

Westside Purple Line Extension Section 1 Project



Metro

Westside Purple Line Extension Section 1 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).

April 2019

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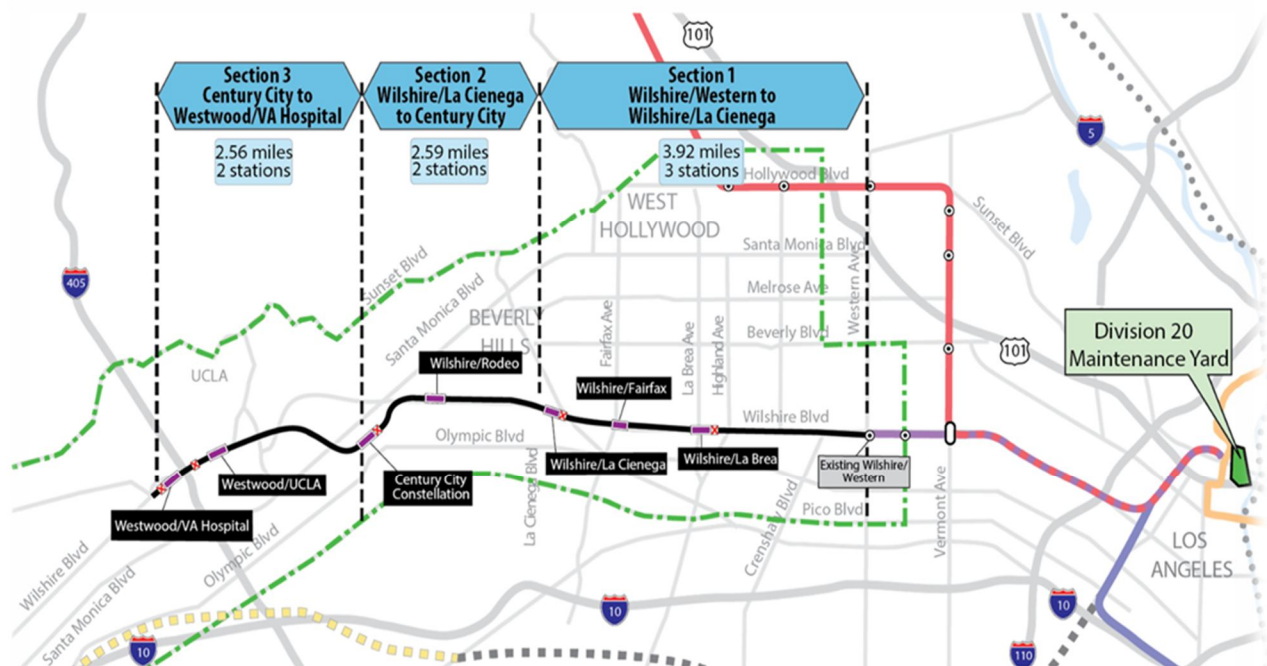
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PROJECT OVERVIEW

Project Background

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (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 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.



The Wilshire/La Brea Station box will be located under the center of Wilshire Boulevard in between Detroit Street and Orange Drive. A double crossover will be located east of the station box. The station entrance will be on the northwest corner of Wilshire Boulevard and La Brea Avenue.

The Wilshire/Fairfax Station box will be located under the center of Wilshire Boulevard west of Fairfax Avenue to west of Ogden Drive. The station entrance will be on the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

The Wilshire/La Cienega Station box will be located under the center of Wilshire Boulevard immediately east of La Cienega Boulevard. A double crossover will be located east of the station box. The station entrance will be on the northeast corner of Wilshire Boulevard and La Cienega Boulevard. Since the station will be the terminus station for Section 1, tail tracks will be located west of the station box.

Major Procurements

Contract C1034 – Wilshire/Fairfax Exploratory Shaft

Metro constructed an exploratory shaft to observe ground conditions prior to the award of Contract C1045. The location of the exploratory shaft was adjacent to the future Wilshire/Fairfax Station. The construction of the shaft included furnishing and installing monitoring instruments, ventilation, and record and report instrumentation data during the excavation of the shaft. After construction of the shaft, the shaft was maintained for an observation period. Afterwards, the shaft was dismantled and the site backfilled in a condition acceptable to the property owner. The contract was substantially completed on October 31, 2014.

