



**Metro**

Los Angeles County  
Metropolitan Transportation Authority

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**JUNE 25, 2012**

**TO: BOARD OF DIRECTORS**

**THROUGH: ARTHUR T. LEAHY** *by ATL*  
**CHIEF EXECUTIVE OFFICER**

**FROM: TERRY MATSUMOTO** *T. Matsumoto*  
**CHIEF FINANCIAL SERVICES OFFICER and TREASURER**

**SUBJECT: UNIVERSAL FARE SYSTEM ("UFS") CONTRACT MODIFICATIONS**

**ISSUE**

At its June 2012 meeting, the System Safety and Operations Committee requested additional information regarding the 91 contract modifications to the Cubic Transportation Systems ("Cubic") contract OP-02-4610-10.

**DISCUSSION**

The table below is a summary of the modifications subsequent to the original contract execution in February 2002.

Description	Number	Value (000s)
<b>Original Contract</b>		\$ 84,003.4
Transit System Expansion (1) (2)	11	37,365.9
System Support/Maintenance (2)	1	34,666.2
Deductive Changes	9	(1,594.9)
Administrative Changes	20	0.0
All Others	50	5,975.7
Subtotal Modifications		76,412.9
<b>Total Current Contract Value</b>		<b>\$160,416.3</b>

- (1) Transit System Expansion represents Board approved increases of scope. The new scope included ticket vending machines and standalone validators for the Orange Line, Orange Line Extension, Gold Line Eastside Extension, and Expo Line, fareboxes and garage computers for contract service providers, civil work for the installation of gates, and a separate regional central computer system to process and store transactions for the participating Municipal Operators.
- (2) Of the \$76.4 million of total contract modifications to-date, \$72.0 million (94.2%) have been separately approved by the Board primarily for fare collection equipment on new rail lines.

## Attachments

List of executed modifications.

List of pending modifications.

