



London Breed, Mayor

Malcolm Heinicke, Chair  
Gwyneth Borden, Vice Chair  
Cheryl Brinkman, Director  
Amanda Eaken, Director

Steve Heminger, Director  
Cristina Rubke, Director  
Art Torres, Director

Tom Maguire, Interim Director of Transportation

DATE: November 25, 2019

**MUNICIPAL TRANSPORTATION AGENCY  
SFMTA SIGNATURE ROUTING**

**SUBJECT: Requesting signature from the Director of Transportation to execute Contract Modification No. 6 to Contract No. CPT 762, Procurement of New Light Rail Vehicles (LRV4) with Siemens Mobility, Inc.**

Modification No. 6 will provide enhancements to the vehicle design including passenger comforts, updated operator cab features, and engineering refinements that improve fleet performance; and will advance Phase 2 long-lead activities to accelerate fleet replacement, for an amount not to exceed \$9,799,688, with no increase in the total Contract price, achieved through a decrease in the escalation allowance, and no increase in the term of the Contract.

Final Routing	Approval Authority	Initials	Date	Comments
6	Leo Levenson, Director of Finance & Information Technology	LL	December 4, 2019	
5	Julie Kirschbaum Director of Transit	JK	December 2, 2019	
4	Robin Reitzes, Deputy City Attorney	RR	November 27, 2019	
3	Virginia Harmon, Manager of Contract Compliance	LL	November 27, 2019	
2	Trinh Nguyen, Contract and Procurement Manager, Federal	TN	November 26, 2019	
1	Janet Gallegos LRV4 Program Manager, Program and Delivery Support	JG	November 26, 2019	

Contact: Janet Gallegos at 415.579.9791

**CITY AND COUNTY OF SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
ONE SOUTH VAN NESS AVE, 7<sup>TH</sup> FLOOR  
SAN FRANCISCO, CA 94103**

**MODIFICATION NO. 6 TO  
AGREEMENT BETWEEN SIEMENS MOBILITY, INC.  
AND  
THE CITY AND COUNTY OF SAN FRANCISCO FOR  
PROCUREMENT OF NEW LIGHT RAIL VEHICLES (LRV4)  
(SFMTA No. 2013-19)**

This Modification No. 6 to Agreement is made and entered into on December 6, 2019, by and between Siemens Mobility Inc. (Contractor), and the City and County of San Francisco, a municipal corporation (City), acting by and through its Municipal Transportation Agency (SFMTA).

**RECITALS**

- A.** On September 30, 2014, the City entered into an agreement with Contractor (Agreement) to provide 175 light rail vehicles (LRVs), together with associated equipment and spare parts, as well as Options for additional LRVs and parts.
- B.** On March 31, 2015, the City approved Modification No. 1 to the Agreement to exercise Option 1 in accordance with Section 64.1 of the Agreement for 40 additional LRVs to be delivered after the Phase 1 delivery of 24 vehicles, and to exercise Options for additional Spare Parts and Equipment, in accordance with Sections 64.2, 64.3 and 64.4 of the Agreement.
- C.** On October 30, 2015, the City approved Modification No. 2 to the Agreement to update the list of approved major suppliers listed in Section 29, clarify the purpose of Item 1.1 (Allowance) in Exhibit 2 of Volume I, and specify the payment structure for changes to the LRVs paid under Item 1.1.
- D.** On August 16, 2016, the City approved Modification No. 3 to the Agreement to update the list of approved major suppliers, modify radio/CAD/AVL systems on the Vehicles, including related price and payment schedules, provide extra time for delivery of the vehicles and other project submittals, add a new parent company guarantee, and make miscellaneous changes to the Technical Specification.

- E. On June 20, 2017, the City approved Modification No. 4 to the Agreement to procure four additional LRVs to be delivered after the 24th production LRV, which Vehicles shall be part of the production fleet, conform to all requirements of the Technical Specification, and all prior design approvals and Buy America audits.
- F. On November 28, 2018, the SFMTA, through the Director of Transportation, approved an Assignment and Assumption Agreement, assigning the Contract from Siemens Industry, Inc., to Siemens Mobility Inc.
- G. On October 22, 2019, the City approved Modification No. 5 to the Agreement to commence design of and expedite the addition of track brakes to the power trucks on eight LRVs as a method to reduce frequency of flat spots on wheels caused by activation of the push button emergency brake (PBEB).
- H. The SFMTA now wishes to modify the Agreement to (i) update the Vehicles with multiple changes and enhancements to improve passenger comfort, operational functionality, and maintainability and fleet reliability, some of which will be installed in the field, and some by the Contractor during production of the Vehicles; (ii) continue installation of the track brakes on the power trucks begun in Modification No. 5; and (iii) initiate activities in support of an accelerated Phase 2 delivery schedule with a goal for Phase 2 to be completed by 2025; and increase existing parent company guarantees and add a new parent company guarantee (corporate guarantee).

Now, therefore, the parties agree that the Agreement shall be modified as follows:

1. *Section 7.5 of the Agreement (Escalation) is replaced in its entirety to read as follows:*

**7.5. Escalation.** The SFMTA will make price adjustments to this Contract to protect Contractor from economic inflation as set forth below. This adjustment will apply to the Base Order Phase 2 Vehicles, the Option Vehicles (Section 64.1), the optional Train Simulator, the spare parts for Phase 2, and the Option spare parts and special tools (see Section 7.5.4 below).

2. *Section 7.5.1 of the Agreement (Sole Remedy for Cost Increases) is replaced in its entirety to read as follows:*

**7.5.1. Sole Remedy for Cost Increases.** This escalation adjustment shall be the sole remedy for any increases or decreases in the Contractor's costs for Phase 2 Vehicles, Option Vehicles, equipment, spare parts and special tools due to inflation or deflation. Adjustments will be calculated and applied independently for each Option exercised.

3. *Section 7.5.4 of the Agreement (Escalation for Price of Spare Parts) is replaced in its entirety to read as follows:*

**7.5.4 Escalation for Price of Spare Parts and Special Tools.** Any price adjustment for spare parts and special tools shall be determined according to the methodology described above for escalating the price of Vehicles and in accordance with the table below.

4. *Section 19.2 of the Agreement (Weight Limits and Incentives), is replaced in its entirety to read as follows :*

**19.2. Weight Limits and Incentives**

The nominal Vehicle weight shall be 78,770 pounds at AW0. Vehicles shall be weighed prior to delivery, and, for each pound in excess of the nominal weight, the City will deduct \$10 per pound per Vehicle from the Contractor's invoice. For each pound below the nominal weight, the City will pay an incentive payment of \$10 per pound per Vehicle. To allow for manufacturing variations, neither penalties nor incentives will be assessed on the first one percent in excess of or under the nominal weight. The SFMTA will reject Vehicles weighing in excess of 80,000 pounds at AW0 and shall not be required to pay any amount for rejected Vehicles.

The penalties or weight incentives due to Contractor as described above will be based on the average weight of the last 10 Vehicles delivered in Option 1 (Vehicles 2059 - 2068), taking into account SFMTA-directed changes on these 10 Vehicles as of the date of this Modification, without further recalculation. This average amount shall become the Agreed Delivery Weight for all Vehicles for the purpose of calculating weight incentives and penalties. All Vehicles will be weighed to determine whether they exceed the 80,000-pound weight limit without regard to penalties or incentives. This weight incentive is included as Bid Item 16 and will be paid in accordance with Exhibit 2.4, Bid Item 16.

