

**THIS PRINT COVERS CALENDAR ITEM NO. : 10.3**

**SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY**

**DIVISION:** Transit Services

**BRIEF DESCRIPTION:**

Requesting authorization for the Director of Transportation to execute a Closeout and Settlement Agreement with AnsaldoBreda SpA for Contract No. 309, Procurement of Light Rail Vehicles.

**SUMMARY:**

- After a competitive negotiated procurement, the City entered into an agreement with Breda Costruzioni Ferroviarie for the purchase of 35 light rail vehicles, spare parts, training, manuals and test equipment for a contract value of \$82,087,695.
- From 1993 to 2004, the City issued contract modifications to purchase 116 additional vehicles, make various technical changes to the vehicle, purchase video surveillance systems and purchase the design, testing and installation of an Emergency Brake Acceleration Limiting Device (EBALD) for all the LRVs which increased the contract amount to \$407,155,455.
- The Contractor has completed all work required and both parties wish to close out the contract
- This Closeout and Settlement Agreement will not increase the total amount of the contract.

**ENCLOSURES:**

1. SFMTA Board Resolution
2. Closeout and Settlement Agreement

**APPROVALS:**

**DATE**

DIRECTOR: \_\_\_\_\_ 2/11/13

SECRETARY: \_\_\_\_\_ 2/11/13

**ASSIGNED SFMTAB CALENDAR DATE:** February 19, 2013

## PAGE 2

### PURPOSE:

The purpose of this calendar item is to authorize the Director of Transportation to enter into an agreement with AnsaldoBreda SpA to close out and settle Contract No. 309.

### GOAL:

By entering into this Close Out and Settlement Agreement with AnsaldoBreda SpA, the SFMTA will be able to meet the following goal and objective of the SFMTA's Strategic Plan:

Goal No. 2: Make Transit, walking, bicycling, taxi, ridesharing and car-sharing the preferred means of travel.

Objective No. 2.2: Improve Transit Performance

### DESCRIPTION:

After a competitive negotiated procurement, on December 6, 1991, the City entered into an agreement with Breda Costruzioni Ferroviarie S.p.A. for the purchase of 35 light rail vehicles (LRVs), spare parts, training, manuals and test equipment for a contract amount of \$82,087,695.<sup>1</sup> Since 1991, the City has approved 12 modifications to the contract, to increase the procurement to 151 vehicles. These modifications are summarized in the chart below.

Contract Mod	Date	Description of Modification	Added Vehicles	Total Vehicles	Mod Item Cost	Contract Balance
0	12/6/91	Original contract for 35 LRVs	35	35	\$82,087,695	\$82,087,695
1	11/24/92	Exercise option for 5 additional LRVs, increase expiration of remaining options, extend delivery dates, adopt various technical changes to vehicles	5	40	\$10,985,000	\$93,072,695
2	5/25/93	Exercise option for 4 additional LRVs	4	44	\$8,788,000	\$101,860,695
3	12/14/93	Exercise option for 8 additional LRV, additional spare parts, equipment modification and extra work	8	52	\$20,567,083	\$122,427,778

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<sup>1</sup> Since the contract was executed, the parties have executed an Assignment and Assumption Agreement, assigning the contract to AnsaldoBreda S.p.A. This was necessitated as a result of acquisition of Breda by Finmeccanica S.p.A., a conglomerate controlled by IRI, a holding company of the Italian government, and a merger of Ansaldo Trasporti, a subsidiary of Finmeccanica, into Breda. Throughout this calendar item, the company will be referred to as "Breda."

