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

MODIFICATION NO. 9 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. 9 to Agreement is made and entered into on ______ 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.
- H. On December 6, 2019, the City approved Modification No. 6 to the Agreement to (i) update the Vehicles with multiple enhancements to improve passenger comfort, operational functionality, and maintainability and fleet reliability; (ii) continue installation of the track brakes; and (iii) initiate activities for the accelerated Phase 2 delivery schedule.
- I. On March 27, 2020, the City approved Modification No. 7 to the Agreement to (i) further update the Vehicles enhancements including seating changes; (ii) complete installation of the track brakes; and (iii) complete activities for the accelerated Phase 2 delivery schedule.
- J. On October 30, 2020, the City approved Modification No. 8 to the Agreement to (i) further modify the Vehicles including adding larger cab monitors and a second sensitive edge to the middle doors; and (ii) delete fareboxes for 141 of the Vehicles; as well as expedite work to avoid Phase 2 production delays.
- K. The SFMTA now wishes to modify the Agreement to add design refinements for Phase 2 production and updates to Phase 1 Vehicles, including (i) upgrading the center doors with additional sensing capabilities; (ii) completing installation of larger monitors and improved cameras initiated in Modification No. 8; (iii) making changes to the operator cab and controls in response to operator feedback; and (iv) providing for the next-generation Clipper equipment implementation on LRV4. In addition, using funds from the escalation allowance, the parties have resolved an issue regarding Phase 2 Vehicle escalation costs. These changes do not increase the overall Contract amount.

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

1. Section 29 (Subcontracting) is amended in its entirety to read as follows:

Contractor may subcontract portions of the Work only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the performance of the Work. City's execution of this Agreement constitutes its approval of the major subcontractors/suppliers listed below. Neither party shall contract on behalf of or in the name of the other party. Any agreement made in violation of this provision shall be null and void.

	COMMODITY	SUPPLIER	
1	Automatic Passenger Counting System (APC)	INIT	
2	Advanced Train Control System (ATCS)	Thales	
3	CCTV System	Kratos, Securitas, DTI Group, Televic	
4	Communications - Radio	Harris	
5	Doors	Ultimate Transportation N. America	
6	Event Recorder	Hasler Rail	
7	Friction Brake System	Tec Tran Brakes (Wabtec)	
8	Heating, Ventilation and Air Conditioning (HVAC)	Thermo King Corp.	
9	Passenger Information System, Infotainment (PIS)	Televic	
10	CAD/AVL	Xerox, Conduent	
11	Couplers	Voith	
12	Lighting (exterior)	TDG	
13	Lighting (interior)	TDG	
14	Pantograph	Schunk	
15	Sanders	Knorr	
16	Seats (passenger)	Freedman Seating Company	
17	Seats (driver)	Seats Incorporated	
18	Steps	Vapor Stone Rail Sys (Wabtec)	
19	Train to Wayside Communication System	Vecom	

2. 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. Price items reflect escalation totaling 14.7091% cumulatively over 5 years and 8 months. The Phase 2 Vehicle price (Exhibit 1A, item 2.2) of \$3,826,439 reflects escalation.

- **3.** Exhibit 2 (Payment Schedule) of the Agreement is replaced in its entirety by a new Exhibit 2 (Payment Schedule), which is attached to this Modification.
- **4.** 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.¹
- **5.** Exhibit 5, Section 1.1.3 (Exceptions to Warranty) is amended in its entirety to read as follows:

The warranty shall not apply to scheduled maintenance items and items furnished by the SFMTA, except to the extent such equipment may be damaged by the failure of a part or component for which the Contractor is responsible.

The warranty on owner-specified Clipper equipment (purchased and installed by Contractor) shall be for one year. However, related brackets, wiring, and similar hardware used by Contractor to install the Clipper equipment are not included as owner-specified Clipper equipment.

The Contractor is not required to provide a warranty on owner-specified Genfare farebox equipment (purchased and installed by Contractor) after Vehicle Acceptance.

- **6.** Exhibit 6 of the Agreement, as amended, is further modified; the Contractor shall increase the existing Parent Company Guarantees to reflect the increase in the Contract Amounts for each one, respectively, as follows, until the work is complete:
 - \$1,576,757 for the 24 Base Order Vehicles (Guarantee number 466742);
 - \$2,627,929 for the Option 1 Vehicles (Guarantee number 484678);
 - \$262,793 for the Phase W Vehicles (Guarantee number 556963);
 - \$36,663,876 for the Phase 2 Vehicles (Guarantee number 634590)

Contractor shall execute amended Guarantees upon execution of this Modification.

7. A new Exhibit 10 (Modification No. 9 Change Orders) is added to the Agreement and is attached to this Modification.

Change Order Nos. 44-49, and 54-55 are changes requested by the SFMTA after the First Article Inspection (FAI) process in Section 20.9.3 of the Technical

¹Exhibit 3A, Project Delivery, as included in this Modification No. 9, does not include any time adjustments that might be required by the ongoing effects of the COVID-19 pandemic, as notified to the SFMTA in serial letter SII-MTA-1127, and subsequent letters.

Specifications (FAI Changes).

