

# Westside Purple Line Extension Section 2 Project

QUARTERLY PROJECT STATUS REPORT  
SEPTEMBER 2018



Metro®

# **Westside Purple Line Extension Section 2 Project**

## **QUARTERLY PROJECT STATUS REPORT**

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA).

**September 2018**

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## PROJECT OVERVIEW

### Project Background

The Westside Purple Line Extension Section 2 Project (Project) is the second of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority's (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 2 will extend the future Wilshire/La Cienega Station that is part of the Westside Purple Line Extension Section 1 Project currently under construction to Century City. The Project is located entirely underground, primarily following Wilshire Boulevard, and includes the design and construction of approximately 2.59 miles of double-track heavy rail, two new stations as well as the purchase of 20 heavy rail vehicles. The Wilshire/Rodeo Station is within the jurisdiction of City of Beverly Hills and the Century City Constellation Station is within the jurisdiction of City of Los Angeles. The Project also includes train controls, signals, traffic controls, communications, traction power supply and distribution, fare collection systems and equipment, acquisition of right-of-way, and utility relocations.



The Wilshire/Rodeo Station box will be under the center of Wilshire Boulevard beginning just east of South Canon Drive and extending to El Camino Drive. The entrance will be on the southwest corner of Wilshire Boulevard and Reeves Drive.

The Century City Constellation Station box will be under the center of Constellation Boulevard between Century Park East and Solar Way. A double crossover will be located east of this station. The entrance will be on the northeast corner of Constellation Boulevard and Avenue of the Stars. In lieu of tail tracks, safe breaking distance will be provided at the interim terminus station.

### **Major Procurements**

Contract C1120 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing: The procurement of this contract utilized a two-step approach with the submittal of qualification statements through a Request for Qualification (RFQ) process, prequalification of qualified proposers followed by the release of a Request for Proposals (RFP) soliciting technical and price proposals with an option at Metro's discretion for Best and Final Offers (BAFO).

The Design/Build contract provides for final design and construction of the infrastructure along the 2.59 mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The structures to be constructed include twin bored tunnels complete with cross-passages and walkways including all mechanical, electrical and finished work. A tunnel boring machine (TBM) launch shaft will be constructed at the Century City Constellation Station. Two underground stations are to be constructed with one double crossover location set east of the Century City Constellation (terminus) Station. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work also includes all architectural finishes, mechanical and electrical systems and equipment including train control, traction power, communications, trackwork, system tie-in to the Wilshire/La Cienega Station (currently under construction), testing and commissioning.

### Metro Furnished Equipment

Metro has procured a contract to provide 20 Heavy Rail Vehicles (HRV) necessary to operate the extension to the Purple Line. An additional contract will be procured for the Universal Fare System (UFS). The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract will include design, fabrication and installation of equipment at the three stations and system testing.

### **Program Management**

The Westside Purple Line Extension Section 2 Project is being managed under the direction of an Integrated Project Management Office (IPMO). WSP provides engineering and design support services, while Purple Line 2 CM Partners, A Joint Venture provides

construction management support services. An overview of staffing is provided under the Staffing section of this report. The program management team is also supported by Metro headquarters' resources and includes engineering, risk management, environmental, quality management, operations and creative services departments.

Project Schedule and Budget: The Revenue Service Date (RSD) is planned for summer 2025.

On January 26, 2017, the Metro Board approved the Life of Project (LOP) Budget for the Westside Purple Line Extension Section 2 Project 865522 for \$2.4 billion excluding Finance Charges of \$88.7 million. A detailed Life of Project Budget forecast is included under the Budget and Cost Forecast section of this report.

Funding has been secured from a variety of sources to include:

- Federal – Section 5309 New Starts
- Federal CMAQ (Congestion Mitigation & Air Quality)
- Measure R – TIFIA Loan (Transportation Infrastructure Finance & Innovation Act)
- Measure R 35%
- State Capital Projects Loans

Construction and Community Relations: The Construction and Community Relations team is tasked with promoting the Project and performing public outreach within the community to keep stakeholders informed of construction activities occurring along the Project alignment. To facilitate the communication, community leadership councils have been formed which represent geographic-based constituent groups along the Project alignment.

The Project is also engaged in social media outreach and various marketing and advertising efforts designed to keep the public informed and excited about the Project. These efforts are aimed at promoting businesses that are affected by construction. An overview of monthly activities is presented in the Construction and Community Relation section of this report.

Start Up: The commencement of pre-revenue operations will be determined by Metro. Generally, all systems integration testing will have been completed and passed. All testing will be required to include and pass a “stress test” of maximum operational service levels to be acceptable. Pre-Revenue Operations include train runs, especially those involving multiple trains on the integrated and fully operational extension; rehearsal of expected revenue operations scenarios; abnormal and emergency scenarios in which random combinations of system interactions are tested and equipment “burned-in”; and training of emergency services as well as Metro personnel who will operate and maintain the extension. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

## EXECUTIVE SUMMARY

In September 2018, the Project achieved 11.6% completion based on earned value measurements for design and construction. The focus of the Project is completing final design and third party utility relocations. The C1120 Design Build Contract is on schedule to substantially complete by May 2025 and demobilized by October 2025. The forecast Revenue Service Date (RSD) for the Project remains summer 2025. The following is an overview of current design and construction activities.

### Design Status

The Engineering Management Services (EMS) team continues to provide design support for the Advanced Utility Relocation (AUR) work in Century City and Beverly Hills as well as real estate support services. The team is also supporting Metro in reviewing final design submittals, responding to RFI's, and assisting in the preparation of change notices.

The design work has been identified into three distinct design unit packages. They are:

1. Design Package 1 – Utility/Civil Design at Launch Box in Century City
2. Design Package 2 – Remaining Utility Conflicts (Outside of Launch Box)
3. Design Package 3
  - (Volume 1) – Tunnel Reaches
  - (Volume 2) – Stations
  - (Volume 3) – Track & Systems

Metro, TPOG and STV have been working together to identify advanced partial design units for the abovementioned design packages and proposed submittal dates to facilitate timely design review to support the project schedule.

Each design unit package will be submitted and evaluated at each of the following phases: 60%, 85%, 100%, Approved for Construction (AFC) and Issued for Construction (IFC). If required, critical design units can be advanced as Advanced Partial Design Units (APDU's) to support ongoing construction activities.