Contract C1048 – Wilshire/La Brea Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power, water utilities and a sewer line within the construction limits of the Wilshire/La Brea Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with the utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 27, 2014.

Contract C1055 – Wilshire/Fairfax Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power and water utilities within the construction limits of the Wilshire/Fairfax Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 7, 2015.

Contract C1056 – Wilshire/La Cienega Advanced Utility Relocations

The work scope of this contract included the relocation of existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La

Cienega Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews during cut-over of the existing utilities. The contract was substantially completed on August 5, 2016.

Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

The procurement of this contract utilizes 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 3.92-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 finish work. A retrieval shaft will be constructed to the west of the existing Wilshire/Western Station for extraction of the tunnel boring machines. Three underground stations are to be constructed, two with double-crossovers, and the terminus station to include tail tracks. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work includes all architectural finishes, mechanical, electrical, systems and equipment including train control, traction power, communications, trackwork and the system tie-in to the existing Metro Purple Line, testing and commissioning.

Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building
Location 64

The Design/Build contract provides for final design and construction of a new Maintenance-Of-Way (MOW) stores and Non-Revenue Vehicle (NRV) building at the south end of the existing Division 20 Yard (Location 64). The displacement of the existing MOW stores building and NRV facility are due to the proposed turn-back facility site in the yard.

Metro Furnished Equipment

Metro has procured a contract to provide 34 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 1 Project is being managed under the direction of an Integrated Project Management Office (IPMO). WSP provides engineering and design support services, while the Westside Extension Support Team (WEST) provides construction management support services. An overview of staffing is provided under the Staffing section of this report. The on-site program management team is also supported by Metro Headquarters resources to include, but not limited to, engineering, risk management, environmental, quality management, operations and creative services departments.

Project Schedule and Budget: The Revenue Service Date (RSD) is planned for 2023.

The Original Budget of \$3.2 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of \$0.4 billion. The Current Budget and Current Forecast remains the same this period at \$3.2 billion. 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 Section 5339 Alternative Analysis
- Measure R – TIFIA Loan (Transportation Infrastructure Finance & Innovation Act)
- Measure R 35%
- State STIP RIP
- CMAQ (Congestion Mitigation & Air Quality)
- State Capital Project Loans
- City of Los Angeles

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.

The Project is also engaged in social media outreach and various marketing and advertising efforts designed 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; as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; equipment “burned-in”; and training of Metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

EXECUTIVE SUMMARY

In March, the Project achieved 48.0% completion based on earned value measurements for design and construction. The critical path of the project remains with Wilshire/La Cienega Station excavation and structural concrete activities. Excavation at the Wilshire/La Cienega Station is anticipated to complete in August 2019. The C1045 Design/Build Contract is on schedule to complete by the June 15, 2023, contract completion date, and the forecast Revenue Service Date (RSD) for the Project remains targeted for 2023.

Design Status

The C1045 Contractor, Skanska, Traylor and Shea (STS), and their final design team, Parsons Transportation Group (PTG), completed final design in June 2017.

For the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078), all Design Unit (DU) packages have been approved by Metro.

The Engineering Management Services (EMS) team continues to provide design support services during construction to both design/build contracts.

Construction Status

At the Wilshire/Western TBM retrieval site, preparation for TBM arrival in June 2019 continues with framing installation for tunnel eyes and gantry crane installation. Maintenance of sump and dewatering pumps is on-going.

As of April 30, 2019, TBM #1 has excavated 7,433 feet, or 77% of the Reach One (1) alignment, and TBM #2 has excavated 6,503 feet, or 67% of the Reach One (1) alignment. The Reach One (1) alignment runs from Wilshire/La Brea Station to the Wilshire/Western TBM retrieval site.

Rebar, embedded conduit and pipe sleeve installation at the Wilshire/La Brea Station concourse slab continues with the first placement of concrete scheduled in May 2019. Tunnel segments continue to be received, inspected and stockpiled at the Wilshire/La Brea Station yard.

