



**August 29, 2014**

**The Honorable Members of the Board of Supervisors  
City and County of San Francisco  
1 Dr. Carlton Goodlett Place, Room 244  
San Francisco, CA 94102**

***Subject: Request for Approval of Amendment No. 2 to Contract No. CPT 591-01 - LRV  
Doors and Steps Reconditioning and Systems Rehabilitation***

### **Executive Summary**

The San Francisco Municipal Transportation Agency (SFMTA) requests that the Board of Supervisors approve Amendment No. 2 to Contract No. CPT 591, LRV Doors and Steps Reconditioning and Systems Rehabilitation, between the City and County of San Francisco, through the SFMTA, and AnsaldoBreda Inc. Amendment No. 2 will remove the doors and steps and the air supply unit rehabilitation from the project scope and shift the funds to rehabilitate trucks for 41 LRVs with three options to rehabilitate up to 71 sets of trucks. The options may be exercised within the sole discretion of the Director of Transportation subject to funding availability, for a total Contract amount not to exceed \$104,263,354 and to extend the term of the Contract to no later than October 31, 2018.

This contract is needed to sustain and improve the reliability of the fleet and to reduce the overall maintenance of the various systems in the LRVs.

### **Background**

The SFMTA operates a fleet of 149 Light Rail Vehicles (LRV). These LRVs were delivered to the SFMTA from 1997 through 2003. As part of its regular daily service, the LRVs operate 21 hours per day and 365 days a year.

The majority of the LRVs have exceeded their mid-life of 12.5 years and have travelled 200,000 to 400,000 miles since entering revenue service. The SFMTA needs to perform rehabilitation of the various systems of the LRVs in order to keep these vehicles in a state of good repair.

On May 6, 2009, the SFMTA issued a Request for Proposals (RFP) for CPT 591, LRV Doors and Steps Reconditioning and Systems Rehabilitation. The scope of the project includes reconditioning the doors and steps systems; rehabilitating the couplers, air supply units and the center truck cable; upgrading the roof wiring harnesses; replacing the aging carbody connecting pins in the center truck joint; and replacing the bearings in the traction motors.

On September 15, 2009, the SFMTA Board of Directors adopted Resolution No. 09-173, which authorized execution of the Contract with AnsaldoBreda, for a total amount not to exceed \$56,752,554 and for a term not to exceed five years. On October 29, 2009, the Board of Supervisors adopted Resolution No. 403-09 approving award of the Contract.

On June 2, 2010, the parties entered into Amendment No. 1 to the Contract, to rehabilitate trucks for 34 LRVs at a cost of \$11,996,867, increasing the total contract amount to \$68,749,421 and extending the term of the contract by one year. Amendment No. 1 was funded entirely by additional stimulus money awarded by the federal government to the agency.

**Amendment No. 2**

A recent evaluation of the maintenance records of the LRVs that have undergone rehabilitation shows that the rehabilitation work performed on the doors and steps and air supply units of the LRV did not significantly improve the reliability of these systems. On the other hand, maintenance data show that the rehabilitation work on the trucks significantly has improved the reliability of the trucks. See table below:

Item	Before Rehab	After Rehab	Difference
Doors & Steps	29	25	13% reduction
Air Supply Unit	3	4	70% increase
Couplers	3	2	50% reduction
Articulation and PSC-2 Wiring	13	3	76% reduction
Traction Motor Bearings	13	3	75% reduction
Trucks and Resilient Pins	15	2	86% reduction

In light of the above, staff recommends removing the rehabilitation work on the doors and steps and air supply system from the contract and shifting the remaining funds to rehabilitate the trucks of the LRVs that have not gone through rehabilitation.

The SFMTA will save \$13,650,748 by removing the rehabilitation work on the doors and steps and air supply system from the remaining vehicles, and removing training and spare parts that are no longer needed. Staff estimates that due to parts order lead time and mobilization, there will be 41 LRVs remaining in the contract by the time the contractor is ready to start the truck rehabilitation project. The cost to rehabilitate 41 car sets of trucks is \$14,999,768.

The Contract allows the SFMTA to terminate the entire contract or any portion of the contract for convenience. However, the SFMTA must compensate the Contractor and its suppliers for parts that have already bought and cannot sell to other properties or cannot be used in other projects. Staff

has negotiated the costs of these parts at \$1,957,831 for the doors and steps work and \$193,211 for the air supply system work.

