## Program Management Major Project Status Report

Presented By **Richard Clarke** Chief Program Management Officer

November 2017

**Construction Committee** Los Angeles County Metropolitan Transportation Authority



## **PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART**

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX	$\diamond$	<b></b>	The remaining cost contingency is below 2% of the total project budget (\$38 million in contingency remains). Contractor is 19 days behind schedule and is required to mitigate schedule to maintain planned revenue service in October 2019.
Regional Connector	<u>ok</u>	<u>o</u>	Project is proceeding consistent with schedule forecast and LOP budget as approved by the Board in January 2017.
Westside Purple Line Extension-Section 1	ОК	œ	Project is 24% complete, no significant issues.
Westside Purple Line Extension-Section 2	ОК	ок	Issued Notice to Proceed (NTP) to Tutor Perini/O&G a JV (TPOG) on April 26, 2017. Project is 4% complete with no significant issues.
Westside Purple Line Extension-Section 3	С	ОК	Requested entry into the Engineering Phase from the FTA in April 2017. Sent request for Letter of No Prejudice (LONP) for the tunnel contract to FTA on September 15, 2017.
Patsaouras Plaza	С	$\diamond$	Schedule negotiations in progress regarding revised substantial completion date of November 2018.
Willowbrook/Rosa Parks Station	OK	OK	Design activities progressed to 100% complete and in final reviews.

November 2017

On target

Possible problem

Major issue



#### **Construction Committee**

## **TRANSIT MASTER SCHEDULE (Page 1 of 2)**

ASK filters: Code Cleanup, Name contains, Show on Master Schedule, WBS vity Name	Categories_WB PMIS Project		Finish	* 00 Master Program (By Phase Original Budget FY20		FY2018	V2040	FY2020	EVODO	Evana	FY2023	FY20	94	5   FY20	28 1 124	2027	Y2028	FY2029	09-C
vity warne	Manager	Start	Finish	201		2018	2019	2020	FY2021 2021	2022	2023	202		-		027	2028	2029	
Transit Projects		01-Jun-07 A	31-Jan-48	0,614,403,650.00										_					_
Environmental		01-Oct-09 A	31-Jan-48	5,554,000,000.00															
North San Fernando Valley BRT Improvements	Cencic	04-Jan-17 A	09-Oct-24	\$180,000,000.00															
North Hollywood to Pasadena BRT	Richmai	30-Jan-15 A	24-Jul-23	\$267,000,000.00															
Orange Line Grade Separations	Patel	23-May-16 A	10-Jan-24	\$286,000,000.00								•							
East San Fernando Valley Transit Corridor	Davis	11-Oct-10 A	05-Nov-27	1,331,000,000.00															
Vermont BRT Corridor	Cencic	30-Jan-15 A	13-Jul-28	\$425,000,000.00						-			++++++	+++++++					
Crenshaw Northern Extension	Moosavi	29-Dec-17	31-Jan-48	2,240,000,000.00															
West Santa Ana Transit Corridor	Pan	01-Oct-09 A	08-Mar-29	4,000,000,000.00			Į												
Sepulveda Pass Phase 1 - Express Lanes	Wong	01-Nov-17	13-Oct-27	\$260,000,000.00															
South Bay Green Line Ext. Crenshaw Blvd in Torr	Khanna	23-Mar-17 A	29-Jan-32	\$891,000,000.00															
Sepulveda Pass Phase 2 & 3 - Transit Corridor	Zelmer	26-Apr-17 A	12-Aug-36	5,674,000,000.00															
Design		04-Oct-10 A	28-Apr-27	5,508,270,758.00															
Airport Metro Connector	Zelmer	04-Oct-10 A	26-Jul-23	\$623,400,000.00							+								
Purple Line Extension Section 3	McKenna	29-Feb-16 A	03-Sep-26	3,478,000,000.00											1				
Gold Line Foothill Extension Phase 2B	Meade	02-Oct-13 A	28-Apr-27	1,406,870,758.00															
Construction Contract		01-Jun-07 A	29-Aug-25	9,552,132,892.00															
Crenshaw/LAX Transit Corridor	Beauvoir	01-Jul-09 A	30-Oct-19	2,058,000,000.00															
Regional Connector Transit Corridor	Baker	26-Jan-09 A	21-Dec-21	1,810,132,892.00															
Purple Line Extension Section 1	Cohen	01-Jun-07 A	29-Nov-23	3,154,300,000.00								<u> </u>							
Purple Line Extension Section 2	McKenna	02-Mar-15 A	29-Aug-25	2,529,700,000.00															
Transit Facilities		17-Dec-13 A	10-Apr-24	\$690,246,000.00															
Design		17-Dec-13 A	10-Apr-24	\$690,246,000.00															
Willowbrooks/Rosa Parks Station Improvement	Lindholm	07-May-15 A	29-Mar-21	\$102,546,000.00															
Div 20 Portal/Turnback	Meade	16-May-16 A	10-Apr-24	\$475,000,000.00															
Planning / Env Design / Engin		ROW / Utility	Relocation	DB Construction	Syst	tem Testing			Not Fu	unded (Env	ROW/Test	:)							_

