



## Board Report

File #: 2017-0381, File Type: Oral Report / Presentation

Agenda Number: 23.

### CONSTRUCTION COMMITTEE JUNE 15, 2017

#### SUBJECT: ORAL REPORT OF THE PROGRAM MANAGEMENT CHIEF OFFICER

RECEIVE oral report by the Program Management Chief Officer.

#### DISCUSSION

- A. Update report covering the month of May 2017 by the Program Management Chief Officer; and
- B. At the January 2017 meeting, the Board authorized a one-year pilot program authorizing the CEO to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life of Project budget, to streamline project management of the four (4) major transit corridor projects (Crenshaw/LAX, Regional Connector, Westside Purple Line Extension Section 1 and 2 projects). In addition, staff was directed to provide monthly reports, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contingency.

Pursuant to the Board motion, staff has developed and begun reporting on cost contingency and contract change activity starting in the February 2017 Monthly Update to the Construction Committee. This new report includes a project cost contingency drawdown curve and allows the Board to see project-related and change activity. This report can be found in Attachment A.

At the conclusion of the one-year pilot program in January 2018, staff will report back to the Board on the time saved as result of this pilot program, and any lessons learned, and recommendations for the Board review and further direction.

#### ATTACHMENTS

Attachment A - Program Management Chief Officer's Report - JUNE 2017

Prepared by:

- **Crenshaw/LAX** - Charles Beauvoir, Deputy Executive Officer, Project Mgmt., (213) 299-3095
- **Regional Connector** - Gary Baker, Deputy Executive Officer, Project Mgmt., (213) 893-7191
- **Westside Purple Line Ext 1** - James Cohen, DEO Project Mgmt., (213) 922-7911

- **Westside Purple Line Ext 2** - Michael McKenna, EO Project Mgmt., (213) 312-3132
- **Patsaouras Plaza Busway Station** - Timothy Lindholm, EO Project Engr., (213) 922-7297
- **Blue Line Projects** - Sam Mayman, EO Project Engr., (213) 922-7289
- **Presentation** - Yohana Jonathan, Departmental System Analyst, (213) 922-7592

# Program Management Chief Officer's Report

## Project Status Report

Presented By

**Richard Clarke**

Chief Program Management Officer

---











June 2017

Construction Committee

Los Angeles County Metropolitan Transportation Authority



# PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX			The remaining cost contingency is below the 3% of total project budget reserve (\$47 million contingency remains). Contractor mitigating any potential schedule delays to maintain planned revenue service in October 2019.
Regional Connector			Project is proceeding consistent with schedule forecast and revised LOP budget as approved by the Board in January 2017.
Westside Purple Line Extension-Section 1			Project is 20% complete, no significant issues.
Westside Purple Line Extension-Section 2			Notice to Proceed for the Design/Build Contract issued on April 26, 2017.
Patsaouras Plaza			Schedule negotiations in progress regarding revised substantial completion date of November 2018.

June 2017



On target



Possible problem



Major issue



Metro 2

Construction Committee

Los Angeles County Metropolitan Transportation Authority

# CRENSHAW/LAX TRANSIT PROJECT

◇ BUDGET	Current	Forecast
TOTAL COST	\$2,058M	\$2,058M

◇ SCHEDULE	Current	Forecast
REVENUE OPERATION	Oct 2019	Oct 2019

- Overall project progress is 65% complete and contractor is mitigating any potential schedule delays.
- Project cost contingency has dropped below 3% budget reserve level and minimal schedule contingency.
- Continuing concrete placements for I-405 bridge structure.
- All six underground structures on schedule.
- Continuing street and utility work in Park Mesa Heights area.
- Southwestern Yard contractor continues main shop pits and foundation construction.



Preparing for a deck pour on the I-405 bridge structure.



Installation of form work for TC&C room at Hyde Park Station.