Design progress meetings are occurring weekly related to the design unit packages. Weekly design task force meetings (by individual discipline) began at the end of March 2018 and are scheduled to continue through design completion. TPOG is continuing with the required contractual submittals. *Design related submittals of note that TPOG has submitted this month are: Standard Tunnel Liner, AFC; Launch Box Temporary Utilities and Street, AFC; Century City Constellation Station Structural and Architectural/MEP, 85%; Century City Constellation Station Street Restoration, 85%; Launch Box Traffic Control and Staging Yard Driveway, IFC; TBM Jacking Frame, 100%; Launch Box SOE, IFC; Santa Monica Bus Layover, AFC; and Special Tunnel Liner, 85%.*

## **Construction Status**

Century City Constellation Advanced Utility Relocations: LADWP Power civil work began in May 2017 and will complete in October 2018. *AT&T duct bank and vault construction began in November 2017 and are anticipated to complete in November 2018.* Cable pulling and splicing will follow for both utilities with an anticipated completion in November 2019.

Wilshire/Rodeo Advanced Utility Relocations: Southern California Gas (SCG) and AT&T work started on February 12, 2018, is ongoing and anticipated to complete in October 2018. TPOG is responsible for Traffic Control Plans for this scope of work.

Contract C1120 – Tunnels, Stations, Trackwork and Systems (Design/Build): Contract award was issued on January 31, 2017 and Notice to Proceed on April 26, 2017. *The TBM purchase order was executed in May 2017. Delivery of TBMs to the staging area commenced this reporting period.*

Geotechnical investigations in the City of Beverly Hills started in late 2017 and are ongoing. Seventeen (17) cross-passage borings have been completed to date. Pre-construction surveys are ongoing. Geotechnical fault line (seismic) boring investigations started in May 2018, and ten (10) out of twenty (20) have been completed. The ten (10) remaining contractually required seismic fault line borings are scheduled to begin this fall.

Site preparation work at the future Wilshire/Rodeo Station entrance started in May 2018.

Demolition of the 1940 Century Park East building and parking structure as well as the 1950 Century Park East parking structure have been completed. Oil line removal started in late May 2018 and was completed in September 2018. Sound wall installation at 2040 Century Park East (construction staging area) is in progress.

Other major construction activities to begin in the near future are the soldier pile installation for the TBM launch box and the TBM tunnel shaft at the eastern end of the Century City Constellation Station.

Beverly Hills City Council approved the Memorandum of Agreement (MOA) governing remaining third party utility relocation work on November 22, 2017. The final MOA for the C1120 contract was approved at the Beverly Hills City Council Meeting on August 21, 2018 but execution of the agreement was made contingent on reaching a settlement agreement related to the NEPA lawsuit.

## **Cost and Schedule Summary**

*For the C1120 Design/Build contract, Metro has received the September 2018 schedule update, which reports that the project remains on schedule to complete according to the contract substantial completion date of May 23, 2025.*

The Critical Path (CP) of the Project runs through third party utility relocations at Century City Constellation Station, Contractor's required utility relocations, then followed by SOE, street decking, mass excavation and structural concrete for the station. Next it flows into installation of the interior finishes and electrical equipment, followed by Systems, Testing and Pre-Revenue Operations. A summary graphic of the critical path is found on Page 12.

**C1120 Design-Build Contract Schedule Metrics**

	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Notice to Proceed	04/26/17A	0	04/26/17A		0
Substantial Completion	05/23/25	0	05/23/25	05/23/25	0

Project costs continue to track within budget and projected contingency limits. To date, the Current Budget and Current Forecast remains the same this period at \$2.5 billion. There are no existing claims on the Project. Detailed cost and budget information is provided on Page 14.

**Key Management Concerns**

No concerns to report at this time.

