



Metro

June 18, 2020

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FROM: MICHAEL McKENNA *Michael McKenna*
EXECUTIVE OFFICER/PROJECT MANAGER

SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT
MAY 2020 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Westside Purple Line Extension Section 2 Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Westside Purple Line Extension Section 2 Project status for the period ending May 29, 2020.

If you have any questions regarding this report or its supporting information, please contact Rick Wilson, Executive Officer, Program Control at (424) 551-4470.

MM: PB
Enclosure

Westside Purple Line Extension Section 2 Project



Metro®

Westside Purple Line Extension Section 2 Project

MONTHLY 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).

May 2020

TABLE OF CONTENTS

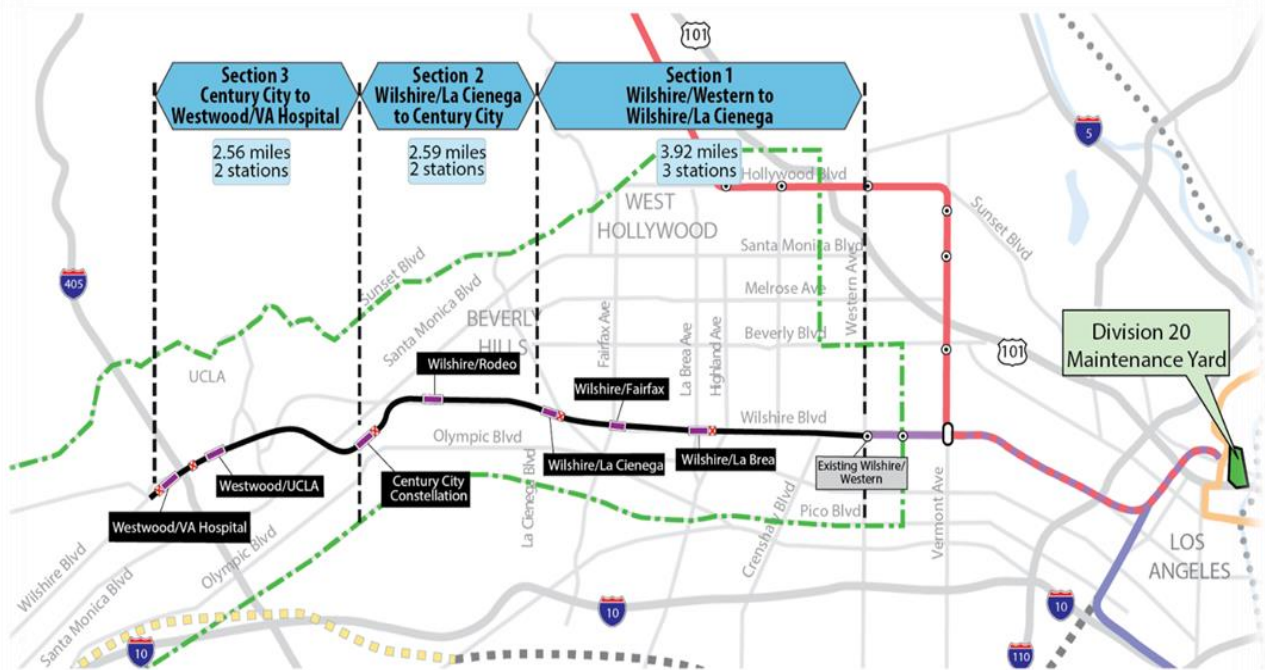
| | |
|--|----|
| Project Overview..... | 3 |
| Executive Summary..... | 6 |
| Project Update | 11 |
| Project Schedule..... | 11 |
| Project Summary Schedule..... | 11 |
| Progress Summary | 12 |
| Planned vs. Actual Progress..... | 12 |
| Key Milestone Six-Month Look Ahead..... | 13 |
| Major Equipment Delivery..... | 14 |
| Critical Path | 15 |
| Project Schedule Contingency Drawdown..... | 16 |
| Project Cost..... | 17 |
| Project Cost Analysis..... | 17 |
| Cost Contingency Drawdown and Analysis..... | 18 |
| Risk Management..... | 19 |
| Summary of Contract Modifications..... | 20 |
| Disadvantaged Business Enterprise (DBE)..... | 21 |
| Project Labor Agreements..... | 22 |
| Financial/Grant | 23 |
| Project Staffing | 24 |
| Real Estate | 26 |
| Quality Assurance | 27 |
| Environmental..... | 28 |
| Construction and Community Relations | 29 |
| Creative Services..... | 29 |
| Safety and Security..... | 30 |
| Appendix..... | 31 |
| Chronology of Events | 31 |

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 of 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 two new 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 Global (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 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 Project 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 Relations 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 May 2020, the Project reached 32% completion based on earned value measurements for design and construction. The focus of the Project continues to be completing final design, and construction activities in Century City and Beverly Hills. The C1120 Design Build Contract is on schedule to substantially complete by May 2025 and demobilize by October 2025. The forecast Revenue Service Date (RSD) for the Project remains planned for 2025. The following is an overview of current design and construction activities.

Design Status

The Engineering Management Services team (WSP) continues to provide engineering services during construction 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 originally been identified into three distinct design unit packages. They are the following:

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

The design packages noted above have been broken out into discrete advanced design units/packages in order to facilitate and prioritize design deliverables.

Metro, Tutor Perini/O&G (TPOG), a Joint Venture 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.

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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). Critical design units have been 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: AFC – Pkg 3 Vol 1E Tunnels and Cross Passages (DU 4.2); 100% Pkg 3 Vol 1E Interface with WPLE Section 1 Tail Tracks (DU 4.2.2); AFC - WRS SOE and Geotechnical Instrumentation (APDU 3.3); 100% WRS Architecture & MEP (DU 3.2); and 100% WRS SOE Entrance (APDU 3.3).*

Construction Status

Century City Constellation Station Advanced Utility Relocations: LADWP Power began civil work in May 2017 and completed in December 2018. AT&T duct bank and vault construction began in November 2017 and completed in December 2018. Cable pulling and splicing for AT&T completed on September 27, 2019. Cable placing and splicing for LADWP Power for 34.5kv system was completed on December 31, 2019. The 4.8kv system cabling pulling and splicing, along with the remaining cable removals were completed on March 5, 2020. *LADWP Power confirmed this period that all duct banks were abandoned.*

Metro has two permits to continue utility work at Century City Constellation Station.

- *Nighttime noise variance for work between Century Park East and Century Park West including Avenue of the Stars was issued by the Los Angeles Police Commission for May 28, 2020 through December 31, 2020.*
- LABOE and LADOT peak hour exemption permit work on Constellation Boulevard between Century Park East and Century Park West, as well as southbound on Avenue of the Stars was issued from December 31, 2019 to June 30, 2020.