June 2017



On target



Possible problem



Major issue



Metro 3

Construction Committee

Los Angeles County Metropolitan Transportation Authority

# REGIONAL CONNECTOR TRANSIT CORRIDOR

**OK BUDGET**

	Current	Forecast
<b>TOTAL COST</b>	<b>\$1,810M</b>	<b>\$1,810M</b>

\* Includes Board approved LOP plus Finance costs.

**OK SCHEDULE**

	Current Dec 2021	Forecast Dec 2021
<b>REVENUE</b>		
<b>OPERATION</b>		

- Overall Project Progress is 35%.
- Tunnel Boring Machine(TBM) mining operations continue; over 60% of first tunnel drive complete.
- Successfully mined beneath existing Red Line Tunnels.
- Steady State Configuration and 2<sup>nd</sup>/Spring Restoration complete. Station excavation and utility hanging continues at Broadway Station.
- Waterline cut-overs on Flower Street are complete. Pile and deck beam installation are ongoing.
- Preparations to receive TBM at 2<sup>nd</sup>/Hope Station on June 1, 2017.
- 6<sup>th</sup>/Flower power asset relocation designs advancing through collaborative efforts.
- Planning and permitting for extended closure of 6<sup>th</sup> Street traffic flows near final.



Installing/Staging Reception Cradles in 2<sup>nd</sup>/Hope Station



Waterline 12" tie-in work on Flower Street

June 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 4

# WESTSIDE PURPLE LINE EXTENSION – SECTION 1

## BUDGET

	Current	Forecast
<b>TOTAL COST*</b>	<b>\$3,154M</b>	<b>\$3,154M</b>

\* Includes Board approved LOP plus Finance costs.

## SCHEDULE

	Current	Forecast
<b>REVENUE OPERATION</b>	<b>Oct 2024 FFGA</b>	<b>Nov 2023</b>

- Overall Project Progress is 20% complete.
- Excavation for the Wilshire/La Brea Station commenced on October 12, 2016 and continues beneath the deck panels. First level walers and struts continue to be installed and second level excavation has commenced. Station excavation is scheduled to complete by December 2017.
- The Wilshire/Fairfax pile installation operation completed on February 8, 2017. Street decking commenced on the weekend of February 11, 2017. There are 18 weekend closures planned for this operation. Ten weekend closures have been completed through May 15, 2017. The hanging of utilities with ventilation under the concrete deck panels has commenced.
- The Wilshire/La Cienega Station piling operation, which commenced on March 20, 2017, continues. Stage 1 piling along the south side of Wilshire Boulevard is scheduled to complete in June 2017.
- The jet grouting operation along Wilshire Boulevard at the cross passages continues. This work along the tunnel section from Wilshire/La Brea to Wilshire/Western is scheduled to continue through August 2017.
- Tunnel Boring Machines (TBMs) are being fabricated for delivery at the end of 2017. Tunneling is planned to start in 2018.



Under Deck Excavation at Wilshire/La Brea Station



Decking Operation at Wilshire/Fairfax Station

June 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 5

# WESTSIDE PURPLE LINE EXTENSION – SECTION 2

## OK BUDGET

	Current	Forecast
<b>TOTAL COST*</b>	<b>\$2,530M</b>	<b>\$2,530M</b>

\* Includes Board approved LOP and Finance charges.

## OK SCHEDULE

	Current	Forecast
<b>REVENUE</b>	<b>Dec 2026</b>	<b>Aug 2025</b>
<b>OPERATION</b>	<b>FFGA</b>	

- Notice to Proceed for the Design/Build contract was issued on April 26, 2017.
- Construction of the telecom joint trench is proceeding in Century City. Duct bank work will complete in June 2017 and subsequent cable pulling/splicing completion is anticipated in September 2017.
- Advanced utility relocations are anticipated to begin at the Wilshire/Rodeo Station in July 2017.
- Received COBH staff concurrence on final design plans. Beverly Hills City Council approval for the construction permit is anticipated in June 2017.
- Negotiations for a Memorandum of Agreement(MOA) governing utility work began in March 2017 and is continuing.