Contractor Name:		Cubic Transportation Systems, Inc.					ATTACHMENT 1	
Contract Number:		OP-02-4610-10						
Original Contract	Contract/ Amend Date	Period of Performance	Contract Action Amount	Contract Action Amount: Absolute Value	Board Authorized Amt	Board Report Date	CEO Aggregate Amendment Authority Used	Comments
	1-Mar-02 UFS System	3-1-02 to 9-1-07	\$84,003,444	\$84,003,444.00	\$89,003,444	2/20/2002		
Amendment No.:		185 days (2-15-05)						
1	8/19/2002 Table X-1, Milestone Changes	No change	\$0	\$0.00	\$0			
2	9/4/2002 TVM Soft Keys	No change	\$0	\$0.00	\$0			
3	4/13/2004 SFV MRT Equipment	No change	\$7,454,844	\$7,454,844.00	\$7,454,844	1/16/2003		
4	10/8/2002 Mods. To GC's	No change	\$0	\$0.00				
5	8/22/2003 Third Coin Hopper	No change	\$416,858	\$416,858.00				
6	3/3/2003 Validator Video Clips	No change	\$0	\$0.00				
7	2/13/2003 PGL Test Waiver	No change	\$0	\$0.00				
8	2/13/2004 Change in number of Languages Supported	No change	\$0	\$0.00				
9	2/20/2003 Mods to Comp & Payment	No change	\$0	\$0.00				
10	3/3/2003 Smart Card to Smart Card Value Transfer	No change	\$0	\$0.00				
11	3/3/2003 SCADA Cable Installation on PGL	No change	\$48,476	\$48,476.00				
12	4/8/2003 PGL Test Waiver	No change	\$0	\$0.00				
13	4/8/2003 Farebox Coin Dejam	No change	\$0	\$0.00				
14	4/16/2003 Table X-1, Milestone Changes	Add 24 days (3-8-05)	\$0	\$0.00				
15	7/1/2003 PGL Time Extension	Add 14 Days (3-22-05)	\$0	\$0.00				
16	7/1/2003 Change from Datastream to Metrix	No change	\$0	\$0.00				
17	7/18/2003 Milestone Change for FDR	No change	\$0	\$0.00				
18	1/6/2004 Deletion of Printer from Hand Held Unit	No change	(\$35,252)	\$35,252.00				
19	2/19/2004 Add Variable Message Indicator	No change	\$243,828	\$243,828.00				
20	4/7/2004 Change Part D, Comp. And Payment, Exhibit One	No change	\$0	\$0.00				
21	4/13/2004 Card Slot Use for WLAN	No change	\$0	\$0.00				
22	6/22/2004 Data Transmission System	No change	\$675,000	\$675,000.00				
23	6/8/2004 Mifare Card Initialization and Verification	No change	\$9,629	\$9,626.00				
24	7/9/2004 Farebox Mounting Adapter for NABI Buses	No change	\$32,485	\$32,485.00				
25	2/25/2005 Regional Central Computer System	12 months added to schedule	\$5,348,335	\$5,348,335.00	\$6,100,000	10/21/2004		
25.01	1/17/2007 Regional Central Computer System, Contingency for OH Rate Adjustment	No change	(\$31,621)	-\$31,621.00				
25.02	8/7/2008 Regional CDCS Acceptance Test, Number of Participants per Spec. Section 10-2-2-9	No change	\$0	\$0.00				
26	12/20/2004 SAV Remove Requirement for Focus Group for TVM and	No change	(\$111,704)	\$111,704.00				
27	1/4/2005 Farebox Rotation	No change	\$74,967	\$74,967.00				
28	7/25/2006 Eastside Extension, Additional Quantities	Installation based on East Side Extension	\$3,808,722	\$3,808,722.00	\$3,808,722			
29	4/25/2005 Stainless Panels	ROD of 7-10-09	\$45,521	\$45,521.00				
30	6/10/2005 Metro Orange Line Data COMS cabling	No Change	\$41,560	\$41,560.00				
32	7/25/2005 Add Spare parts for Eastside Extension	No change	\$15,480	\$15,480.00				
33	8/15/2005 Mifare Card Functionality on UFS	No Change	\$33,105	\$33,105.00				WACN, amount pending actual, documented costs
34	Revisions to Project Schedule and Mandatory							
35	10/26/2000 Milestone -- table	Adds 380 days	\$0	\$0.00				
36	11/15/2005 OCU Mount	No Change	\$87,634	\$88,976.00				This credit was moved to Mod. 55. Thus, the modification was cancelled.
37	5/12/2006 Reduced quantity of FFSOT	No change	\$0	\$0.00				
38	4/6/2007 PGL Betterments	No change	(\$33,116)	\$252,230.00				
39	Willow Station, Installation of third TVM and two							
39	7/6/2006 SAV	No change	\$10,084	\$10,084.00				
40	10/2/2006 Upgrade CDCS to Fiber Disk Storage	No change	\$20,000	\$20,000.00				
40	2/16/2007 Expo Line	No change	\$5,197,204	\$5,197,204.00	\$5,200,000			