5. *Section 59 (Reserved) of the Agreement is replaced with a new Section 59 (Production Acceleration Activities) to read as follows:*

**59. Production Acceleration Activities**

**59.1. General.** The Contractor agrees to accelerate delivery of the Phase 2 Vehicles, and perform all activities needed to establish a second production facility for carshells (Production Acceleration Activities), which will include:

- 59.1.1. Facility Lease and Tenant Improvements. Enter into a lease and fit out a new carshell production facility with required infrastructure.
- 59.1.2. Production Equipment. Acquire and install crane, lifting, welding, and integration equipment.
- 59.1.3. Management and Supervision. Retain staff for production ramp-up management at satellite facility.
- 59.1.4. Logistics and Materials Handling. Establish site-specific materials management structures and processes.
- 59.1.5. Supplier Ramp-Up. Coordinate suppliers.
- 59.1.6. Industrial Engineering. Other costs associated with facility start-up.

**59.2. Reimbursement.** The City shall reimburse the Contractor for the preliminary activities of the Production Acceleration Activities up to the amount set forth in Exhibit 1A, Item 21 (Initial Production Acceleration Activities) and according to the milestones in Exhibit 2.4, Item 21 (Production Acceleration). The Contractor shall deliver Phase 2 Vehicles in accordance with the milestones in Exhibit 3B (Vehicle Delivery Schedule).

**59.3. Additional Modifications**

- 59.3.1. To maintain the accelerated schedule in Exhibit 3B, prior to February 28, 2020, the City must approve an additional Contract Modification to pay the Contractor for those Production Acceleration Activities costing in excess of the not-to-exceed amount in Item 21 of Exhibit 1A.4.
- 59.3.2. Should the City not approve such additional Modification, the Project Delivery Schedule would revert back to the non-accelerated Phase 2 delivery dates in Exhibit 3 of Modification No. 4 of the Agreement. In such a case, the Contractor shall be entitled to full payment for item 17 of Exhibit 1A.4, and the City shall not be responsible for any other costs related to the acceleration.

**6.** *Section 64.1 of the Agreement (Option for New Light Rail Vehicles) is deleted and replaced in its entirety to read as follows:*

**64.1 Option for New Light Rail Vehicles.** At the option of the City, the Contractor shall provide additional Vehicles in quantities indicated in the Schedule of Prices. Option 1 shall be for an additional 1 to 40 Vehicles and

Option 2 shall be for an additional 45 Vehicles. (See Item 7 on Exhibit 2 -- Payment Schedule.) Either Option may be executed at intervals and at any time within seven years after NTP. The price of Option Vehicles will be adjusted in accordance with Section 7.5 of this Agreement. Options will only be exercised to the extent that there is sufficient escalation allowance remaining to cover the escalated price.

7. *Section 64.3 of the Agreement (Spare Parts For Options) is deleted and replaced in its entirety to read as follows:*

**64.3. Spare Parts and Special Tools.** At the option of the City, Contractor shall provide spare parts and special tools (Item 9 on the Exhibit 2 Payment Schedule). The price of spare parts and special tools will be adjusted in accordance with Section 7.5 of this Agreement.

8. *Section 64.4 of the Agreement (Optional Train Simulator) is deleted and replaced in its entirety to read as follows:*

**64.4. Optional Train Simulators.** At the option of the City, Contractor shall provide six additional hybrid train simulators, as delivered under Item 4.2 of Exhibit 1A, and one additional training station (Item 10 on the Exhibit 2 Payment Schedule), as defined in Technical Specification Section 22.2.8. The price of optional train simulators will be adjusted in accordance with Section 7.5 of this Agreement.

9. *Exhibit 1A (Schedule of Prices) of the Agreement is replaced in its entirety with a new Exhibit 1A (Schedule of Prices), which is attached to this Modification. Exhibits 1A.1, 1A.2, and 1A.3 are deleted.*

10. *A new Exhibit 2.4 (Payment Schedule--Modification No. 6 Work) is added to the Agreement and is attached to this Modification.*

11. *Exhibit 3A (Project Delivery Schedule) of the Agreement is replaced in its entirety with a new Exhibit 3A (Project Delivery Schedule), which is attached to this Modification.*

12. *Exhibit 3B (Vehicle Delivery Schedule) of the Agreement is replaced in its entirety with a new Exhibit 3B (Vehicle Delivery Schedule), which is attached to this Modification.*

13. *Exhibit 6 is modified by adding a new Exhibit 6.5 (Phase 2 Corporate Guarantee Form), which is attached to this Modification. Additionally, the Contractor shall increase the existing Parent Company Guarantees to reflect the increase in the Contract Amounts for each one, respectively as follows: The amount of the guarantees (or reduced amount, if applicable) shall be increased by \$879,822 for*

*the 24 Base Order Vehicles (Guarantee number 466742), \$1,466,371 for the Option 1 Vehicles (Guarantee number 484678) and \$146,637 for the Phase W Vehicles (Guarantee number 556963) until the Phase 1, Option 1, Phase W Modification 6 work is complete. To facilitate increases to the existing Guarantees, Contractor shall execute amended Guarantees upon approval of this Modification.*

14. *Section 3.4 of the Technical Specification (Maintenance Requirements) is modified to add a new subsection 3 to read as follows:*
  3. The carbody shall include lockable, folding exterior steps allowing access to the roof.
  
15. *Subsection 3 of Section 5.3.4.1 (General) of the Technical Specification is modified to read as follows :*
  3. The deadman feature shall be active, and shall not delay when the brakes are applied.
  
16. *Section 5.3.5 (Emergency Stop Pushbutton) of the Technical Specification is modified to add subsection 2 to read as follows:*
  2. The emergency stop pushbutton shall be illuminated and of a twist-to-release style.
  
17. *Subsection 2 of Section 5.3.9 (Fire Extinguisher) of the Technical Specification is modified to read as follows :*
  2. The fire extinguisher shall be 5 lb. capacity.
  
18. *A new Section 5.3.10.4 (Track Iron Retention) is added to the Technical Specification to read as follows:*

**5.3.10.4 Track Iron Retention**

  1. The carbuilder shall supply adequate means to hold a standard track iron in place during revenue operations, subject to approval by the SFMTA.
  
19. *Subsection 1 of Section 6.3.4.3 (Operator's Console Door Control Pushbuttons) of the Technical Specification is modified to read as follows:*
  1. The door control panel shall include the following functions:
    - (a) Open/close right front door of the Vehicle with a blue button
    - (b) Open all right side doors
    - (c) Release all right side doors and enable passenger door controls
    - (d) Close/lock all right side doors

- (e) Open/close left front door of the Vehicle with a blue button
- (f) Open all left side doors
- (g) Release all left side doors and enable passenger door controls
- (h) Close/lock all left side doors

20. *Section 6.3.4.4 (Passenger Controls) of the Technical Specification is modified to add a new subsection 4 to read as follows:*

- 4. Each door portal shall include a “Keep Door Open” tape switch located on the door post cover closest to each door panel.