HDPE installation and protection slab placement are on-going concurrently at the Wilshire/Fairfax Station. The installation of rebar is scheduled to commence in May 2019.

At the Wilshire/La Cienega Station, Level D strut installation has commenced. Installation of additional dewatering wells continues. Bottom of excavation is anticipated to be reached in August 2019. Maintenance of surface aesthetics per the COBH MOA is ongoing.

For the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64, Substantial Completion (building occupancy) for the C1078 contract is scheduled for May 1, 2019. A final punch list was developed and is currently being worked on by the contractor. The process of moving Metro staff into the new building has commenced.

Cost and Schedule Summary

For the C1045 Design/Build contract, Metro has received the April 2019 schedule update, but has returned the monthly schedule submittal to the contractor with the response of “Revise and Resubmit.” The latest approved schedule update (March 2019) reports that Substantial Completion is on schedule to finish by the June 15, 2023 contract completion date.

The critical path of the project remains Wilshire/La Cienega Station excavation and structural concrete activities, followed by traction power installation at Wilshire/La Cienega Station, testing and pre-revenue operations. A summary graphic of the critical path is found on Page 13.

C1045 Design-Build Contract Schedule Metrics

| | Original Contract Date/Duration | Time Extension (CD) | Current Contract Schedule | Forecast (Metro PMS) | Variance CD (Trending) |
|------------------------|--|----------------------------|----------------------------------|-----------------------------|-------------------------------|
| NTP | 01/12/2015 | | | | |
| Substantial Completion | 06/9/23 | 6 | 06/15/23 | 06/15/23 | 0 days |

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 \$3.2 billion. There are no claims on the Project. Detailed cost and budget information is provided on Page 16.

Key Management Concerns

No concerns to report at this time.

Project Construction Photos



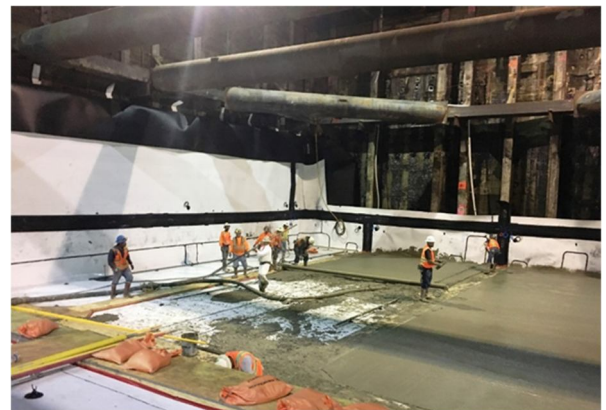
Delivery of Gantry Crane at Wilshire/Western



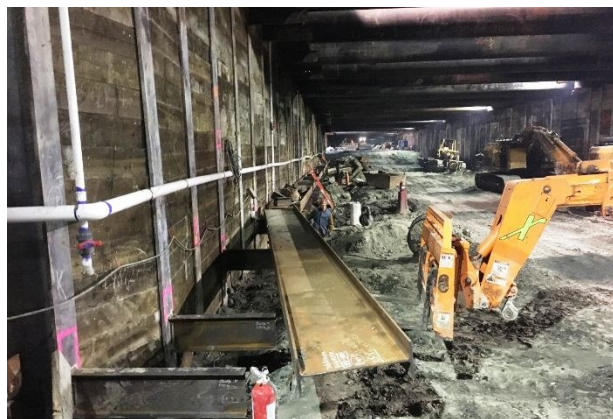
Division 20 MOW/NRV Building Location 64