Contract Mod	Date	Description of Modification	Added Vehicles	Total Vehicles	Mod Item Cost	Contract Balance
4	12/7/94	Changes local content and established final assembly in San Francisco	0	52	\$0	\$122,427,778
5	3/28/95	Sidewall seat mounting structural test	0	52	\$0	\$122,427,778
6	4/9/96	Exercise option for 25 additional LRVs, added spare parts, diagnostic equipment and adopted design changes	25	77	\$65,703,492	\$188,293,870
7	11/18/98	Adopted various technical and commercial changes in the contract	0	77	\$2,953,707	\$191,247,577
8	11/12/98	Modify previous spare parts list	0	77	\$0	\$191,247,577
9	10/30/98	Exercise option for 59 additional LRVs, spare parts, diagnostic equipment and design changes	59	136	\$167,299,822	\$358,547,399
10	5/18/99	Exercise option of 15 additional LRVs	15	151	\$39,459,480	\$398,006,879
11	12/2/03	Design Changes for 151 Vehicles, deferral of video surveillance work	0	151	\$0	\$398,006,879
12	1/19/04	Install video surveillance, EBALD, repair damage vehicles	0	151	\$9,148,576	\$407,155,455

The fleet of Breda light rail vehicles consist of 77 LRVs, which arrived first, and 74 LRVs, which were ordered later (see above chart). The two fleets are fully compatible and operate essentially the same. The differences lie in various improvements and design enhancements to the subsystems of the later vehicles, including a third brake control unit, step extensions on the center doors, a single door operator and an improved operator seat.

All 151 LRVs have been delivered, accepted and placed in revenue service.

Since the vendor has provided all deliverables in accordance with the contract, the SFMTA would like to close out this contract. In order to close out this project, the SFMTA and the vendor need to settle all the claims made by each party during the course of the project.

SFMTA staff met with Breda staff to negotiate a settlement agreement and the following is the agreed upon settlement of claims:

**AnsaldoBreda's Obligation:**

Item No.	Item Description	Amount
1.	Repair 1428	\$1,991,050
2.	Waive claims against SFMTA for performing repairs on LRVs that are not covered under warranty	\$756,157
3.	Waive claims for additional work performed on LRVs during the retrofit of vehicles as part of Contract Modification No. 9	\$323,360
<b>Total amount of AnsaldoBreda's obligation</b>		<b>\$3,070,567</b>

**SFMTA's Obligation:**

Item No.	Item Description	Amount
1.	Waive weight penalties for vehicle delivered in excess of 78,000 lbs	\$303,935
2.	Waive liquidated damages for vehicles that were delivered late	\$951,800
3.	Waive liquidated damages for late delivery of the EBALD First Article Inspection vehicle	\$193,000
4.	Waive claims against AnsaldoBreda for warranty repair of vehicles that were performed by SFMTA staff	\$388,759
5.	Waive claims against AnsaldoBreda for reimbursement of parts that were sent to Breda for warranty repair but were not returned to SFMTA	\$59,329
6.	Waive credit for vehicles not in compliance with specifications	\$108,851
7.	Waive claims for repairs performed by SFMTA on the vehicles that were damaged when the vehicles were in the possession of Breda	\$10,407
8.	Use the remaining funds under Contract Modification No. 9 to partially pay for spare parts that will be needed to repair 1428	\$407,221
9.	Use the remaining funds under Contract Modification No. 12 to partially pay for the labor that Breda will use to repair 1428	\$647,265
<b>Total amount of SFMTA's obligation</b>		<b>\$3,070,567</b>

The Closeout and Settlement Agreement will remain in effect until the later of two years or the date LRV No. 1428 is fully repaired and accepted. Contract No. 309 will remain in effect until the termination of the Closeout and Settlement Agreement. Breda will provide a one-year warranty on LRV No. 1428; Breda's warranty obligations will survive termination of the Agreement.

**ALTERNATIVES CONSIDERED:**

Other alternatives considered were to pursue the claims with Breda through litigation and repair LRV No. 1428 through the normal bid process. Staff does not recommend pursuing these alternatives because of the time and expense it will take to resolve these issues.

**FUNDING IMPACT:**

There is no additional funding required to implement this close out and settlement agreement with AnsaldoBreda because the funds that will be required to partially pay for the parts and labor to repair 1428 are already committed and available in our current contract with AnsaldoBreda.

