally Accepted vehicles and vehicle configuration finalization.

<u>Status/Action No. 2:</u>
Based on successful results achieved during Project Meeting in Pistoia, Italy in February 2008, a second major Project Meeting was held in Los Angeles in May 2008 to discuss, review and set Action Items on remaining critical open issues affecting vehicles. A third major Project Meeting was held in June in Pistoia/Naples to further pursue closure of remaining open items.

Concern No. 3: Vehicle production capacity in Pittsburg Plant, California affecting Metro's future need for vehicle delivery.

<u>Status/Action No. 3:</u> Since vehicle final configuration is finalized, the critical path will be production capacity of vehicle assembly and availability of parts. A series of meetings has been initiated and will be scheduled in Pittsburg, CA to audit, review and address critical items for improvement of production rate capacity.

2550 Rail Vehicle Program

Quarterly Project Status Report P2550 LIGHT RAIL VEHICLE CONTRACT & PROPOSED DELIVERY SCHEDULE

| No. Of Cars | VEHICLE NUMBER | CONTRACT DELIVERY REQUIREMENT - MONTHS AFTER JUNE 6, 2003 NTP | CONTRACT REQUIRED DELIVERY DATE (End of Month) | UNAPPROVED DELIVERY SCHEDULE | ACTUAL DATE OF ARRIVAL AT METRO | CONDITIONAL ACCEPTANCE DATE | FINAL ACCEPTANCE DATE |
|-------------------|-------------------|---|--|------------------------------------|---|-----------------------------------|-----------------------------|
| 1 | 701 | 24 MONTHS | JUNE/05 | 6/15/05 | 6/11/05 | | |
| 2 | 702 | 24 MONTHS | JUNE/05 | 7/22/05 | 7/26/05 | | |
| 3 | 705 | 26 MONTHS | AUGUST/05 | 10/31/06 | 1/09/07 | | |
| 4 | 704 | 27 MONTHS | SEPTEMBER/05 | 11/30/06 | 1/30/07 | | |
| 5 | 706 | 28 MONTHS | OCTOBER/05 | 12/31/06 | 2/28/07 | 3/5/08 | |
| 6 | 707 | 28 MONTHS | OCTOBER/05 | 12/31/06 | 5/31/07 | | |
| 7 | 708 | 29 MONTHS | NOVEMBER/05 | 1/31/07 | 6/20/07 | 3/5/08 | |
| 8 | 709 | 29 MONTHS | NOVEMBER/05 | 1/31/07 | 7/31/07 | | |
| 9 | 710 | 30 MONTHS | DECEMBER/05 | 2/28/07 | 8/30/07 | 6/13/08 | |
| 10 | 711 | 30 MONTHS | DECEMBER/05 | 2/28/07 | 5/30/08 | 7/15/08 | |
| 11 | 712 | 31 MONTHS | JANUARY/06 | 3/31/07 | 6/06/08 | | |
| 12 | 713 | 31 MONTHS | JANUARY/06 | 3/31/07 | 6/24/08 | | |
| 13 | | 32 MONTHS | FEBRUARY/06 | 4/30/07 | | | |
| 14 | | 32 MONTHS | FEBRUARY/06 | 4/30/07 | | | |
| 15 | | 33 MONTHS | MARCH/06 | 4/30/07 | | | |
| 16 | | 33 MONTHS | MARCH/06 | 5/31/07 | | | |
| 17 | | 34 MONTHS | APRIL/06 | 5/31/07 | | | |
| 18 | | 34 MONTHS | APRIL/06 | 5/31/07 | | | |
| 19 | | 35 MONTHS | MAY/06 | 6/30/07 | | | |
| 20 | | 35 MONTHS | MAY/06 | 6/30/07 | | | |
| 21 | | 36 MONTHS | JUNE/06 | 6/30/07 | | | |
| 22 | | 36 MONTHS | JUNE/06 | 7/31/07 | | | |
| 23 | | 37 MONTHS | JULY/O6 | 7/31/07 | | | |
| 24 | | 37 MONTHS | JULY/O6 | 7/31/07 | | | |
| 25 | | 38 MONTHS | AUGUST/06 | 8/31/07 | | | |
| 26 | | 38 MONTHS | AUGUST/06 | 8/31/07 | | | |
| 27 | | 39 MONTHS | SEPTEMBER/06 | 8/31/07 | | | |
| 28 | | 39 MONTHS | SEPTEMBER/06 | 9/30/07 | | | |
| 29 | | 40 MONTHS | OCTOBER/06 | 9/30/07 | | | |
| 30 | | 40 MONTHS | OCTOBER/06 | 9/30/07 | | | |
| 31 | | 41 MONTHS | NOVEMBER/06 | 10/31/07 | | | |
| 32 | | 41 MONTHS | NOVEMBER/06 | 10/31/07 | | | |
| 33 | | 41 MONTHS | NOVEMBER/06 | 10/31/07 | | | |
| 34 | | 42 MONTHS 42 MONTHS | DECEMBER/06 | 11/30/07 | | | |
| 35 | | 42 MONTHS 42 MONTHS | DECEMBER/06 DECEMBER/06 | 11/30/07 | | | |
| 36 37 | | 42 MONTHS 43 MONTHS | JANUARY/07 | 12/31/07 12/31/07 | | | |
| 38 | + | 43 MONTHS | JANUARY/07 JANUARY/07 | 1/31/08 | | | |
| 39 | + | 43 MONTHS | JANUARY/07 JANUARY/07 | 1/31/08 | | | |
| 40 | | 44 MONTHS | FEBRUARY/07 | 2/28/08 | | | |
| 41 | | 44 MONTHS | FEBRUARY/07 | 2/28/08 | | | |
| 42 | | 44 MONTHS | FEBRUARY/07 | 3/31/08 | | | |
| 43 | | 45 MONTHS | MARCH/07 | 3/31/08 | | | |
| 44 | | 45 MONTHS | MARCH/07 | 4/30/08 | | | |
| 45 | | 45 MONTHS | MARCH/07 | 4/30/08 | | | |
| 46 | | 46 MONTHS | APRIL/07 | 5/31/08 | | | |
| 47 | | 46 MONTHS | APRIL/07 | 5/31/08 | | | |
| 48 | | 46 MONTHS | APRIL/07 | 6/30/08 | | | |
| 49 | | 47 MONTHS | MAY/07 | 6/30/08 | | | |
| 50 | | 47 MONTHS | MAY/07 | 7/31/08 | | | |
| | 1 | * · · · · · - | | , | 1 | 1 | |