Wilshire/La Brea Station Conduit Installation



Protection Slab Placement at Wilshire/Fairfax Station



Level D Waler Installation at Wilshire/La Cienega Station

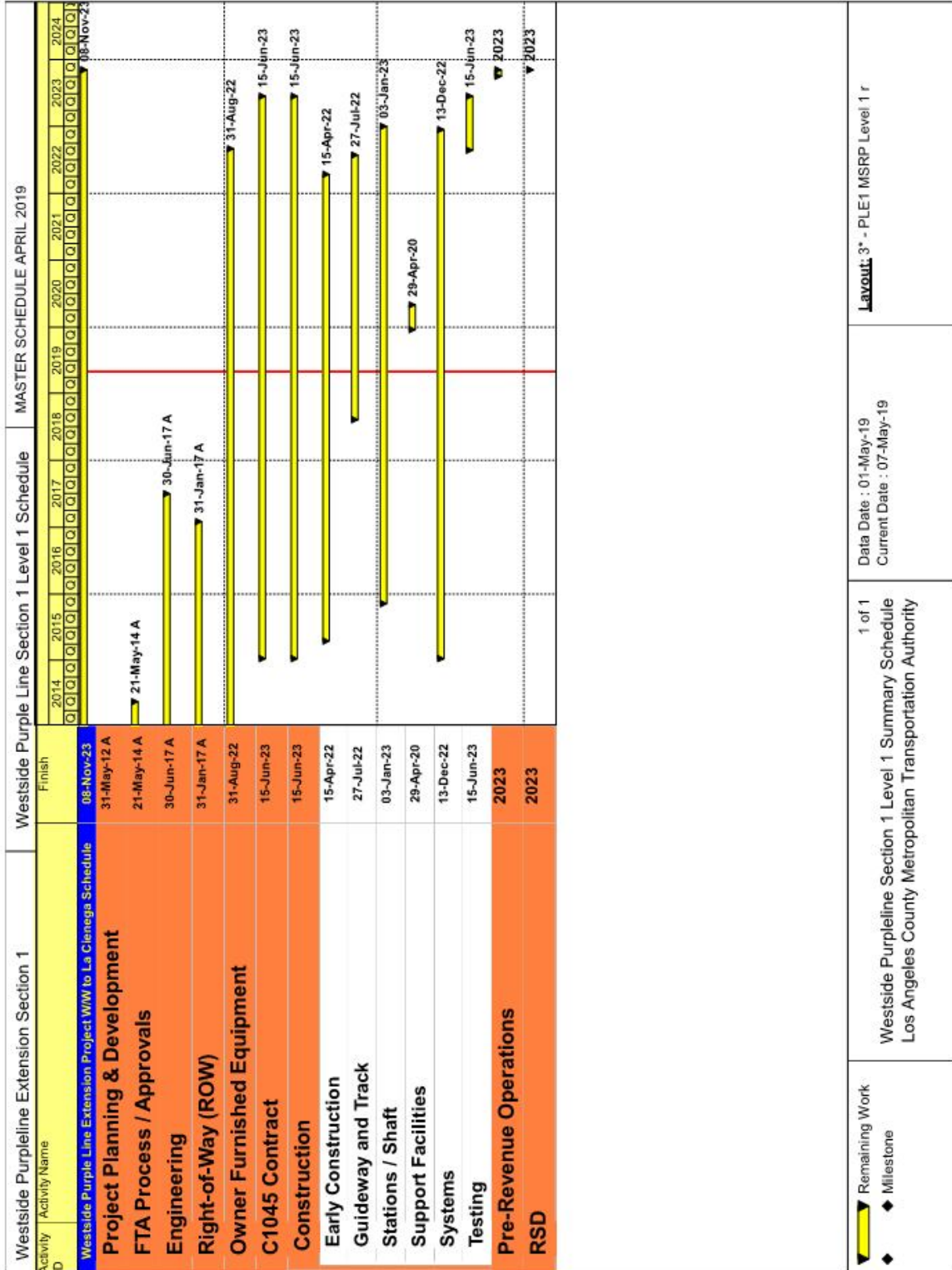


View of Reach 1 Tunnel Lining

PROJECT STATUS

PROJECT SCHEDULE

Project Summary Schedule

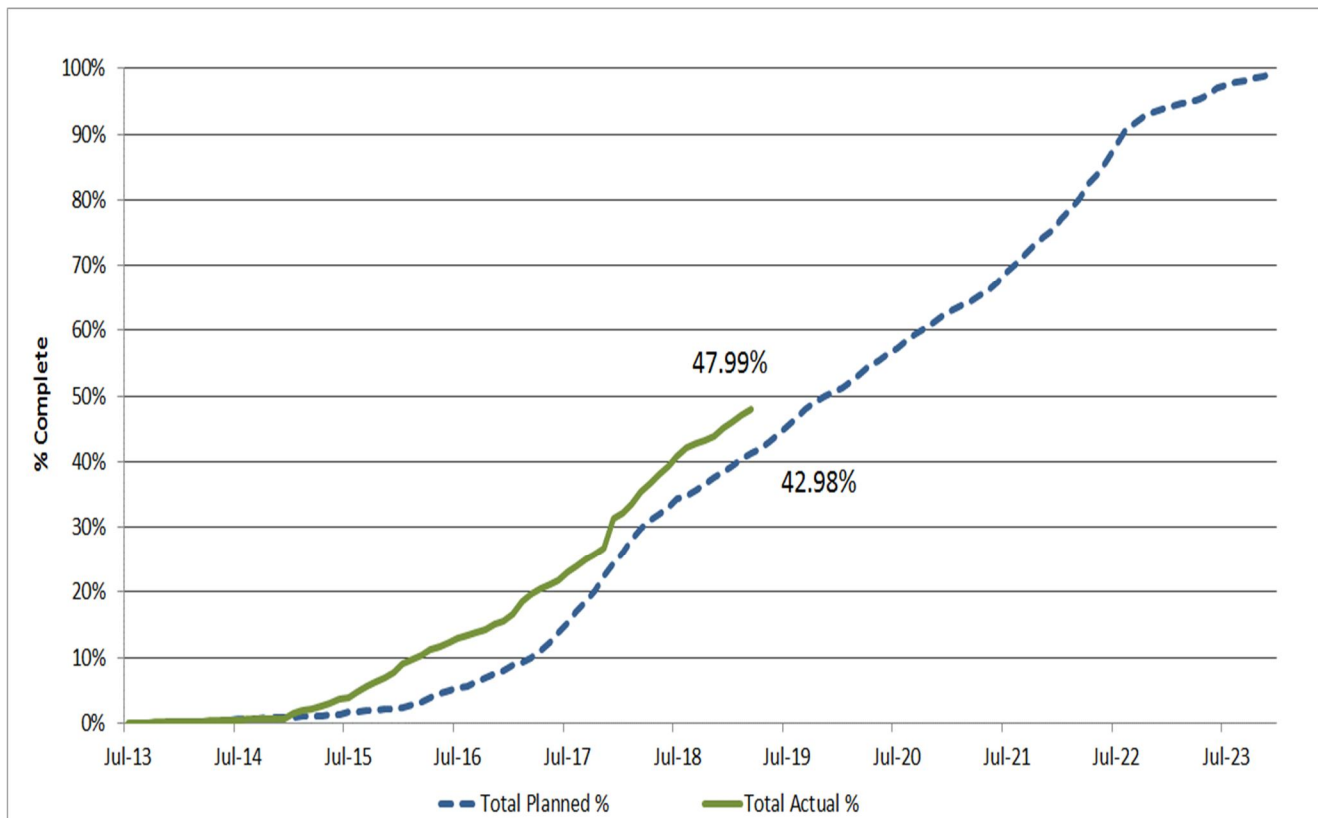


Progress Summary

| | Status | Change from Last Period | Comment |
|---|------------|-------------------------|-----------------------|
| Forecast Revenue Service | 2023 | | |
| TIFIA Revenue Service | 10/31/2024 | None | |
| FFGA Revenue Service | 10/31/2024 | None | |
| Final Design Progress: | | | |
| Contract C1045 | 100.0% | 0% | |
| Contract C1078 | 99.1% | 0.8% | |
| Construction Contracts Progress: | | | |
| Contract C1048 | 100.0% | 0.0% | Completed on Schedule |
| Contract C1045 | 44.2% | 0.9% | |
| Contract C1055 | 100.0% | 0.0% | Completed on Schedule |
| Contract C1056 | 100.0% | 0.0% | Completed on Schedule |
| Contract C1078 | 96.3% | 0.3% | |