- A. <u>Change Order 44</u> (Sensitive Edge on Middle Doors) Complete implementation of new door specification for both door leafs of the middle doors to be modified to each include a sensitive edge. This change, initiated in Contract Modification 8, covers remaining installations for 28 Phase 1 and 141 Phase 2 Vehicles.
- B. <u>Change Order 45</u> (Rear View Monitors and Exterior Cameras Upgrade) Complete planned upgrades and replacements including interim upgrade to touch-sensitive screens on Phase 1 Vehicles and subsequent replacement with newly defined Phase 2 technology enhancements of larger monitors and improved cameras. This change, initiated in Contract Modification No. 8, covers remaining installations for 28 Phase 1 and 141 Phase 2 Vehicles.
- **C.** <u>Change Order 46</u> (Additional Cab Mirrors) Add adjustable mirror allowing operators to look through the curved cab wall at passengers in the lead car.
- **D.** <u>Change Order 47</u> (Master Controller Additional Adjustability) Increase adjustability of the master controller towards the dash.
- **E.** <u>Change Order 48</u> (Reversal of Sanding and Gong Footswitches) Reverse the position of the sanding and gong footswitches.
- **F.** <u>Change Order 49</u> (Moving Flasher Light Button) Move the emergency light pushbutton to a location accessible by the operator's right hand.
- **G.** <u>Change Order 54</u> (Tow Bars and Strap Adaptors) Provide an additional 18 tow bars and 18 strap adaptors over and above the two of each previously supplied during Phase 1 implementation.
- H. <u>Change Order 55</u> (Interior Seating Mock-Up) Provide a seating mock-up to demonstrate the new interior layouts previously approved and funded under Contract Modification No. 7, and refine design concepts prior to serial production for Phase 2 Vehicles, and prior to the retrofit of previously Accepted Vehicles.
- 8. Section 15.1.4.1 of the Technical Specification (Seat Construction) is modified to add a new subsection 2 to read as follows:
 - 2. The seat construction and attachments of the seat to the carbody shall also comply with APTA-RT-LRT-RP-001-11 and be tested accordingly.
- **9.** Section 22.2.7.3 of the Technical Specification (On-Site Personnel) is modified to add a new subsection 2 to read as follows (Change Order 53):
 - 2. Contractor shall provide maintenance support to augment SFMTA capabilities and capacity to manage wheel slide incidents and tire replacements, including the replacement of up to 20 carsets of tires.

10. Section 23.3.1 of the Technical Specification (Fare Collection), is replaced in its entirety (Change Orders 50-52) to read as follows:

23.3.1 Fare Collection

1. Contractor shall supply and install a fare collection system compatible with the SFMTA LRT system, as specified in the table below for Vehicles 2001-2068.

Table 23-1. Fare Collection

No.	Defined System	Equipment	Qty	Current Location
1-1		Farebox	2	One in each cab
1-2	Fare Collection	Drivers Console	2	One in each cab
1-3	rate conection	Passenger Device	4	Two in each carbody half
1-4		Power Module	2	One for each carbody half

- 2. Beginning with Phase 2, Contractor shall make provisions for ownersupplied fare collection equipment for both cash (Genfare) and electronic fare collection (Clipper C2 next generation) systems. Provisions shall include power, cabling, connections, and attachment points specific to equipment provided by the SFMTA. Contractor shall make provisions for a fare collection system compatible with the SFMTA LRT system per Section 23.1.2, as specified below:
 - Contractor shall provide fareboxes for Vehicles 2069 2078, but not for Vehicles 2079 and beyond. Contractor shall install all materials and equipment necessary for the installation of such fareboxes, including the base and cables.
 - Clipper C2 equipment (driver's consoles, passenger devices, and power modules) shall not be provided for Vehicles 2069 and beyond.
 - For Clipper power provisions, Contractor shall provide electrical circuit breakers appropriate for C2 equipment.
 - For Clipper wiring, Contractor shall provide 50 C2 wiring harnesses; required harnesses beyond 50 will be owner-supplied. Contractor shall install wiring harnesses on all Vehicles.
 - For the Clipper antenna, Contractor shall install the C2 Clipper antenna, which will be owner-supplied equipment.
- **11.** *Release*. Contractor acknowledges and agrees that the amounts agreed for the work described in Modifications Nos. 1-8 and this Modification No. 9 shall be full accord and satisfaction for all past, current and prospective costs incurred in

connection with Contractor's performance of all work for all executed Modifications up to and including the work covered under this Modification No. 9, 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, 5, 6, 7, and 8.

- **12.** *Effective Date.* Each of the amendments set forth above shall be effective on and after all parties have signed the Amendment.
- **13.** *Legal Effect.* Except as expressly modified by this Modification No. 9, 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. 9 on the date set forth on page 1 above.

CITY

Transportation Siemens Mobility, Inc.

San Francisco Municipal Transportation Agency

San Francisco Municipal Transportation Agency

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CONTRACTOR

Jeffrey P.Tumlin Director of Transportation

Board of Directors

Resolution No.