TPOG has obtained the necessary permits for the relocation of the 12-inch water line west of the TBM launch box at the Century City Constellation Station. Nighttime work to relocate the water line began on April 7, 2020. On April 21, 2020, the Board of Public Works approved a 5-week expansion of the existing street closure of Constellation Boulevard to Avenue of the Stars to accommodate the relocation work during the Safer at Home Order. *TPOG completed the work to relocate the water line within the expanded street closure in mid-May 2020. TPOG began working with the City to extend the street closure through July 2020 to include piling and decking. TPOG's water line relocation work on Constellation Boulevard between Avenue of the Stars and Solar way, is in progress.*

Metro is circulating for signatures a legal agreement between Enwave Corporation and Metro for relocation of Enwave utilities at the Century City Constellation Station.

Excavation of the Tunnel Boring Machine (TBM) launch box, along with the construction of the tunnel muck bin started in March 2019. The excavation of the TBM launch box was completed on November 1, 2019. *Station piling west of the TBM launch box begin on May 12, 2020 and is ongoing.*

Tunneling operations began on April 30, 2020 with the launch of the BL TBM, "Ruth". *During this period, "Ruth" has excavated 250 feet and erected 45 tunnel rings to date. Excavation of the tunnel access shaft has resumed this period.*

A right of entry agreement to access Beverly Hills Unified School District's (BHUSD) was executed on March 16, 2020. TPOG assisted with the removal of three portable classroom buildings from the school campus on March 20, 2020 to provide surface access at Anomalies A and C. Digging to locate anomalies A and C began on March 30, 2020. *Explorations at all three locations were completed in May 2020.* Coordination is ongoing with CalGEM and BHUSD for the abandonment of two legacy oil wells found in the path of the BR TBM, "Harriet", under the Beverly Hills High School campus. No delays to tunneling operations have been identified to date.

4,055 of 4187 precast tunnel rings and 25 of 436 special seismic rings have been produced as of this reporting period. Production will resume in June 2020.

On March 31, 2020, Beverly Hills City Council approved a full street closure of Wilshire Boulevard (between Beverly Drive and Crescent Drive) for the duration of the “Safer at Home” orders due to the COVID-19 Pandemic. Implementation of the closure occurred on April 2, 2020. *The full street current closure of Wilshire Boulevard will end on June 15, 2020 at 6:00 AM. At that time, Wilshire Boulevard will reopen to traffic.*

The entire south side pile line was potholed from April 2 to 11, 2020. Piling operations for the south side of the station box, end walls, and station entrance started on April 12, 2020. *Piling for the station box was completed on May 9, 2020. Piling for the station entrance at Reeves Drive was completed on May 13, 2020. Station box excavation has begun and is ongoing.* Prior to approval of the street closure, pile installation was anticipated to be complete in August 2020 (pile installation on north side of station box occurred from October 21, 2019 to March 25, 2020). *Installation of the temporary street decking over the future station box excavation began on May 5, 2020 and is planned to complete on June 7, 2020. Prior to the COVID-19 pandemic, this work was anticipated to be performed during weekend closures from August 2020 through January 2021 (excluding weekends during City holidays).*

Beverly Hills City Council approved the Memorandum of Agreement (MOA) governing remaining third-party utility relocations 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.

Negotiations with the COBH for a settlement agreement to end the city's lawsuit against FTA and Metro are ongoing.

Cost and Schedule Summary

For the C1120 Design/Build contract, Metro has received the Contractor’s May 2020 schedule update, which reports the substantial completion date finishing 39 calendar days ahead of the May 23, 2025 contractual date. Future revisions to the contractor’s means and methods and revised schedule logic, will have an impact on future updates. It is anticipated that the contractual completion date will be achieved.

The Critical Path (CP) of the Project remains the same running through the Contractor’s required utility relocations at Century City Constellation Station, 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 15.

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 remain the same this period at \$2.5 billion.

There currently remains three (3) open claims that are being evaluated.

- WRS 21-inch Sanitary Sewer Relocation Design Only (Claim 7)
- Construction Vibration Control (Claim 10)
- Precast Lining in Lieu of Steel Lining (Claim 11)

Detailed cost and budget information is provided on Page 17.

Key Management Concerns

No concerns to report at this time.