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

Planned vs. Actual Progress



Key Milestone Six-Month Look Ahead

| | Milestone Date | Apr-19 | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 |
|--|----------------|--------|--------|--------|--------|--------|--------|
| Commenced Fabrication of Ventilation Fans | 4/1/19 A | ⬡ | | | | | |
| Wilshire/Fairfax HDPE Protection Concrete Placement Commenced | 4/16/19 A | ⬡ | | | | | |
| Wilshire/Western Retrieval Shaft: Gantry Crane Deliveries Begin | 05/01/19 | | ⬡ | | | | |
| Contract C1078 (Div 20 MOW Bldg) Achieves Substantial Completion | 05/01/19 | | ⬡ | | | | |
| Level D Waler Installation Begins at Wilshire/La Cienega Station | 05/04/19 | | ⬡ | | | | |
| Wilshire/La Brea Concourse Concrete Placement Begins | 05/20/19 | | ⬡ | | | | |
| TBM #1 Reaches Wilshire/Western Retrieval Shaft | 06/19/19 | | | ⬡ | | | |
| TBM #2 Reaches Wilshire/Western Retrieval Shaft | 07/18/19 | | | | ⬡ | | |
| Wilshire/La Brea HDPE Placement Begins on Lift 2 Walls | 07/22/19 | | | | ⬡ | | |
| Complete Installation of Geotechnical Instrumentation | 07/25/19 | | | | ⬡ | | |
| Reach Bottom of Excavation at Wilshire/La Cienega Station | 08/30/19 | | | | | ⬡ | |
| Commence Reach 1 Cross Passage Work | 09/09/19 | | | | | | ⬡ |

| | | | |
|------------------|--------------------|--|-------------------|
| ◆ MTA Staff | Ⓜ MTA Board Action | ⌘ FTA (Federal Transit Administration) | ▽ Utility Company |
| △ Other Agencies | □ Contractors | ○ Design Consultant | ⬡ D/B Contractor |