## **TRANSIT MASTER SCHEDULE (Page 2 of 2)**

ame	VBS Categories_WB			* 00 Master Program (B							-		-					09-00
	PMIS Project Manager	Start	Finish	Original Budget	FY2017 2017	2018	2019	19 FY2020 9 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	20
Emergency Security Operations Center	Owens	17-Dec-13 A	23-Sep-21	\$112,700,000.00														
gional Rail Projects	Owens	02-Sep-13 A	20-May-27	3,099,400,000.00														
nvironmental	Owens	01-Dec-14 A	20-May-27	2,662,000,000.00														
Link Union Station	Owens	01-Dec-14 A	20-May-27	2,662,000,000.00														
Design	Owens	01-Apr-15 A	26-Oct-21	\$422,400,000.00														
Brighton to Roxford Double Track	Owens	01-Sep-15 A	27-Sep-21	\$186,600,000.00						I								
Lone Hill to CP White	Owens	03-May-16 A	26-Oct-21	\$82,000,000.00				++++++										
Rosecrans & Marquardt Grade Separation	Owens	01-Apr-15 A	19-Apr-21	\$153,800,000.00														
Construction Contract	Owens	02-Sep-13 A	01-Jun-18	\$15,000,000.00														
Bob Hope Airport Station	Owens	02-Sep-13 A	01-Jun-18	\$15,000,000.00														
s Facilities Projects	Gurrola	31-Mar-14 A	11-Jan-19	\$0.00														
Construction Contract	Gurrola	31-Mar-14 A	11-Jan-19	\$0.00														
Patsouras Plaza	Gurrola	31-Mar-14 A	11-Jan-19	\$0.00														
ate of Good Repair/Improvements		01-Jul-13 A	31-Mar-21	\$180,999,946.00														
Design	Danielans	13-Jun-16 A	31-Mar-21	\$11,078,366.00														
210 Freeway Barrier Rail	Danielans	13-Jun-16 A	31-Mar-21	\$11,078,366.00														
Procurement	Wei	21-Sep-15 A	03-Aug-20	\$118,990,580.00														
MBL Resignaling	Wei	21-Sep-15 A	03-Aug-20	\$118,990,580.00	_				-									
Construction Contract		01-Jul-13 A	30-Mar-18	\$50,931,000.00														
Pershing Sq. Esc. Replace & New Canopy Proje	ect Patel	11-May-15 A	31-Aug-17 A	\$20,756,000.00														
MBL Ped Safety Enhancement At-Grade Crossin	ng Chong	01-Jul-13 A	30-Mar-18	\$30,175,000.00														
		-	-															

## HIGHWAY MASTER SCHEDULE (Page 1 of 2)

				10011	vy Master Program Schedule	(Du Dh-														09-0	+ 17
Adivity	Name	PMIS Project	Start	Finish		FY2017	FY2018 FY2019													FY2031	FY2032
	ighway Projects	Manager	01-Jan-96 A	30-Jun-42	\$17,084,121,000.00		2018 2019	2020	2021	2022	203	23 202	4 2	2025	2026	2027	2028	2029	2030	2031	2032
			on-Jan-90 A	50-50H-42	\$17,004,121,000.00																
	Environmental		02-Jan-08 A	30-Jun-42	\$13,091,560,000.00																
	I-710 South	Chaves	02-Jan-08 A	01-Mar-30	\$8,028,100,000.00																
	SR-57/SR-60 Interchange Improvements	Jong	03-Jul-18	30-Sep-30	\$770,000,000.00									++++							
	I-105 Express Lane from I-405 to I-605	Amiri	01-May-17 A	29-Jun-29	\$175,000,000.00	-		•													
	I-5 Corridor Improvements (I-605 to I-710)	Chaves	02-Jan-19	30-Jun-42	\$1,105,060,000.00												ľ				
	I-605 Interchange Improvements	Various	01-Jun-16 A	15-Jan-30	\$673,300,000.00																
	I-605/SR-91 Interchange Improvements	Various	01-Jun-16 A	01-Aug-25	\$143,300,000.00								TT TT	11111							
	I-710/SR-91 Interchange Improvements	Various	01-Aug-17	15-Jan-30	\$530,000,000.00					•••									1.1.1		
	I-605 Corridor Improvements	Panuco	01-Oct-15 A	01-May-30	\$2,340,100,000.00																
	I-605/I-5 Interchange Improvements	Panuco	01-Oct-15 A	01-Sep-27	\$1,108,100,000.00																
	I-605/SR-60 Interchange Improvements	Panuco	31-Aug-16 A	01-May-30	\$1,232,000,000.00										=						
	Design		15-Dec-10 A	01-Apr-24	\$1,251,080,000.00																
	I-5 North Capacity Enhancement (\$R-14 to Parker Rd.)	Antaramian	02-Jul-12 A	29-Jul-22	\$784,080,000.00																
	SR-71 Gap Between I-10 to Rio Rancho Rd	Jong	17-Oct-16 A	01-Apr-24	\$295,000,000.00				<b>.</b>												
	Countywide Soundwall Construction	Owen	15-Dec-10 A	18-Feb-21	\$156,800,000.00																
	Package #11 - SR-170 from 101 to Sherman Way and	Owen	15-Dec-10 A	18-Feb-21	\$97,500,000.00	_			_												
	Package #10 - SR-210 Fair Oaks, Lake and Baldwin t	Owen	02-Sep-14 A	17-Feb-21	\$59,300,000.00				-												
	I-605 Hot Spots	Montez	01-Jun-14 A	01-Jul-21	\$15,200,000.00																
	Arterial Intersections - Whittier	Montez	02-Jun-14 A	01-Jul-21	\$5,600,000.00																
	Arterial Intersections - La Mirada	Montez	02-Jun-14 A	28-Feb-20	\$4,300,000.00																
	Arterial Intersections - Cerritos	Montez	01-Jun-14 A	02-Mar-20	\$2,900,000.00																
	Arterial Intersections - Bellflower	Montez	01-Jun-14 A	28-Feb-20	\$1,200,000.00																
	Arterial Intersections - Long Beach	Montez	01-Jun-14 A	01-Jul-19	\$1,200,000.00	_		•													
	Construction Contract		01-Jan-96 A	01-Aug-22	\$2,741,481,000.00																
	I-5 North Capacity Enhancements SR-134 to SR-118	Subeh	01-Apr-98 A	15-Jun-20	\$853,900,000.00																
		·		·			<u> </u>								'						
	Planning / Environmen		ROW / Utility Relocal		Construction C	-															
	Design / Engineering		Adv / Award	DB	B Construction S	ystem Tes	ting N	Not Funde	ed (Env/	ROW/Co	m)										