Telecom Joint Trench Construction along Constellation Boulevard

June 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 6



# PATSAOURAS PLAZA BUSWAY STATION

<b>OK</b> BUDGET		
	<b>Current</b>	<b>Forecast</b>
<b>TOTAL COST</b>	<b>\$39.7M</b>	<b>\$39.7M</b>

<b>◇</b> SCHEDULE		
	<b>Current</b>	<b>Forecast</b>
<b>SUBSTANTIAL COMPLETION</b>	<b>Nov 2018</b>	<b>Nov 2018</b>

- Vignes On/Off ramp closed January 3, 2017 to allow for utility relocation and foundation work to start.
- Bridge overhead demolition, utility relocation, and foundation construction is ongoing.
- Ramirez St/Center St closures have been approved by City, with Ramirez closure expected in May 2017.
- Drilling of wet piles started March 16, 2017 and is progressing as expected.
- Schedule negotiations in progress to determine revised substantial completion date due to delayed start.



**Aerial view of site**



**Bent 2 and 3 Completed Piles**



**Setting and Pouring Bent 4**

**June 2017**



On target



Possible problem



Major issue

**Construction Committee**

Los Angeles County Metropolitan Transportation Authority



**Metro 7**

# METRO BLUE LINE PROJECTS

<u>Project Name</u>	Budget	Percent Completed	Forecast Completion	Status
• Station Refurbishment	\$30.4M	100%	Completed	OK
• Pedestrian Gates	\$30.2M	75%	Oct 2017	OK
• City of Long Beach Fare Gates Design (PE)	\$7M*	85%(PE)	July 2017	OK
• Blue Line Rehabilitation (OCS, Signals, Div. 11)	\$119M*		Aug 2020	
<b>Total: \$186.6M</b>				



\*Budget Estimate

June 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



# Crenshaw/LAX Transit Project

## Change Activity

April 2017

Change Notice #	Description	Number of Mod/Change Orders	Cost Value
-----------------	-------------	-----------------------------	------------