"A" following date is actual and completed * New

Major Equipment Delivery

MAJOR EQUIPMENT DELIVERY

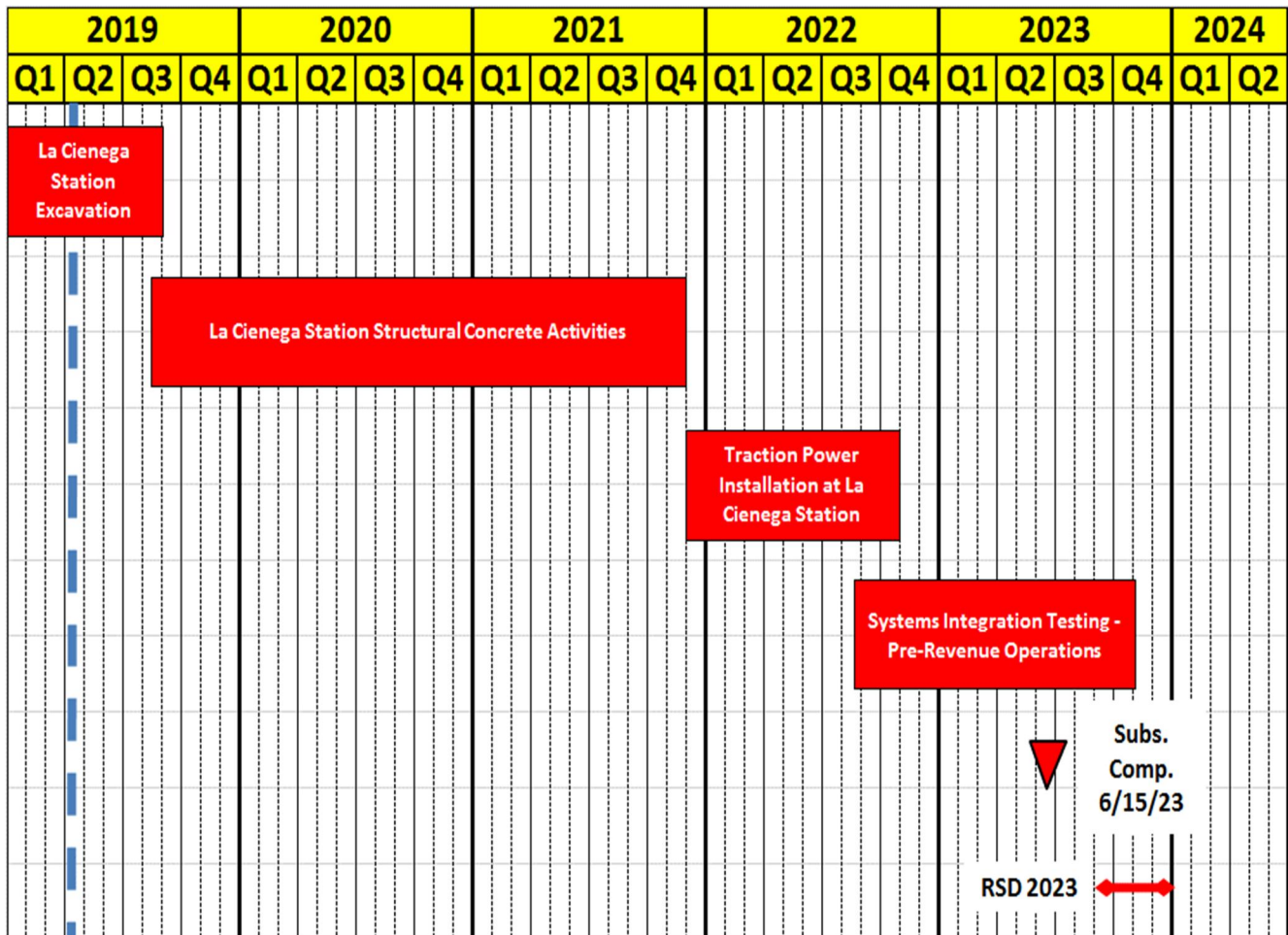
| | Submittal | Procurement | Delivery | Installation |
|---------------------------------|-----------|-------------|-----------|--------------|
| C1045 DESIGN/BUILD* | | | | |
| Tunnel Boring Machine | 1/29/16A | 8/14/2017A | 12/15/17A | 7/13/18A |
| Emergency Ventilation Fans | 11/30/18A | 4/1/19A | 5/19/20 | 5/20/20 |
| Station Elevators | 4/27/18A | 4/27/18A | 7/7/20 | 12/17/21 |
| Station Escalators | 4/27/18A | 7/28/19 | 9/5/20 | 12/17/21 |
| Track - Running Rail | 7/28/19 | 9/6/19 | 5/3/20 | 4/14/21 |
| Traction Power Equipment | 7/26/19 | 10/7/19 | 1/31/20 | 2/12/21 |
| Automatic Train Control | 4/1/16A | 7/1/16A | 12/20/16A | 12/6/21 |
| SCADA RTU System | 2/2/17A | 1/16/18A | 5/18/18A | 9/15/21 |
| Radio System | 2/2/17A | 10/7/19 | 12/4/19 | 10/29/21 |
| | | | | |
| Heavy Rail Vehicles*** | 7/16/15A | 5/1/19 | 8/31/22 | 1/9/23 |
| | | | | |
| Universal Fare System*** | TBD | TBD | TBD | 3/1/22 |
| | | | | |

* Dates derived from STS's April 2019 Updated Schedule.

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

*** Metro supplied equipment

Project Critical Path



For the month of April 2019, the critical path of the project remains with Wilshire/La Cienega Station excavation and structural concrete activities.

Excavation at the Wilshire/La Cienega Station is anticipated to complete in August 2019.