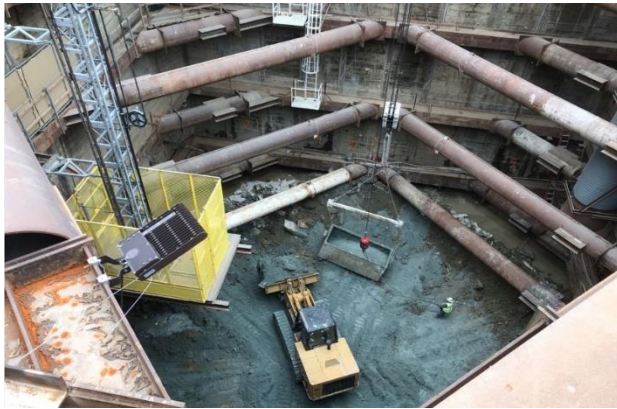
Project Construction Photos



BL TBM, "Ruth" in Century City



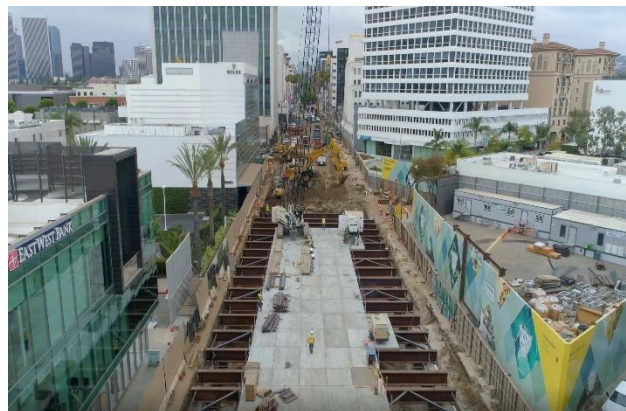
BL Tunnel in Century City



Tunnel Access Shaft in Century City



Pile Installation in Century City

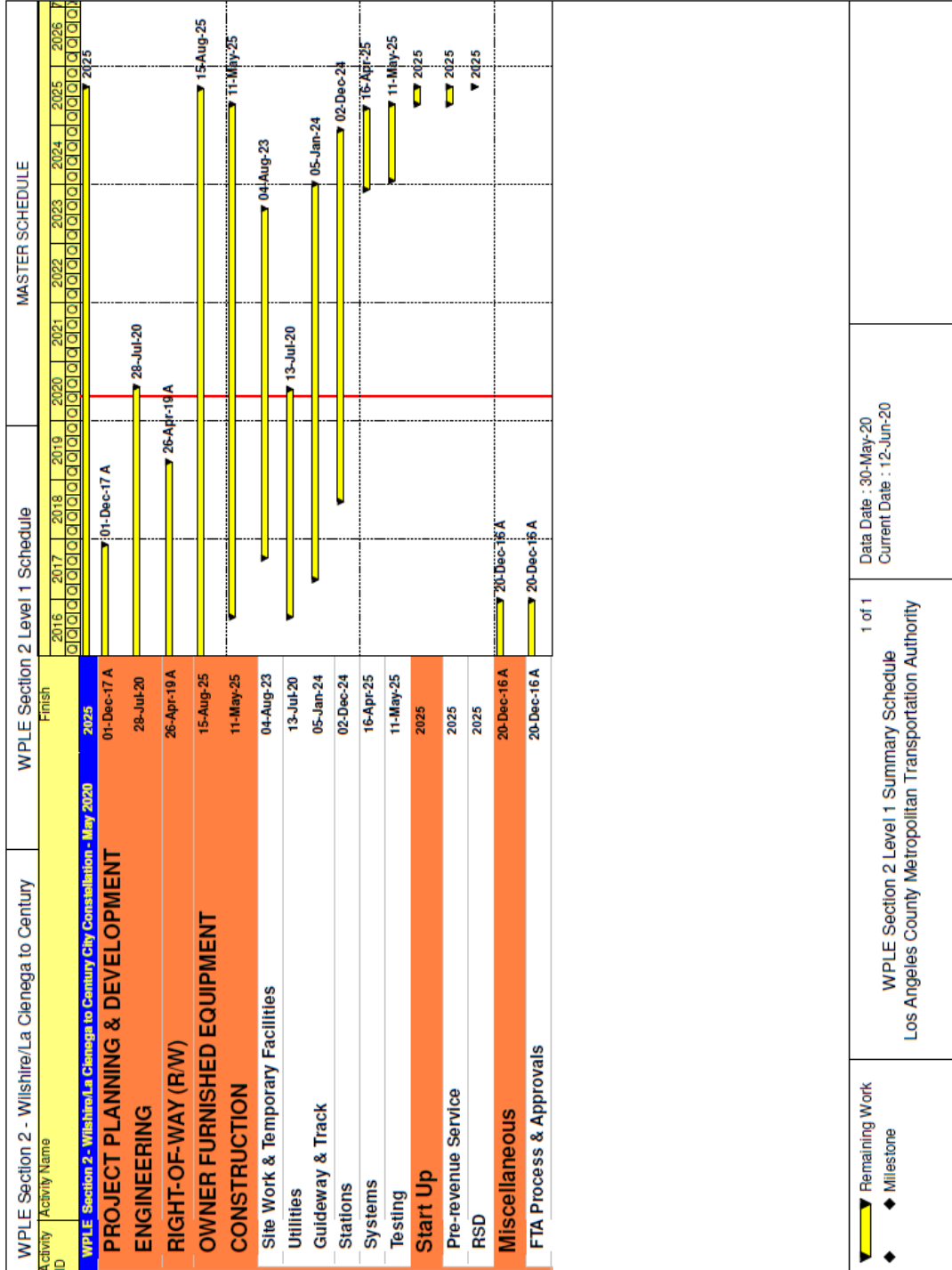


Wilshire/Rodeo Station Pile Installation and Decking During the Temporary Full Street Closure

PROJECT UPDATE

PROJECT SCHEDULE

Project Summary Schedule



1 of 1
 WPLE Section 2 Level 1 Summary Schedule
 Los Angeles County Metropolitan Transportation Authority

Data Date : 30-May-20
 Current Date : 12-Jun-20

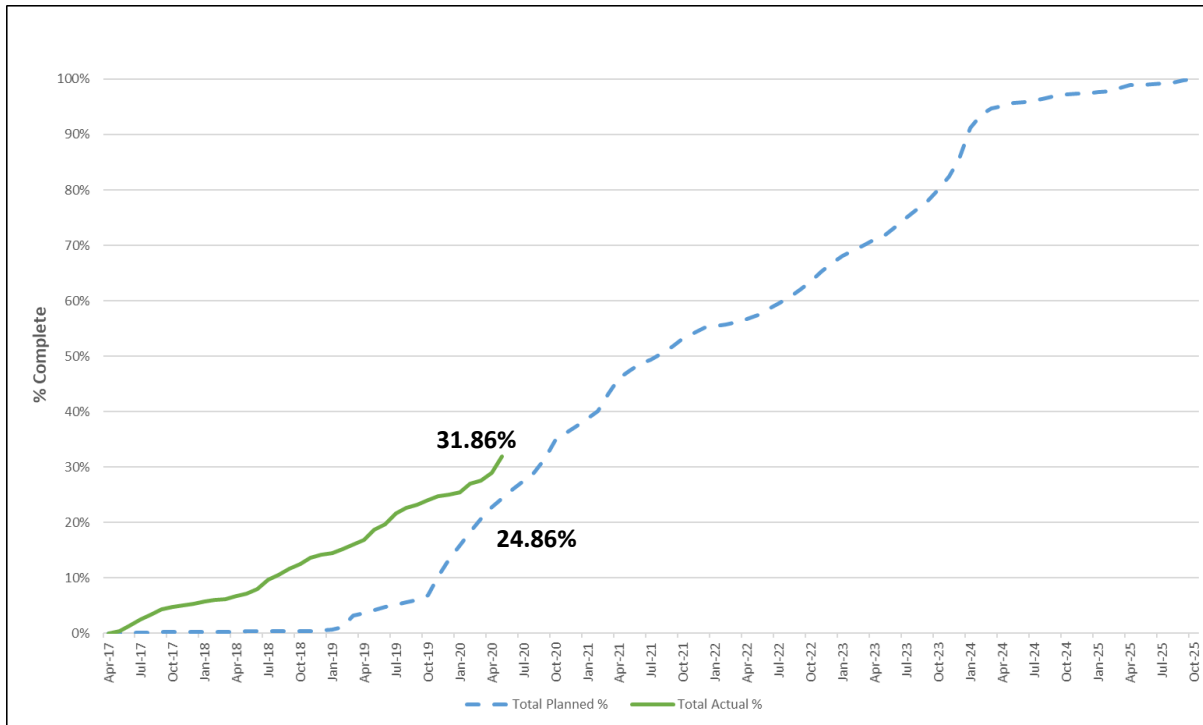
Progress Summary

| | Status | Change from Last Period | Comment |
|---|------------|-------------------------|---|
| Forecast Revenue Service Date | 2025 | | |
| TIFIA Revenue Service Date | 12/31/2026 | None | |
| FFGA Revenue Service Date | 12/31/2026 | None | |
| Final Design Progress: | | | |
| Contract C1120 | 98.5% | 0.4% | Final Design is currently planned to complete in 2020. No impact to Project schedule. |
| Construction Contracts Progress: | | | |
| Contract C1120 | 31.9% | 2.9% | |