**OTHER APPROVALS RECEIVED OR STILL REQUIRED:**

The City Attorney's Office has reviewed this calendar item.

**RECOMMENDATION:**

Staff recommends that the SFMTA Board authorize the Director of Transportation to execute the Close Out and Settlement Agreement with AnsaldoBreda SpA.

SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
BOARD OF DIRECTORS

RESOLUTION No. \_\_\_\_\_

WHEREAS, After a competitive negotiated procurement, City and Contractor entered into a written agreement dated December 6, 1991 ("Agreement") for the purchase of 35 Light Rail Vehicles ("LRVs"), including options for additional LRVs, for a total contract amount not to exceed \$82,087,695; and

WHEREAS, Under Modifications Nos. 1 - 12 of the Agreement, the City acquired additional LRVs, for a total of 151 LRVs, as well as the installation of an Emergency Brake Acceleration Limiting Device (EBALD) in all the LRVs, the repair of damaged vehicles, the purchase of additional spare parts and diagnostic equipment, design changes, and extensions to the delivery schedule; and

WHEREAS, Modification Nos. 1 -12 of the Agreement increased the total price of the contract to a final price of \$407,155,455; and

WHEREAS, AnsaldoBreda SpA has provided all deliverables as required in the original contract and in all 12 modifications to the Agreement; and

WHEREAS, The SFMTA has received and accepted all vehicles and contract deliverables and has placed all the vehicles into revenue service; and

WHEREAS, The SFMTA wishes to closeout Contract No. 309 and settle all claims between the City under the terms provided in the Closeout and Settlement Agreement, now, therefore, be it

RESOLVED, That the Municipal Transportation Agency Board of Directors authorizes the Director of Transportation to execute the Closeout and Settlement Agreement with AnsaldoBreda SpA. for Contract No. 309, Procurement of Light Rail Vehicles.

I certify that the foregoing resolution was adopted by the Municipal Transportation Agency Board of Directors at its meeting of February 19, 2013.

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Secretary to the Board of Directors  
San Francisco Municipal Transportation Agency

## Closeout and Settlement Agreement

### Contract No. 309

#### Procurement of Light Rail Vehicles LRV2

This Closeout and Settlement Agreement ("Agreement") is made this \_\_\_\_ day of \_\_\_\_\_, 2012, in the City and County of San Francisco, State of California, by and between: AnsaldoBreda Inc., SpA, a company organized and existing under Italian law, having its offices located in Naples, Via Argine 425, registered at no. 00109940478 of the Naples Changer of Commerce, formerly known as Breda Construzioni Ferroviarie, S.p.A. ("Contractor"), and the City and County of San Francisco, a municipal corporation ("City"), acting by and through its Municipal Transportation Agency ("SFMTA") (collectively, the "Parties").

#### Recitals

After a competitive negotiated procurement, on December 6, 1991, the City entered into an agreement with Contractor for the purchase of 35 light rail vehicles (LRVs), spare parts, training, manuals and test equipment for a contract value of \$82,087,695 ("Contract 309"). The City exercised options to purchase 17 more LRV2s, which increased the contract amount to \$122,427,778.

**A.** In 1996, the City and Contractor amended Contract 309 to purchase 25 additional vehicles, along with associated spare parts, training, manuals and test equipment, for a total of 77 LRVs, for a total contract amount of \$188,293,870.

**B.** In 1998, the City approved Modification No. 9 to Contract 309 to acquire an additional 59 LRVs. Modification No. 9 also included retrofitting the existing LRV fleet to incorporate design enhancements to be included in the new order. In Modification No. 10, approved in 1999, the City exercised an option to purchase an additional 15 LRVs, increasing the contract to a total of 151 vehicles for a total contract amount of \$398,006,879.