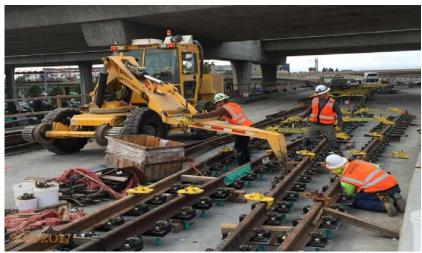
## HIGHWAY MASTER SCHEDULE (Page 2 of 2)

				* 00 Hwy	Master Program Schedule	(By Pha														09-0	Oct-17
Activity N	me	PMIS Project Manager	Start	Finish	Original Budget	FY2017 2017	FY2018 2018	FY2019 2019	FY2020 2020	FY2021 2021	FY2022 2022	FY2023 2023	FY2024 2024	FY2025 2025	FY2026 2026	FY2027 2027	FY2028 2028	FY2029 2029	FY2030 2030	FY2031 2031	
	SR-118 to SR-170 (Segment 1A)	Subeh	30-Jul-99 A	15-Jul-16 A	\$219,400,000.00																
	SR-170 to Buena Vista (Segments 2)	Subeh	01-Apr-98 A	16-Dec-15 A	\$94,700,000.00																
	Magnolia to SR-134 (Segment 4)	Subeh	01-Apr-98 A	18-Dec-19	\$137,400,000.00				_												
	Buena Vista to Magnolia (Segment 3)	Subeh	01-Apr-98 A	15-Jun-20	\$402,400,000.00																
	I-5 South Capacity Enhancements from I-605 to Orange	Gau	01-Jan-96 A	01-Aug-22	\$1,887,581,000.00																
	I-5 Carmenita Road Interchange	Gau	01-Jan-01 A	01-Mar-18	\$419,214,000.00																
	Alondra (Segment 1)	Gau	01-Jan-01 A	19-May-16 A	\$114,071,000.00																
	Imperial Highway (Segment 4)	Gau	01-Jan-01 A	29-Jul-19	\$323,285,000.00				1												
	Shoemaker - Rosecrans (Segment 3)	Gau	01-Jan-96 A	03-Dec-18	\$188,216,000.00																
	Florence (Segment 5)	Gau	01-Jan-01 A	30-Jul-20	\$211,671,000.00																
	Valley View (Segment 2)	Gau	01-Jan-96 A	01-Aug-22	\$631,124,000.00																

## **CRENSHAW/LAX TRANSIT PROJECT**

🔶 BUDGET			🔶 SCHED	ULE		
TOTAL COST	Current \$2,058M	Forecast \$2,058M	REVENUE OPERATION	Current Oct 2019	Forecast Oct 2019	

- Overall Project Progress is 73% complete; main line contractor needs to mitigate 19 day delay
- Contractor continues critical track work installation along southern area of alignment
- Canopy steel is installed at Downtown Inglewood and Fairview Heights at-grade stations and started at Aviation/Century Station
- Advancing interior construction of walls and concourse platform for the three underground stations and commenced entrance and roof sections at Expo/Crenshaw Station



Track work for switch on the Green Line "Y" underpass



Installing components for platform deck at Hyde Park Station

#### November 2017



🔶 Possible problem





#### **Construction Committee**

## **REGIONAL CONNECTOR TRANSIT PROJECT**

OK	BUDGET

### TOTAL COST

Current \$1,810M Forecast \$1,810M

\* Includes Board approved LOP plus finance costs.

- Overall Project Progress is 41 %
- Tunneling: Began the second bore and have mined successfully beneath the sensitive Japanese Village Plaza area
- Little Tokyo/Arts District Station: Under steady state until tunnel operations are completed
- Historic Broadway Station: Support of Excavation and utility support work continues
- Grand Av Arts/Bunker Hill Station: Work at concourse level and preparation for Tunnel Boring Machine (TBM) arrival continues
- Flower Street: Power relocations, support of excavation, pile installation, decking and excavation are ongoing





Preparation for shotcrete application at Grand Av Arts/Bunker Hill Station

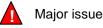


Pile installation on Flower Street



On target

Possible problem





Construction Committee

## WESTSIDE PURPLE LINE EXTENSION – SECTION 1

**SCHEDULE** 

REVENUE

**OPERATION** 

Current

(FFGA)

Oct 2024



### Overall Project Progress is 24% complete

- Sanitary sewer relocation started at the Wilshire/Western shaft area on the weekend of September 23, 2017. Support of Excavation (SOE) pile installation is anticipated to begin at the end of October 2017
- Excavation for the Wilshire/La Brea Station commenced on October 12, 2016 and continues beneath the deck panels. Station excavation is scheduled to complete by November 2017
- At the Wilshire/Fairfax Station, the hanging of utilities under the concrete deck panels is complete. Station excavation and the installation of walers and struts is on-going
- The Wilshire/La Cienega Station piling operation was completed on October 12, 2017. Street decking commenced on the weekend of October 6, 2017
- Tunnel Boring Machines (TBMs) are being prepared for delivery at the end of 2017. TBMs #1 & #2 have been accepted by the contractor. Tunneling is planned to start in 2018

Forecast

Nov 2023

Under Deck Excavation at Wilshire/La Brea Station



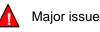
Wilshire/La Cienega Decking Operation

# Metro<sup>9</sup>

#### November 2017



Possible problem



Construction Committee

## **WESTSIDE PURPLE LINE EXTENSION – SECTION 2**

#### Current **TOTAL COST\*** \$2,530M

Forecast

\* Includes Board approved LOP plus Finance costs.