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

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Planned vs. Actual Progress



The actual overall construction progress is 31.86% versus a planned of 24.86% through May 2020. 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 Milestone Six-Month Look Ahead

| | Milestone Date | May-20 | Jun-20 | Jul-20 | Aug-20 | Sep-20 | Oct-20 |
|--|----------------|--------|--------|--------|--------|--------|--------|
| Started Temporary Decking at Wilshire/Rodeo Station | 5/02/20 A | ⬡ | | | | | |
| Started Pile Installation at Century City Constellation Station West of the Launch Box | 5/11/20 A | ⬡ | | | | | |
| Complete Temporary Deck Installation at Wilshire/Rodeo Station | 06/07/20 | | ⬡ | | | | |
| Demobilization of Full Street Closure at Wilshire/Rodeo Station | 06/15/20 | | ⬡ | | | | |
| Complete Design Package 3 - Tunnel Reaches, Stations, Track & Systems | 07/29/20 | | | ⬡ | | | |
| Break-Out of BL TBM (Tunnel Boring Machine) at Tunnel Access Shaft in Century City | 08/04/20 | | | | ⬡ | | |
| Start Temporary Deck Installation at Century City Constellation Station | 08/08/20 | | | | ⬡ | | |
| Launch BR TBM at Launch Box in Century City | 08/13/20 | | | | ⬡ | | |
| Start Installation of BL TBM Support Equipment at Tunnel Shaft | 09/15/20 | | | | | ⬡ | |
| Break-Out of BR TBM at Tunnel Shaft in Century City | 10/16/20 | | | | | | ⬡ |
| Start Installation of Special Rings by BL TBM | 10/29/20 | | | | | | ⬡ |

◆ 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

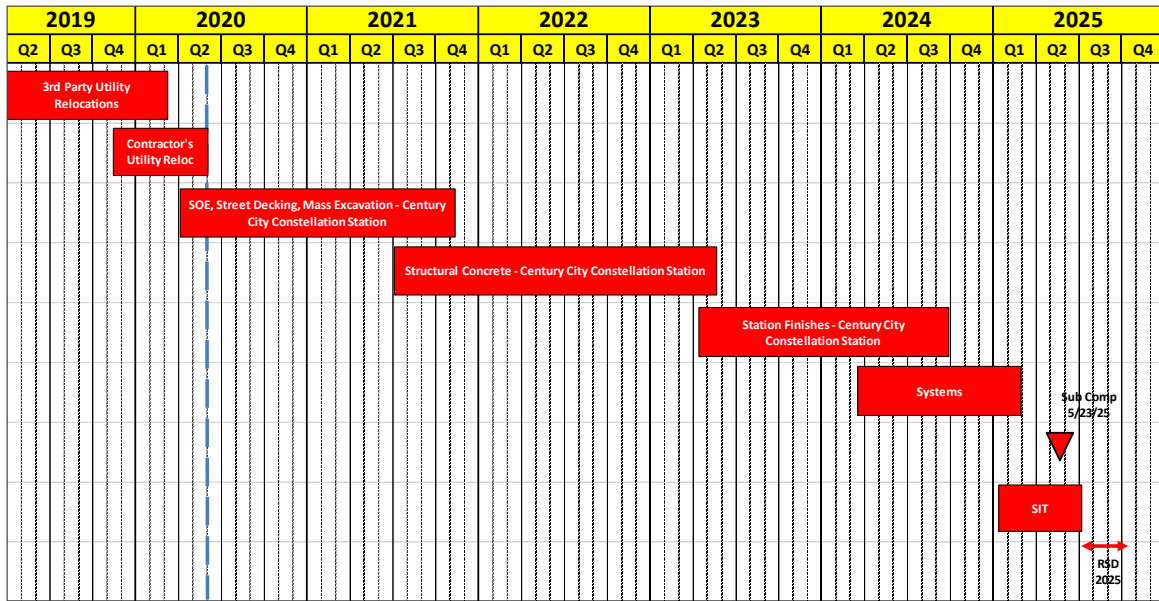
| | Submittal | Procurement | Delivery | Installation |
|---------------------------------|----------------------------------|--------------------|-----------------|---------------------|
| C1120 DESIGN/BUILD* | Finish | Start | Start | Start |
| Tunnel Boring Machines | 7/27/17(A) | 8/14/17(A) | 9/13/18(A) | 12/26/19(A) |
| Emergency Ventilation Fans | 4Q 2020 | 2Q 2020 | 2Q 2020 | 1Q 2022 |
| Station Elevators/Escalators | 4Q 2020 | 4Q 2020 | 4Q 2021 | 2Q 2022 |
| Track - Running Rail | 4Q 2020 | 4Q 2020 | 4Q 2020 | 4Q 2022 |
| Traction Power Equipment | 4Q 2020 | 4Q 2020 | 4Q 2020 | 1Q 2021 |
| Automatic Train Control | 2Q 2020 | 2Q 2020 | 4Q 2020 | 3Q 2023 |
| Radio System | 2Q 2020 | 2Q 2020 | 4Q 2020 | 2Q 2022 |
| SCADA RTU System | 2Q 2020 | 2Q 2020 | 4Q 2020 | 2Q 2022 |
| | | | | |
| Heavy Rail Vehicles*** | Exercise Option #3 March 1, 2021 | | | |
| | | | | |
| Universal Fare System*** | TBD | TBD | TBD | June 2023** |
| | | | | |

* Dates derived from TPOG's May 2020 Schedule.

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

*** Metro supplied equipment.

Critical Path Project



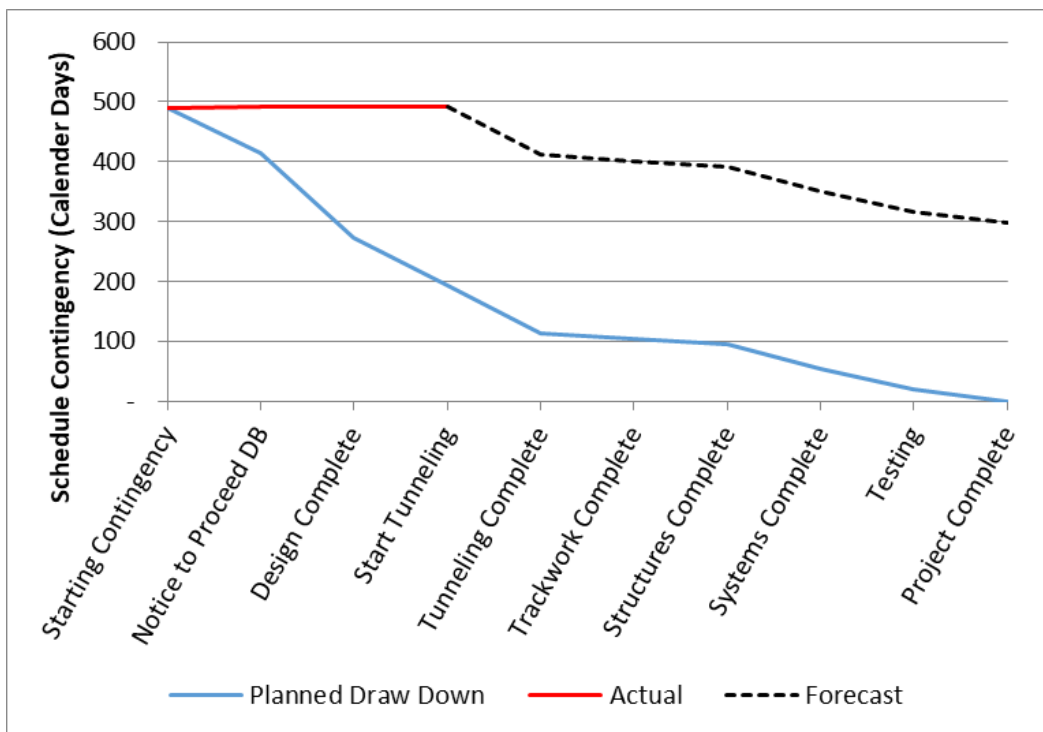
The Critical Path in May 2020 remained the same as portrayed last month.