**C.** In Modification No. 12 to Contract 309, executed on August 5, 2004, the Contractor agreed to complete installation of a video surveillance system; design, test and install an Emergency Brake Acceleration Limiting Device (EBALD) on each LRV, a design enhancement to avoid passenger discomfort and potential passenger injury during emergency braking, while still maintaining the guaranteed emergency brake rate required by the advanced train control system; overhaul the brake system on 23 vehicles, acquire spare parts for the SFMTA, and repair a damaged vehicle, for a total contract amount of \$407,155,455.

**D.** The Contractor has completed all work required under Modification No. 12, and the parties wish to close out the contract and settle claims on the terms and conditions set forth below.

Now, therefore, the parties agree as follows:

**I. Effective Date.** Subject to Section XVIII, this Agreement shall become effective when the Controller has certified funds and the SFMTA has issued a notice to proceed to Contractor with the work described in Section II.A below.

#### **II. Contractor Obligations**

**A.** Contractor shall restore vehicle No. 1428 to revenue service condition in accordance with the scope of work described in Exhibit A, attached to this Agreement and incorporated herein at a cost of \$1,991,050. The vehicle shall be completely restored and ready

for delivery to SFMTA within 720 days from the Notice to Proceed with the work. Contractor shall be responsible for all costs for pick-up and delivery of the vehicle.

**III. SFMTA Obligations**

**A.** SFMTA will use the remaining funds in Bid Item 19 (option for spare parts, diagnostic test equipment – Mod. No. 9 to Contract 309) in the amount of \$407,221 to pay for Contractor's procurement of a portion of the spare parts and special equipment for the repairs of Car No. 1428. Payment shall be made upon delivery of the parts/equipment to SFMTA or to Contractor's facility, as applicable, and their acceptance by SFMTA.

**B.** SFMTA will pay Contractor the remaining funds (\$647,265) in Bid Item 30 (repair of damaged vehicles – Mod. No. 12 to Contract 309) for the repair work on Car No. 1428. Payment will be made according to the provisions of Exhibit B.

**IV. Contractor Waiver of Claims.** Contractor agrees to waive the following claims for reimbursement from SFMTA subject to final acceptance of Car No. 1428:

Item	Description	Amount
A.	Claims against SFMTA for labor and parts associated with repair of vehicles which Contractor alleges were not covered under warranty.	\$ 756,157
B.	Claims for additional work performed by Contractor during the retrofit of vehicles performed as part of Contract Modification No. 9.	\$ 323,360

**V. SFMTA Waiver of Penalties and Liquidated Damages.** SFMTA will forgive the following penalties, liquidated damages, warranty claims and other claims against the Contractor subject to final acceptance of Car No. 1428:

Item	Description	Amount
A.	Weight penalties for vehicles delivered in excess of 78,000 lbs. (Contract 309, Art. V, § 7.6)	\$ 303,935
B.	Liquidated damages for vehicles delivered after the stated delivery date (Contract 309, Art. V, § 7.7)	\$ 951,800
C.	Liquidated damages for EBALD First Article Inspection vehicle that was not completed by the required date (Contract 309, Art. V, § 7.7)	\$ 193,000
D.	Claims against Contractor for the repair by SFMTA of vehicles that were under warranty (Contract 309, Art. VI, § 2.3).	\$ 388,759
E.	Reimbursement for parts that were sent back to Contractor under warranty, but were not returned to SFMTA (Contract 309, Art. VI, § 2).	\$ 59,329
F.	Credit for vehicles not in compliance with specifications	\$ 108,851
G.	Claim for repairs performed by SFMTA as a result of damage to the vehicles while the vehicles were in the possession of Contractor	\$10,407

**VI. Term of Agreements.** This Agreement shall begin on the Effective Date and terminate on the later of two years from the Effective Date, or the date when Car No. 1428 is completely repaired and accepted and all other provisions of this Agreement have been completed to the satisfaction of the SFMTA. Contract 309, as modified, shall remain effective until the termination of this Agreement.