- \$2,530M
- Overall project progress is 4% complete
- Received 60% Design Package #1 (Utility/Civil Design at Launch Box) in August 2017 and returned it to TPOG on September 18, 2017, Approved As Noted (AAN)
- Received submittal of 60% Design Package #2 (Remaining Utility Conflicts) in September 2017 and returned it to TPOG on October 10, 2017, AAN
- Draft Supplemental Environmental Impact Statement (SEIS): Anticipate publication of Notice of Availability (NOA) in November 2017
- Century City Constellation: Cable pulling and splicing work is anticipated to complete in November 2017. Southern California Gas (SCG) and AT&T utility relocations are underway
- Wilshire/Rodeo: Southern California Edison (SCE) began relocation of power lines in September 2017. SCG and AT&T to follow once SCE relocations are complete
- Negotiations with the City of Beverly Hills for a Memorandum of Agreement (MOA) governing utility work began in March 2017 and is continuing

#### **SCHEDULE** OK)

Current Forecast **Dec 2026** Aug 2025 REVENUE **OPERATION** (FFGA)



LADWP power relocation work in Century City



On target

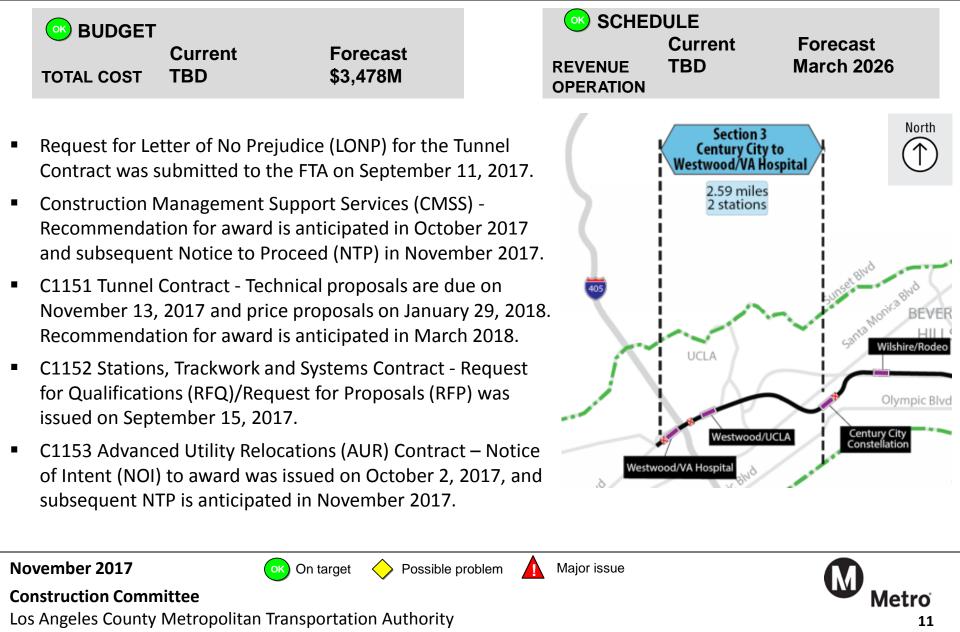
Possible problem





### **Construction Committee**

## WESTSIDE PURPLE LINE EXTENSION – SECTION 3



## PATSAOURAS PLAZA BUSWAY STATION

BUDGE	Г		🔶 SCHEDULE		
TOTAL COST	Current \$39.7M	Forecast \$39.7M	SUBSTANTIAL COMPLETION	Current Nov 2018	Forecast Nov 2018

- All bridge widening foundations complete. Pedestrian overcrossing and elevator foundations are ongoing
- Falsework on left and right sides ongoing
- Installation of bridge soffit, stem panels, post-tensioning, and deck drains and rebar ongoing
- Electrical and communication relocations
- Vignes Street on/off-ramp intermittent non-peak closures ongoing
- Center Street nighttime closures pending City approval
- Schedule negotiations with Executive Management in progress including revised baseline and TIA





Aerial view of site

Falsework



On target

Possible problem





#### **Construction Committee**

## WILLOWBROOK/ROSA PARKS STATION

			_	_
Cu	Irrent Forecast	SUBSTANTIAL	Current	Forecast
TOTAL COST N/	A \$92.4M	COMPLETION	Dec 2020	Dec 2020

- Early Start Phase (Project E) in bid period scheduled to break ground December 2017
- Phase A and C at 100% design completion. Phase A in review by County, Phase C with Caltrans
- Pedestrian grade crossing documents submitted to Union Pacific (UP) and Public Utilities Commission PUC
- Phase A and C invitation for bids scheduled for late 2017
- In early coordination with Metro Operations on implementation of this and other Blue Line projects