**Project Construction Photos**



1940 Century Park East (CPE) Sound Wall Panel Installation



Tunnel Boring Machine (TBM) Delivery



DWP Power Ductbank in Century City

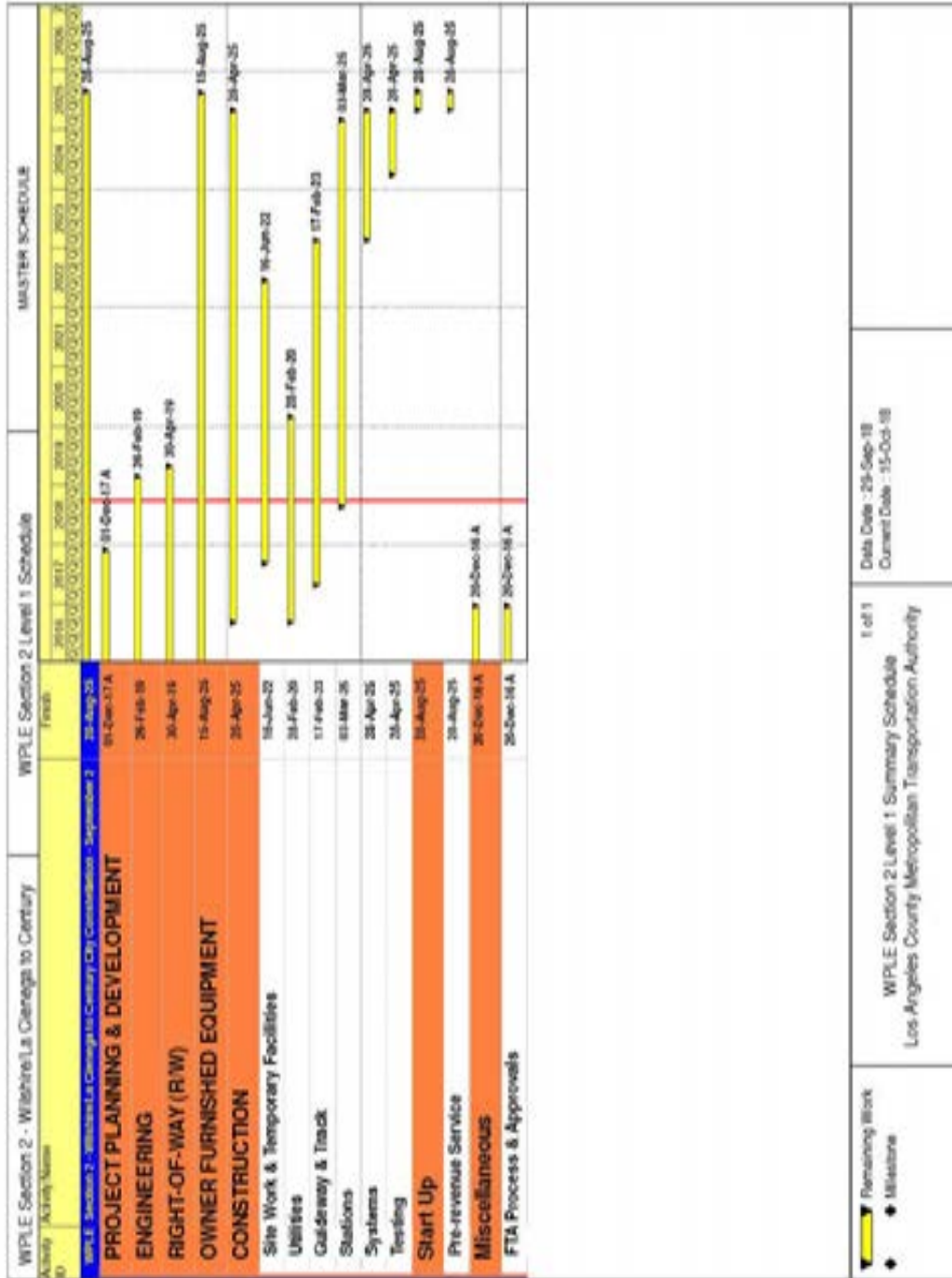


SCG Pipe Placement in Beverly Hills

# PROJECT UPDATE

## PROJECT SCHEDULE

### Project Summary Schedule

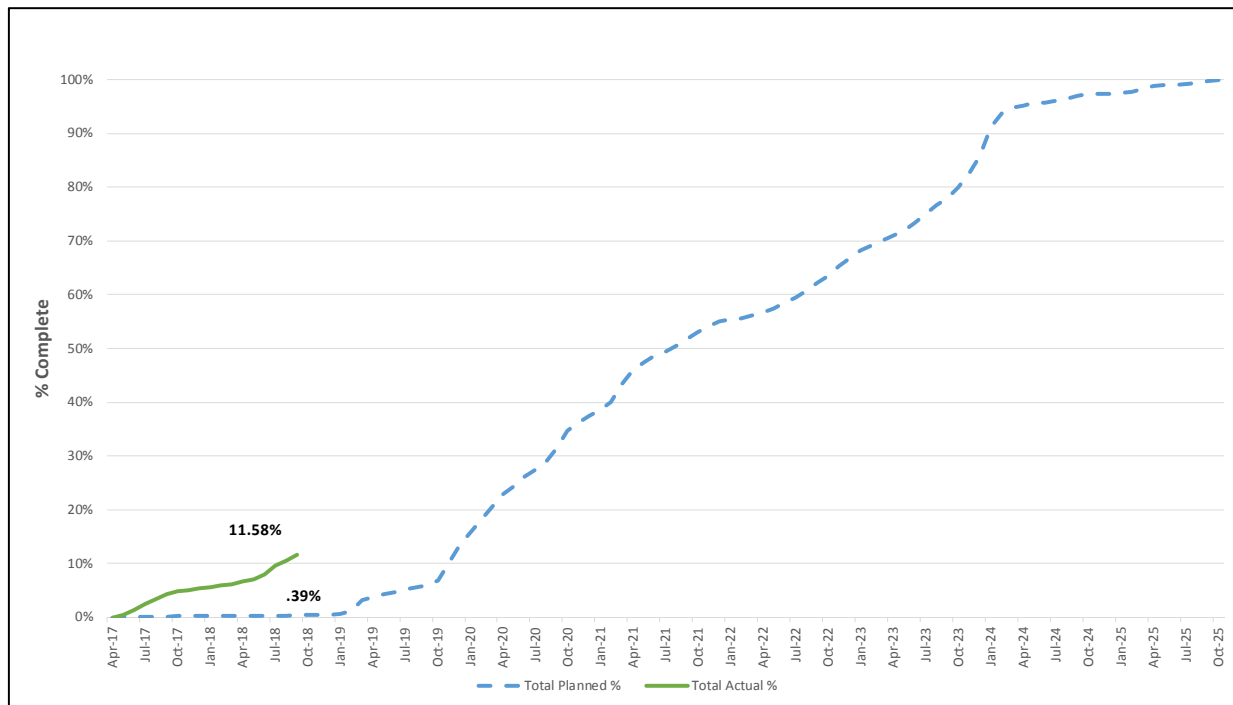


**Progress Summary**

	Status	Change from Last Period	Comment
Forecast Revenue Service Date	summer 2025		
TIFIA Revenue Service Date	12/31/2026	None	
FFGA Revenue Service Date	12/31/2026	None	
<b>Final Design Progress:</b>			
Contract C1120	81.9%	1.7%	Not impacting the critical path
<b>Construction Contracts Progress:</b>			
Contract C1120	11.6%	1.1%	

**\*Note: Physical completion assessment reflects work completed and work in progress.**

**Planned vs. Actual Progress**



The actual overall construction progress is 11.58% versus a planned of 0.39% through September 2018. The progress curves represent the physical progress of work performed to complete Contract C1120. The “Total Planned %” curve is based on the Contractor’s late schedule dates from the approved baseline schedule.

The physical progress percentage excludes non-construction items such as contractor’s design and construction mobilization costs and all general requirement costs not tied specifically to a construction work effort.

**Key Milestones**

	Milestone Date	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19
Issue for Construction Drawings - TBM Launch Box SOE	9/18/18 A	⬡					
Begin Full Street Closure - Constellation Blvd	9/21/18 A	⬡					
Complete Delivery of Tunnel Boring Machines (TBMs)	9/28/18 A	⬡					
Start Installation of Soldier Piles - Launch Box in Century City	10/15/18		⬡				
Start Fabrication of TBM Standard Liner	10/15/18		⬡				
Complete Third Party Utility Relocations at Wilshire/Rodeo Station	10/17/18		▽				
Submit 100% Drawings - SOE Wilshire/Rodeo Station	10/29/18		⬡				
Start Demolition of ACE Gallery building	10/29/18		⬡				
Submit AFC Drawings for Design Package 1 - Utility/Civil Design at Launch Box in Century City	11/12/18			⬡			
Start Excavation - Launch Box in Century City	11/15/18			⬡			
Start Cap Beams & Walers - Launch Box in Century City	11/26/18			⬡			
Start Deck Panels - Launch Box in Century City	12/01/18				⬡		
Start Installation of Soldier Piles - Tunnel Shaft in Century City	12/28/18				⬡		
Start Installation of Soldier Piles - Wilshire/Rodeo Station	01/14/19					⬡	

◆ MTA Staff

Ⓜ MTA Board Action

⚡ FTA (Federal Transit Administration)