SCHEDULE ISSUES

Notice to Proceed was given June 6, 2003. The base contract engineering vehicle and assembly effort for the first vehicle was scheduled to take approximately two years and delivery of the first two cars was scheduled for June 2005. The 50 car base contract funding was divided between Metro (40 cars) and the FTA (10 cars). The last (fiftieth) base contract LRV was scheduled for delivery 48-months after NTP, or approximately May 2007.

Status as of this writing follows:

This is a performance-based contract under which compensation is only paid when deliverables are received and approved by Metro. Compensation for contract milestone completion is an ongoing process and is directly related to Contractor performance. While progress is continuing, payments of Contract milestones lags behind. Performance improvement is promised by Ansaldobreda Project Director, with the addition of more engineering staff at the Pittsburg, California Final Assembly Facility and Project Management staff at Pistoia Italy, and at Los Angeles Commissioning Facilities.

Subsequent to several meetings of Metro Management with AB Management, AB proposed a best effort schedule for delivery of two (2) vehicles (706 and 708) for Conditional Acceptance by Metro by mid-December 2007. However, due to lingering technical difficulties with Electro Magnetic Interference (EMI) and ATP/TWC Testing, the December schedule was postponed to March 2008. On March 5, 2008 the above two vehicles were Conditionally Accepted for Metro Gold Line operation only.