Michael Cahill President

Chris Halleus

Christopher Halleus Vice President, FBA

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

Attest:

Dated:

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 – Payment Schedule Exhibit 3A – Project Delivery Schedule Exhibit 10 – Modification No. 9 Change Orders

EXHIBIT 1A Schedule of Prices

ITEM	ORIGINAL CONTRACT/ MOD NO.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE 4
Item 1	Original	Engineering Design, Project Management and Design Qualification Testing	Lump Sum		\$37,541,102
Item 1.1	Original, Mod 2, Mod 7 adjustment	Allowance for (a) regulatory mandated changes, (b) passenger enhancements, and (c) system modifications in order for Vehicle to interface with other SFMTA projects (e.g., radio project)	Lump Sum		\$0 ¹
Item 2.1	Mod 1	Vehicle Price for Base Order Phase 1	\$3,327,250	24 Cars	\$79,854,000
Item 2.2	Mod 1	Vehicle Price for Base Order Phase 2	\$3,826,439 ³	151 Cars	\$577,792,289
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	Mod 1	Spare Parts (Total of Exhibit 1.B, Phase 1)			¢11 152 040
Item 5.2	Mod 1	Spare Parts (Total of Exhibit 1.B, Phase 2) ²⁵	Lump Sum		\$14,153,840
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 ³	40 Cars	\$133,970,800

Item 8.1	Mod 1	Additional Spare Parts (Exhibit 1.C Phase 1) ⁵	· Lump Sum		\$11,269,527
Item 8.2	Mod 1	Additional Spare Parts (Exhibit 1.C Phase 2) ^{2 5}	p		÷ · · ,= • • ,• = - ·
Item 9	Mod 1	Spare parts for Option Cars ^{2 5}	Lump Sum		\$15,000,000
tltem 10	Mod 1	Train Simulator (2) (In accordance with Section 22.2.8 of Technical Specifications) ²	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 ⁶	24 Cars	\$1,495,514
Item 12B	Mod 3	Base Phase 2	\$62,313 ⁶	151 Cars	\$9,409,275
Item 13	Mod 3	Modification No. 3 Option 1 (Recurring Costs)	\$62,313 ⁶	40 Cars	\$2,492,523
Item 14	Mod 4	Modification No. 4 (Vehicle Price for Phase W)	\$3,968,750 ³	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, Phase W Engineering Costs for Changes 8 – 25	Lump Sum		\$492,738

Item 17.2	Mod 6	Phase 2 Preliminary Design Work, Single Transverse Seat	Lump Sum		\$714,694
Item 17.3	Mod 6	Phase 2 Preliminary Design Work, Double Transverse Seat	Lump Sum		\$159,140
Item 18	Mod 6	Recurring Costs Phase 1, Option 1, 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	151 Cars	\$629,972
Item 20	Mod 6	Track Brake Installation on 60 Phase 1, Option 1, Phase W Cars	\$21,411	60 Cars	\$1,284,660
Item 21	Mod 6	Initial Production Acceleration Activities	Lump Sum		\$5,603,000
Item 22	Mod 7	Continued Production Acceleration Activities	Lump Sum		\$19,899,553
Item 23	Mod 7	Engineering Costs for Modification 7 (Change Orders 28- 36, 38-40)	Lump Sum		\$2,809,279
Item 24	Mod 7	Phase 1, Option 1, and Phase W Recurring Costs Modifications Performed at SFMTA (Change Orders 28, 30, 31, 33)	\$3,472	68 Cars	\$236,096
Item 25	Mod 7	Phase 1, Option 1, and Phase W Vehicle Interior Redesign Modification Performed at SFMTA (Change Order 38)	\$109,998	68 Cars	\$7,479,864
Item 26	Mod 7	Recurring Costs for Phase 2	\$67,552	50 Cars	\$3,377,600

		Modification 7 (50 LRVs 69-118) (Change Order 28, 31, 32, 33, 34, 35, 37, 39)			
Item 27	Mod 7	Recurring Costs for Phase 2 Modification 7 (101 LRVs 119-219) (Change Order 28, 31, 32, 33, 34, 35, 37, 40)	\$86,254 ²	101 Cars	\$8,711,654
Item 28	Mod 7	Additional Training Allowance	Lump Sum		\$1,000,000
Item 29	Mod 8	Non recurring Costs Change Orders 41, 43	Lump Sum		\$1,000,546
Item 30	Mod 8	Recurring Costs Phase 1, Option 1 and Phase W			
Item 30.1	Mod 8	Recurring Costs Securitas Monitors Change order 41	\$6,947	68 Cars	\$472,396
Item 30.2	Mod 8	Recurring Costs Phase 1, Option 1, Phase W, Retrofit of Door system changes (Change Order 43)	\$19,198	40 Cars	\$767,920
Item 30.3	Mod 8	Recurring Costs Phase 1, Options 1, Phase W Retrofit of Rear View Monitor system (Change Order 41)	\$38,201	40 Cars	\$1,528,040
Item 31	Mod 8	Recurring Costs Phase 2			
Item 31.1	Mod 8	Recurring costs Phase 2 Recurring (Change Orders 41, 43)	\$24,395	10 Cars	\$243,950
Item 31.2	Mod 8	Recurring costs Phase 2 Recurring costs (Change Orders 42)	- \$27,294	141 Cars	- \$3,848,454
Item 32	Mod 9	Non-recurring costs	Lump Sum		\$885,063
Item 33	Mod 9	Tire replacement per truck set	\$65,477	20 Cars	\$1,309,540
Item 34	Mod 9	Retrofit of door system changes Change Order 44	\$18,589	28 Cars	\$520,492