21. *Subsection 6 of Section 6.3.7 (Step System) of the Technical Specification is modified to read as follows:*

- 6. An audible and visual warning shall sound at the step location whenever the high/low switch is activated and 1.5 seconds prior to the steps changing position.

22. *Subsection 12 of Section 6.3.7 (Step System) of the Technical Specification is modified to read as follows:*

- 12. The front right step shall be capable of being operated in UP and DOWN position independently from the other steps by using a momentary switch on the operator control panel in the cab. This operation shall be available in the leading Vehicle only; the trailing Vehicle shall be unaffected.

23. *A new Section 15.1.10 (Additional Interfaces) is added to the Technical Specification to read as follows:*

**15.1.10 Additional Interfaces**

- 1. The interior shall include a passenger emergency stop button located on a corner hatch, one in each carbody half. Upon application, the push button shall command an irretrievable full service brake.

24. *Section 17.1 (Performance Requirements of the Technical Specification is modified to add subsections 2 and 3 to read as follows:*

- 2. The MDS system shall transmit all diagnostic information and the Vehicle mileage to the wayside when the LRVs are within range of the depots.
- 3. The Vehicle mileage shall be displayed on the train operator’s display screen.



**25.** Section 22.2.8 (Train Simulator) of the Technical Specification is modified to read as follows:

1. The Contractor shall provide two hybrid functional cab simulators that mimic the operational functions with the following features (CDRL 60):
  - (a) Complete cab layout including cab seat and other typical cab equipment;
  - (b) Functional controls, including, but not limited to, throttle and brake stand, deadman, switches, indicator lights, horn, bell, gong, CCTV viewing screens;
  - (c) Viewing screen in place of the windshield with high quality graphics;
  - (d) Ability to simulate actual SFMTA lines and record round trip times and operator performance;
  - (e) Open architecture allowing interchangeable rolling stock controls;
  - (f) Work station for trainer monitoring

**26.** The table in Exhibit 7 lists all change orders that are incorporated into this Modification. Change Order Nos. 9-14, 18, and 21-24 are included in the above modifications to the Technical Specification.

Change Order Nos. 8, 15-20, and 25-27 (FAI Changes) are changes directed by the SFMTA after the First Article Inspection process in Section 20.9.3 of the Technical Specification (FAI Changes). The Contractor agrees to perform the following FAI Changes:

- A.** Change Order 8 (Flip Seats) – Provide a four-passenger flip seat for 68 Phase 1, Option 1, and Phase W Vehicles in the multi-purpose area to allow the options of additional seating or standee capacity.
- B.** Change Order 15 – (Relocate Clipper® Display Control Unit (DCU)). Relocate Clipper® DCU to improve the operator’s camera view.
- C.** Change Order 16 (Firetide Router Rotation) – Reinstall and rotate the Firetide router located in the cab of the Vehicle 180 degrees, reroute cables, and test.
- D.** Change Order 17 (Additional Decals) – Add decals to the Vehicle, which includes the engineering work required to make the decal changes.
- E.** Change Order 19 (Floor Hatch Fasteners) – Replace current hex hardware to Phillips head for all floor access hatches.
- F.** Change Order 20 (Remove J-Holder for Advertising) – Remove the J-holder for advertising placards from corner hatches for Phase 2 vehicles.
- G.** Change Order 25 (Track Brake Continued Installation) – Install track brakes on 60 Phase 1, Option 1, and Phase W Vehicles (completing the installation on all 68 Phase 1, Option 1, and Phase W Vehicles).

- H. Change Orders 26 and 27 (Seating Design Development) – Perform preliminary design and engineering work for seats and carshell to realize transverse seating configurations requested by the SFMTA. (Implementation costs are not included and will be part of a future modification.)

These activities shall be compensated according to payment milestones as shown in Exhibit 2.4. These activities shall be completed as provided in Exhibits 3A and 3B.

27. **Release.** Contractor acknowledges and agrees that the amounts agreed for the work described in Modifications Nos. 1-5 and this Modification No. 6 shall be full accord and satisfaction for all past, current and prospective costs incurred in connection with Contractor's performance of all work under the Contract up to and including the work covered under this Modification No. 6, without limitation, including any and all markups and overhead. If this modification involves the granting of an extension of time, with or without cost, Contractor releases the City from all claims and costs associated with such extension of time. Said costs may include, but are not limited to, costs for labor, materials, equipment, disruption, lost productivity, escalation, delay, extended overhead, administration and extended performance time. Contractor releases the City from all claims for which full accord and satisfaction is made, as set forth above. Notwithstanding the foregoing, this Release does not apply to work associated with change orders that are currently under discussion between Contractor and the City at the time of this Modification. This paragraph replaces the release paragraphs in Modification Nos. 1, 2, 3, 4 and 5.
28. **Effective Date.** Each of the amendments set forth above shall be effective on and after all parties have signed the Amendment.
29. **Legal Effect.** Except as expressly modified by this Modification No. 6, all other terms and conditions of the Contract remain unchanged and in full force and effect.

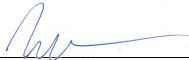
IN WITNESS WHEREOF, the parties hereto have entered into and executed this Modification No. 6 on the date set forth on page 1 above.


**CITY**

**CONTRACTOR**

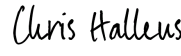
**San Francisco Municipal Transportation Agency**

**Siemens Mobility, Inc.**

  
\_\_\_\_\_  
Thomas G. Maguire  
Interim Director of Transportation

  
\_\_\_\_\_  
Michael Cahill  
President

San Francisco Municipal Transportation Agency  
Board of Directors  
Resolution No. 191119-143  
Dated: November 19, 2019

  
\_\_\_\_\_  
Christopher Halleus  
Vice President, FBA


City vendor number: 50009  
Federal Taxpayer ID No.13-2762488

Attest:

  
\_\_\_\_\_  
Secretary

Approved as to Form:

Dennis J. Herrera  
City Attorney

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

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**Attachments**

- Exhibit 1A – Schedule of Prices
- Exhibit 2.4 – Payment Schedule - Modification No. 6 Work
- Exhibit 3.A and 3.B – Project Delivery Schedules
- Exhibit 6.5 – Corporate Guarantee
- Exhibit 7 – Modification No. 6 Change Orders

## EXHIBIT 1A Schedule of Prices

### BASE

ITEM	ORIGINAL CONTRACT/ MOD NO.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE <sup>3</sup>
Item 1	Original	Engineering Design, Project Management and Design Qualification Testing	Lump Sum		\$37,541,102
Item 1.1	Original	Allowance for Regulatory- Mandated Changes, Requested Passenger Enhancements and System Modifications Resulting from Changes to Project Interfaces	Lump Sum		\$10,000,000
Item 2.1	Original	Vehicle Price for Base Order Phase 1	\$3,327,250	24 Cars	\$79,854,000
Item 2.2	Original	Vehicle Price for Base Order Phase 2	\$3,327,250 <sup>1</sup>	151 Cars	\$502,414,750
Item 3	Original	Operating, Maintenance and Parts Manuals	Lump Sum		\$809,478
Item 4.1	Original	Training	Lump Sum		\$361,557
Item 4.2	Original	Train Simulator (1) (In accordance with Section 22.2.8 of Technical Specifications)	Lump Sum		\$1,704,650
Item 5.1	Original	Spare Parts (Total of Exhibit 1.B, Phase 1)	Lump Sum		\$14,153,840
Item 5.2	Original	Spare Parts (Total of Exhibit 1.B, Phase 2) <sup>1</sup>			
Item 6	Original	Special Tools, Test and Diagnostic Equipment (Total of Exhibit 1.D)	Lump Sum		\$1,792,624
Item 7.1	Mod 1	Option 1 for 40 Additional New Light Rail Vehicles	\$3,349,270 <sup>2</sup>	40 Cars	\$133,970,800