Some of the known time critical and technical/safety related issues that remain to be resolved to achieve the final Acceptance are:

- Vehicle Electro Magnetic Interference (EMI) Test. AB reduced EMI levels of the
 vehicle for safe operation on the Metro Gold Line and its Eastside extension. AB is
 pursuing additional corrective measures to mitigate the remaining specification noncompliance items. Specifically EMI levels must be reduced for operation on the Metro
 Blue Line. AB has completed the Metro Blue Line related EMI Testing and is in the
 process of submitting its final test report.
- 4000 Mile Operational Test. In order to complete the design review and approval cycle, the P2550 specification requires a 4000 mile revenue simulated test run of 3 cars. Upon accepting six vehicles, AB plans to start the 4000 mile test with vehicles 7, 8 and q
- Vehicle Weight Issues Mitigation. The vehicle weight issue is being reviewed by Metro. Various mitigation alternatives are being considered. Those alternatives are, but not limited to, the study of critical bridge structures and analysis (ongoing), AB's investigation and proposal of feasible weight reduction measures (under review), implementing vehicle passenger load increase monitoring capability with visual and audible annunciations of overweight conditions and commercial considerations etc;

SCHEDULE ISSUES

| Presently eleven (11) vehicles are at the MTA shops. Car 701 has been returned to Pittsburg and Car 702 will be transferred to Pittsburg in July 2008 for rework. Cars 706, 708, 710 and 711 were conditionally accepted by Metro and placed in revenue service at Metro Gold Line. The remaining six (6) vehicles are located at Metro Gold Line Facilities and will be tested for acceptance. Vehicles 704 and 713 are the next candidate for conditional acceptance. | | | | | | |
|---|--|--|--|--|--|--|
| | | | | | | |
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PROJECT BUDGET STATUS

| ELEMENT | LRV PROJECT BUDGET FOR 800151 (40 LRV'S) | LRV PROJECT BUDGET FOR 800088 (10 LRV'S) | TOTAL LRV PROJECT BUDGET | COMMENTS |
|--|--|--|-----------------------------------|--|
| Base Buy 50 LRVs | \$119,734,000 | \$29,933,500 | \$149,667,500 | |
| Base Buy Spare Parts | \$5,849,886 | \$1,462,471 | \$7,312,357 | |
| Base Buy Special Tools & Test Equip | \$1,407,051 | \$351,763 | \$1,758,814 | |
| Subtotals | \$126,990,937 | \$31,747,734 | \$158,738,671 | |
| Contingency | \$12,699,094 | \$3,174,773 | \$15,873,867 | |
| Subtotals | \$139,690,031 | \$34,922,507 | \$174,612,538 | |
| | | | | |
| Rail Consultant | \$6,870,830 | \$1,717,707 | \$8,588,537 | Contract PS 8310-1267 for Rail Consultant staff technical services |
| Contingency | \$343,542 | \$85,885 | \$429,427 | |
| Subtotals | \$7,214,372 | \$1,803,592 | \$9,017,964 | |
| | | | | |
| MTA Staff | \$6,014,602 | \$1,577,798 | \$7,592,400 | |
| TOTALS | \$152,919,004 | \$38,303,898 | \$191,222,902 | |

To be revised to show reduction in awarded Contractor value resulting from a sales tax exemption on rail cars and spare parts (Granted by the California State Board of Equalization).

Fiscal Year Cashflow Table (Milestone Payment) is currently under review.

FINANCIAL/GRANT STATUS

JUNE 2008

STATUS OF FUNDS BY SOURCE

in \$ millions

| | (A) | (B) | (C) | (D) | (D/B) | (E) | (E/B) | (F) | (F/B) |
|-----------------------------|----------|-------------|-----------|-------------|-------|--------------|-------|-------------------|-------|
| | ORIGINAL | TOTAL | TOTAL | COMMITMENTS | | EXPENDITURES | | BILLED to FUNDING | |
| SOURCE | BUDGET | FUNDS | FUNDS | | | İ | | SOURCE | |
| | | ANTICIPATED | AVAILABLE | \$ | % | \$ | % | \$ | % |
| FEDERAL - STIP | 71.1 | 15.4 | 15.4 | 15.4 | 100% | 15.4 | 100% | 15.4 | 100% |
| FED-SEC 5309 FIXED GUIDEWAY | 38.3 | 25.9 | 25.9 | 25.9 | 100% | 25.9 | 100% | 25.9 | 100% |
| FEDERAL - RSTP | 7.7 | 7.7 | 7.7 | 7.7 | 100% | 0.0 | 0% | 0.0 | 0% |
| FEDERAL - CMAQ | 14.2 | 14.2 | 14.2 | 14.2 | 100% | 0.0 | 0% | 0.0 | 0% |
| STATE STIP | 6.0 | 61.7 | 61.7 | 58.5 | 95% | 14.8 | 24% | 14.8 | 25% |
| STATE STA | 15.6 | 15.6 | 12.2 | 15.6 | 100% | 8.6 | 55% | 8.6 | 55% |
| PROPOSITION A 35% BONDS | 0.0 | 12.3 | 0.0 | 0.0 | 0% | 0.0 | 0% | 0.0 | 0% |
| UNBILLED ACRUALS | | | | | | | | | |
| | | | | | | | | | |
| TOTAL | 152.9 | 152.9 | 137.1 | 137.4 | 90% | 64.7 | 42% | 64.7 | 42% |