**South Platform Improvements** 

**Central Plaza & Bus Bays** 

Main Plaza





Possible problem





**Construction Committee** 



## **METRO BLUE LINE PROJECTS**

<u>P</u>	roject Name	Budget	Percent Completed	Forecast Completion	Status
• • •	Station Refurbishment Pedestrian Gates City of Long Beach Fare Gates Design (PE) Blue Line Rehabilitation (OCS, Signals, Div. 11)	\$30.4M \$30.2M \$8M* \$119M*	100% 85% 95%(PE) 5%	Completed March 2018 Aug 2019 April 2021	SK SK SK
	То	tal: \$187.6M			





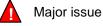


\*Budget Estimate

November 2017



Possible problem





**Construction Committee** 

## **Crenshaw/LAX Transit Project**

### Change Activity

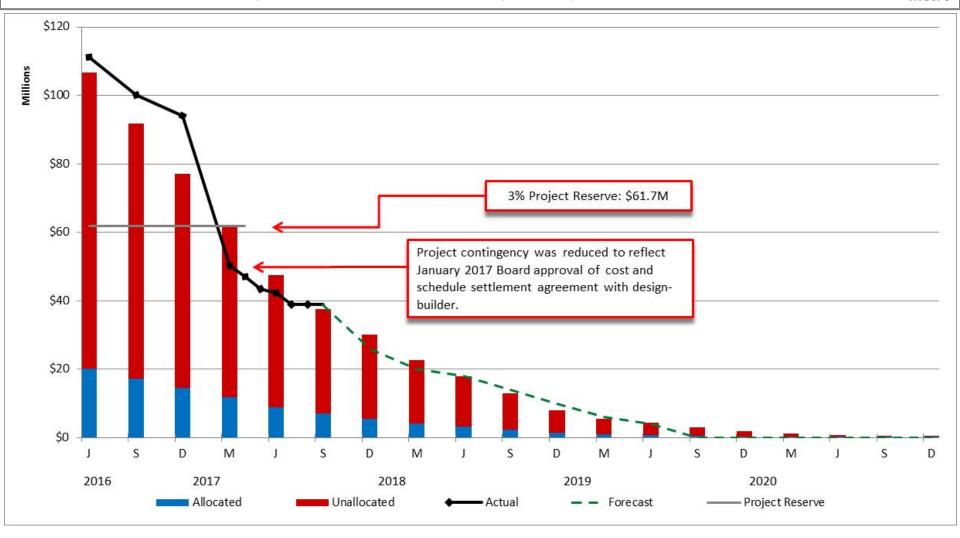


Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
TOTAL	VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS	316	\$ 75,251,709
TOTAL PE	ENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST	13	\$ 1,313,784
DESIGN BUILD - CON	TRACT C0988		
MOD 00270	Unit Rates for Incidental Const Work		Less than \$1 million
MOD 00290	Asbestos Cement Pipe 63rd & Tesoro		Less than \$1 million
MOD 00312	Centinela and Eucalyptus Crossing Re		Less than \$3 million
MOD 00315	Addl Mod to Ped Light Fix-Slauson		Less than \$1 million
MOD 00316	Final Dsgn Black Diamond Vault Crens		Less than \$1 million
MOD 00317	Drive Test To Assess Radio Received		Less than \$1 million
MOD 00319	Claim 118 Resolution - Qwest Line		Less than \$1 million
MOD 00234	LADOT Fiber Optic Cable Betterment		Less than \$1 million
MOD 00304	BkChrg Metro pymnts to COLA TCO		Credit Less than \$2 million
MOD 00318	Install Black Street Lights & Signal		Credit Less than \$1 million
MOD 00320	Clean Agent Systems in the 3 TC& C		Less than \$1 million
CO 00046.5	Underground Conduit & Cable		Less than \$1 million
CO 00129	Elimination Crosver Sta 56+57.50		Credit Less than \$1 million
	TOTAL MODIFICATIONS AND CHANGE ORDERS	329	\$ 76,565,493
PROFESSIONAL SER			
Design Support Servi	ces During Construction - CONTRACT E0117		
	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	42	\$ 59,217,720
	TOTAL PENDING MODIFICATIONS	0	\$-
	TOTAL MODIFICATIONS	42	\$ 59,217,720
Construction Manage	ment Support Services - CONTRACT MC069		
	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	18	\$ 69,484,775
	TOTAL PENDING MODIFICATIONS	0	\$-
	TOTAL MODIFICATIONS	18	\$ 69,484,775
L	I GTAL MODIFICATIONS	10	ψ 03,404,775

Metro

### Crenshaw/LAX Transit Project

### Project Cost Contingency Drawdown



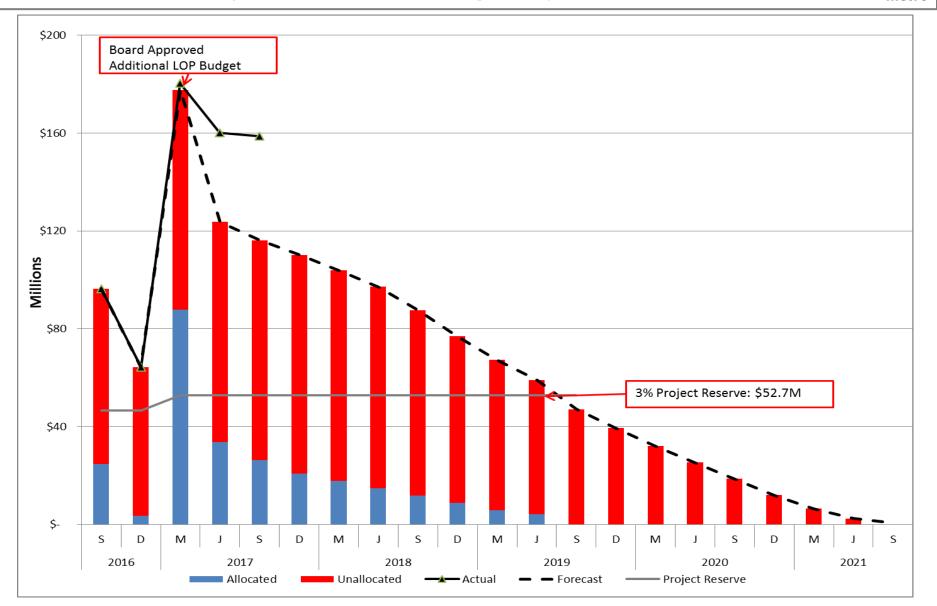
## **Regional Connector** Change Activity