▽ Utility Company

△ Other Agencies

□ Contractors

○ Design Consultant

⬡ C1120 D/B Contractor

"A" following date is actual and completed

\* New

**Major Equipment Delivery**

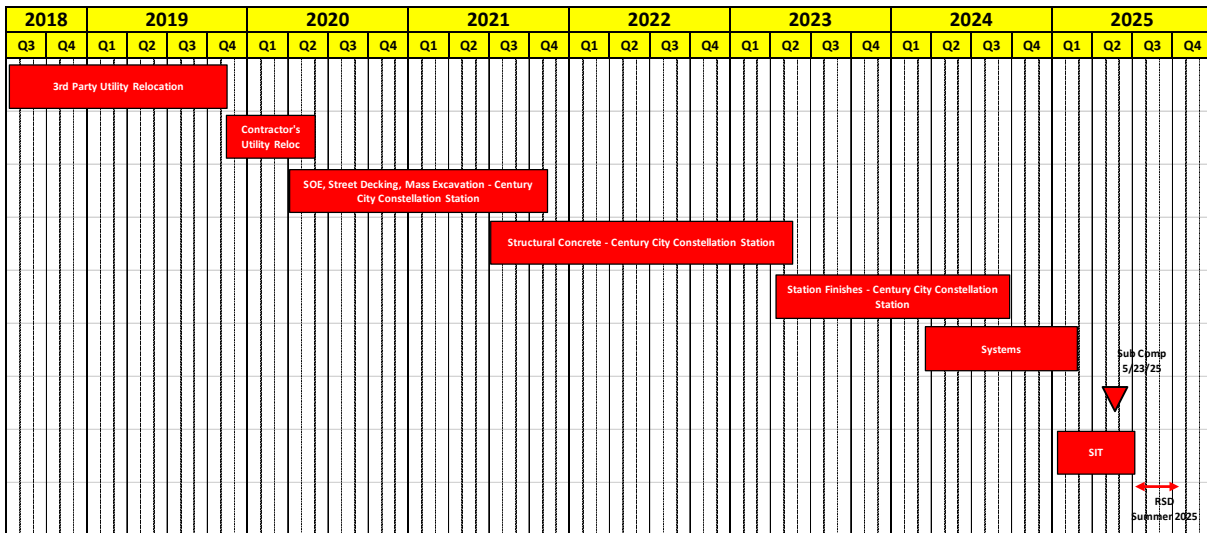
	Submittal	Procurement	Delivery	Installation
<b>C1120 DESIGN/BUILD*</b>				
Tunnel Boring Machines	7/27/17(A)	8/14/17(A)	9/13/18(A)	3Q 2019
Emergency Ventilation Fans	1Q 2019	4Q 2018	2Q 2019	4Q 2020
Station Elevators/Escalators	1Q 2019	2Q 2019	2Q 2020	1Q 2021
Track - Running Rail	2Q 2019	2Q 2019	3Q 2019	4Q 2021
Traction Power Equipment	2Q 2019	3Q 2019	1Q 2020	1Q 2021
Automatic Train Control	4Q 2018	4Q 2018	3Q 2019	1Q 2021
Radio System	4Q 2018	4Q 2018	3Q 2019	2Q 2021
SCADA RTU System	4Q 2018	4Q 2018	3Q 2019	2Q 2021
<b>Heavy Rail Vehicles***</b>	Exercise Option #3 March 1, 2021			
<b>Universal Fare System***</b>	TBD	TBD	TBD	June 2023**

\* Dates derived from TPOG's September 2018 Updated Schedule.

\*\* Forecast release date by TPOG to UFS contractor access at stations.

\*\*\* Metro supplied equipment

**Project Critical Path**

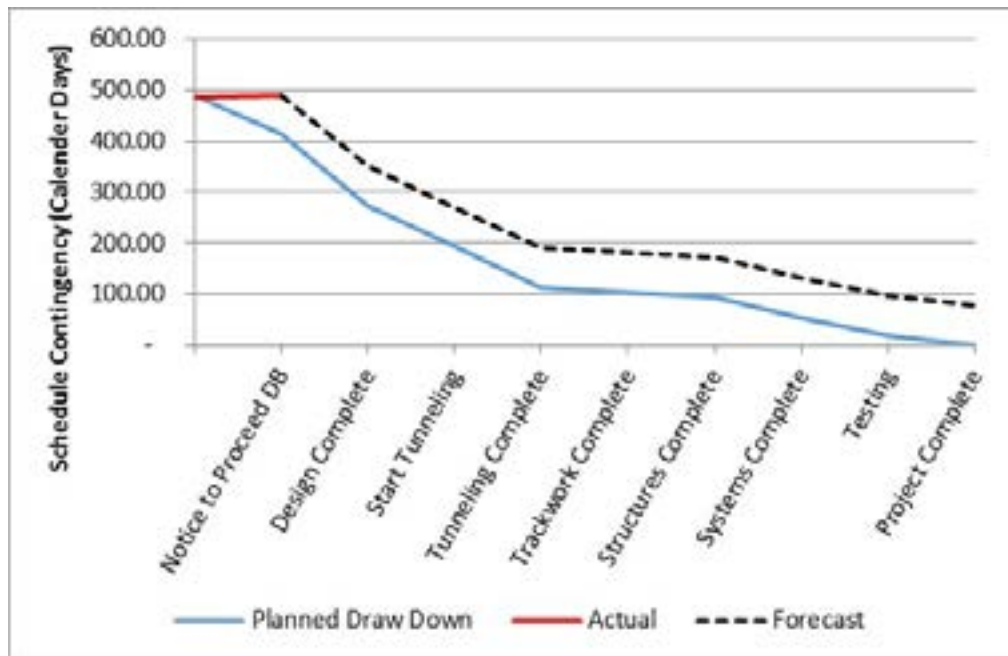


### Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of December 2026 and Metro’s Project Master Schedule (PMS) forecast of August 2025.

The introduction of the PMS model axis reflects a proportional distribution of available float relative to the FFGA model.

With regard to the FFGA RSD, schedule float of sixteen months has been maintained.