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 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 (16) 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 | - | 321,703 | 1,056 | 309,039 | 1,182 | 85,174 | - | 321,703 | - |
| 20 | STATIONS, STOPS, TERMINALS, INTERMODAL | 434,990 | - | 454,245 | - | 412,312 | 9,740 | 61,221 | - | 454,245 | - |
| 30 | SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | - | - | - | - | - | - | - | - | - | - |
| 40 | SITework & SPECIAL CONDITIONS | 553,282 | - | 579,986 | 998 | 562,739 | 3,188 | 362,181 | - | 578,986 | (1,000) |
| 50 | SYSTEMS | 81,457 | - | 83,025 | - | 69,958 | 180 | 8,175 | - | 83,025 | - |
| CONSTRUCTION SUBTOTAL (10-50) | | 1,416,169 | - | 1,438,959 | 2,055 | 1,354,048 | 14,290 | 516,750 | - | 1,437,959 | (1,000) |
| 60 | ROW, LAND, EXISTING IMPROVEMENTS | 426,396 | - | 426,396 | - | 285,525 | 50 | 239,785 | - | 430,075 | 3,678 |
| 70 | VEHICLES | 42,000 | - | 42,000 | - | - | - | - | - | 42,000 | - |
| 80 | PROFESSIONAL SERVICES | 374,878 | - | 388,042 | (34) | 261,380 | 5,006 | 222,459 | - | 388,042 | - |
| SUBTOTAL (10-80) | | 2,259,444 | - | 2,295,397 | 2,021 | 1,900,952 | 19,346 | 978,995 | - | 2,298,075 | 2,678 |
| 90 | UNALLOCATED CONTINGENCY | 177,176 | - | 141,223 | - | - | - | - | - | 138,545 | (2,678) |
| 100 | FINANCE CHARGES | 88,695 | - | 88,695 | - | - | - | - | - | 88,695 | - |
| TOTAL PROJECT 865522 (FFGA & NON-FFGA CONCURRENT ACTIVITIES) | | 2,525,314 | - | 2,525,314 | 2,021 | 1,900,952 | 19,346 | 978,995 | - | 2,525,314 | - |
| ENVIRONMENTAL/PLANNING 465522 | | 4,349 | - | 4,349 | - | 3,957 | - | 3,377 | - | 4,349 | - |
| TOTAL PROJECT 465522 (ENV / PLAN'G) | | 4,349 | - | 4,349 | - | 3,957 | - | 3,377 | - | 4,349 | - |
| TOTAL PROJECTS 465522 & 865522 | | 2,529,664 | - | 2,529,664 | 2,021 | 1,904,909 | 19,346 | 982,372 | - | 2,529,664 | - |

Original Budget

Original Budget of \$2.5 billion 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

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

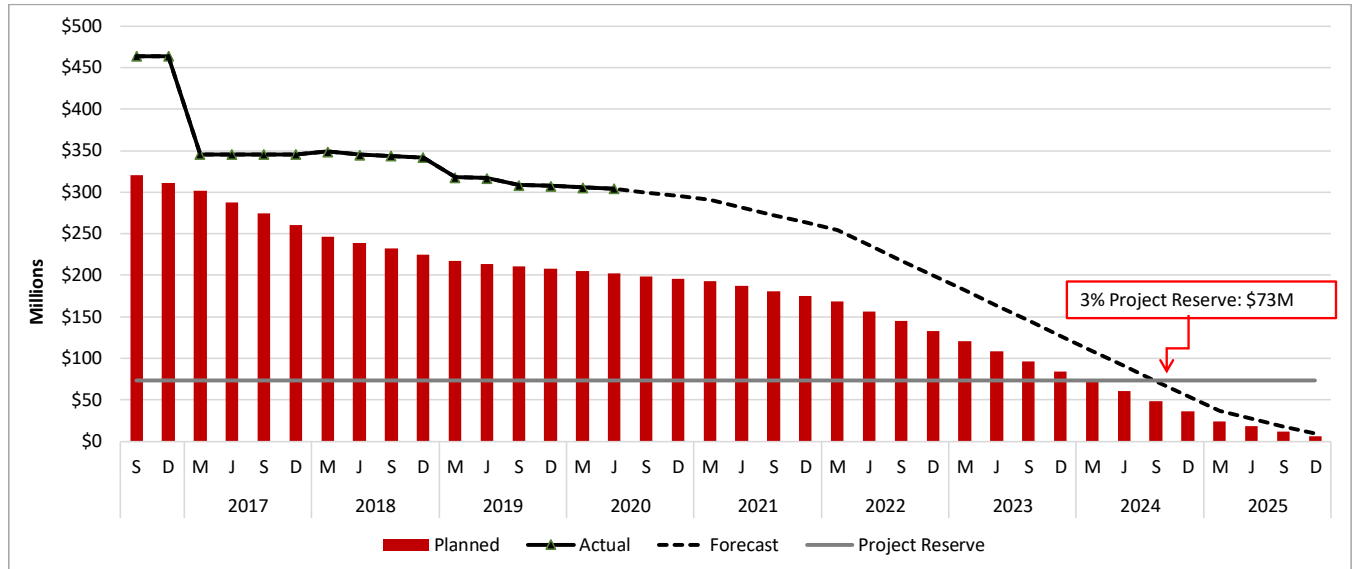
Commitments

The Commitments increased this period by \$2.0 million due to executed Contract Modifications for the Design/Build Contract C1120, executed Work Orders for Third Party Private Utilities, and a Task Order for Environmental Services. The \$1.9 billion in Commitments to date represent 75.3% of the Current Budget.

Expenditures

The Expenditures increased this period by \$19.3 million primarily for costs associated with Design/Build Contract C1120, Third Party Private Utilities, Environmental Services, Real Estate Acquisitions, Metro Project Administration, Engineering Management Support Services, Construction Management Support Services, Quality Management Services, Legal Services, City of Los Angeles Master Cooperative Agreement, and Memorandum of Agreement with the City of Beverly Hills. The \$982.4 million in Expenditures to date represent 38.8% of the Current Budget.

Cost Contingency Drawdown



Cost Contingency Drawdown Analysis

The Original 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 a 2025 Forecast Revenue Service Date (RSD).