41	9/26/2006 Transit Mall Relocation	No change	\$14,409	\$14,409.00				Cancelled
41, Rev 1	1/23/2008 Transit Mall Relocation	No change	(\$14,409)	-\$14,409.00				Cancelled, Paid under PO PS073960812
43	2/16/2007 HHV, MPOS, CPOS, Interim Maint. Deduct	No change	(\$162,628)	-\$162,628.00				Deductive Change
44	2/16/2007 Additional Quantities, Contracted Services	No change	\$2,499,916	\$2,499,916.00	\$4,000,000			\$3 M for Contracted Service, \$1M for Bus OPS & Regional Rebuild Center Credit due to delta between cost of Gocards and Mifare
45	2/16/2008 Replace Go-Cards with Mi-Fare Cards	No change	(\$1,157,850)	-\$1,157,850.00				
46	4/9/2007 Div. 7 Relocate Data Probes & Receiver Vault Conduit at	No change	\$29,787	\$29,787.00				
47	4/23/2007 Div. 7 Revision to UFS Base & Regional Manuals for release to ACS	No change	\$46,000	\$46,000.00				
48	7/18/2007 Expo Line - Pico Station Infrastructure	No change	\$18,542	\$18,542.00				
49	6/2/2008 Relocation of UFS Lab Equip to UFG 4th Floor	No change	\$106,905	\$106,905.00				
50	8/30/2007 Expo Line - 7th and Metro, additional infrastructure	No change	\$81,719	\$81,719.00				
50.01	Credit for 7th/Metro work	No change	(\$30,173)	-\$30,173.00				Credit for work performed by other contractor at 7th/Metro station
51	10/16/2007 Handheld Validator Holster	No change	\$6,184	\$6,184.00				
52	3/6/2008 Installation and Testing of Farebox at Transportation Concepts	No change	\$16,091	\$16,090.86				
53	5/14/2008 Relocated OCU's on Ford Cutawarys and MST Buses at Contracted Services	No change	\$79,170	\$79,170.00				Corrected value from \$81,872 to \$79,170 due to adjusted overhead rate.
54	5/27/2008 Installation of one Farebox and Testing for Two Fareboxes at Contracted Services	No change	\$18,842					
55	10/9/2008 UFS Quantity Adjustment	No change	\$0	\$0.00				Line Item Quantities decreased or deleted in exchange for various Cubic provided services
56	12/3/2008 Contracted Bus Service Equipment Change	No change	\$36,704	\$36,701.00				
57	12/19/2008 Installation Acceptance Testing, First Transit	No change	\$3,040	\$3,040.00				
58	3/4/2009 UFS Equipment, Expo, Venice/Robertson	No change	\$304,246	\$304,246.00				
59	2/9/2009 Regional CDCS, Electrical Power reconfiguration	No change	\$17,186	\$17,186.00				
60	21-19-09 Rail/Bus Equipment Warranty	No change	\$0	\$0.00				
61	4/9/2009 Fare Gates, Civil Work	No change	\$10,000,000	\$10,000,000.00	\$10,000,000	2/28/2008		Station Fare Gate Civil Work
62	3/4/2009 UFS Equipment, Expo, Truesdale Station	No change	\$284,167	\$284,167.00				
63	6/8/2010 System Support Services	3,650 days (10 Years, gates)	\$33,988,558	\$33,988,558.00	\$35,240,000	3/26/2009		Gate Maintenance (\$23M/10 yrs), System Support services, (\$12,240,000/3 yrs) Maintenance dollars for Orange Line moved to System Support Services, Zero dollar impact
63.01	Transfer of Maintenance Dollars from Mod. 68.01	No change	\$677,631	\$677,631.00				
64	7/27/2009 \$5 Dollar Bill handling Units for Fareboxes and TVM	No change	\$304,658	\$304,658.00				
65	1/4/2010 Installation of SAV's for Eastside Extension	No change	\$34,077	\$34,077.00				
66	2/2/2010 Relocation of Swing Gate, Wilshire Normandie	No change	\$18,905	\$18,905.00				
67	Cancelled							Cancelled, Never Issued
68	11/2/2010 UFS Equipment for Orange Line extension	No change	\$2,717,596	\$2,717,596.00	\$3,952,540	4/22/2010		Orange Line Extension Equipment Maintenance dollars moved to System Support Services, zero dollar impact
68.01	Transfer Maintenance Dollars to Mod. 63.01	No change	(\$645,751)	-\$645,751.00				
69	4/2/2010 Additional TVM at Aviation, Greenline	No change	\$13,031	\$13,031.00				
70	4/28/2010 TAP Card Physical testing	No change	\$41,844	\$41,844.00				
71	6/30/2010 Concession Light Functionality	No change	\$96,726	\$96,726.00				
72	Change Specification Requirement from Bus Smart Card Processor Unit to Driver Control Unit Light Validator							
73	9/9/2010 APT Test Server Imaging	No change	\$45,024	\$45,024.00				
74	11/1/2010 Contracted Services, Relocation	No change	\$33,854	\$33,854.00				
75	2/15/2011 Additional Limited function, Sales Office Terminal	No change	\$993,795	\$993,795.00				
76	Cisco API	No change	\$59,209	\$59,209.00				
77	3/3/2011 Limited Use Security Key Installation	No change	\$69,097	\$69,097.00				
78	3/3/2011 Update Farebox Config to Support Aruba Wireless	No change	\$40,204	\$40,204.00				
79	4/25/2011 Relocation of test Lab Equipment	No change	\$80,911	\$80,911.00				