## PROJECT COST

### Project Cost Analysis - 865522

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST/ BUDGET VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAY & TRACK ELEMENTS	346,440	-	328,836	-	306,924	-	24,204	-	328,836	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	434,990	-	443,071	-	410,368	701	8,813	-	443,071	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-	-	-	-	-
40	SITework & SPECIAL CONDITIONS	553,282	-	576,800	204	539,111	6,306	255,730	-	576,800	-
50	SYSTEMS	81,457	-	81,907	-	68,537	272	4,922	-	81,907	-
CONSTRUCTION SUBTOTAL (10-50)		1,416,169	-	1,430,614	204	1,324,940	7,279	293,669	-	1,430,614	-
60	ROW, LAND, EXISTING IMPROVEMENTS	426,396	-	426,396	-	230,081	267	153,090	-	426,396	-
70	VEHICLES	42,000	-	42,000	-	-	-	-	-	42,000	-
80	PROFESSIONAL SERVICES	374,878	-	375,974	4,990	197,784	5,723	146,155	-	375,974	-
SUBTOTAL (10-80)		2,259,444	-	2,274,984	5,193	1,752,805	13,269	592,913	-	2,274,984	-
90	UNALLOCATED CONTINGENCY	177,176	-	161,636	-	-	-	-	-	161,636	-
100	FINANCE CHARGES	88,695	-	88,695	-	-	-	-	-	88,695	-
TOTAL PROJECT 865522 (FFGA & NON-FFGA CONCURRENT ACTIVITIES)		2,525,314	-	2,525,314	5,193	1,752,805	13,269	592,913	-	2,525,314	-
ENVIRONMENTAL/PLANNING - 465518 & 465522		4,349	-	4,349	-	3,770	-	2,969	-	4,349	-
TOTAL PROJECT 465518 & 465522 (ENV / PLAN'G)		4,349	-	4,349	-	3,770	-	2,969	-	4,349	-
TOTAL PROJECTS 465518, 465522 & 865522		2,529,664	-	2,529,664	5,193	1,756,576	13,269	595,882	-	2,529,664	-

### Original Budget

The Original Budget reflects the Life of Project (LOP) budget approved by the Board on January 26, 2017, plus Finance Charges of \$88.7 million.

### Current Budget and Current Forecast

Forecast remain the same this period at \$2.5 billion.

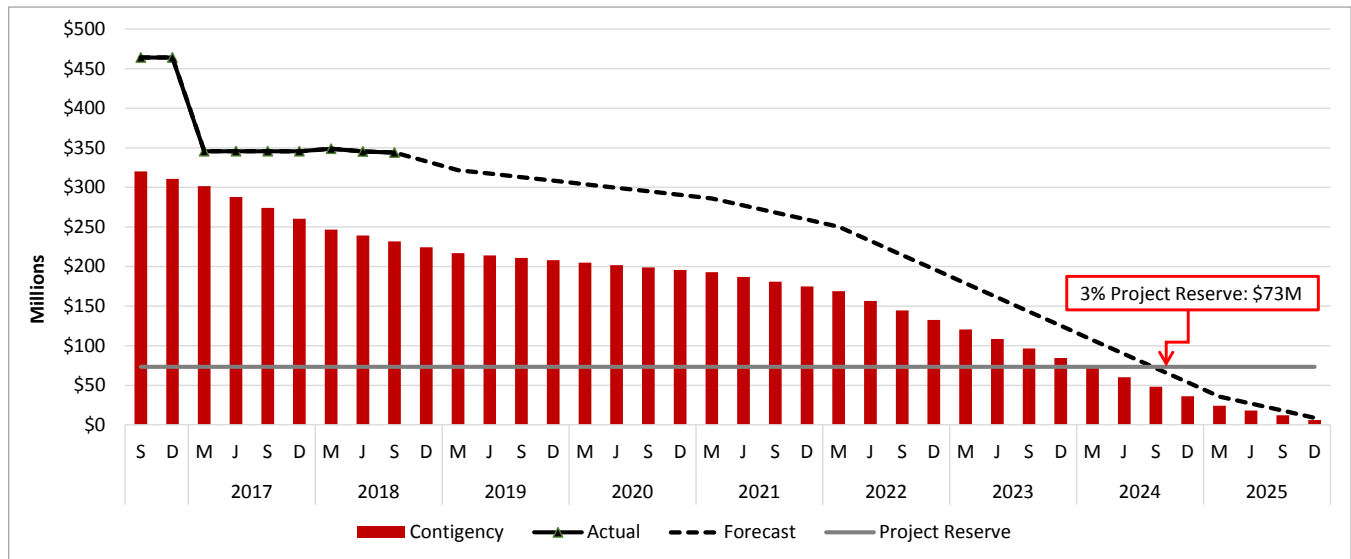
### Commitments

*The Commitments increased this period by \$5.2 million due to Executed Modifications for the Design/Build Contract C1120, approved Task Order for Contract Compliance Services and FY-19 Annual Work Plan with the City of Beverly Hills. The \$1.8 billion in Commitments to date represents 69.4% of the Current Budget.*

### Expenditures

*The Expenditures increased this period by \$13.3 million primarily for costs associated with Design/Build Contract C1120, Private Utilities, Real Estate Acquisitions, Metro Project Administration, Real Estate, Engineering Management Services, Construction Management Support Services, Legal Services, and City of Beverly Hills Memorandum of Agreement (MOA). The \$595.9 million in Expenditures to date represents 23.6% of the Current Budget.*

### Cost Contingency Drawdown



### Cost Contingency Drawdown Analysis

The Current Budget of \$2.5 billion includes finance charges of \$88.7 million. It also includes a project cost contingency of \$345.7 million or 13.7% of the total project, which is based on the Life of Project (LOP) Budget approved by the Board in January 2017. An allocated contingency amount of \$168.5 million is included in the total cost contingency. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro [when applicable to specific contracts within each Standard Cost Category (SCC)].

A 3% project reserve threshold is included in the project cost contingency drawdown. Metro’s Board is to be notified when it becomes necessary to drawdown contingency below the project reserve threshold to cover project costs. This process was adopted by the Metro Board of Directors in September 2012.

The project cost contingency drawdown curve is based on an August 29, 2025 Forecast Revenue Service Date (RSD).

*The allocated contingency decreased this period by \$0.5 million due to executed Contract Modifications for the Design/Build Contract C1120.*

PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	177,176	(15,540)	-	(15,540)	161,636
Allocated Contingency	168,534	14,281	(517)	13,764	182,298
<b>Total Contingency</b>	<b>345,710</b>	<b>(1,259)</b>	<b>(517)</b>	<b>(1,776)</b>	<b>343,934</b>

## Risk Management

### Summary of Risks

Within this reporting period one (1) active risk was closed, and zero (0) new risks identified leaving a total of sixty-two (62) risks to be managed in the next reporting period.

Of the sixty-two (62) risks, four (4) are scored as high, twenty-four (24) as medium and thirty-four (34) as low.

### Top Five Risks

The table below shows the top five (5) project risks.

**Table 1 - Top Risks**

RiskID	Risk Description	Risk Score	Action Items
282.2	Turnover of property to DB contractor is delayed beyond the dates stipulated in the Contract Documents.	15.0	1. Metro to complete property acquisition before the need date. 2. Building demolish to be part of DB contract. DB Contractor to start work as early as possible.
33.2	Acquisition of property is delayed due to condemnation and/or legal battle.	14.0	1. Current project schedule accounts for additional time required for condemnation.
125.2	3rd party utility relocations delay construction.	13.5	1. Work with COLA and COBH and utility owners to expedite obtaining permits, and complete design and construction on schedule.
395	Public protest to the Project causes delays.	12.0	1. Continue working collaboratively with the COLA and COBH and communities.
126.2	Resource constraints at private utility companies delay schedule.	9.0	1. Maintain close coordination with utility companies and sequence utility work as necessary.