The allocated contingency decreased this period by \$1.0 million due to executed Contract Modifications for the Design/Build Contract C1120.

| PROJECT COST CONTINGENCY | | | | | |
|--------------------------|-----------------------------------|-----------------|----------------|-----------------|----------------------------------|
| DOLLARS IN THOUSANDS | | | | | |
| | Original Contingency (LOP Budget) | Previous Period | Current Period | To-Date | Remaining Contingency (Forecast) |
| Unallocated Contingency | 177,176 | (38,632) | - | (38,632) | 138,545 |
| Allocated Contingency | 168,534 | (1,735) | (1,023) | (2,758) | 165,775 |
| Total Contingency | 345,710 | (40,367) | (1,023) | (41,390) | 304,320 |

Risk Management

Summary of Risks

During the quarterly risk register meeting that occurred on April 3, 2020 for the previous quarter, one (1) new risk was identified and one (1) risk was closed. There is a total of sixty-seven (67) risks to be managed in the next quarter.

New Risk Identified:

| Risk ID | Risk Description | SCC | Risk Score |
|----------|--------------------------|-----|------------|
| PLE2-136 | COVID-19 Pandemic Impact | 90 | 20.0 |

Closed Risk:

| Risk ID | Risk Description | SCC | Risk Score |
|----------|---|-----|------------|
| PLE2-128 | Potential for rejected Pilot Car for weight restrictions may impact execution of Option | 70 | 4.0 |

Of the sixty-seven (67) risks, seven (7) are scored as high, twenty-two (22) are scored as medium and thirty-eight (38) as low.

The Project Risk Register will continue to be updated quarterly.

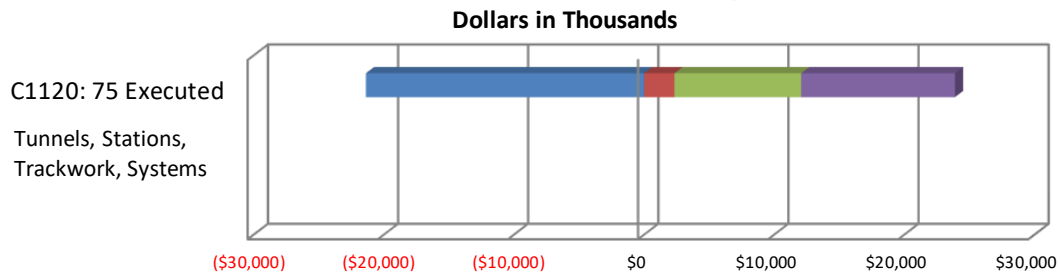
Top Five Risks

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

| Risk ID | Risk Description | Risk Score | Action Items |
|----------|--|------------|---|
| PLE2-136 | COVID-19 Pandemic Impact | 20.0 | 1) Evaluate the guidelines from State and local Government. 2) Put contingency plans in place. |
| PLE2-54 | Turnover of remaining property to DB contractor is delayed beyond the need dates in the Contractor's current schedule. | 15.0 | 1. Metro to complete property acquisition before the need date. 2. Building demolition to be part of DB contract. DB Contractor to start work as early as possible. 3. Task force to be created to look into issue. Look at utilities and identify potential opportunities, e.g., area(s) where contractor can work given partial access to site. |
| PLE2-95 | Magnetic anomalies discovered in tunnel alignment. | 14.0 | 1. Complete HDD study per approved plan. 2. Additional Investigations are required to determine the exact location and nature of the three (3) anomalies. 3. If the anomalies are proven to be well casings, follow MMRP Con-53. |
| PLE2-6 | Valuation of properties exceed budget. | 12.0 | 1. Current project schedule accounts for additional time required for condemnation. |
| PLE2-70 | Public protest to the Project causes delays. | 12.0 | 1. Continue working collaboratively with the COLA and COBH communities. |

Summary of Contract Modifications

Contract Modifications (MODs) by Cost Level



| | C1120: 75 Executed |
|------------------------------|---------------------------|
| ■ Under \$100K | (21,381) |
| ■ \$100K to \$250K | 2,329 |
| ■ \$250K to \$1M | 9,747 |
| ■ Over \$1M | 11,819 |
| Total Contract MODs | 2,514 |
| Contract Award Amount | 1,376,500 |
| % of Contract MODs | 0.18% |

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

Seventy-five (75) Contract Modifications (MODS) with a total value of \$2.5 million have been executed since the award of C1120 Contract – Tunnels, Stations, Trackwork and Systems.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

As of April 2020:

| | |
|---|-------------------|
| DBE Goal – Design The percentage of funds apportioned to Design Contracts | 25.31% |
| Current DBE Commitment Design Total DBE Committed Dollars divided by Total Contract Value for Design | \$16.9M 27.49% |
| Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime | \$18.2M 32.80% |

Twenty (20) Design DBE sub-consultants have been identified to date.

| | |
|--|--------------------|
| DBE Goal – Construction The percentage of funds apportioned to Construction Contracts | 17.00% |
| Current DBE Commitment Construction Contract commitment divided by current contract value for Construction | \$132.0M 10.10% |
| Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime | \$50.1M 10.94% |

Thirty-Six (36) Construction DBE sub-contractors have been identified to date.

PROJECT LABOR AGREEMENTS (PLA)

As of April 2020:

| | |
|---|--------|
| Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Area in the United States | 40.00% |
| Targeted Worker Current Attainment | 43.86% |
| Apprentice Worker Goal Construction work to be performed by Apprentices | 20.00% |
| Apprentice Worker Current Attainment | 15.16% |
| Disadvantaged Worker Goal Construction work to be performed by disadvantaged workers | 10.00% |
| Disadvantaged Worker Current Attainment | 2.05% |

FINANCIAL/GRANT

Status of Funds by Source

| SOURCE | (A) | (B) | (C) | (D) | (D/B) | (E) | (E/B) | (F) | (F/B) |
|-----------------------------------|--------------------|-------------------------------|-----------------------------|--------------------|--------------|--------------------|--------------|-----------------------------------|--------------|
| | ORIGINAL BUDGET | TOTAL FUNDS ANTICIPATED | TOTAL FUNDS AVAILABLE | COMMITMENTS \$ | % | EXPENDITURES \$ | % | BILLED TO FUNDING SOURCE \$ | % |
| FEDERAL - SECTION 5309 NEW STARTS | \$1,187.000 | \$1,187.000 | \$400.000 | \$1,055.995 | 89% | \$356.803 | 30% | \$352.118 | 30% |
| FEDERAL CMAQ | \$169.000 | \$169.000 | \$169.000 | \$126.133 | 75% | \$126.133 | 75% | \$126.133 | 75% |
| MEASURE R - TIFIA LOAN | \$307.000 | \$307.000 | \$307.000 | \$307.000 | 100% | \$307.000 | 100% | \$307.000 | 100% |
| MEASURE R 35% | \$811.902 | \$811.902 | \$206.783 | \$361.019 | 44% | \$137.674 | 17% | \$122.051 | 15% |
| STATE CAPITAL PROJECT LOANS | \$54.762 | \$54.762 | \$54.762 | \$54.762 | 100% | \$54.762 | 100% | \$54.762 | 100% |
| TOTAL | \$2,529.664 | \$2,529.664 | \$1,137.545 | \$1,904.909 | 75.3% | \$982.372 | 38.8% | \$962.064 | 38.0% |