The cost breakdown for the changes being proposed is shown below:

**Summary of Savings By Terminating Portions of the Contract**

Item	Cost
Savings from Terminating Doors and Steps Portion of Project	\$11,625,891.00
Savings from Terminating ASU Portion of Project	\$1,368,171.00
Savings from Terminating Training (no longer required)	\$20,000.00
Savings from Cost of Spare Parts (no longer required)	\$636,686.00
<b>Total Savings</b>	<b>\$13,650,748.00</b>

**Summary of Additional Cost to Rehabilitate 41 Car Sets of Trucks**

Item	Cost
Rehabilitate 41 Car Sets of Trucks (Base Contract)	\$14,999,768.00
Cost of Parts Already Purchased by Vendors	\$2,151,042.00
Cost of Spare Parts to Serve as Float for the Project	\$1,868,164.00
Additional Allowance for Unforeseen Work	\$250,000.00
Cost of Additional Taxes	\$281,967.00
<b>Total Additional Costs</b>	<b>\$19,550,941.00</b>

Based on the tables above, the project will require an additional amount of \$5,900,193 to rehabilitate 41 car sets of trucks. The sources of the additional amount required by the project are identified in the next section of this letter.

This will leave a balance of 71 car sets of trucks that will not be rehabilitated. Staff recommends adding the rehabilitation of these remaining car sets of trucks as options 1, 2 and 3 in the Contract to rehabilitate the trucks on 24, 24 and 23 LRVs, respectively, if funds become available. The Amendment provides that exercising the option(s) will be within the discretion of the Director of Transportation. Following is a table summarizing the costs of the options:

**Summary of Cost to Rehabilitation 71 Car Sets of Trucks for Options**

Item	Cost
Option 1 (Rehabilitate 24 car sets of Trucks)	\$9,663,696.00
Option 2 (Rehabilitate 24 car sets of Trucks)	\$9,846,528.00
Option 3 (Rehabilitate 23 car sets of Trucks)	\$9,615,035.00
Cost of Additional Taxes	\$488,481.00
<b>Total Additional Cost to Rehabilitate 71 Car Sets of Trucks</b>	<b>\$29,613,740.00</b>

Per the Contract, the SFMTA may exercise option 1, 2 and 3 by June, 2015, December 2015 and June 2016 respectively.

**Funding**

The additional amount of \$5,900,193 for the base contract of Amendment Two (rehabilitation of trucks on 41 LRVs) will be funded using \$3,405,759 that is currently available in the project budget but are not yet committed and \$2,494,434 from the Transportation and Street Infrastructure Program (TSIP) general fund allocation. The options to rehabilitate additional trucks will be exercised as funds may become available to the SFMTA through the TSIP, as well as other federal, regional or local sources. Following are the budget and the funding plan for this Contract:

**Budget**

<b>Category</b>	<b>Amount</b>
Original Contract Amount	\$56,752,554
Amendment No. 1	\$11,996,867
Amendment No. 2 (Base Amount)	\$ 5,900,193
Amendment No. 2 (Options 1, 2 and 3 plus taxes)	\$ 29,613,740
<b>Total Contract Amount</b>	<b>\$104,263,354</b>

**Funding Plan**

<b>Project Funding Source</b>	<b>Amount</b>
ARRA Funds	\$20,527,682
Formula Funds	\$25,689,496
Local Funds	\$28,432,436
TSIP, Federal, Regional and Local Funds for Options 1, 2 & 3 (TBD)	\$29,613,740
<b>Total Funding Required</b>	<b>\$104,263,354</b>

**Recommendation**

SFMTA requests that the Board of Supervisors authorize the SFMTA to execute Amendment Two to Contract No. APT 591-01, LRV Doors and Steps Reconditioning and Systems Rehabilitation, with AnsaldoBreda Inc., to remove the doors and steps and the air supply unit rehabilitation from the project scope and to shift the funds to rehabilitate trucks for 41 LRVs, with three options to rehabilitate the remaining sets of trucks for 71 LRVs, which options may be exercised within the sole discretion of the Director of Transportation, for a total Contract amount not to exceed \$104,263,354; and to extend the term of the Contract to no later than October 31, 2018.

Please don't hesitate to contact me should you have any questions or concerns.

Sincerely,



**Edward D. Reiskin**  
**Director of Transportation**