### Newly Identified Risks

No new risks identified this reporting period.

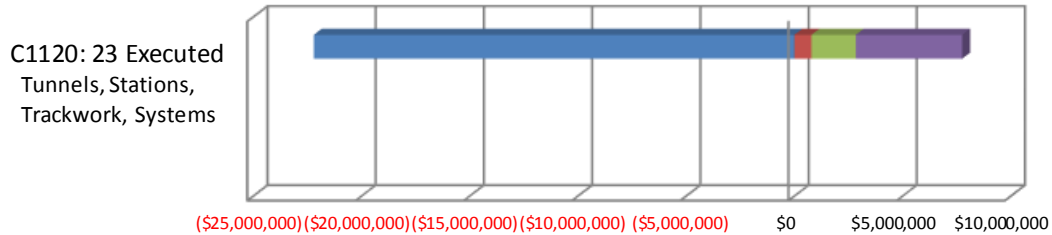
### Closed Risks

One (1) risk was removed from the risk register and identified as follows:

RiskID	Risk Description	Risk Score	Action Items
592	Potential development at Rodeo station restricts availability of staging area.	1.0	1. Review alternative sites (Interface Study) 2. Work with developers to ID joint use areas. 3. Follow closely with real estate plan.

**Summary of Contract Modifications**

**Contract Modifications (MODs) by Cost Level**



	<b>C1120: 23 Executed</b>
■ Under \$100K	(22,202,342)
■ \$100K to \$250K	785,616
■ \$250K to \$1M	2,049,907
■ Over \$1M	4,908,310
<b>Total Contract MODs</b>	<b>(14,458,509)</b>
<b>Contract Award Amount</b>	<b>1,376,500,000</b>
<b>% of Contract MODs</b>	<b>-1.05%</b>

Percent of Contract MODs equals the Total Contract MODs divided by the Contract Award Amount.

*Twenty-Three (23) Contract Modifications (MODS) with a total value of <\$14.46> million have been executed since the award of C1120 Contract – Tunnels, Stations, Trackwork and Systems.*

## DISADVANTAGED BUSINESS ENTERPRISE (DBE)

- **DBE Goal – Design**

A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 25.00%

- **Current DBE Commitment – Design**

Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. \$14,731,914  
(25.31%)

- **Current DBE Participation**

Total amount paid to date to DBEs divided by the amount paid to date to Prime. \$11,592,079  
(19.79%)

Fifteen (15) Design DBE subcontractors have been identified to-date.

- **DBE Goal – Construction**

A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 17.00%

- **Current DBE Commitment – Construction**

Actual commitments as Construction work is awarded. \$80,816,122  
(6.22%)

- **Current DBE Participation**

Total amount paid to date to DBEs divided by the amount paid to date to Prime. \$4,566,824  
(1.73%)

Nine (9) Construction DBE subcontractors have been identified to-date.

## PROJECT LABOR AGREEMENTS (PLA)

The Contractor has committed to comply with PLA/CCP requirements for the Project. Project Staff will monitor and report the contractor's progress toward meeting the goals of the PLA/CCP once construction begins.

## FINANCIAL/GRANT

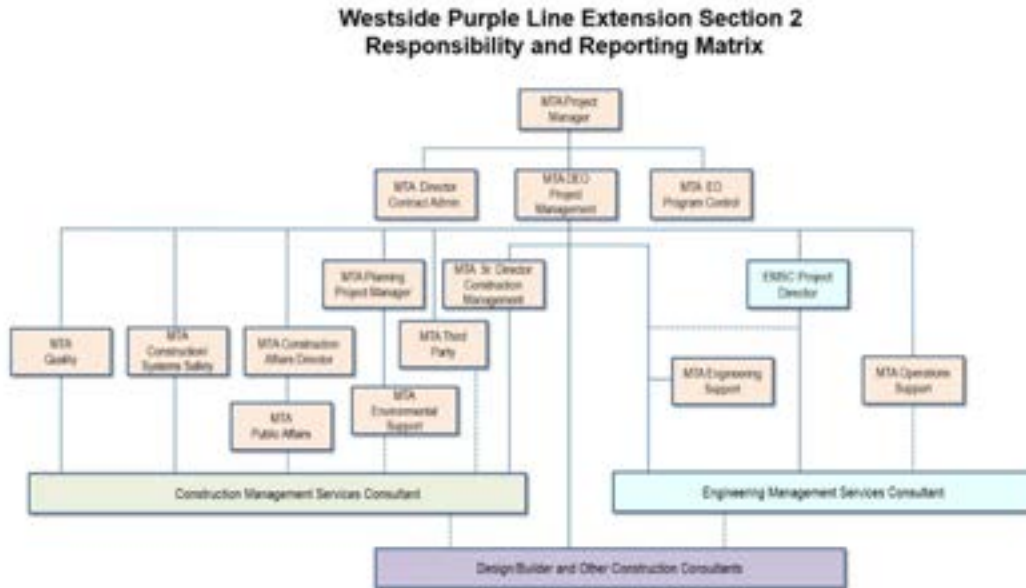
### Status of Funds by Source

SOURCE	(A)	(B)	(C)	(D)		(E)		(F)	
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	\$	%	\$	%	\$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,187.000	\$1,187.000	\$300.000	\$1,050.738	89%	\$210.269	18%	\$185.912	16%
FEDERAL CMAQ	\$169.000	\$169.000	\$43.000	\$43.000	25%	\$43.000	25%	\$43.000	25%
MEASURE R - TIFIA LOAN	\$307.000	\$307.000	\$207.000	\$207.000	67%	\$207.000	67%	\$207.000	67%
MEASURE R 35%	\$811.902	\$811.902	\$206.783	\$401.075	49%	\$80.851	10%	\$31.507	4%
STATE CAPITAL PROJECT LOANS	\$54.762	\$54.762	\$54.762	\$54.762	100%	\$54.762	100%	\$54.762	100%
<b>TOTAL</b>	<b>\$2,529.664</b>	<b>\$2,529.664</b>	<b>\$811.545</b>	<b>\$1,756.575</b>	<b>69.4%</b>	<b>\$595.882</b>	<b>23.6%</b>	<b>\$522.181</b>	<b>20.6%</b>

Original Budget based on 2017 Board approved LOP Budget, plus Finance Charges of \$88.7 million.