Change Notice #	Description	Number of Mod/ Change Orders		Cost Value
DESIGN BU	ILD CONTRACT (C0980)			
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:	100	\$	149,806,743
	TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:	34	\$	69,077,016
	1st/Alameda Bumpout (Construction)			Less Than \$1 Million
TBD	Flower Street Modification: future 2-way Traffic /Bumpout/Ped Lighting (Construction Only)			Between \$1 and \$5 Million
TBD	Revise Metro Rail Station Signage and Incorporate Metro Underground Station Signage (Construction)			Less Than \$1 Million
TBD	Add Wye Junction Fan Plant - Construction			Between \$10 and \$15 Million
TBD	Fully Coupled Dynamic Analysis for SEM Cavern			Less Than \$1 Million
50.0	Revisions to TPIS Requirements -Construction			Less Than \$1 Million
68.0	Flower Street Zanja Additional Potholing			Less Than \$1 Million
86.0	Flower Maintenance of Traffic (MOT) West Piles			Less Than \$1 Million
87.0	Support Veolia 24" Chilled Water Pipes at 2nd/Hope Station			Less Than \$1 Million
99.0	Option 3 Pedestrian Bridge Revisions / Broad Coordination (Construction)			Between \$1 and \$5 Million
103.0	1st/Central Station HMI Units for Escalator Controllers			Less Than \$1 Million
TBD	Add One Add 'I VHF Radio Operational Channel - Construction			Less Than \$1 Million
106.0	Revisions to Metro Optical Network Switch			Less Than \$1 Million
TBD	Revise Communication Radio System SOW (Construction)			Less Than \$1 Million
TBD	Add Perforated Metal Dropped Ceiling at 2nd/Hope Station Plaza - Construction			Less Than \$1 Million
107.0	Delays and schedule mitigation measures, electrical and water utility relocation costs, add 1 fire life safety engineering and other design and construction changes			More than \$15 Million
111.0	Spray-on Acoustical Finishes Additional Quantities			Between \$1 and \$5 Million
TBD	Revised Emergency Walkways at Curves (30" to 35") - Construction			Less Than \$1 Million
121.0	Utility Conflicts during Decking at 4th & Flower St.			Less Than \$1 Million
122.0	Asbestos Abatement on Flower St. thru May 2017			Less Than \$1 Million
TBD	Insurance Claim			Less Than \$1 Million
130.00	10" Sewer Bypass at 1st/Alameda			Less Than \$1 Million
131.00	Backfilling Broken Compensation Grouting Pipes at JVP			Less Than \$1 Million
132.0	TBM Acceleration (24/7) to Flower St.			Less Than \$1 Million
133.0	Deleting OCS Work at 7th Metro (CREDIT)			Less Than \$1 Million
134.0	2nd/Broadway - LA Times Communication Line Realignment Due to Differing Site Conditions			Less Than \$1 Million
136.0	TBM Cutterhead Repairs Due to DSC			Less Than \$1 Million
137.0	Revise SOE and Train Control and Mechanical Rooms (Charles Dunn SOE DSC)			Less Than \$1 Million
138.0	LADWP Switch Room Requirements for 1st and Central Station - Design Only		_	Less Than \$1 Million
TBD	TBM failure - delays and repair			Between \$1 and \$5 Million
TBD	Add 'I Commonwealth Agreement (noise barrier)			Less Than \$1 Million
142.0	Labor to Replace TBM Screws 1, 2 &3		_	Less Than \$1 Million
143.0	Three-Shift Tunnel Boring Machine (TBM) Mining Operation		_	Less Than \$1 Million
144.00	Add 'I Gas Monitoring/Potential Gassy w/Special Conditions		_	Between \$1 and \$5 Million
	TOTAL MODIFICATIONS AND CHANGE ORDERS	134	\$	218,883,759
PROFESSION	VAL SERVICES CONTRACT			
	ort Services During Construction (E0119)			
2 osign ouppe	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	12	\$	44,629,810
	TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST	0	\$	11,027,010
	TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST	12	\$	44,629,810
Construction	Management Support Services (MC070)	12	₽	44,029,810
Construction	management Support Services (MC070) TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	5	\$	35,630,672
			-	35,630,672
	TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST	0	\$	-
	TOTAL MODIFICATIONS	5	\$	35,630,672

## **Regional Connector**

## Project Cost Contingency Drawdown



September 2017

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### **Westside Purple Line Extension – Section 1 Change Activity**