## **VII. Releases**

**A. Contractor's Release.** Except as otherwise provided in this Agreement, Contractor and its respective past, present and future officers, directors, principals, partners, employees, shareholders, attorneys, insurers, agents, servants, affiliates, subsidiaries, parent companies, subsidiaries of any parent company, successors, subcontractors, heirs and assigns, releases and forever discharges the City, the San Francisco Municipal Transportation Agency, and their respective past, present and future directors, managers, officers, agents, employees, transferees, successors and assigns, from all liabilities, claims, rights, causes of action, suits, obligations, damages, demands, expenses, costs, debts, matters and issues of any nature related to Contract 309.

**B. City's Release.** Except as otherwise provided in this Agreement, the City and the San Francisco Municipal Transportation Agency, on behalf of themselves and their respective past, present and future directors, managers, officers, agents, employees, transferees, successors and assigns, release and forever discharge Contractor and its respective past, present and future officers, directors, employees, attorneys, insurers, agents, servants, affiliates, subsidiaries, parent companies, subsidiaries of any parent company, predecessors in interest, successors in interest, subcontractors, heirs and assigns, from all liabilities, claims, rights, causes of action, suits, obligations, damages, demands, expenses, costs, debts, matters and issues of any nature, known or unknown, related to Contract 309.

**C. Nature of Releases.** The releases set forth above shall include, but are not limited to, claims, rights or causes of action at law or in equity based on contract, whether oral, express or implied, fraud, misrepresentation, promissory estoppel, equitable estoppel, equity, tort, breach of contract, breach of fiduciary duty, negligence, express or implied indemnity, statute or common law, claims for attorneys' fees, debts, compensatory damages, punitive or exemplary damages, and liquidated damages.

**D. Waiver of Civil Code Section 1524.** Except as otherwise provided herein, each of the Parties understands and agrees that this Agreement is a full accord, satisfaction, and discharge of all of their claims against one another arising out of or in connection with Contract 309, whether known or unknown, anticipated or unanticipated, foreseen or unforeseen, or whether or not damage or injury has yet occurred, arising from the beginning of time to the date of this Closeout and Settlement Agreement. With respect to such unknown, unanticipated or unforeseen claims, the Parties hereby knowingly, voluntarily and expressly waive all rights and benefits otherwise conferred by the provisions of California Civil Code section 1542, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

The Contractor understands and acknowledges the significance and consequence of such specific waiver of California Civil Code section 1542 and hereby assume full responsibility for such waiver.

**E. Claims Excluded.** The Contractor and City agree that the above releases do not extend to, encompass, release, discharge, waive, impair, or otherwise adversely affect (a) claims associated with the equipment and services to be furnished under this Agreement; and (b) claims associated with City's or Contractor's failure to comply with the terms of this Agreement.

**VIII. Parties Understand the Agreement.** Each of the Parties affirms and acknowledges that it has read and fully appreciates and understands the words, terms, conditions and provisions of

this Agreement, is fully and entirely satisfied with the same, has conferred with its counsel prior to the execution of this Agreement and has executed this Agreement voluntarily and of its own free will and act. Each of the Parties has had the opportunity to receive independent legal advice with respect to the meaning, implications and advisability of making the compromised settlement provided for herein, with respect to the advisability of executing this Agreement, and with respect to the meaning of California Civil Code section 1542. The Parties hereby acknowledge that they have all participated in the drafting of this Agreement and specifically agree that any rule of construction, to the effect that ambiguities are to be resolved against the drafting party, shall not apply to the interpretation of this Agreement.

**IX. Attorney's Fees; Costs.** The Parties agree to bear their own attorneys' fees, costs and expenses incurred prior to termination of this Agreement.

**X. Entire Agreement.** This Agreement contains the entire agreement between the Parties. The terms of this Agreement are contractual and not a mere recital and may be amended only by further written agreement signed by the Parties. This Agreement is executed without reliance upon any representation by any person concerning the nature or extent of injuries or legal liability, and the Parties have carefully read and understand the contents of this Agreement and sign the Agreement as their own free act. This Agreement was entered into following negotiations among the Parties and their attorneys.