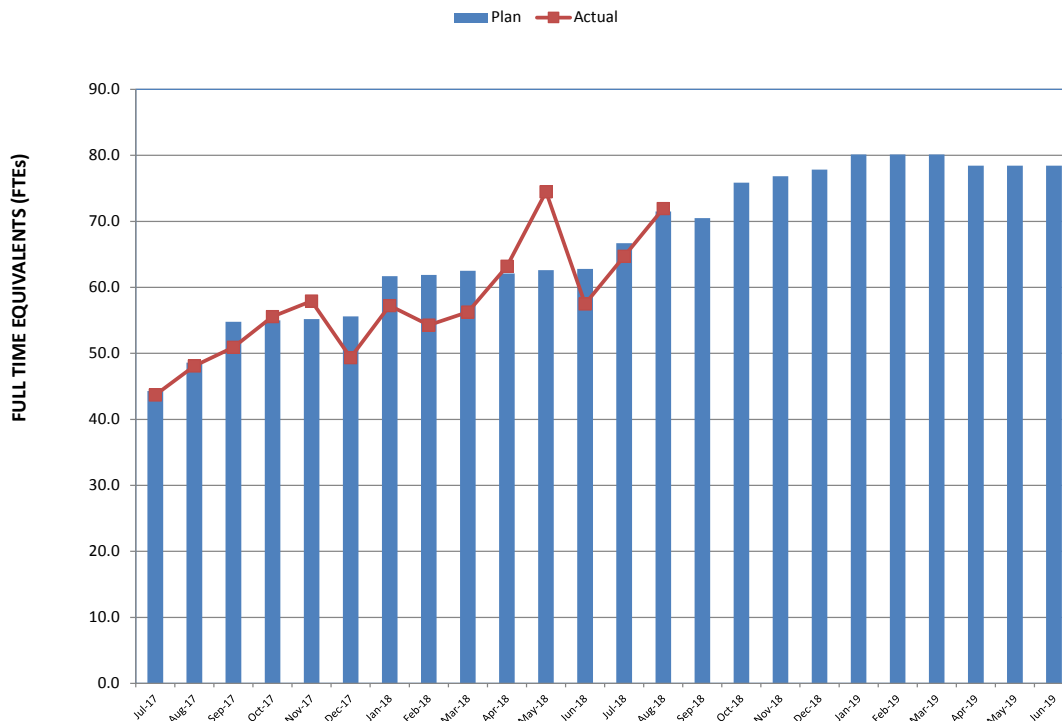
## PROJECT ORGANIZATION AND STAFFING

The design-build contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).

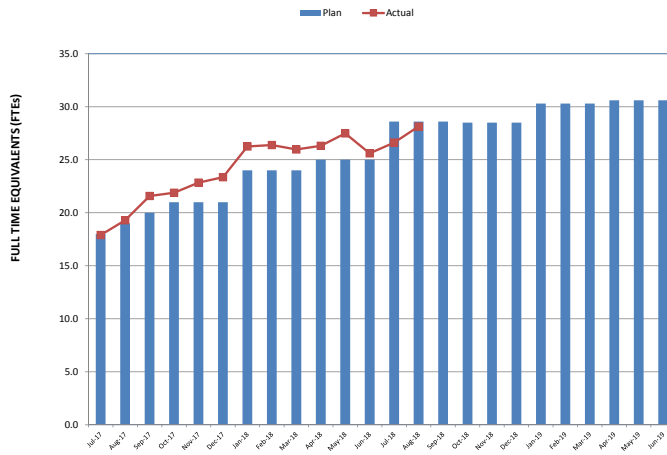


For August 2018, there were a total of 28.1 FTEs for MTA's Project Administration Staff and 43.8 FTEs for Consulting Staff. The total project staffing for August 2018 was 71.9 FTEs.

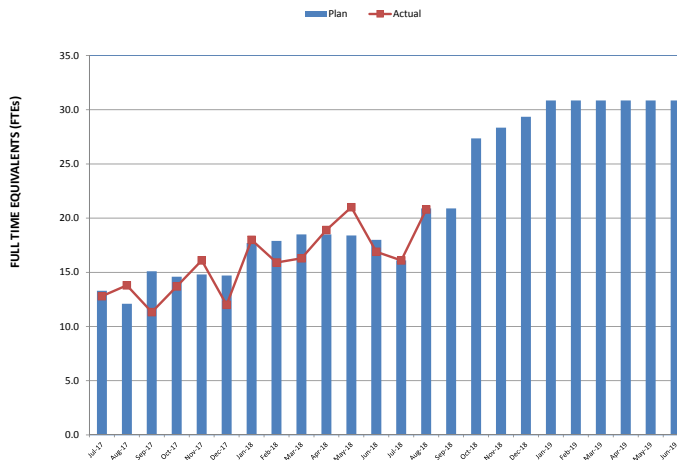
### Total Project Staffing – Metro and Consultants



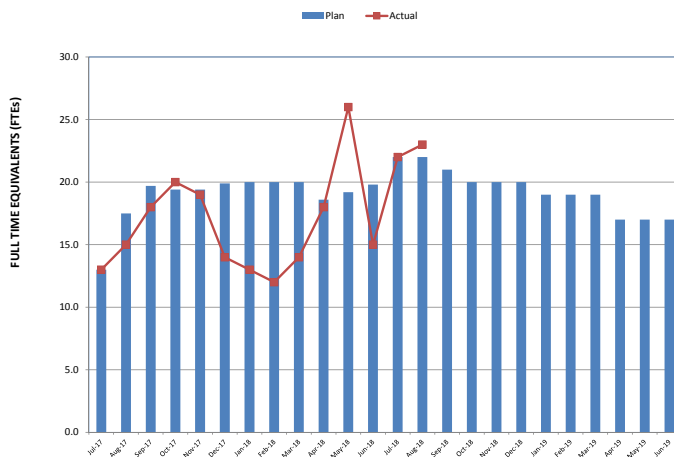
### Metro Staff



### CM Support Services Staff (Consultant)



### Engineering Services Staff (Consultant)



### Staffing by Group

The opposing graphs represent planned vs. actual staffing levels by group.

Metro staffing includes full time staff located in the IPMO as well as part-time support located at Gateway Headquarters.

Staffing plans are developed for each fiscal year based on project needs.