⁽¹⁾ Based on September 06 Regional Programming Funding Plan.

STATUS OF FUNDS ANTICIPATED

STIP STATE: LACMTA requests for STIP allocation have been approved. \$61.73 million is available for drawdown.

FEDERAL SECTION 5309: LACMTA grant applications have been approved. \$25.9 million in section 5309 funds were approved. Funds have been drawdown.

FEDERAL RSTP: A grant agreement for \$7.7 million was executed on April 7, 2005. Funds are available for drawdown.

FEDERAL CMAQ: A grant agreement for \$14.2 million was executed on August 25, 2005. Funds are available for drawdown.

STATE STA: An additional \$3.544 million is available in FY09 for drawdown.

Note: Expenditures are cumulative through May 2008.

The 2550 Rail Vehicle Program consists of 40 light rail vehicles (LRV) and associated costs. The remaining 10 LRV's and associated costs under Contract P2550 are being charged directly against the Metro Gold Line Eastside Extension Project.

CURRENT PHOTOS



2550 LRV Coming Around the Curve into Union Station.



2550 LRV at Metro Gold Line Yard with Decals for LA Olympic Bid.

APPENDIX COST AND BUDGET TERMINOLOGY

COMMITMENTS: The total of actual contract awards, executed change orders or amendments, approved work orders of Master Cooperative Agreements, offers accepted for purchase of real estate, and other Metro actions that will result in specific expenditures at a future time.

INCURRED COST: The total value of work performed to date of services received and acquired materials or properties.

EXPENDITURES: The total dollar amount of checks written by Metro's Accounting department for contractor or consultant invoices, third party invoices, staff salaries, and closing payments for escrow accounts that is reported in Metro's Financial Information System (FIS).

CONSTRUCTION: Includes guideways, yards and shops, systems equipment, stations, and vehicles.

PROFESSIONAL SERVICES: Includes general engineering, construction management services, consultant design support services during construction, legal counsel, and agency (Metro staff) costs.

CONTINGENCY: A fund established at the beginning of a project to provide for anticipated but unknown additional costs that may arise during the course of the project.

SPECIAL CONDITIONS: Includes utilities relocation, environmental compliance and mitigation, master cooperative agreements, insurance program, artwork, systems integration testing and pre-revenue operations.

2550 Rail Vehicle Program Quarterly Project Status Report

APPENDIX LIST OF ACRONYMS

ATP Automatic Train Protection

CN Change Notice CO Change Order

CMAQ Congestion Mitigation & Air QualityCTC California Transportation Commission

FIS Financial Information System
FTA Federal Transit Administration

FY Fiscal Year

HVAC Heating, Ventilation, Air Conditioning

LACMTA Los Angeles County Metropolitan Transportation Authority (Metro)

LNTP Limited Notice To Proceed

LRV Light Rail Vehicle

METRO Los Angeles County Metropolitan Transportation Authority

MGLEE Metro Gold Line Eastside Extension

N/A Not ApplicableNTE Not to ExceedNTP Notice To ProceedPGL Pasadena Gold Line

PMOC Project Management Oversight Consultant

QPSR Quarterly Project Status Report

RSTP Regional Surface Transportation Program

SSPP System Safety Program Plan

STIP State Transportation Improvement Program

TBD To Be Determined

Train to Wayside Communications
US&S Formerly Union Switch and Signal