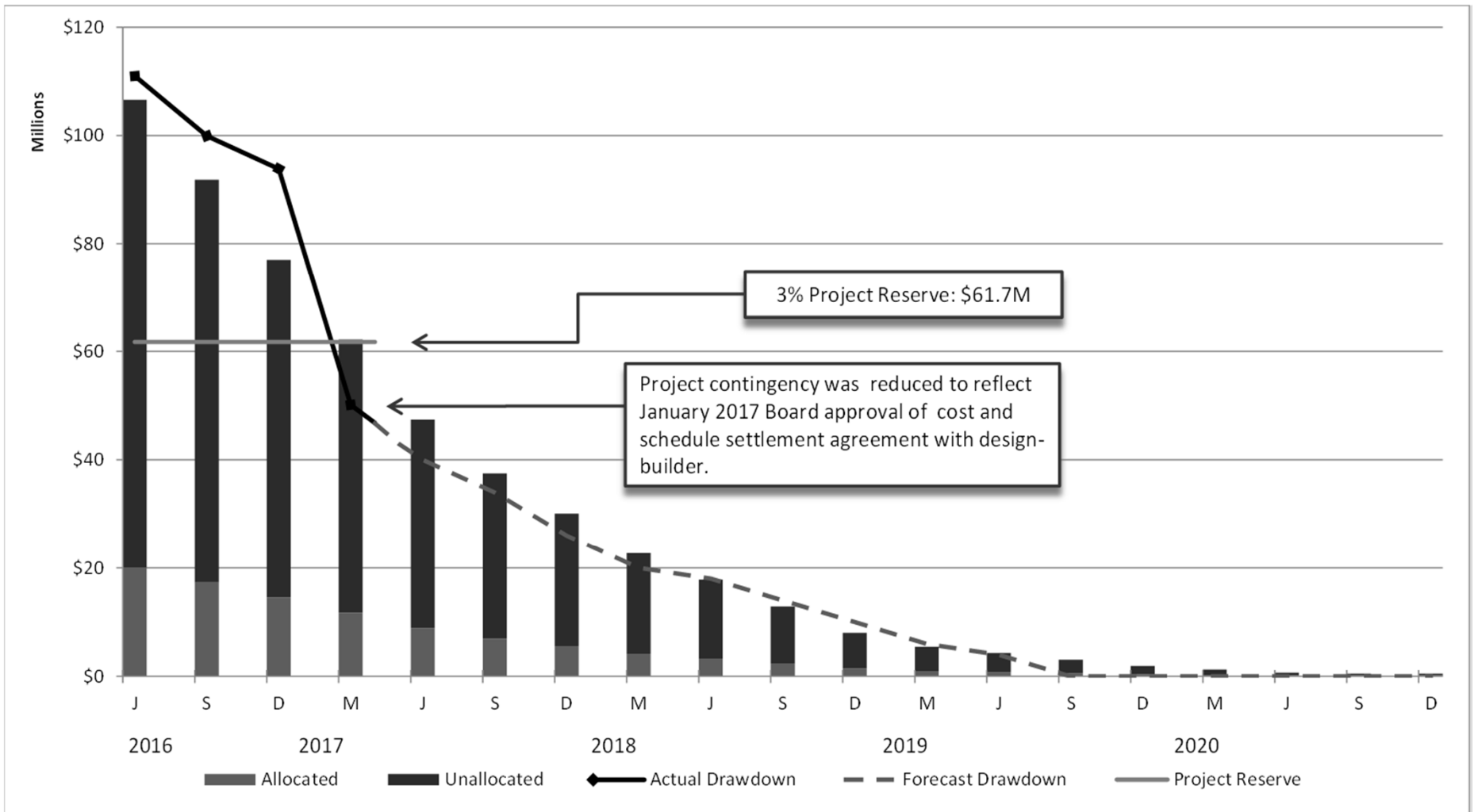
DESIGN BUILD CONTRACT			
<b>TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS</b>		<b>279</b>	<b>\$ 68,543,273</b>
<b>TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST</b>		<b>16</b>	<b>\$ 257,109</b>
<b>CONTRACT C0988</b>			
MOD 00202.1	Turnback and Speed Restrictions		Less than \$1 million
MOD 00250	Clarify Rail Welding Inspection Req.		Less than \$1 million
MOD 00256	Black Diamond Vault 5436 Crenshaw Bl		Less than \$1 million
MOD 00260	Support SCGC- Abandon 2" Gas at Brynh		Less than \$1 million
MOD 00266	Cable Transmission System Update		Less than \$1 million
MOD 00271	Clarify Integration with MGL-Design		Less than \$1 million
MOD 00272	Expo Park and Ride Lot Deletion-Dsgn		Less than \$1 million
MOD 00273	AG-1 Hinge 18 Joint Seal Blockout		Less than \$1 million
MOD 00234	LADOT Fiber Optic Cable Betterment		Less than \$1 million
MOD 00269	Remove Trees over MWD Easement		Less than \$1 million
MOD 00270	Unit Rates for Incidental Const Work		Less than \$1 million
CO 00129	Elimination Crosver Sta 56+57.50		Less than \$1 million
CO 00136	Relocate Qwest Pullbox at Hindry Ave		Less than \$1 million
CO 00140	Disp Remove Contam. Soil STA 182+25		Less than \$1 million
CO 00159	MRDC - Full Height Platform End Gate		Less than \$1 million
CO 00163	Added Crsovr N. Arbor Vitae-Spcl Tra		Less than \$1 million
<b>TOTAL MODIFICATIONS AND CHANGE ORDERS</b>		<b>295</b>	<b>\$ 68,800,383</b>

PROFESSIONAL SERVICES CONTRACTS			
<b>Design Support Services During Construction (CONTRACT E0117)</b>			
<b>TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS</b>		<b>42</b>	<b>\$ 59,217,720</b>
<b>TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST</b>		<b>0</b>	<b>\$ 0</b>
<b>TOTAL MODIFICATIONS</b>		<b>42</b>	<b>\$ 59,217,720</b>
<b>Construction Management Support Services (CONTRACT MC069)</b>			
<b>TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS</b>		<b>16</b>	<b>\$ 53,350,394</b>
<b>TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST</b>		<b>0</b>	<b>\$ 0</b>
<b>TOTAL MODIFICATIONS</b>		<b>16</b>	<b>\$ 53,350,394</b>