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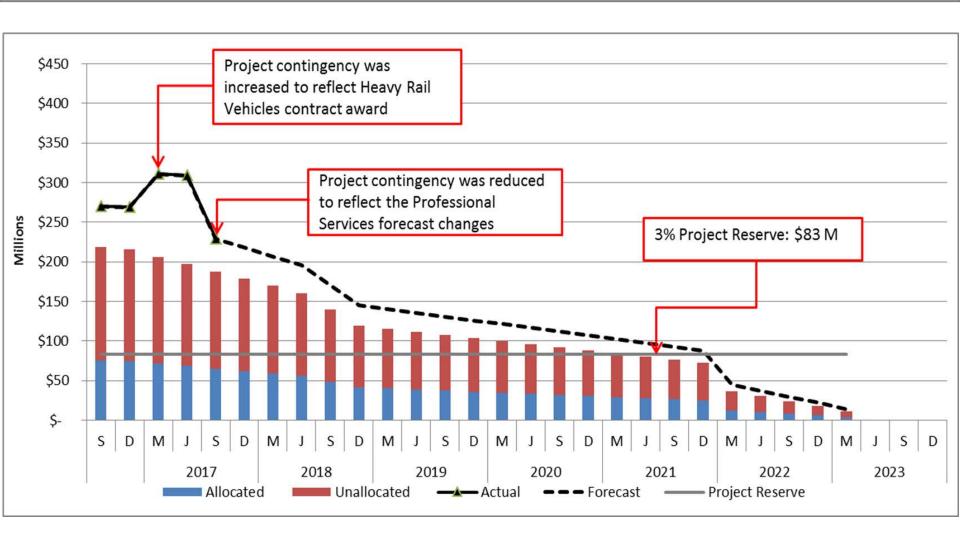
Change Notice #	Description	Number of Mod/ Change Orders	Cost Value	
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:	5: 144 \$ 29,88		
	TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST		More than \$15M	
DESIGN/BUILD CONTRACT C1045		36		
CN-26	Betterment City of Beverly Hills - Median Reconstruction at San Vicente Blvd		Less Than \$1 Million	
CN-32	Pin Station (Identifier) Changes		Less Than \$1 Million	
CN-42.3	Radio Subsystem Redundancy		Between \$1M - \$5M	
CN-43.2	Isolate Track Circuits at Wilshire/Western		Less Than \$1 Million	
CN-47.2	Stainless Steel Enclosure for TVM and PTEL		Less Than \$1 Million	
CN-56	Implement City of Beverly Hills Memorandum of Agreement (MOA)		Between \$10M - \$15M	
CN-63	La Brea- Additional Instrumentation Requested by BOE		Less Than \$1 Million	
CN-64.1	Additional SOE Design Work - La Brea Station		Less Than \$1 Million	
CN-65.1	Additional SOE Design Work for Fairfax Station Due to Deviation Request for Building Settlement		Less Than \$1 Million	
CN-66	Additional Dewatering Treatment & Discharge Costs at La Brea		Less Than \$1 Million	
CN-67	Tactile Guidance (Construction and Plaza Material Change)		Less Than \$1 Million	
CN-68	Increased Ventilation of Station Ancillary Rooms		Less Than \$1 Million	
CN-72	Stations - Art Related Changes		Less Than \$1 Million	
CN-76	Additional SOE Design Work for La Cienega Station Due to Deviation Request for Building Settlement		Less Than \$1 Million	
CN-77	Additional Interpretation for Building Settlement		Less Than \$1 Million	
CN-78	Fairfax - DWP Ductbank Conflict with Deck Beams		Less Than \$1 Million	
CN-79	Wilshire/Western - Permit Approval and Inspection for Access Shaft		Less Than \$1 Million	
CN-80.1	Stand by Generator Enclosure Aesthetic Improvements at La Cienega		Less Than \$1 Million	
CN-81	Additional Instrumentation (Project Wide) as Required by LABOE and STS EOR		Less Than \$1 Million	
CN-82	Additional Geotechnical Instrumentation at Western		Less Than \$1 Million	
CN-83	Additional Dewatering Treatment & Discharge Impacts at Western		Less Than \$1 Million	
CN-84	Additional SOE Design Work for the Western Shaft Due to Deviation Request for Building Settlement		Less Than \$1 Million	
CN-85	La Brea Utility hanging Changes for Sewer and Storm Drains		Less Than \$1 Million	
CN-87	La Brea - Bracing Impacts Due to DWP Ductbank at La Brea Ave (ECI-004)		Less Than \$1 Million	
CN-88	TCE Slab Demolition and Removal at the Western Shaft		Less Than \$1 Million	
CN-89	La Cienega-Removal of AT&T Abandoned Cables		Less Than \$1 Million	
CN-91	La Brea-DWP Conflict and Impacts to Cap Beam Walers 28 & 29		Less Than \$1 Million	
CN-92	La Cienega - Impacts from Delayed SCE Lines/MH Abandonment		Less Than \$1 Million	
CN-93	La Brea - Center Access Shaft - Design and Construction Costs		Less Than \$1 Million	
CN-94	Fairfax - Negative Voltage-to-Rail Devise		Less Than \$1 Million	
TBD	Fairfax - Piling Obstructions, Conflicts, Delays		Less Than \$1 Million	
TBD	Station Address Signage (for Fire Dept Use)		Less Than \$1 Million	
TBD	La Cienega - Rubberized Asphalt		Less Than \$1 Million	
TBD	La Cienega - N-S SCE Line at Hamilton Dr. to Remain		Less Than \$1 Million	
TBD	La Cienega - Piling Hours		Less Than \$1 Million	
TBD	Crossover Exit Doors at Stations (La Brea, La Cienega)		Less Than \$1 Million	
DESIGN/BUILD	CONTRACT C1078	10		
CN-11	Schedule Impacts Due to Third Party		Less Than \$1 Million	
CN-12	Betterment - Motorized Sliding Gate for the City of LA		Less Than \$1 Million	
CN-13	AST Leak Detection and Remote Lubrication Fill/Extract Station		Less Than \$1 Million	
CN-16	Betterment: Install Street Lights, Trees and Drip Irrigation for the City of LA		Less Than \$1 Million	
CN-17	Support of Building Art Work		Less Than \$1 Million	
CN-18	On-Site LIDs		Less Than \$1 Million	
CN-19	Storm Drain - Differing Site Conditions		Less Than \$1 Million	
CN-20	Hazardous Materials - Chalmers Pan Handle		Less Than \$1 Million	
CN-21	Betterment: 6th Street Viaduct - Site Re-Grading, Ornamental Fenc, Etc.		Less Than \$1 Million	
CN-24	UPDATED IT STANDARDS ON DATA DROPS AND OUTLETS		Less Than \$1 Million	
TBD	TOTAL MODIFICATIONS AND CHANGE ORDERS	190		