				SUBTOTAL	\$970,078,803
Item 39	Mod 9	Retrofit of Phase 2 Change Orders 46 to 49	Lump Sum	15 Cars	\$150,436
Item 38	Mod 9	Phase 2 Recurring costs Orders 46 to 52	-\$18,133	151 Cars	-\$2,738,083
Item 37	Mod 9	Phase 2 recurring costs - Change Orders 44 & 45	\$18,021	141 Cars	\$2,540,961
Item 36	Mod 9	Retrofit of Phase 1 Change Orders 46 to 52	\$14,445	68 Cars	\$982,260
Item 35	Mod 9	Retrofit of rear view monitor system Change Order 45	\$37,759	28 Cars	\$1,057,252

Option

ITEM	CONTRACT MOD.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE ⁴
Item 7.2		Option 2 for 1 to 45 additional Light Rail Vehicles	\$3,329,011 ²	45 Cars	\$149,805,495

Escalation

ITEM	CONTRACT MOD.	DESCRIPTION	UNIT PRICE	QUANTITY	EXTENDED PRICE ⁴
Allowance	Original, Mod 6, Mod 7, Mod 8 adjustment	Allowance for escalation in accordance with Agreement, Section 7.5	n/a	n/a	\$72,767,279

Not to exceed	
CONTRACT LIMIT	\$1,192,651,577

Notes:

- ¹ Allowance used and incorporated into Contract Modification Nos. 7 and 8 (Items 26-35).
- ² This price does not include escalation. Escalation will be applied in accordance with Section 7.5 of the Agreement; the parties have agreed that the escalation will be 14.7091% for Phase 2, items 5.2 and 8.2.
- ³ Price includes escalation. Item 2.2 includes escalation required on items 2.1, 12B, and 19, as per letter SII-MTA 1301, which is incorporated herein by reference as though fully set forth.
- ⁴ Prices do not include sales taxes.
- ⁵ The prices of spare parts (recorded in Exhibits 1B and 1C Nominal Spare Parts) that are affected by the changes (trucks, wheels, seats) in Modification No. 7 will be adjusted to reflect the cost of those changes as presented in the Change Orders.
- ⁶ Extended price reflects the Change Order; unit price is rounded.

Exhibit 2 PAYMENT SCHEDULE

(All Item references are to Exhibit 1.A)

Item 1 - Engineering Design, Project Management and Design Qualification Testing

	Milestone	Percent of Bid Item
А	Submittal and approval of Test Program, System Safety, Reliability, Maintainability and other plans as negotiated with SFMTA	2%
В	Completion and approval of preliminary design review	2%
С	Completion and approval of final design review	35%
D	Completion and approval of Vehicle performance qualification testing	30%
E	Completion and approval of test program as specified	26%
F	Completion and Acceptance of all Contract requirements (Retention)	5%
	Total for Item 1	100%

Item 2 – Vehicle Price for Base Contract

Item 2A – Vehicle Price for Base Contract (Cars 1 - 24)

	Milestone	Percent of Bid Item
A	 Placement of contracts with the following major subcontractors (Cars 1 - 24).* Propulsion Friction Brake Air Comfort Door Operators & Controls Carbody Train Control Coupler 	2%
	Communication	
В	Delivery of complete set of subsystems to site of installation.	20%/Vehicle
С	Vehicle structure complete and ready for shipment to final assembly site	20%/Vehicle

	Milestone	Percent of Bid Item
D	SFMTA approval for shipment of Vehicle from final assembly site to SFMTA property	25%/Vehicle
Е	Conditional Acceptance of Vehicle by SFMTA	30%/Vehicle
F	Completion and Acceptance of all Contract requirements for Phase 1 (Retention)	3%
Total for Item 2A		100%

* Payment will be made only to the extent that deposits have been paid to suppliers and up to the amount of the deposits or 2%, whichever is the lesser value; in addition Contractor must provide security for payment under Section 7.3 of the Agreement.

Item 2B - Vehicle Price for Base Contract (Cars 25 - 175)

Item 2B.1 – Vehicle Price for Base Contract (applies to 107 of 151 Phase 2 Vehicles)

	Milestone	Percent of Bid Item
A	 Placement of contracts with the following major subcontractors (Cars 25 - 175).* Propulsion Friction Brake Air Comfort Door Operators & Controls Carbody Train Control Coupler Communication 	2%
В	Delivery of complete set of subsystems to site of installation.	20%/Vehicle
С	Vehicle structure complete and ready for shipment to final assembly site	20%/Vehicle
D	SFMTA approval for shipment of Vehicle from final assembly site to SFMTA property	25%/Vehicle
Е	Conditional Acceptance of Vehicle by SFMTA	30%/Vehicle
F	Completion and Acceptance of all Contract requirements for Phase 2 (Retention)	3%
	Total for Item 2B.1	100%

Item 2B.2 – Vehicle Price for Base Contract (applies to 44 accelerated Vehicles of 151 Phase 2 Vehicles) **

	Milestone	Percent of Bid Item
A	 Placement of contracts with the following major subcontractors (Cars 25 - 175).* Propulsion Friction Brake Air Comfort Door Operators & Controls Carbody Train Control Coupler Communication 	2%
В	Delivery of complete set of subsystems to site of installation.	35%/Vehicle
С	Vehicle structure complete and ready for shipment to final assembly site	20%/Vehicle
D	SFMTA approval for shipment of Vehicle from final assembly site to SFMTA property	20%/Vehicle
E	Conditional Acceptance of Vehicle by SFMTA	20%/Vehicle
F	Completion and Acceptance of all Contract requirements for phase 2 (Retention)	3%
	Total for Item 2B.2	100%

* Payment will be made only to the extent that deposits have been paid to suppliers and up to the amount of the deposits or 2%, whichever is the lesser value; in addition, Contractor must provide security for the payment, as required under Section 7.3 of the Agreement.