# Crenshaw/LAX Transit Project

## Project Cost Contingency Drawdown

April 2017



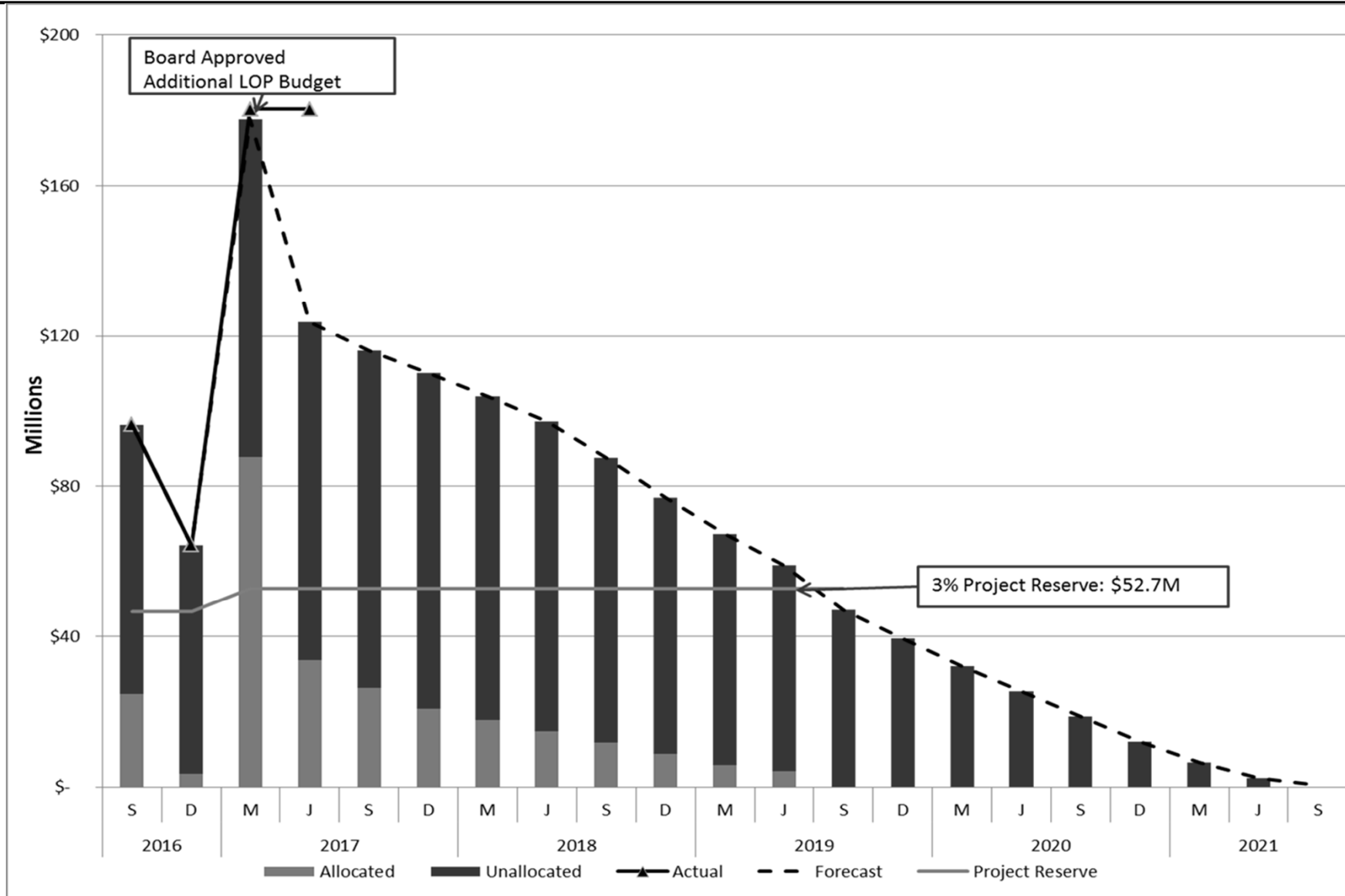
# Regional Connector Change Activity

April 2017

Change Notice #	Description	Number of Mod/Change Orders	Cost Value
<b>TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:</b>		<b>80</b>	<b>\$ 127,780,039</b>
<b>TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:</b>		<b>31</b>	<b>\$ 83,608,626</b>
	1st/Alameda Bumpout (Construction)		Less Than \$1 Million
	Flower Street Modification: future 2-way Traffic /Bumpout/Ped Lighting (Construction Only)		Between \$1 and \$5 Million
	Revise Metro Rail Station Signage and Incorporate Metro Underground Station Signage (Construction)		Less Than \$1 Million
	Add Wye Junction Fan Plant - Construction		Between \$10 and \$15 Million
	Fully Coupled Dynamic Analysis for SEM Cavern		Less Than \$1 Million
	Revisions to TPIS Requirements -Construction		Less Than \$1 Million
50.0	Commonwealth Agreement Provisions		Less Than \$1 Million
66.0	Flower Street Zanja Additional Potholing		Less Than \$1 Million
68.0	ATT Ductbank Relocation @ Hewitt		Less Than \$1 Million
78.0	Deputy Grading Inspector 2nd/Broadway Station SOE		Less Than \$1 Million
79.0	Flower Maintenance of Traffic (MOT) West Piles		Less Than \$1 Million
86.0	Support Veolia 24" Chilled Water Pipes at 2nd/Hope Station		Less Than \$1 Million
87.0	Option 3 Pedestrian Bridge Revisions / Broad Coordination (Construction)		Between \$1 and \$5 Million
99.0	1st/Central Station HMI Units for Escalator Controllers		Less Than \$1 Million
103.0	Add One Add 'I VHF Radio Operational Channel - Construction		Less Than \$1 Million
105.0	Revise Flower SOE to Construct TBM Retrieval Pit (Construction)		Between \$1 and \$5 Million