Item 8.1	Mod 1	Additional Spare Parts (Exhibit 1.C Phase 1)	Lump Sum		\$11,269,527
Item 8.2	Mod 1	Additional Spare Parts (Exhibit 1.C Phase 2) <sup>1</sup>			
Item 9	Mod 1	Spare parts for Option Cars <sup>1</sup>	Lump Sum		\$15,000,000
Item 10	Mod 1	Train Simulator (2) (In accordance with Section 22.2.8 of Technical Specifications) <sup>1</sup>	Lump Sum		\$1,704,650
Item 11	Mod 3	Modification No. 3 (Non-Recurring Costs)			
Item 11.1	Mod 3	Engineering	Lump Sum		\$6,128,416
Item 11.2	Mod 3	SIBAS Expert 2 Monitoring and Diagnostic Software	Lump Sum		\$71,000
Item 12	Mod 3	Modification No. 3 (Base Recurring Costs)			
Item 12A	Mod 3	Base Phase 1	\$62,313	24 Cars	\$1,495,514
Item 12B	Mod 3	Base Phase 2	\$62,313 <sup>1</sup>	151 Cars	\$9,409,275
Item 13	Mod 3	Modification No. 3 Option 1 (Recurring Costs)	\$62,313	40 Cars	\$2,492,523
Item 14	Mod 4	Modification No. 4 (Vehicle Price for Phase W)	\$3,968,750	4 Cars	\$15,875,000
Item 15	Mod 5	Track Brakes Phase 1			
Item 15.1	Mod 5	Non-recurring Costs for track brake, including engineering, testing, and updates to manuals.	Lump Sum		\$286,617
Item 15.2	Mod 5	Installation of track brakes on 8 Phase 1 Cars.	\$22,486	8 Cars	\$179,888
Item 16	Mod 6	Weight Incentives	TBD	TBD	TBD
Item 17	Mod 6	Non Recurring Engineering Costs			
Item 17.1	Mod 6	Phase 1, Option 1, and Phase W Engineering Costs for Changes 8 – 25	Lump Sum	1	\$492,738

Item 17.2	Mod 6	Phase 2 Preliminary Design Work, Single Transverse Seat	Lump Sum	1	\$714,694
Item 17.3	Mod 6	Phase 2 Preliminary Design Work, Double Transverse Seat	Lump Sum	1	\$159,140
Item 18	Mod 6	Recurring Costs Phase 1, Option 1, and Phase W			
Item 18.1	Mod 6	Modifications Performed at Siemens Facility (Change Orders 8 - 11)	\$11,179	68 Cars	\$760,172
Item 18.2	Mod 6	Modifications Performed at SFMTA (Change Orders 12 - 24)	\$2,284	68 Cars	\$155,312
Item 19	Mod 6	Recurring Costs for Phase 2 (Change Orders 9 - 24)	\$4,172 <sup>1</sup>	151 Cars	\$629,972
Item 20	Mod 6	Track Brake Installation on 60 Phase 1, Option 1, and Phase W Vehicles	\$21,411	60 Cars	\$1,284,660
Item 21	Mod 6	Initial Production Acceleration Activities	Lump Sum	1	\$5,603,000
				<b>SUBTOTAL</b>	<b>\$856,314,899</b>

### Option

ITEM	CONTRACT MOD.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE <sup>3</sup>
Item 7.2	Original	Option 2 for 1 to 45 Additional New Light Rail Vehicles	\$3,329,011 <sup>1</sup>	45 Cars	\$149,805,495

### Escalation

ITEM	CONTRACT MOD.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE <sup>3</sup>
Allowance	Original, Mod 6 adjustment	Allowance for Escalation in accordance with Agreement Section 7.5	n/a	n/a	\$186,531,183

<b>Not to exceed CONTRACT LIMIT</b>	<b>\$1,192,651,577</b>
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#### Notes:

<sup>1</sup> This price does not include escalation. Escalation will be applied in accordance with Section 7.5 of the Agreement.

<sup>2</sup> Price for Item 7.1 includes escalation.

<sup>3</sup> Prices do not include sales taxes.

**Exhibit 2.4**  
**PAYMENT SCHEDULE**  
 (All Item references are to Exhibit 1A)

Item 16 – Weight Incentives – Actual amount will be determined when Vehicles are delivered.

Item 16.1 – Phase 1, Option 1, and Phase W Weight Incentives

	Milestone	Percent of Bid Item
A	SFMTA Acceptance for shipment of Vehicle 2068 from final assembly site to SFMTA	100%

Item 16.2 – Phase 2 Weight Incentives

	Milestone	Percent of Bid Item
A	SFMTA Acceptance for shipment of Vehicle from final assembly site to SFMTA	100%

Item 17 – Non-Recurring Engineering Costs for Modification No. 6 Work

Item 17.1 – Phase 1, Option 1, and Phase W Non-Recurring Engineering

	Milestone	Percent of Bid Item
A	Submittal and Approval of Design Documentation for Change Orders 8 – 11	55%
B	Submittal and Approval of Field Modification Instructions and/or Design/Software Documentation for Change Orders 12 – 24	45%

Item 17.2 – Phase 2 Preliminary Design Work, Single Transverse Seat

	Milestone	Percent of Bid Item
A	Submittal and Approval of Preliminary Design Review for Change Order 26 - Single Transverse Arrangement	75%
B	Submittal and Approval of Final Design Review for Change Order 26 - Single Transverse Arrangement	25%

Item 17.3 – Phase 2 Preliminary Design Work, Double Transverse Seat

	Milestone	Percent of Bid Item
A	Submittal and Approval of Carshell Analysis for Change Order 27 - Double Seat Arrangement	100%

Item 18 – Recurring Costs for Modification No. 6 – Phase 1

Item 18.1 – Modifications Completed at Siemens Facility

	Milestone	Percent of Bid Item
A	Completion of Installation of Modifications for Change Orders 8 -11 Phase 1, Option 1, and Phase W Cars	100%

Item 18.2 – Modifications Completed at SFMTA

	Milestone	Percent of Bid Item
A	Completion of Installation of Modifications for Change Orders 12 - 24 for Phase 1, Option 1, and Phase W Cars	100%

Item 19 – Recurring Costs for Modification No. 6 – Phase 2

	Milestone	Percent of Bid Item
A	Completion of Installation of Modifications for Change Orders 9 - 24 for Phase 2 Cars	100% per Vehicle