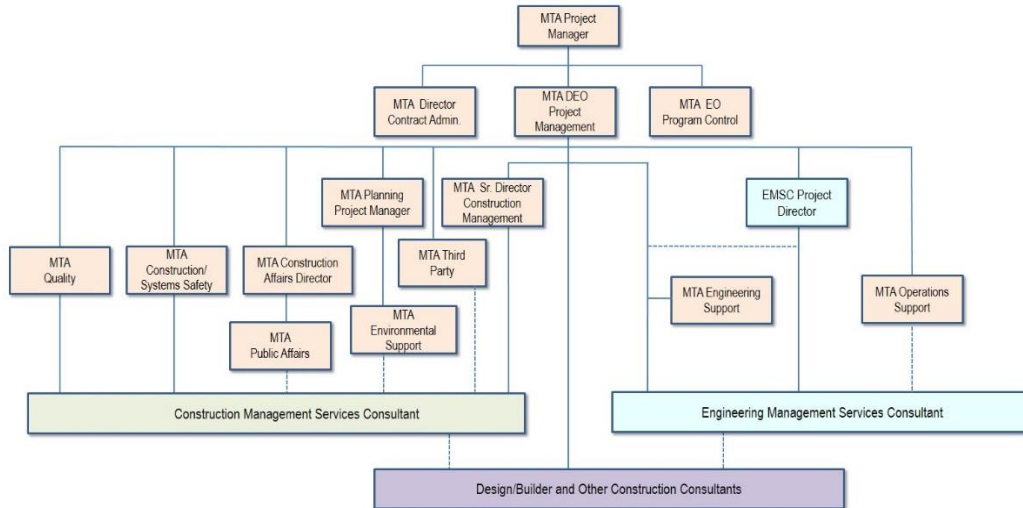
EXPENDITURES ARE CUMULATIVE THROUGH MAY 31, 2020

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).

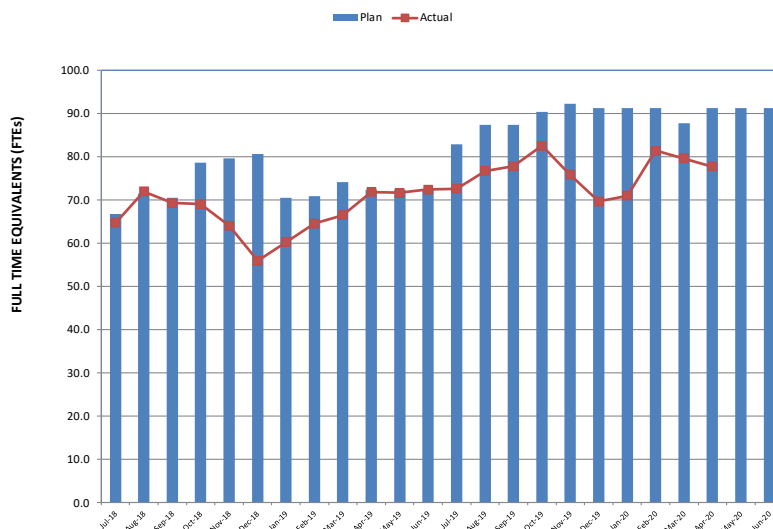
**Westside Purple Line Extension Section 2
 Responsibility and Reporting Matrix**



The overall FY20 Total Project Staffing Plan averages 89.6 FTEs per month.

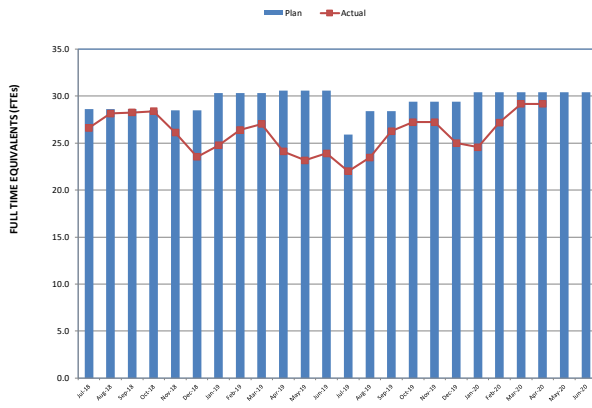
For April 2020, there were a total of 29.2 FTEs for MTA's Project Administration Staff and 47.5 FTEs for Consulting Staff. The total project staffing for April 2020 was 76.7 FTEs. Review of staffing plans is on-going to ensure staffing needs are appropriately managed.*

Total Project Staffing – Metro and Consultants

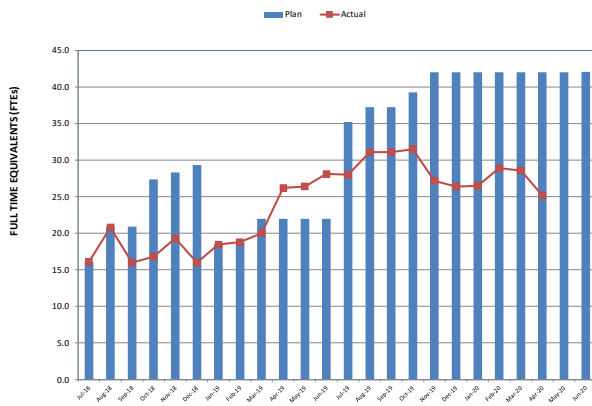


**Actuals include 4.3 FTEs related to Project Management Support Services (PMSS)*

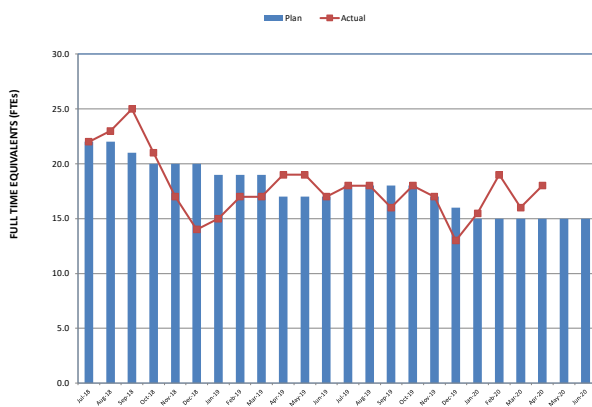
Metro Staff



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 | 3 | 3 | 2 | 0 | 0 | 0 | 2 |
| TCE | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 3 |
| SSE | 23 | 23 | 23 | 23 | 15 | 9 | 3 | 3 | 15 |
| Permanent Easements | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Parcels | 33 | 33 | 32 | 32 | 20 | 12 | 25 | 25 | 23 |

- TPOG has possession of the former ACE Gallery property for 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.
- TPOG gained possession of the Wilshire/Rodeo Station footprint after completion of third party utility relocations on October 18, 2018.
- TPOG gained possession of W-3604 and W-3604-1 (AT&T) on March 20, 2019.
- Settlement agreement reached for W-3603 (Gillis) for loss of goodwill.
- TPOG gained site access to Parcel W-3901 located on the Southeast corner of Constellation Boulevard and Century Park West 10250 Constellation Boulevard on September 27, 2019.
- The acquisition for Parcel W-3604 (Pacific Bell) was completed on November 21, 2019.
- Settlement agreement reached for Subsurface Easement Parcel W-3402 (GCIP Holdings II, LLC).