106.0	Revisions to Metro Optical Network Switch		Less Than \$1 Million
	Revise Communication Radio System SOW (Construction)		Less Than \$1 Million
	Infrastructure for Insite Wireless in Tunnels		Less Than \$1 Million
	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 'I 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
113.00	Waterline Alignment Modifications on Flower		Less Than \$1 Million
	DSC - Miscellaneous buried object in tie-back removal		Less Than \$1 Million
	Revised Emergency Walkways at Curves (30" to 35") - Construction		Less Than \$1 Million
115.00	Wayfind Signage @ 2nd/Hope Ped Bridge - Design Only		Less Than \$1 Million
118.00	Extended Performance for Design		Between \$5 and \$10 Million
119.00	Metro Board Adopted Station Names		Less Than \$1 Million
121.00	Utility Conflicts during Decking at 4th & Flower St.		Less Than \$1 Million
	2nd & Spring Waterline DSC		Less Than \$1 Million
	Blue Light Stations		Less Than \$1 Million
<b>TOTAL MODIFICATIONS/CHANGE ORDERS</b>		<b>111</b>	<b>\$ 211,388,665</b>
<b>PROFESSIONAL SERVICES CONTRACT</b>			
<b>Design Support Services During Construction</b>			
<b>TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS</b>		<b>11</b>	<b>\$ 44,629,810</b>
<b>TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST</b>		<b>1</b>	<b>\$ 0</b>
28.0	No Cost - Period of Performance Extension thru 06/30/2018		\$ 0
<b>TOTAL MODIFICATIONS</b>		<b>12</b>	<b>\$ 44,629,810</b>
<b>Construction Management Support Services</b>			
<b>TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS</b>		<b>4</b>	<b>\$ 35,630,672</b>
<b>TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST</b>		<b>1</b>	<b>\$ 0</b>
11.0	No Cost - Period of Performance Extension of CMSS thru 06/30/2018		\$ 0
<b>TOTAL MODIFICATIONS</b>		<b>5</b>	<b>\$ 35,630,672</b>