## REAL ESTATE

Real Estate Status Summary									
Description	Number of Parcels	Certified	Appraisals Completed	Offers Made	Agreements Signed	Condemnation Filed	Relocations		Parcels Available
							Required	Completed	
Full Takes	3	3	3	3	1	2	21	21	3
Part Takes	3	3	1	1	1	0	0	0	1
TCE	3	3	3	3	0	1	1	1	2
SSE	23	23	21	21	9	1	3	3	3
Permanent Easements	1	0	0	0	0	0	0	0	0
<b>Total Parcels</b>	<b>33</b>	<b>32</b>	<b>28</b>	<b>28</b>	<b>11</b>	<b>4</b>	<b>25</b>	<b>25</b>	<b>9</b>

- TPOG has possession of the former ACE Gallery property for abatement, demolition, construction staging and ultimately construction of the Wilshire/Rodeo Station entrance.
- TBM Launch Box site turnover to TPOG was issued on January 11, 2018, and access to the adjacent sidewalk was provided on January 16, 2018.
- AAA property and Gillis Family Partnership property turnover to TPOG was provided on January 26, 2018.
- TPOG gained possession of 2040 Century Park East (JMB parking lot) on February 24, 2018.
- TPOG gained possession of the three parcels (W-3001, W-3001-01 and W-3002) located at the Wilshire/Rodeo Construction Staging Area (North) on July 11, 2018.

## QUALITY ASSURANCE

### C1120 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

- *Worked with TPOG on building the project records repository on Egnyte and providing Metro personnel access to this information and submitting product data for each type of material used in work complete with Safety Data Sheets.*
- Reviewed and provided comments on the following with a disposition of Approved as Noted:
  - *CWP Full Street Closure at Century City Constellation Launch Box (TPOG);*
  - *CWP Temporary Electrical Substation Platform (Frontier-Kemper).*
- Reviewed the following with a disposition of Approved:
  - *Laboratory and Inspectors Qualifications and Certifications (RMA Group);*
  - *CWP Liquid Level Gages at Century City Constellation, SOE and Launch Box (ASC);*
  - *SOE TPOG Stud Welding Certificates (TPOG);*
  - *Quality Control Engineers' Qualifications (TPOG);*
  - *CWP Driveway at 2040 Century Park East (TPOG).*
- Reviewed the following with a disposition of Rejected:
  - *Steel Cage Quality Control Documents (G and C);*
  - *Basic Welding Requirements for Deck Beams (TPOG).*

## ENVIRONMENTAL

- Participated in various advanced utility relocation and TPOG coordination meetings and evaluated progress and schedules for environmental compliance and sustainability efforts.
- Provided environmental awareness training as needed for Metro, advanced utility relocations and TPOG construction staff.
- Conducted field environmental monitoring and spot check inspections for construction noise, stormwater and dust BMPs, cultural resources and Metro's Green Construction Policy.
- Reviewed and provided responses to various contractor submittals and requests for information related to environmental matters.
- *Completed abatement and removal of abandoned oil lines in conflict with the launch box at Constellation Station.*

## CONSTRUCTION AND COMMUNITY RELATIONS

- Attended the following meetings: Construction Management, Advanced Utility Relocations, Construction Relations, Third Party Coordination, LADOT, Beverly Hills Memorandum of Agreement, Beverly Hills and Century City Chamber meetings, Beverly Hills SW-HOA, Building and Property Manager meetings in Century City.
- Conducted project presentations at the Beverly Hills Monthly Community Meeting and to other Beverly Hills businesses one-on-one. Conducted follow up meetings with Century City stakeholders regarding street closure.
- *Produced and distributed 18 pre-construction work notices for advanced utility relocation, demolition, temporary sidewalk closures for Century City and Beverly Hills.*
- Extensive outreach at community meetings and events including distribution of notices door to door, postcard mailings, digital and direct emails and paid advertising.
- Continued efforts for Eat Shop Play and Business Interruption Fund in Century City and Beverly Hills.

## CREATIVE SERVICES

- Conducted community outreach and coordinated cultural partnerships.
- Reviewed art, design and signage submittals for the Wilshire/Rodeo Station 85% submittal.

## **SAFETY & SECURITY**

- Third Party advanced utility relocation (AUR) work continues. *A VCI employee suffered a fracture to his right index finger and a torn nail that required medical attention. No other injuries were reported this period.*
- Conducted project safety orientation for new Metro/Consultants and IPMO project staff.
- Conducted right-of-way (ROW) and safety/security walks, safety/security reviews and coordination with TPOG safety staff for oversight and support on all project field work activities.
- Attended advanced utility relocation (AUR) and design build (D/B) progress, readiness review, schedule, safety/security, partnering, and over-the-shoulder review meetings.
- *TPOG Design (16,819 hours) and Construction (18,655 hours) completed 35,474 work-hours for the month of September 2018 with zero recordable incidents. Total Project to Date work-hours are 382,505 with zero recordable incidents.*

## APPENDIX CHRONOLOGY OF EVENTS

August 2012	FTA Record of Decision
January 2013	FTA approval to enter to Preliminary Engineering
December 2014	FTA approval to enter to New Starts Engineering Phase
March 2015	Began Real Estate Acquisition
May 2015	Began Advanced Preliminary Engineering
September 2015	Issued RFQ for C1120 Design/Build contract
October 2015	Received RFQ responses for C1120 Design/Build contract
May 2016	Submitted draft FFGA application
May 2016	Submitted TIFIA loan application
June 2016	Submitted application to FTA requesting an FFGA
June 2016	Received RFP Proposals for Contract C1120
September 2016	Began telecom joint trench construction in Century City
December 2016	FTA executed FFGA
December 2016	Received TIFIA Loan
January 2017	NTP for Construction Management Support Services Contract
January 2017	Metro Board approved staff recommendation to award the Design/Build Contract C1120 to TPOG and approved Life-of-Project Budget
January 2017	Issued C1120 Contract Award TPOG
April 2017	Issued C1120 Contract NTP to TPOG
May 2017	Mobilized C1120 Contract Design and Construction Team
August 2017	Third party relocations started at Century City Constellation Station
September 2017	Third party relocations started at the Wilshire/Rodeo Station
November 2017	Beverly Hills City Council approved Memorandum of Agreement (MOA) governing remaining third party utility relocations

December 2017	Final Supplemental Environmental Impact Statement (FSEIS) was available to the public in the Federal Registry on December 1, 2017
January 2018	Completed all utility relocations within the Tunnel Boring Machine “Launch Box”
February 2018	Held Groundbreaking Ceremony on February 23, 2018
May 2018	Bureau of Engineering approved a nine-month street closure of Constellation Blvd. between Century Park East and Avenue of the Stars
<i>September 2018</i>	<i>Full street closure of Constellation Blvd. commenced</i>
<i>September 2018</i>	<i>Delivery of tunnel boring machines (TBMs) commenced</i>