** 44 of 151 Phase 2 Vehicles are classified as "accelerated" and shall apply to every other Vehicle to be delivered after the 63rd Vehicle of Phase 2 (Phase 2 Cars 65, 67, 69, etc.) unless otherwise agreed between the Parties.

Item 3 - Operating, Maintenance and Parts Manuals

	Milestone	Percent of Bid Item
А	Acceptance of draft manuals	5%
В	Delivery and Acceptance of Operating, Maintenance and Parts Manuals	90%
С	Completion and Acceptance of all Contract requirements (Retention)	5%
	Total for Item 3	100%

Item 4 – Training and Train Simulator

Item 4.1 – Training

	Milestone	Percent of Bid Item
А	Completion of training program and delivery and Acceptance of all deliverables	95%
В	Completion and Acceptance of all Contract requirements (Retention)	5%
Total for Item 4		100%

Item 4.2 – Train Simulator

	Milestone	Percent of Bid Item
Α	Delivery and Acceptance of Train Simulator	95%
В	Completion and Acceptance of all Contract requirements (Retention)	5%
	Total for Item 4.2	100%

Item 5 - Spare Parts

	Milestone	Percent of Bid Item
А	Delivery and Acceptance of spare parts. Delivery and payment will be on a line-item basis.	95%
В	Completion and Acceptance of all Contract requirements (Retention)	5%
	Total for Item 5	100%

Item 6 - Special Tools, Test and Diagnostic Equipment

	Milestone	Percent of Bid Item
А	Delivery and Acceptance of diagnostic test equipment, special tools, bench test equipment	95%
В	Completion and Acceptance of all Contract requirements (Retention)	5%
Total for Item 6		100%

Item 7 - Option for 1 to 85 Additional New Light Rail Vehicles

Item 7.1 - Option 1 for 40 Additional New Light Rail Vehicles Progress payments will be made in accordance with Item 2A

<u>Item 7.2 – Option 2 for 1 to 45 Additional New Light Rail Vehicles</u> Progress payments will be made in accordance with Item 2B.1

<u>Item 8 – Additional Spare Parts</u> Progress payments will be made in accordance with Item 5.

<u>Item 9 – Spare Parts for Options</u> Progress payments will be made in accordance with Item 5.

<u> Item 10 – Train Simulator</u>

Progress payments will be made in accordance with Item 4.2.

Item 11 - Modification No. 3 Work (Non-Recurring Costs)

Item 11.1 – Engineering

	Milestone	Percent of Bid Item
А	Conceptual design review / preliminary design review / plan	20%
В	Final design review	40%
С	First article inspection	20%
D	System Acceptance test	15%
Е	Completion and Acceptance of all Contract requirements (Retention)	5%
Total for Item 11.1		100%

	Milestone	Percent of Bid Item
А	Delivery and Acceptance of SIBAS Expert software	62%
В	Completion by SFMTA of two SIBAS Expert training sessions	33%
С	Completion and Acceptance of all Contract requirements (Retention)	5%
Total for Item 11.2		100%

Item 12 - Modification No. 3 (Base Recurring Costs)

Item 12A – Base Phase 1

	Milestone	Percent of Bid Item
А	Delivery to site of installation of equipment required by Modification No. 3	42%
В	SFMTA approval for shipment from final assembly site to SFMTA property of Vehicle with equipment Installed as required for Phase 1	25%
С	SFMTA Conditional Acceptance of Vehicle with equipment installed as required for Phase 1	30%
D	Completion and Acceptance of all Contract requirements for Phase 1 (Retention)	3%
Total for Item 12A		100%

Item 12B – Base Phase 2

	Milestone	Percent of Bid Item
А	Delivery to site of installation of equipment required by Modification No. 3	42%
В	SFMTA approval for shipment from final assembly site to SFMTA property of Vehicle with equipment installed as required for Phase 2	25%
С	SFMTA Conditional Acceptance of Vehicle with equipment installed as required for Phase 2	30%
D	Completion and Acceptance of all Contract requirements for Phase 2 (Retention)	3%
Total for Item 12B		100%

Item 13 – Option 1 (Recurring Costs)

	Milestone	Percent of Bid Item
А	Delivery to site of installation of equipment required for Option 1	42%
В	SFMTA approval for shipment from final assembly site to SFMTA property of Vehicle with equipment installed as required for Option 1	25%
С	SFMTA Conditional Acceptance of Vehicle with equipment installed as required for Option 1	30%
D	Completion and Acceptance of all Contract requirements for Option 1 (Retention)	3%
Total	for Item 13	100%

Item 14 - Contract Modification 4: Vehicle Price for Phase W

	Milestone	Percent of Bid Item
A	 Placement of contracts with the following major subcontractors (Cars 25 – 28).* Propulsion Friction Brake Air Comfort Door Operators & Controls Carbody Train Control Coupler Communication 	2%
В	Delivery of complete set of subsystems to site of installation.	20%/Vehicle
С	Vehicle structure complete and ready for shipment to final assembly site	20%/Vehicle
D	SFMTA approval for shipment of Vehicle from final assembly site to SFMTA property	25%/Vehicle
E	Conditional Acceptance of Vehicle by SFMTA	30%/Vehicle
F	Completion and Acceptance of all Contract requirements for Phase W (Retention)	3%
Total	for Item 14	100%

Payment will be made only to the extent that deposits have been paid to suppliers and up to the amount of the deposits or 2%, whichever is the lesser value; in addition Contractor must provide security for payment under Section 7.3 of the Agreement.