Item 20 – Track Brake Modifications

	Milestone	Percent of Bid Item
A	Completion of Installation of Modifications for Track Brakes in 28 Cars (Change Order 25)	33%
B	Completion of Installation of Modifications for Track Brakes in 48 Cars (Change Order 25)	33%
C	Completion of Installation of Modifications for Track Brakes in 68 Cars (Change Order 25)	34%



Item 21 – Production Acceleration

	Milestone	Percent of Bid Item
A	Occupation of Facility for Change Order 28	50%
B	Completed Installation of Major Equipment Items (Crane, Integration and Lifting/Turning Equipment) for Change Order 28	50%

**EXHIBIT 3  
PROJECT DELIVERY AND VEHICLE DELIVERY SCHEDULE**

**A. Project Delivery Schedule**

<b>Item</b>	<b>Date</b>
Notice To Proceed	9/30/2014
Project Plan	11/29/2014
Training Start	4/17/2017
Training Complete	8/15/2017
Special Tools / Diagnostic Test Equipment	4/17/2017
Delivery of Publications (Manuals, Parts Book, Drawings) - Prelim	2/16/2017
Delivery of Publications (Manuals, Parts Book, Drawings) - Final	11/13/2017
Delivery of Spare Parts (Phase 1)	8/15/2017
Contract Mod 5, Item 15.1 Completion of Engineering for Additional Track Brakes	9/30/2019
Contract Mod 5, Item 15.2 Installation of Additional Track Brakes on 8 Vehicles	10/31/2019
Contract Mod 6, Item 17.1 A – Phase 1, Option 1, and Phase W Non-Recurring Engineering, Submittal of Design Documentation for Change Orders 8 – 11	5/31/2017
Contract Mod 6, Item 17.1 B – Phase 1, Option 1, and Phase W Non-Recurring Engineering, Submittal of Field Modification Instructions and or Software/ Design Documentation for Change Orders 12 – 24	1/3/2020
Contract Mod 6, Item 17.2 A - Phase 2 Preliminary Design Work, Single Transverse Seat, Completion of Preliminary Design Review for Change Order 26 - Single Transverse arrangement	1/24/2020
Contract Mod 6, Item 17.2 B - Phase 2 Preliminary Design Work, Single Transverse Seat, Completion of Final Design Review for Change Order 26 - Single Transverse arrangement	3/15/2020
Contract Mod 6, Item 17.3 A – Phase 2 Preliminary Design Work, Double Transverse Seat, Submittal of Carshell Analysis for Change Order 27 - Double Seat Arrangement	2/28/2020
Contract Mod 6, Item 18.1 A – Modifications Completed at Siemens Facility, Completion of Installation of modifications for Change Orders 8 -11 Phase 1, Option 1, and Phase W Cars	10/8/2019
Contract Mod 6, Item 18.2 A – Modifications Completed at SFMTA, Completion of Installation of modifications for Change Orders 12 - 24 for Phase 1, Option 1, and Phase W Cars	10/1/2020

Contract Mod 6, Item 19 A – Recurring Costs for Modification\6 – Phase 2, Completion of Installation of modifications for Change Orders 8 - 24 for Phase 2 Cars	Per Phase 2 vehicle delivery
Contract Mod 6, Item 20.1 A – Retrofit Track Brakes in 60 Phase 1, Option 1, and Phase W Cars, Completion of Installation of modifications for Track Brakes in 28 Cars (Change Order 25)	2/15/20
Contract Mod 6, Item 20.1 B – Retrofit Track Brakes in 60 Phase 1, Option 1, and Phase W Cars, Completion of Installation of modifications for Track Brakes in 48 Cars (Change Order 25)	3/15/20
Contract Mod 6, Item 20.1 C – Retrofit Track Brakes in 60 Phase 1, Option 1, and Phase W Cars, Completion of Installation of modifications for Track Brakes in 68 Cars (Change Order 25)	4/15/20
Contract Mod 6, Item 21 A – Production Acceleration, Occupation of Facility, Change Order 28	11/30/2019
Contract Mod 6, Item 21 B – Production Acceleration, Completed Installation of Major Equipment Items (Crane, Integration and Lifting/turning equipment) Change Order 28	3/31/2020
Delivery of Spare Parts (35% of Phase 2 Quantity)	5/15/2021
Delivery of Spare Parts (35% of Phase 2 Quantity)	With Delivery of 50th Vehicle (Phase 2)
Delivery of Spare Parts (30% of Phase 2 Quantity)	With Delivery of 100th Vehicle (Phase 2)
Acceptance of Training Simulator 1	5/31/2018
Delivery of Additional Spare Parts (Exhibit 1 C)	TBD
Delivery of Spare Parts for Option Vehicles	TBD
Delivery of Training Simulator 2	TBD

Note: See Exhibit 3.B for Vehicle Delivery Schedule.

Item	Vehicle Delivery Date	Completion of
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**B. Vehicle Delivery Schedule<sup>1</sup>**

Item	Vehicle Delivery Date	Completion of Acceptance Testing
Notice To Proceed	9/30/2014	
Delivery of 1st Vehicle (Phase 1) to SFMTA (LRV 2001)	1/10/2017	8/12/2017
LRV 2002	2/27/2017	9/20/2017
LRV 2003	3/29/2017	8/25/2017
LRV 2004	10/16/2018	12/26/2018
LRV 2005	5/31/2017	8/3/2017
LRV 2006	7/11/2017	9/8/2017
LRV 2007	7/31/2017	9/27/2017
LRV 2008	10/17/2017	12/16/2017
LRV 2009	11/14/2017	1/14/2018
LRV 2010	3/8/2018	5/6/2018
LRV 2011	1/10/2018	3/18/2018
LRV 2012	1/18/2018	3/17/2018
LRV 2013	2/1/2018	3/31/2018
LRV 2014	2/8/2018	4/16/2018
LRV 2015	5/3/2018	6/28/2018
LRV 2016	1/25/2018	3/22/2018
LRV 2017	2/15/2018	4/12/2018
LRV 2018	3/29/2018	5/24/2018
LRV 2019	4/19/2018	6/10/2018
LRV 2020	3/1/2018	4/25/2018
LRV 2021	4/26/2018	6/20/2018
LRV 2022	3/15/2018	5/9/2018
LRV 2023	5/10/2018	7/4/2018
LRV 2024	4/6/2018	5/31/2018
LRV 2025 (Delivery of 1 <sup>st</sup> Phase W Vehicle to SFMTA)	5/17/2018	7/11/2018
LRV 2026	5/24/2018	7/18/2018
LRV 2027	5/21/2018	7/15/2018
LRV 2028 (Delivery of 4 <sup>th</sup> Phase W Vehicle to SFMTA)	6/7/2018	8/1/2018
LRV 2029 (Delivery of 1st Option 1 Vehicle to SFMTA)	6/14/2018	8/8/2018
LRV 2030	7/9/2018	9/2/2018
LRV 2031	6/4/2018	7/29/2018
LRV 2032	6/21/2018	8/15/2018
LRV 2033	6/28/2018	8/22/2018
LRV 2034	7/12/2018	9/05/2018
LRV 2035	8/2/2018	9/26/2018