# Regional Connector Project Cost Contingency Drawdown



# Westside Purple Line Extension – Section 1 Change Activity

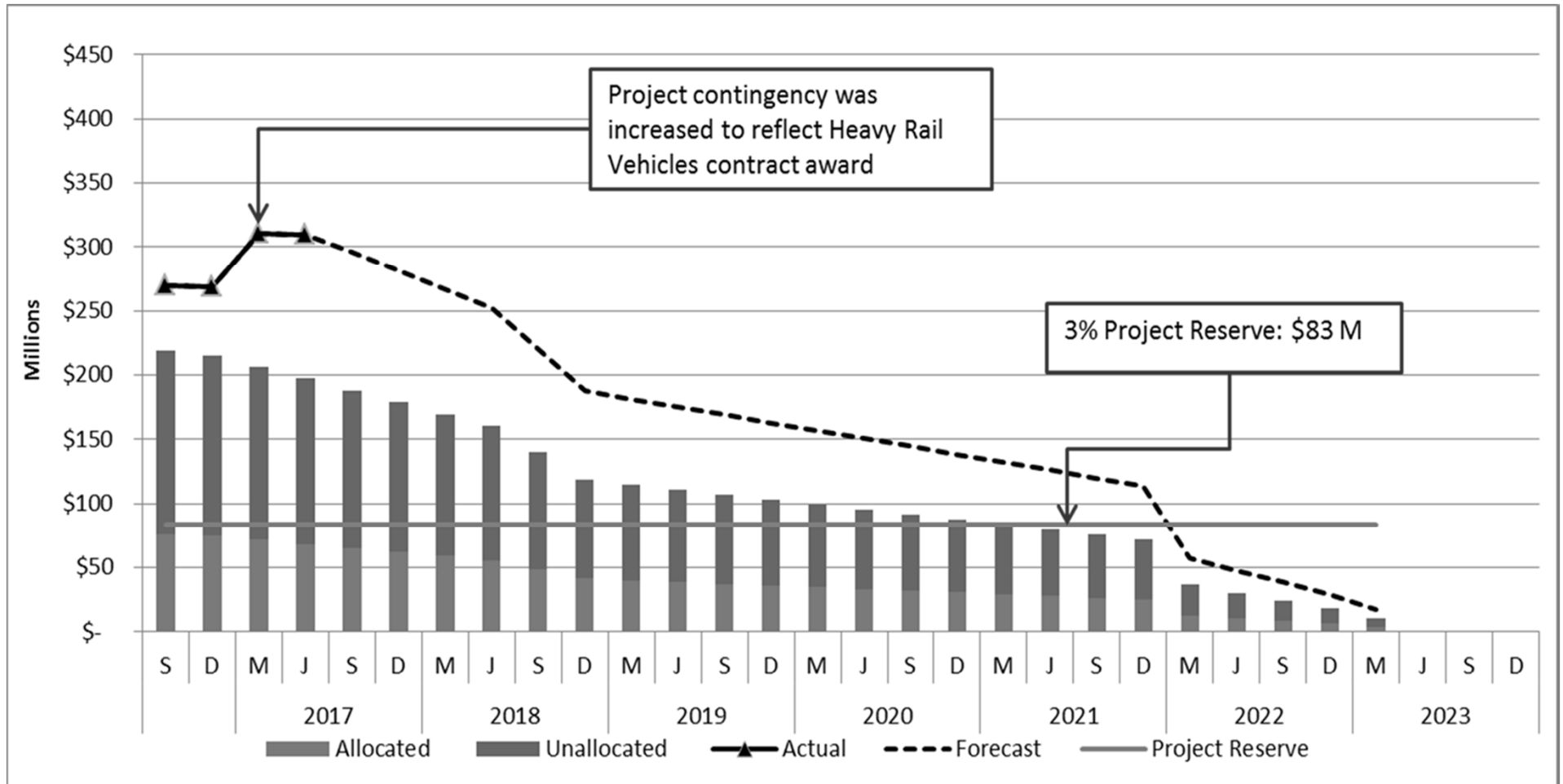
April 2017

Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
<b>TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:</b>		<b>135</b>	<b>\$ 11,884,246</b>
<b>TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:</b>		<b>30</b>	<b>More than \$15M</b>
<b>DESIGN/BUILD CONTRACT C1045</b>			
		20	
CN-25.2	Revisions to Transit Passenger Information System (TPIS) Requirements		Less Than \$1 Million
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-37.2	Revisions to Metro Optical Network		Less Than \$1 Million
CN-39.1	Revision to Metro Station Signage		Less Than \$1 Million
CN-42.3	Radio Subsystem Redundancy		Less Than \$1 Million
CN-43.2	Isolate Track Circuits at Wilshire/Western		Less Than \$1 Million
CN-47.1	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-57	Additional Geotech Monitoring at La Cienega (Support of Deviation Request)		Less Than \$1 Million
CN-63	La Brea- Additional Instrumentation Requested by BOE		Less Than \$1 Million
CN-64	Additional SOE Design Work - La Brea Station		Less Than \$1 Million
CN-65	Additional SOE Design Work - Fairfax Station		Less Than \$1 Million
CN-66	La Brea - Dewatering Changes		Less Than \$1 Million
CN-67	Tactile Guidance - Construction Effort and 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
TBD	Fairfax - DWP Ductbank Conflict with Deck Beams in Stages 2 and 3		Less Than \$1 Million
TBD	Fairfax - Piling Obstructions, Conflicts, Delays		Less Than \$1 Million
TBD	Western- Additional Extensometers supporting Deviation Request		Less Than \$1 Million