Item 15 - Modification No. 5 Work

Item 15.1 – Non-Recurring Costs

	Milestone	Percent of Bid Item
A	Submittal and approval of engineering submittals and test documentation and manuals for additional track brakes on power trucks	100%

Item 15.2 – Vehicle Installation

	Milestone	Percent of Bid Item
А	Installation, testing, and Acceptance of track brakes on power trucks on 8 LRVs	100%

<u>Item 16 – Weight Incentives – Actual amount will be determined according to Section</u> <u>19.2 of the Agreement.</u>

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

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

Item 16.2 – Phase 2 Weight Incentives

	Milestone	Percent of Bid Item
А	SFMTA approval of 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%
В	Submittal and approval of field modification instructions and/or design/software documentation for Change Orders 12 – 24	45%
Total for Item 17.1		100%

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

	Milestone	Percent of Bid Item
А	Submittal and approval of preliminary design review for Change Order 26 - single transverse arrangement	75%
В	Submittal and approval of final design review for Change Order 26 - single transverse arrangement	25%
Total for Item 17.2		100%

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
А	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
А	Completion of installation of modifications for track brakes in 28 Cars (Change Order 25)	33%
В	Completion of installation of modifications for track brakes in 48 Cars (Change Order 25)	33%
С	Completion of installation of modifications for track brakes in 68 Cars (Change Order 25)	34%
Total for Item 20		100%

Item 21 – Initial Production Acceleration Activities

	Milestone	Percent of Bid Item
A	Occupation and fit-out of satellite facility	50%
В	Completion of installation of major equipment items (crane, integration and lifting/turning equipment) at satellite facility	50%
Total	for Item 21	100%

Item 22 – Continued Production Acceleration Activities

	Milestone	Percent of Bid Item
A	Commencement of carshell production	20%
В	Completion of first carshell	10%
С	Vehicle assembly readiness – paint booth, test pit installed	10%
D	Shipment of first Phase 2 Vehicle	10%
Е	Recurring amounts paid evenly in quarterly increments June 2020 to December 2025	50%
Total	for Item 22	100%

Item 23 – Non-Recurring Engineering Costs for Modification No. 7 Work

	Milestone	Percent of Bid Item
А	Approval of field modification instructions for Vehicle interior retrofit and reconfiguration, single transverse (Change Orders 38 and 39)	20%
В	Approval of final design review and testing for Vehicle interior redesign, double transverse, (Change Order 40)	40%
С	PIS Software releases (Change Orders 29, 36) and field modification instructions, software releases, or engineering documentation for all other (non-interior) Change Orders (Change Orders 28, 30-35)	40%
Total	for Item 23	100%

Item 24 - Recurring Costs for Modification No. 7 - Phase 1, Option 1, Phase W

	Milestone	Percent of Bid Item
А	Completion of installation of modifications in 34 Cars for Change Orders 28, 30, 31, and 33 Phase 1, Option 1, Phase W Cars	50%
В	Completion of installation of modifications in 34 Cars for Change Orders 28, 30, 31, and 33 Phase 1, Option 1, Phase W Cars	50%
Total for Item 24		100%

<u>Item 25 – Recurring Costs for Modification No. 7 – Vehicle Interior Redesign</u> <u>Phase 1, Option 1, Phase W</u>

	Milestone	Percent of Bid Item
A	Completion of retrofit of Vehicle interior for Change Order 38 Phase 1, Option 1, Phase W	100% per Vehicle

<u>Item 26 – Recurring Costs for Modification No. 7 – 50 Phase 2 Vehicles, 69-118</u> (Change Orders 28, 31-35, 37, 39)

Progress Payment will be made in accordance with Exhibit 2, Item 2B.1

<u>Item 27 – Recurring Costs for Modification No. 7 – 101 Phase 2 Vehicles, 119-219</u> (Change Orders 28, 31-35, 37, 40)

Progress Payments will be made in accordance with Exhibit 2, Item 2B.1 and 2B.2 according to Vehicle number.