**XI. Laws Applicable.** This Agreement shall be governed by the laws of the State of California.

**XII. Binding to Successors.** This Agreement is binding upon and inures to the benefit of the officers, directors, shareholders, partners, employees, agents, successors, assigns, transferees, heirs, devisees, legatees, and personal representatives of the Parties.

**XIII. Authority of Parties.** The signatories to this Agreement warrant and represent that they have the authority to enter into this agreement on behalf of the Parties, and to bind those entities to the terms of this Agreement.

**XIV. Necessary Acts.** The Parties agree to perform any further acts and execute and deliver any further documents that may reasonably be necessary to carry out the provisions of this Agreement.

**XV. Severability.** In case any part, term, portion or provision of this Agreement is or shall be invalid, illegal or unenforceable, the remaining parts, terms, portions and provisions shall be deemed severed and the validity, legality and enforceability of the remaining parts, terms, portions and provisions shall not be affected or impaired.

**XVI. Rights Accrue to Parties Only.** Nothing in this Settlement Agreement shall confer on any person or entity, other than the Parties, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provisions contained herein.

**XVII. Notices.** Any notices or communications to be given to a party shall be in writing and shall be deemed given when delivered by personal delivery, upon delivery by next day recognized overnight carrier, or upon delivery or refusal to accept delivery by registered or certified mail, return receipt requested, addressed as follows:

If to the City:	San Francisco Municipal Transportation Agency Attn: Lou Maffei, LRV Equipment Engineer 425 Geneva Ave. San Francisco, CA 94112 louis.maffei@sfmta.com phone: 415-337-2337 fax: 415-337-2369
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If to Contractor: AnsaldoBreda, SpA  
Attn: Cristiano Torresi  
1461 Loveridge Road  
Pittsburg, CA 94565  
ctorresi@ansaldobredainc.com  
phone: 415-397-7008  
fax: 415-397-7011  
mobile: 415-420-4125

**XVIII. Condition Precedent.** The Parties agree that this Agreement is contingent upon approval of its terms by the SFMTA Board of Directors.

**XIX. Counterparts; Facsimile.** This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. This Agreement may be delivered by executed facsimile transmission, which shall be deemed an original.

**IN WITNESS WHEREOF**, each of the Parties has executed this Agreement on the date and year set forth above.

City and County of San Francisco:  
Municipal Transportation Agency

AnsaldoBreda SpA.

By: \_\_\_\_\_  
Edward D. Reiskin  
Director of Transportation

By \_\_\_\_\_  
Andrea Pepi  
Senior Vice President Mass Transit  
Business Unit  
AnsaldoBreda SpA

Approved as to Form:

Dennis J. Herrera  
City Attorney

By: \_\_\_\_\_  
Robin M. Reitzes  
Deputy City Attorney

Municipal Transportation Agency  
Board of Directors  
Resolution No. \_\_\_\_\_  
Dated: \_\_\_\_\_  
Attest:

\_\_\_\_\_  
Secretary, SFMTA Board of Directors

## **EXHIBIT A**

### **Car No. 1428 Repair Scope of Work**

#### **1. General**

Contractor shall repair Car No. 1428 to good serviceable condition: structurally, functionally and cosmetically. Structurally damaged areas of the vehicle shall be returned to the original design specifications for dimensional accuracy and structural integrity. Unless otherwise indicated below, all work to repair Car No. 1428 shall be in accordance with the Technical Specifications of Contract 309, as modified by Amendment No. 1 through Amendment No. 12.

#### **2. Labor and Materials**

Unless otherwise agreed to by the SFMTA, Contractor shall be responsible for all labor, materials, design and engineering and transportation of Car No. 1428 as required to complete the work.