<b>DESIGN/BUILD CONTRACT C1078</b>			
		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
TBD	Betterment City of LA - Install Street Lights, Trees and Drip Irrigation		Less Than \$1 Million
TBD	Support of Building Art Work		Less Than \$1 Million
TBD	Betterment City of LA - 6th Street Viaduct - Site RE-gragind, Ornamental Fence, etc.		Less Than \$1 Million
TBD	Hazardous Materials - Chalmers Pan Handle		Less Than \$1 Million
TBD	Storm Drain - Differing Site Conditions		Less Than \$1 Million
TBD	Above Ground Storage Tank - Leak Detection System		Less Than \$1 Million
TBD	Remote Lubricant Filling & Extraction System		Less Than \$1 Million
TBD	Building Improvements - Increased Foot Print, Larger Rooms		Less Than \$1 Million
<b>TOTAL MODIFICATIONS AND CHANGE ORDERS</b>		<b>165</b>	
<b>PROFESSIONAL SERVICES CONTRACTS</b>			
Design Support Services During Construction - CONTRACT PS43502000			
<b>TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:</b>		<b>21</b>	<b>\$ 80,391,662</b>
<b>TOTAL PENDING MODIFICATIONS</b>		<b>1</b>	
CN-61	Continuation of Design Support During Construction		Between \$10M - \$15M
<b>TOTAL MODIFICATIONS AND CHANGE ORDERS</b>		<b>22</b>	
Construction Management Support Services - CONTRACT MC071			
<b>TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:</b>		<b>3</b>	<b>\$ 39,731,796</b>
<b>TOTAL PENDING MODIFICATIONS</b>		<b>1</b>	
CN-5	Continuation of Construction Management Support Services		More Than \$15 Million
<b>TOTAL MODIFICATIONS AND CHANGE ORDERS</b>		<b>4</b>	

# Westside Purple Line Extension – Section 1

## Project Cost Contingency Drawdown

April 2017





# Westside Purple Line Extension – Section 2

## Project Cost Contingency Drawdown

April 2017