Item 28 – Additional Training Allowance

	Milestone	Percent of Bid Item
A	Delivery and Acceptance of training – Payment will be on a per module basis	100% per Module

Item 29 – Non-Recurring Costs for Modification No. 8

	Milestone	Percent of Bid Item
A	Approval of FDR supplement (Change Order 41)	60%
В	Approval of FDR supplement (Change Order 43 - Doors)	40%
Total for Item 29		100%

Item 30 - Recurring Costs for Modification No. 8 - Phase 1, Option 1, Phase W

Item 30.1 – Modifications for Change Order 41 (Securitas Monitors)

	Milestone	Percent of Bid Item
A	Installation, testing and Acceptance of modifications in 68 Phase 1, Option 1, Phase W Cars (Change Order 41)	100% Per Vehicle

<u>Item 30.2 – Modifications for</u> Change Order 43 (Doors)

	Milestone	Percent of Bid Item
А	Installation, testing and Acceptance of door modifications in 40 Phase 1, Option 1, Phase W Cars (Change Order 43)	100% Per Vehicle

<u>Item 30.3 – Modifications for Change Order 41 (Rear View Monitors)</u>

	Milestone	Percent of Bid Item
А	Installation, testing and Acceptance of modifications to rear view monitor system in 40 Phase 1, Option 1, Phase W Cars (Change Order 41)	100% Per Vehicle

Item 31 - Recurring Costs for Modification No. 8, Phase 2

<u>Item 31.1 – Recurring Costs for Modification No. 8 – 10 Phase 2 Vehicles, (Change Orders 41, 43)</u>

Progress Payments will be made in accordance with Exhibit 2, Item 2B.1 and 2B.2 according to Vehicle number.

<u>Item 31.2 – Recurring Costs for Modification No. 8 – 141 Phase 2 Vehicles, (Change Orders 42)</u>

Progress Payments will be made in accordance with Exhibit 2, Item 2B.1B and 2B.2B according to Vehicle number.

Item 32 – Non-Recurring Costs for Modification No. 9

	Milestone	Percent of Bid Item
А	Tire replacement set-up complete (Change Order 53)	30%
В	Shipment and approval of tow bars and strap adaptors (Change Order 54)	30%
с	Field modification instructions (FMIs) approved for Change Orders 46-52	40%
Total for Item 32		100%

Item 33 – Costs for Modification No. 9 - Tire Replacement

	Milestone	Percent of Bid Item
A	Tire replacement for trucks on 20 Cars (60 trucks total) complete, returned, and Accepted by SFMTA (Change Order 53)	100% per truck

<u>Item 34 – Recurring Costs for Modification No. 9 Retrofit of Door Systems – 28 Phase 1,</u> Option 1, Phase W Vehicles

	Milestone	Percent of Bid Item
A	Retrofit of door systems (Change Order 44)	100% per Vehicle

<u>Item 35 – Recurring Costs for Modification No. 9 Retrofit of Rear View Monitor Systems</u> <u>– 28 Phase 1, Option1, Phase W Vehicles</u>

	Milestone	Percent of Bid Item
A	Retrofit of rear view monitor systems (Change Order 45)	100% per Vehicle

<u>Item 36 – Recurring Costs for Modification No. 9 – 68 Phase 1, Option 1, Phase W</u> <u>Vehicles</u>

	Milestone	Percent of Bid Item
А	Retrofit of operator cab and Clipper equipment (Change Orders 46-52)	100% per Vehicle

<u>Item 37 – Recurring Costs for Modification No. 9 – 141 Phase 2 Vehicles,</u> (Change Orders 44 and 45)

Progress Payments will be made in accordance with Exhibit 2, Item 2B.1 and 2B.2 according to Vehicle number.

<u>Item 38 – Recurring Costs for Modification No. 9 – 151 Phase 2 Vehicles,</u> (Change Orders 46 to 52)

Progress Payments will be made in accordance with Exhibit 2, Item 2B.1 and 2B.2 according to Vehicle number.

<u>Item 39 – Costs for Modification No. 9 – Retrofit of 15 Phase 2 Vehicles,</u> (Change Orders 46 to 49)

	Milestone	Percent of Bid Item
А	Completion of cab improvement modifications Retrofit of 15 Phase 2 Vehicles, (Change Orders 46 to 49)	100%

EXHIBIT 3

PROJECT DELIVERY AND VEHICLE DELIVERY SCHEDULE

A. Project Delivery Schedule

Item	Date
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 3, Item 12 Completion Of Vehicle Modifications In Base Vehicles (Modification 3)	Per Vehicle Delivery
Contract Mod 3, Item 13 Completion of Vehicle Modifications in Option 1 Vehicles (Modification 3)	Per Vehicle Delivery
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, Phase W - Submittal of Design Documentation for Change Orders 8 – 11	5/31/2017
Contract Mod 6, Item 17.1 B – Phase 1, Option 1, Phase W - 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, 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, Phase W Cars	10/1/2020
Contract Mod 6, Item 19 A – 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 Cars Phase 1, Option 1, Phase W, Completion of Installation of modifications for Track Brakes in 28 Cars (Change Order 25)	2/15/2020