		<b>Acceptance Testing</b>
LRV 2036	7/26/2018	9/19/2018
LRV 2037	8/9/2018	10/3/2018
LRV 2038	7/23/2018	9/16/2018
LRV 2039	9/20/2018	11/14/2018
LRV 2040	9/27/2018	11/21/2018
LRV 2041	8/16/2018	10/10/2018
LRV 2042	8/23/2018	10/17/2018
LRV 2043	8/27/2018	10/21/2018
LRV 2044	8/30/2018	10/24/2018
LRV 2045	8/31/2018	10/25/2018
LRV 2046	9/17/2018	11/11/2018
LRV 2047	10/18/2018	12/12/2018
LRV 2048	10/25/2018	12/19/2018
LRV 2049	11/6/2018	12/31/2018
LRV 2050	11/12/2018	1/6/2019
LRV 2051	10/04/2018	11/28/2018
LRV 2052	11/20/2018	1/14/2019
LRV 2053	11/28/2018	1/22/2019
LRV 2054	12/13/2018	2/6/2019
LRV 2055	12/20/2018	2/13/2019
LRV 2056	1/10/2019	3/6/2019
LRV 2057	1/17/2019	3/13/2019
LRV 2058	1/31/2019	3/27/2019
LRV 2059	2/7/2019	4/3/2019
LRV 2060	2/15/2019	4/11/2019
LRV 2061	2/25/2019	4/21/2019
LRV 2062	3/7/2019	5/1/2019
LRV 2063	4/16/2019	6/10/2019
LRV 2064	05/02/2019	6/26/2019
LRV 2065	6/20/2019	8/14/2019
LRV 2066	7/11/2018	9/4/2018
LRV 2067	8/15/2019	10/9/2019
LRV 2068	10/8/2019	12/2/2019
LRV 2069	5/15/2021	9/26/2021
LRV 2070	6/30/2021	10/13/2021
LRV 2071	7/30/2021	11/5/2021
LRV 2072	8/30/2021	11/29/2021
LRV 2073	9/15/2021	12/8/2021
LRV 2074	9/30/2021	12/16/2021
LRV 2075	10/15/2021	12/24/2021
LRV 2076	10/30/2021	1/1/2022
LRV 2077	11/15/2021	1/10/2022
LRV 2078	11/30/2021	1/25/2022

LRV 2079	12/15/2021	2/9/2022
LRV 2080	12/30/2021	2/24/2022
LRV 2081	1/17/2022	3/14/2022
LRV 2082	1/31/2022	3/28/2022
LRV 2083	2/14/2022	4/11/2022
LRV 2084	2/28/2022	4/25/2022
LRV 2085	3/16/2022	5/11/2022
LRV 2086	3/31/2022	5/26/2022
LRV 2087	4/15/2022	6/10/2022
LRV 2088	4/30/2022	6/25/2022
LRV 2089	5/16/2022	7/11/2022
LRV 2090	5/31/2022	7/26/2022
LRV 2091	6/16/2022	8/11/2022
LRV 2092	6/30/2022	8/25/2022
LRV 2093	7/15/2022	9/9/2022
LRV 2094	7/30/2022	9/24/2022
LRV 2095	8/17/2022	10/12/2022
LRV 2096	8/31/2022	10/26/2022
LRV 2097	9/15/2022	11/10/2022
LRV 2098	9/30/2022	11/25/2022
LRV 2099	10/17/2022	12/12/2022
LRV 2100	10/31/2022	12/26/2022
LRV 2101	11/15/2022	1/10/2023
LRV 2102	11/30/2022	1/25/2023
LRV 2103	12/15/2022	2/9/2023
LRV 2104	12/30/2022	2/24/2023
LRV 2105	1/16/2023	3/13/2023
LRV 2106	1/31/2023	3/28/2023
LRV 2107	2/14/2023	4/11/2023
LRV 2108	2/28/2023	4/25/2023
LRV 2109	3/16/2023	5/11/2023
LRV 2110	3/31/2023	5/26/2023
LRV 2111	4/15/2023	6/10/2023
LRV 2112	4/30/2023	6/25/2023
LRV 2113	5/16/2023	7/11/2023
LRV 2114	5/31/2023	7/26/2023
LRV 2115	6/16/2023	8/11/2023
LRV 2116	6/30/2023	8/25/2023
LRV 2117	7/18/2023	9/12/2023
LRV 2118	7/31/2023	9/25/2023
LRV 2119	8/30/2023	10/25/2023
LRV 2120	9/30/2023	11/25/2023
LRV 2121	10/31/2023	12/26/2023
LRV 2122	11/15/2023	1/10/2024
LRV 2123	11/30/2023	1/25/2024

LRV 2124	12/16/2023	2/10/2024
LRV 2125	12/30/2023	2/24/2024
LRV 2126	1/16/2024	3/12/2024
LRV 2127	1/30/2024	3/26/2024
LRV 2128	2/8/2024	4/4/2024
LRV 2129	2/19/2024	4/15/2024
LRV 2130	2/28/2024	4/24/2024
LRV 2131	3/8/2024	5/3/2024
LRV 2132	3/19/2024	5/14/2024
LRV 2133	3/28/2024	5/23/2024
LRV 2134	4/10/2024	6/5/2024
LRV 2135	4/19/2024	6/14/2024
LRV 2136	4/30/2024	6/25/2024
LRV 2137	5/9/2024	7/4/2024
LRV 2138	5/17/2024	7/12/2024
LRV 2139	5/29/2024	7/24/2024
LRV 2140	6/10/2024	8/5/2024
LRV 2141	6/19/2024	8/14/2024
LRV 2142	6/28/2024	8/23/2024
LRV 2143	7/11/2024	9/5/2024
LRV 2144	7/22/2024	9/16/2024
LRV 2145	7/31/2024	9/25/2024
LRV 2146	8/12/2024	10/7/2024
LRV 2147	8/21/2024	10/16/2024
LRV 2148	8/30/2024	10/25/2024
LRV 2149	9/10/2024	11/5/2024
LRV 2150	9/19/2024	11/14/2024
LRV 2151	9/30/2024	11/25/2024
LRV 2152	10/8/2024	12/3/2024
LRV 2153	10/15/2024	12/10/2024
LRV 2154	10/22/2024	12/17/2024
LRV 2155	10/29/2024	12/24/2024
LRV 2156	11/5/2024	12/31/2024
LRV 2157	11/12/2024	1/7/2025
LRV 2158	11/19/2024	1/14/2025
LRV 2159	11/27/2024	1/22/2025
LRV 2160	12/12/2024	2/6/2025
LRV 2161	12/21/2024	2/15/2025
LRV 2162	12/30/2024	2/24/2025
LRV 2163	1/10/2025	3/7/2025
LRV 2164	1/17/2025	3/14/2025
LRV 2165	1/24/2025	3/21/2025
LRV 2166	1/31/2025	3/28/2025
LRV 2167	2/7/2025	4/4/2025
LRV 2168	2/14/2025	4/11/2025