QUALITY ASSURANCE

- *Attended weekly Project construction progress meetings.*
- *Reviewed TPOG and Metro Daily Inspection Reports at various job locations; Twining Independent test laboratory Reports; and Invoices for the work performed by Ninyo and Moore, and PQM. Contributed to the development and implementation of Metro Quality Management Oversight Program.*
- *Chaired weekly quality meetings with TPOG Quality Manager for the status, and corrective actions, and close out documents for NCRs issued by TPOG and Metro have been implemented in compliance with approved documentation; quality control results for the current works, coordination of Metro Laboratory verification for the materials testing and special processes assessments.*
- *Reviewed the following with a disposition for record only, approved, or approved as noted:*
 - *Structural Concrete Mix Design Soldier Piles 4000, 2500 psi Project Wide*
 - *Special Liner Demonstration Ring Observation Report Project Wide*
 - *Welders Qualifications TPOG Project Wide*

ENVIRONMENTAL

- *Archeological/Paleontological monitoring for excavation activities at Wilshire/Rodeo Station is on-going.*
- *Completed abatement for oil lines uncovered at TBM launch box in Century City.*
- *Issued NCR to address issues with SWPPP requirements.*
- Participated in various Project coordination meetings and evaluated progress and schedules for environmental compliance and sustainability efforts.
- *Provided environmental awareness training as needed.*
- Conducted field environmental monitoring and spot check inspections for construction noise and vibration, stormwater and fugitive dust BMPs, and Metro's Green Construction Policy.
- Reviewed and provided responses to various contractor submittals and requests for information related to environmental matters.
- Archeological/Paleontological monitoring at the access shaft is on hold until excavation resumes.

CONSTRUCTION AND COMMUNITY RELATIONS

- Extensive outreach at community meetings and events including distribution of notices door to door, digital and direct emails and paid advertising. Limited to online outreach efforts only during COVID19 restrictions.
- Participated in the following online meetings: Construction Management Weekly meetings, Construction Relations weekly meetings, Third Party Coordination, LADOT coordination, BOE and BSS coordination, LADWP review meeting, Wilshire/Rodeo Station and Century City Constellation Station Construction Coordination weekly meetings.
- *Produced and distributed four (4) construction work notices including accelerated work updates in Beverly Hills and Century City and monthly look ahead notices for Century City and Beverly Hills.*
- *Conducted monthly project presentations on webinars for community and business stakeholders construction update meetings in Beverly Hills and Century City.*
- Continued efforts for Eat Shop Play and Business Interruption Fund in Century City and Beverly Hills. Updated Facebook/Twitter and website as needed.

CREATIVE SERVICES

- *Participation in Architecture Task Force Meetings*
- Conducted fabrication and materials research.
- Conducted outreach and coordination with area stakeholders.
- Artist selection research and preparation.

SAFETY & SECURITY

- *Tutor Perini-O&G (TPOG) reported one (1) Recordable Injuries in May 2020.*
- Metro Safety staff attended daily tool box meetings, weekly crew all hand safety meeting, progress meetings, readiness reviews, and other project meetings to evaluate Contractor's Safety Program compliance with contract requirements.
- Metro and TPOG Project safety staff conducted schedule, safety/security and over-the-shoulder review meetings.
- Safety staff worked with Program Management and Construction Relations staff to monitor issues related to public concerns regarding noise, traffic and public/construction interfaces as well as public interactions with the construction crews.
- Metro project safety staff conducted project Safety Orientation, SCSR and H2S Safety Training for new Metro/Consultants and IPMO project staff.
- *Hosted the Monthly All Hands Safety/Security Meeting Contractors on May 29, 2020.*
- Metro project safety staff conducted right-of-way (ROW) and Safety/Security walks, Safety/Security reviews and coordination with TPOG staff for oversight and support of all project field work activities.
- *TPOG-JV reported 67,030 actual work hours through May 2020.*
- *TPOG Project to Date Work Hours are 1,291,722 with seven (7) Recordable Injuries and two (2) Day's Away from Work Injuries.*
- *The Recordable Injury Rate is 1.08.* The Bureau of Labor Statistics reports the National Average Recordable Injury Rate is 2.5.

APPENDIX CHRONOLOGY OF EVENTS

| | |
|----------------|--|
| January 2011 | FTA approval to enter Preliminary Engineering |
| August 2012 | FTA Record of Decision |
| December 2014 | FTA approval to enter 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 to 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 |
| September 2018 | Full street closure of Constellation Blvd. commenced |
| September 2018 | Delivery of tunnel boring machines (TBMs) commenced |
| October 2018 | Piling installation commenced at launch box in Century City |
| October 2018 | Granted Wilshire/Rodeo Station footprint right-of-way (ROW) access to TPOG |
| December 2018 | Completed all civil work for third parties at Century City Constellation Station |
| December 2018 | Demolition of former Ace Gallery completed |
| January 2019 | Completed soldier pile installation for the TBM launch box at the eastern end of the Century City Constellation Station |
| January 2019 | Metro Board Approves City of Beverly Hills MOA for C1120 Contract |
| February 2019 | City of Beverly Hills City Council Approves MOA for C1120 Contract |
| March 2019 | Start of installation of deck beams for the TBM launch box |
| May 2019 | Completed soldier pile installation for Tunnel Access Shaft in Century City |
| June 2019 | TBM Unveiling Event |
| June 2019 | Full Street Closure of Constellation Blvd. Extension Granted |
| August 2019 | Completed Construction of Santa Monica Boulevard Bus Layover in Century City |
| September 2019 | Metro’s request to lift the holiday moratorium for construction activities in Beverly Hills was rejected by the City Council |
| October 2019 | Piling installation commenced for the Wilshire/Rodeo Station box. |
| November 2019 | Poured invert slab at TBM launch box in Century City. |

| | |
|-----------------|---|
| December 2019 | An Additional 7-Month Full Street Closure of Constellation Blvd. was Granted by Los Angeles Board of Public Works. |
| December 2019 | Started TBM Assembly. |
| December 2019 | Motion for prejudgment possession for SSE under Beverly Hill High School was granted. |
| January 2020 | Piling activities resumed at Wilshire/Rodeo Station after the holiday moratorium. |
| March 2020 | LADWP completed 4.8kv system cabling pulling and splicing, along with the remaining cable removals at Century City Constellation Station. |
| March 2020 | Beverly Hills City Council approved a full street closure of Wilshire Boulevard (between Beverly Drive and Crescent Drive) for the duration of the "Safer at Home" orders due to the COVID-19 Pandemic. |
| April 2020 | Began tunneling operations of the BL Tunnel. |
| April 2020 | Completed implementation of the Wilshire Boulevard closure (between Beverly Drive and Crescent Drive) for the duration of the "Safer at Home" orders due to the COVID-19 Pandemic. |
| <i>May 2020</i> | <i>Completed station box and entrance piling activities at Wilshire/Rodeo Station.</i> |