Contract Mod 6, Item 20.1 B – Retrofit Track Brakes in 60 Cars Phase 1, Option 1, Phase W, Completion of Installation of modifications for Track Brakes in 48 Cars (Change Order 25)	3/15/2020
Contract Mod 6, Item 20.1 C – Retrofit Track Brakes in 60 Cars Phase 1, Option 1, Phase W, Completion of Installation of modifications for Track Brakes in 68 Cars (Change Order 25)	4/15/2020
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
Contract Mod 7, Item 22 A – Commencement of Carshell Production	6/15/2020
Contract Mod 7, Item 22 B – Completion of First Carshell	9/15/2020
Contract Mod 7, Item 22 C – Vehicle Assembly Readiness – Paint Booth, Test Pit Installed	12/15/2020
Contract Mod 7, Item 22 D – Shipment of First Phase 2 Vehicle	5/15/2021
Contract Mod 7, Item 23 A – Approval of Field Modification Instructions for Vehicle Interior Retrofit and Reconfiguration, Single Transverse, Change Orders 38 and 39	9/15/2020
Contract Mod 7, Item 23 B – Approval of Final Design Review and Testing for Vehicle Interior Redesign, Double Transverse, Change Order 40	12/15/2020
Contract Mod 7, Item 23 C – PIS Software releases (Change Orders 29, 36) and Field Modification Instructions, Software Releases, or Engineering Documentation for all other (non-interior) Change Orders (Change Orders 28, 30-35)	9/15/2020
Contract Mod 7, Item 24 A – Completion of Installation of Modifications in 34 Cars for Change Orders 28, 30, 31, 33 Phase 1, Option 1, Phase W Cars	12/15/2020
Contract Mod 7, Item 24 B – Completion of Installation of Modifications in 34 Cars for Change Orders 28, 30, 31, 33	5/15/2021
Phase 1, Option 1, Phase W Cars	

Contract Mod 7, Item 26 – Completion of Installation of Vehicle	Per Phase 2
modifications for Modification No. 7 – 50 Phase 2 Vehicles	Vehicle Delivery
Contract Mod 7, Item 27 – Completion of Installation of vehicle	Per Phase 2
modifications for Modification No. $7 - 101$ Phase 2 Vehicles	Vehicle Delivery
Contract Mod 8, Item 29 A – Approval of FDR Supplement for	
Modification of Rear View Monitor System (Change Order 42)	12/15/2020
Contract Mod 8, Item 29 B – Approval of FDR Supplement for	
Modification of Door System (Change Order 43)	12/31/2020
Contract Mod 8, Item 30.1 – Completion of Retrofit of Securitas Monitors	
for 68 vehicles Phase 1, Option 1, Phase W (Change Order 41)	10/31/2020
Contract Mod 8, Item 30.2 – Completion of Retrofit of Door Modification	
for 40 Phase 1, Option 1, Phase W Vehicles (Change Order 43)	12/22/2022
Contract Mod 8, Item 30.3 – Completion of Retrofit of Rear View Monitor	
System for 40 Phase 1, Option 1, Phase W Vehicles (Change Order 41)	8/31/2021
Contract Mod 8, Item 31.1 Completion of Installation of Door and Rear	Per Phase 2
View Monitors upgrades for 10 Phase 2 Vehicles (Change Order 41, 43)	Vehicle Delivery
Contract Mod 9, Item 32 A – Tire Replacement Set Up Complete	
(Change Order 53)	12/15/2022
Contract Mod 9, Item 32 B – Shipment and Approval of Tow Bars and	12/24/2021
Strap Adaptors (Change Order 54)	12/24/2021
Contract Mod 9, Item 32 C – FMIs Approved for Change Orders 46-52	12/15/2022
Contract Mod 9, Item 33 – Tire Replacement for Trucks on 20 Cars	12/15/2022
complete, returned, and Accepted by SFMTA (Change Order 53)	12/15/2022
Contract Mod 9, Item 34 – Retrofit of Door Systems (Change Order 44)	12/15/2022
Contract Mod 9, Item 35 – Retrofit of Rear View Monitor Systems	2/21/2022
(Change Order 45)	3/31/2022
Contract Mod 9, Item 36 – Retrofit of Operator Cab and Clipper	12/15/2022
Equipment (Change Orders 46-52)	12/10/2022
Contract Mod 9, Item 37 – Completion of Installation of vehicle	Per Phase 2
modifications for Modification No. 9 – 141 Phase 2 Vehicles, (Change	Vehicle Delivery
Orders 44 and 45)	venicie Delivery
Contract Mod 9, Item 38 – Completion of Installation of vehicle	Per Phase 2
modifications for Modification No. 9 – 151 Phase 2 Vehicles, (Change	Vehicle Delivery
Orders 46 to 52)	
Contract Mod 9, Item 39 – Retrofit of 15 Phase 2 Vehicles,	2/28/2022
(Change Orders 46 to 49)	2,20,2022

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

Exhibit 10

Modification No. 9 Change Orders

Change Order No.	Description	Technical Specification (TS) Change vs. FAI Change	Total
44	Sensitive Edge on Middle Doors (NRE + 141 Phase 2 + 28 Phase 1)	FAI Change	\$1,052,370
45	Rear View Monitors and Exterior Cameras Upgrade (141 Phase 2 + 28 Phase 1)	FAI Change	\$3,066,407
46	Additional Cab Mirrors	FAI Change	\$494,662
47	Master Controller Additional Adjustability	FAI Change	\$701,625
48	Reversal of Sanding and Gong Footswitches	FAI Change	\$53,768
49	Moving Flasher Light Button	FAI Change	\$218,707
50	Clipper Equipment Deduction (Contractor no longer providing system equipment for Phase 2)	TS Change	-\$3,157,709
51	Clipper Next Generation Design Changes	TS Change	\$56,656
52	Clipper Next Generation Wiring Retrofits	TS Change	\$287,497
53	Tire Replacement Support	TS Change	\$1,593,750
54	Tow Bars and Strap Adapters	FAI Change	\$281,703
55	Interior Seating Mock Up	FAI Change	\$58,485
		Change Orders Total	\$4,707,921
		Escalation	\$75,377,539
		Mod 9 Total	\$80,085,460