Reconciliation of Contract Amount

80	4/20/2011	Four byte to seven byte Smart Card Software	No change	\$362,069	\$362,069.00	
81	4/25/2011	Fencing Modification, N. Hollywood & Avalon	No change	\$24,004	\$24,004.00	
82	4/25/2011	TVM at Hollywood and Western	No change	\$15,531	\$15,531.00	
83	4/25/2011	DCU/Lite Validator Equipment	No change	\$363,492	\$363,492.00	
84	6/6/2011	Install TVM's at Three Customer Center	No change	\$386,680	\$386,680.00	
		Cubic Modification to Gate Software/locking				
85	6/29/2011	Commands	No change	\$111,188		
86	7/26/2011	UFS Equipment for Expo Phase 1, Farmdale Station	No change	\$415,184		Expo Work
		Relocation of Ticket Vending Machines at Green				
87	8/25/2011	Line, Long Beach Station	No change	\$15,909		
88	10/12/2011	Mobile Validator, Non-Recurring Engineering	No change	\$611,677		
89	3/5/2012	Expo-Pico Station North Platform TVM/SAV Work	No change	\$17,592		
90	2/15/2012	Deletion of Contract Lines 1.03, 1.04, 1.33	No change	(\$64,170)		
		Metro Orange Line Extension, Installation of 12				
91	2/15/2012	Owner Provided SAVs	No change	\$34,483		
<b>Totals</b>				<b>\$160,416,339</b>	<b>\$159,836,227.86</b>	<b>\$164,759,550</b>

**ATTACHMENT 2  
MODIFICATIONS PENDING ADDITIONAL BOARD APPROVED CONTRACTING  
AUTHORITY**

**CONTRACTOR:** CUBIC TRANSPORTATION SYSTEMS, INC.  
**CONTRACT:** OP02461010

<b>CN</b>	<b>DESCRIPTION</b>	<b>ESTIMATE</b>	<b>ACTION</b>
145	SAV/TVM Relocations MBL – 23 Locations MGL – 20 locations MRL – 1 location	\$902,965	To Board as a separate motion
146	Modification to Nextfare Central System to Allow for Segregation of Facility Specific Data	\$700,000	To Board as a separate motion
147	Metro Green Line Fare Gating – Additional Fire Key Switches at Vermont Station	\$2,500	Pending approval of Contract Modification Authority
148	Fare Gating – Add Three Additional Emergency Swing Gates, change swing array at six stations	\$50,000	Pending approval of Contract Modification Authority
150	Install one Ticket Vending Machine at East Portal Customer Center including Site Preparation	\$125,000	Pending approval of Contract Modification Authority
153	Bus Division Vault Relocation	\$536,000	To Board as a separate motion
154	UFS PCI Compliance	\$5,683,903	To Board as a separate motion
155	Product Specific Passback Modification	\$60,120	Pending approval of Contract Modification Authority
156	Muni Report Modifications	\$226,680	Pending approval of Contract Modification Authority
157	Emergency Swing Gate Upgrade	\$300,000	Pending approval of Contract Modification Authority
158	Turnkey Mobile Validator System	\$3,000,000	To Board as a separate motion
TBD	Additional EXPO Costs related to CN 75 & 85	\$109,644	Merit of claim to be determined.