LRV 2169	2/21/2025	4/18/2025
LRV 2170	2/28/2025	4/25/2025
LRV 2171	3/10/2025	5/5/2025
LRV 2172	3/17/2025	5/12/2025
LRV 2173	3/24/2025	5/19/2025
LRV 2174	3/31/2025	5/26/2025
LRV 2175	4/9/2025	6/4/2025
LRV 2176	4/16/2025	6/11/2025
LRV 2177	4/23/2025	6/18/2025
LRV 2178	4/30/2025	6/25/2025
LRV 2179	4/30/2025	6/25/2025
LRV 2180	5/9/2025	7/4/2025
LRV 2181	5/16/2025	7/11/2025
LRV 2182	5/23/2025	7/18/2025
LRV 2183	5/30/2025	7/25/2025
LRV 2184	5/30/2025	7/25/2025
LRV 2185	6/9/2025	8/4/2025
LRV 2186	6/16/2025	8/11/2025
LRV 2187	6/23/2025	8/18/2025
LRV 2188	6/30/2025	8/25/2025
LRV 2189	6/30/2025	8/25/2025
LRV 2190	7/9/2025	9/3/2025
LRV 2191	7/16/2025	9/10/2025
LRV 2192	7/23/2025	9/17/2025
LRV 2193	7/30/2025	9/24/2025
LRV 2194	7/30/2025	9/24/2025
LRV 2195	8/9/2025	10/4/2025
LRV 2196	8/16/2025	10/11/2025
LRV 2197	8/23/2025	10/18/2025
LRV 2198	8/30/2025	10/25/2025
LRV 2199	8/30/2025	10/25/2025
LRV 2200	9/9/2025	11/4/2025
LRV 2201	9/16/2025	11/11/2025
LRV 2202	9/23/2025	11/18/2025
LRV 2203	9/30/2025	11/25/2025
LRV 2204	9/30/2025	11/25/2025
LRV 2205	10/9/2025	12/4/2025
LRV 2206	10/16/2025	12/11/2025
LRV 2207	10/23/2025	12/18/2025
LRV 2208	10/30/2025	12/25/2025
LRV 2209	10/30/2025	12/25/2025
LRV 2210	11/9/2025	1/4/2026
LRV 2211	11/16/2025	1/11/2026
LRV 2212	11/23/2025	1/18/2026
LRV 2213	11/30/2025	1/25/2026



LRV 2214	11/30/2025	1/25/2026
LRV 2215	12/9/2025	2/3/2026
LRV 2216	12/16/2025	2/10/2026
LRV 2217	12/23/2025	2/17/2026
LRV 2218	12/30/2025	2/24/2026
LRV 2219	12/30/2025	2/24/2026
Delivery of 1st Option 2 Vehicle to SFMTA	TBD	TBD
Delivery Rate of Option 2 Vehicles	TBD	TBD
Delivery of the last Option 2 Vehicle	TBD	TBD

<sup>1</sup> This schedule assumes Contract Modification 6 NTP no later than November 30, 2019.

**Exhibit 6.5**  
**Phase 2 Corporate Guarantee**



**Guarantee** November ... , 2019

RE: Procurement of New Light Rail Vehicles (LRV4) Contract No. SFMTA-2013-19 between Siemens Mobility Inc. (as successor by assignment from Siemens Industry Inc., hereafter "Obligor") and the City and County of San Francisco ("City"), through its Municipal Transportation Agency ("Beneficiary") dated September 29, 2014 ("Contract").

The Contract requires that Obligor provide a performance bond, labor and materials bond, warranty bond (the "bonds"), letters of credit or other security, as approved by the City's Risk Manager, to secure Obligor's performance, warranty and other obligations under the Contract. Siemens Corporation ("Guarantor") offers to provide Beneficiary with the following guarantee in lieu of the bonds or letters of credit required under the Contract for the Phase 2 Work, as set forth in Modification No. 6 of the Contract.

For value received, Guarantor, a corporation duly organized and validly existing under the laws of the state of Delaware, unconditionally guaranties to Beneficiary the prompt and complete payment when due, whether by acceleration or otherwise, of all amounts owing by Obligor under Phase 2 of the Contract (including any liquidated damages). If at any time Obligor fails, neglects or refuses to timely or fully pay any sum due under Phase 2 of the Contract, and if within 15 calendar days after the written notice of such failure from the Beneficiary and the expiration of any grace period applicable with respect thereto under the Contract, Obligor has not made such payment in full, then upon receipt of written notice from Beneficiary specifying such default, Guarantor shall promptly make such payment in immediately available funds to the order of the Beneficiary. This guaranty is one of payment and not of collection. If more expeditious and appropriate than a direct payment to SFMTA (and if agreed to by SFMTA and Guarantor), in the event of any default on the part of the Obligor regarding its obligations under Phase 2 of the Contract, Guarantor agrees to perform all such obligations under the Contract that are necessary to cure the default and complete performance of all such work under the Contract.

Guarantor waives notice of acceptance of this Guarantee and notice of any liability to which it may apply, and waives presentment, demand for payment, protest, and notice of dishonor or non-payment of any kind.

Beneficiary may at any time and from time to time without notice to or consent of the Guarantor and without impairing or releasing the obligations of the Guarantor hereunder: (1) agree to any change in the terms of any obligation or liability of the Obligor to Beneficiary under the Contract, (2) grant any waivers to Obligor, (3) take or fail to take any action of any kind in respect of Phase 2 of the Contract, or (4) exercise or refrain from exercising any rights against Obligor under the Contract. In addition, Guarantor agrees that its obligations hereunder shall not be impaired in any manner whatsoever by any bankruptcy, extensions, moratoria or other relief granted to Obligor.

Notwithstanding anything contained in this Guarantee to the contrary, Guarantor's liability under this Guarantee shall not exceed \$7,306,858.

With respect to any claim, action or proceeding against Guarantor in connection with this Guarantee, Guarantor shall be entitled to assert those defenses which Obligor would be able to assert if such claim, action or proceeding were to be asserted or instituted against Obligor based upon the Contract. By its acceptance hereof, reliance hereon, Beneficiary affirms to Guarantor any and all representations, warranties, and covenants made by the Beneficiary to the Obligor under the Contract.

This Guarantee shall continue in full force and effect until Guarantor gives Beneficiary notice of termination of this Guarantee, except that, notwithstanding any such termination, this Guarantee shall continue in full force and effect with respect to all obligations and/or liabilities incurred prior to such termination. Notwithstanding the foregoing, however, this Guarantee shall terminate and cease to be of further effect on the earlier of: (a) 2/24/2031; (b) the Acceptance or Conditional Acceptance of the last Vehicle of Phase 2, provided that the Contractor has furnished a separate Guarantee or other security for the warranty provisions that meets the requirements of section 15.2.4. of the Contract; (c) the end of the agreed warranty period of the Phase 2 Vehicles; (d) the date of any permitted assignment of Obligor's interest in the Contract; or (e) the Beneficiary has been provided with a replacement guaranty, letter of credit, or other financial accommodation from a party with a credit rating equal to or better than that of Guarantor as of the date of this Guarantee, which financial accommodation provides Beneficiary with no less protection than that which is contained in this Guarantee (the acceptance of such replacement guarantee being within the sole and reasonable discretion of the Beneficiary). Guarantor shall, as of such date (the "Expiration Date"), have no further obligations or liability under this Guarantee, whether or not the Guarantee is returned to the Guarantor. To the extent feasible, Beneficiary will return the original of this Guarantee to the Guarantor after the Expiration Date.