#### **3. Damaged and Missing Components**

Contractor shall repair or replace all damaged components. Contractor shall replace all missing components. Contractor may request the SFMTA supply particular components from its stockroom. The SFMTA will provide such components if they are in stock at the time of Contractor's request and if the SFMTA does not require them for immediate repairs or maintenance of the other LRVs in its fleet.

#### **4. SFMTA-Installed Components**

Contractor is not responsible for supply and installation of ATCS components, on-board radio equipment, TransLink® equipment, NextBus equipment or fareboxes not originally supplied by Contractor. Notwithstanding the above, Contractor is responsible for supplying electrical wiring and connectors for this equipment.

#### **5. Video Surveillance and EBALD Installation**

Contractor shall make all repairs and modifications to Car No. 1428 in accordance with the requirements of Modifications Nos. 9 and 12 of Contract 309, including installation of video surveillance equipment and the EBALD system.

#### **6. Design Changes**

If Contractor must make design changes to Car No. 1428 in order to complete the repairs, Contractor shall submit design change drawings to the SFMTA for prior approval. Contractor shall make all reasonable revisions to its design drawings as requested by the SFMTA.

#### **7. Acceptance Testing**

Contractor is responsible for vehicle acceptance testing. SFMTA personnel will operate the vehicle and provide technical support during testing. The SFMTA will provide parts to support the testing if the parts are available in SFMTA stores at the time of testing. At a minimum, Contractor shall show successful completion of the following LRV Procurement Contract 309 tests:

<b>Test Procedure #</b>	<b>Description</b>
SF3VA 01	Receiving inspection
SF3VA 02	General Functional Verification
SF3VA 03	Manual Mode Acceleration
SF3VA 04	Brake Rate
SF3VF 01	Water Tightness Test (Articulation only)
SF3VF 03	Car Leveling Test
SF3VF 06/01	Head End Control Check
SF3VF 06/02	Destination Signs Test
SF3VF 06/03	Low Voltage Power Supply Functional Test
SF3VF 06/04	Inverter Functional Test
SF3VF 06/05	Interior Lights Functional Test
SF3VF 06/06	Communication Functional Test
SF3VF 06/07	Battery Over Temperature & Switch Test
SF3VF 06/08	Exterior Lights & Head Lights Adjustments
SF3VF 06/09	HVAC Functional Test (train line, on/off and delay functions only)
SF3VF 06/10	Air Compressor & Leakage Test
SF3VF 06/11	Emergency Circuit & Master Controller
SF3VF 06/12	Friction Brake Functional Test
SF3VF 06/13	Passenger Emergency Stop
SF3VF 06/14	Couple Uncouple Functional Test
SF3VF 06/15A	Doors & Steps Verification
SF3VF 06/16	Passenger Stop Request Test
SF3VF 06/17	Pantograph Test & Adjustment
SF3VF 06/18	Static Test of Propulsion
SF3VF 06/20	ADA Door Chime
SF3VF 07	Console Annunciation

## **8 Quality Assurance**

In the repair of Car No. 1428, Contractor shall implement a quality assurance program in compliance with section 18.6 of Contract 309. Quality assurance testing shall include weld inspection and paint adhesion.

## **9 Materials and Workmanship**

Contractor shall select repair materials in accordance with section 19 of Contract 309. Workmanship shall conform to the best manufacturing practices and section 19 of Contract 309.

## **10 Warranty**

Contractor shall provide a one-year labor and materials warranty on all repairs and new components. The warranty shall run from final acceptance of the vehicle by SFMTA, and the Contractor's warranty obligations shall survive termination of this Agreement.

## **11 Documentation**

Contractor shall provide the results of the acceptance testing, welders certificates, Quality Control reports, design change drawings and acceptance sign-off documents, all bound in a 3-ring binder.

## Exhibit B

### PAYMENT MILESTONES

Car No. 1428		Amount
1	Delivery of Car to Pittsburg	\$ 71,303
2	Completed Structural Repairs of the Car	\$ 287,981
3	Final Acceptance of the Car	\$ 287,981