PROFESSIONA	L SERVICES CONTRACTS			
Design Support	Services During Construction - CONTRACT PS43502000			
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:	22	\$	92,608,453
	TOTAL PENDING MODIFICATIONS	0		
	TOTAL MODIFICATIONS	22	\$	92,608,453
Construction M	anagement Support Services - CONTRACT MC071			
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:	4	\$	70,297,456
	TOTAL PENDING MODIFICATIONS	0		
	TOTAL MODIFICATIONS	4	\$	70,297,456
OTHER - THIR	D PARTY AGREEMENTS			
	Annual work plan for Fiscal Year 2018 with the City of Beverly Hills, in an amount not-to-exceed		Between \$5M - \$10M	

Annual work plan for Fiscal Year 2018 with the City of Beverly Hills, in an amount not-to-exceed	Between \$5M - \$10M	
Annual work plan for Fiscal Year 2018 with the City of Los Angeles, in an amount not-to-exceed	Between \$1M - \$5M	4.0
		19

## Westside Purple Line Extension – Section 1 September 2017

### Project Cost Contingency Drawdown



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## Westside Purple Line Extension – Section 2 September 2017

### Change Activity

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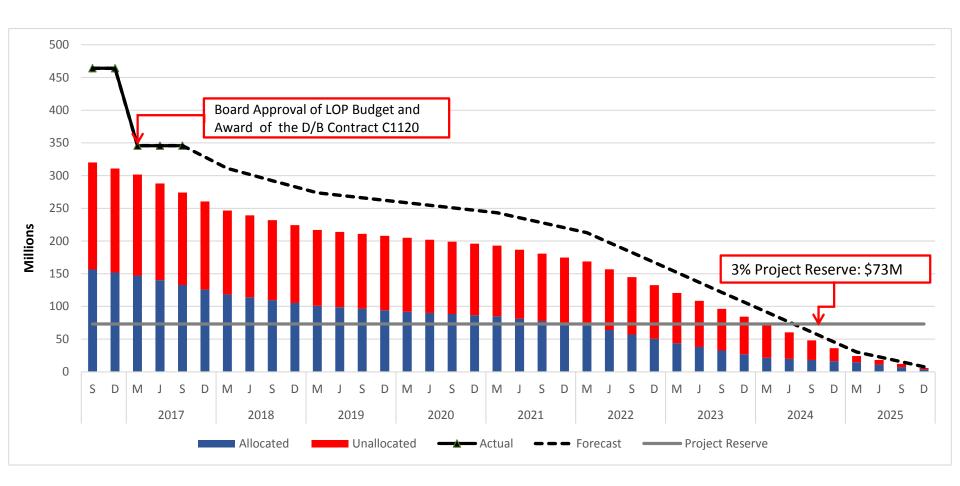
Change Notice #	Description	Number of Mod/ Change Orders	Cost Value	
TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS		1	\$-	
TOTAL PE	ENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:	12	More than \$15 Million	
DESIGN/BUILD CONTRACT C1120				
CN-1.1	Century City Constellation Station West Ancillary & OPE Reconfiguration (Design)		Less Than \$1 Million	
TBD	Century City Constellation Station West Ancillary & OPE Reconfiguration (Construction)		Less Than \$1 Million	
CN-2.1	Geotechnical and Environmental Investigation Program		Less Than \$1 Million	
CN-3	Century City Constellation Station: Main Entrance (Design)		Less Than \$1 Million	
TBD	Century City Constellation Station: Main Entrance (Construction)		More Than \$15 Million	
CN-4.1	Third Party Utility Final Design		Less Than \$1 Million	
TBD	AT&T Building Demolition		Between \$1M - \$5 M	
CN-6.1	Furnish Cradles for LADWP Power Vaults		Less Than \$1 Million	
CN-7	Delete Four (4) boreholes at Cross-Passages		Less Than \$1 Million	
CN-8	Additional Abatement at ACE Gallery		Less Than \$1 Million	
CN-9	Traffic Control at WRS Station		Less Than \$1 Million	
CN-10	Train Headway Revisions		Less Than \$1 Million	
	TOTAL MODIFICATIONS AND CHANGE ORDERS	13	\$ -	

PROFESSIONAL SERVICES CONTRACT				
Design Support Services During Construction				
	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	0	\$	-
	TOTAL PENDING MODIFICATIONS	0	\$	-
	TOTAL MODIFICATIONS	0	\$	-
			-	
Construction Management Support Services				
Construction Management Support Services	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	0	\$	-
Construction Management Support Services	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS TOTAL PENDING MODIFICATIONS	0	\$	-
Construction Management Support Services		-	\$	-

OTHER - THIRD PARTY AGREEMENTS				
City of Beverly Hills Advanced Utility Relocation (AUR) Memorandum of Agreement		TBD		

## Westside Purple Line Extension – Section 2 September 2017

Project Cost Contingency Drawdown



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