Nothing contained herein shall be construed as conferring any rights upon persons or entities other than the Beneficiary. This Guarantee shall be governed and construed in accordance with the laws of the State of California without giving effect to principles of conflicts of law. Guarantor submits, and by its acceptance hereof Beneficiary hereby submits, to the jurisdiction of the courts of the state of California and to federal courts located within the city of San Francisco. Neither Guarantor nor Beneficiary may assign its rights or delegate its duties without the written consent of the other party. Any amendments to this Guarantee must be in

writing. This Guarantee may be executed in counterparts, each of which, when taken together, shall be deemed to be one and the same instrument.

This Guarantee has been duly executed by authorized representatives of the Guarantor as follows:

SIEMENS CORPORATION

By: \_\_\_\_\_

\*Name:

Title:

By: \_\_\_\_\_

\*Name:

Title:

Accepted:

Municipal Transportation Agency

By \_\_\_\_\_

Thomas G. Maguire

Interim Director of Transportation

Approved as to Form:

Dennis J. Herrera, City Attorney

By \_\_\_\_\_

Robin M. Reitzes

Deputy City Attorney

**Exhibit 7**  
**Modification No. 6 Change Orders**

<b>Change Order No.</b>	<b>Description</b>	<b>Technical Specification (TS) Change vs. FAI Change</b>	<b>Total</b>
8	Additional flip seats	FAI Change	\$702,959
9	Exterior carshell roof access steps	TS Change	\$831,846
10	Additional of door open tape switch	TS Change	No cost
11	Passenger emergency stop pushbutton	TS Change	No cost
12	MDS wireless communication to wayside	TS Change	\$93,237
13	Front step momentary switch	TS Change	\$74,642
14	Step audible and visual alert 1.5s before moving	TS Change	No cost
15	Relocation of Clipper® door control unit	FAI Change	\$60,300
16	Rotation of CCTV Firetide router	FAI Change	\$34,921
17	LRV4 decals	FAI Change	\$104,258
18	Bracket for 5lb. fire extinguisher	TS Change	No cost
19	Floor hatch fasteners to Philips head	FAI Change	No cost
20	Remove J-holder for advertising placards	FAI Change	No cost
21	Illuminated and twisting emergency stop pushbutton	TS Change	\$136,031
22	Reduce Deadman delay to zero seconds	TS Change	No cost
23	Track iron holder clips	TS Change	No cost
24	Change front door pushbutton to blue	TS Change	No cost
25	Track brakes - remainder of Phase 1, Option 1, and Phase W Vehicles	FAI Change	\$1,284,660
26	Engineering for interior seating - single transverse 50 Vehicles (2A)	FAI Change	\$714,694
27	Engineering for interior seating - double transverse 101 Vehicles (2B)	FAI Change	\$159,140
		<b>Change Orders Total</b>	<b>\$4,196,688</b>
n/a	Initial Production Acceleration Activities	n/a	\$5,603,000
		<b>Mod. 6 Total</b>	<b>\$9,799,688</b>

SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
BOARD OF DIRECTORS

RESOLUTION No. 191119-143

WHEREAS, In 2014, the SFMTA Board of Directors approved Contract No. 2013-19 with Siemens Industry, Inc. (Siemens) to provide up to 260 Light Rail Vehicles (LRVs), including two options for expansion LRVs (the Contract), all for an amount not to exceed \$1,192,651,577, and a term not to exceed 15 years; and,

WHEREAS, The Contract included the replacement of the SFMTA's 151 Breda LRVs, as replacing these older and less reliable vehicles is an established need in the Agency's Capital Plan and will have immediate impact on overall system performance; and,

WHEREAS, Through Contract Modification Nos. 1 through 4, the SFMTA Board approved various updates to the vehicle design, the procurement of 44 additional LRVs (including four vehicles to provide enhanced service during basketball games and other events at the new Chase Center), the addition of optional spare parts and equipment, and miscellaneous other changes to the Contract; and,

WHEREAS, On November 28, 2018, the Director of Transportation approved the assignment of the Contract from Siemens Industry, Inc., to Siemens Mobility, Inc.; and,

WHEREAS, On October 22, 2019, the Director of Transportation executed Contract Modification No. 5 to expedite the design and pilot installation of track brakes to the power trucks as a method to reduce frequency of flat spots on wheels caused by activation of the push button emergency brake; and,

WHEREAS, The proposed Contract Modification No. 6 will enhance the Phase 1 vehicle design with feedback-driven passenger comforts, including seating changes, updated operator cab features, and engineering refinements that improve overall fleet performance; will continue the installation of track brakes as a means to reduce flat wheels, and will finalize payment of weight incentives; and,

WHEREAS, Contract Modification No. 6 will also provide funding to advance Phase 2 long-lead activities essential to eliminating known risks to future service through the early fleet replacement, and provide related benefits, including the reduction of operating and maintenance costs, minimizing further investments in the existing Breda fleet, and minimizing the complexity of operating a mixed fleet of vehicles; and,

WHEREAS, On June 19, 2014, the San Francisco Planning Department determined (Case Number 2014.0929E) that the Procurement of New Light Rail Vehicles is statutorily exempt from California Environmental Quality Act (CEQA) as defined in Title 14 of the California Code of Regulations Section 15275(a), which provides an exemption from environmental review for the institution or increase of passenger or commuter service on rail lines already in use; and,

WHEREAS, The vehicles to be used for the Central Subway Project are within the scope of the Central Subway Final Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report (Central Subway SEIS/SEIR), Case No. 1996.281E; and,

WHEREAS, The vehicles to be used to provide enhanced Muni service to the Golden State Warriors Event Center Project are within the scope of the Golden State Warriors Event Center and Mixed Use Development at Mission Bay Blocks 29-32 Final Subsequent Environmental Impact Report (Event Center FSEIR), Case No. 2014.1441E; and,

WHEREAS, The changes in the current Contract Modification are within the scope of the environmental review discussed above; no new significant effects have been identified, there is no substantial increase in significant effects already identified, and no new mitigation is required; and,

WHEREAS, Copies of the CEQA determinations are on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and are incorporated herein by reference; now, therefore, be it

RESOLVED, That the SFMTA Board of Directors has subsequently reviewed the Central Subway Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report and the Event Center Final Subsequent Environmental Impact Report and finds that since the certification of the two documents, no changes have occurred in the proposed project or in the circumstances under which the project would be implemented that would cause new significant impacts or a substantial increase in the severity of impacts identified and analyzed in those documents, and that no new information has emerged that would materially change the analysis or conclusions set forth in the two documents; the actions approved herein would not necessitate implementation of additional or considerably different mitigation measures that those identified in those documents; and be it further

RESOLVED, That the SFMTA Board authorizes the Director of Transportation to execute Contract Modification No. 6 to SFMTA Contract No. 2013-19: Procurement of New Light Rail Vehicles, with Siemens Mobility, Inc., to enhance the vehicle design with passenger comforts, updated operator cab features, and engineering refinements that improve fleet performance; and to advance Phase 2 long-lead activities to accelerate fleet replacement, for an amount not to exceed \$9,799,688, with no increase in the total Contract price, achieved through a decrease in the escalation allowance, and no increase in the term of the Contract.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of November 19, 2019.



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Secretary to the Board of Directors  
San Francisco Municipal Transportation Agency