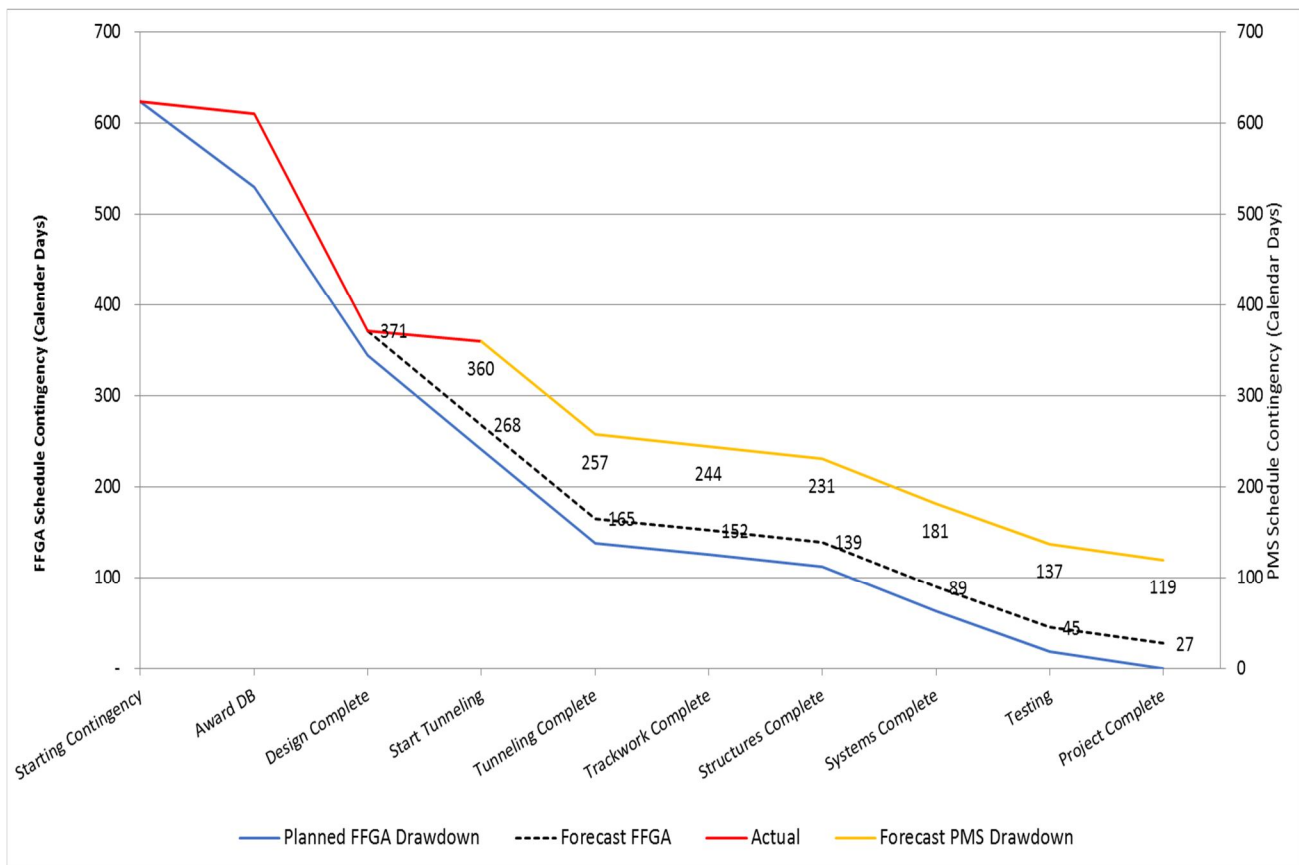
The Revenue Service Date remains in 2023.

Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of October 2024 and Metro’s Project Master Schedule (PMS) forecast of fall 2023.

The introduction of the PMS model axis reflects a proportional distribution of available float relative to the FFGA model. Based on an October 15, 2018 actual start of TBM mining, schedule contingency appears to maintain a noticeable buffer from the FFGA model.

With regards to the FFGA RSD, schedule float of twelve (12) months has been maintained.



Risk Management Narrative

Summary of Risks

The WPLE Section 1 Project Risk Register has been updated through April 2019. Within this quarterly reporting period one (1) new risk was identified and two (2) risks were closed, leaving a total of forty (40) risks to be managed in the next reporting period.

Of the forty (40) risks, four (4) are scored as high, nine (9) as medium and twenty-seven (27) as low.

The next WPLE Section 1 Project Risk Register update is scheduled for July 2019.

Top Five (5) Risks

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

Top Risks

| Risk ID | Risk Description | Risk Score | Action Items |
|---------|--|------------|--|
| 633.0 | Cost of ROW acquisition exceeds the FFGA SCC Line Item. | 15 | 1. Metro's Life of Project Budget includes contingency that covers the increase. The Risk Score will remain as "high" until the \$3.15 billion Life of Project Budget is reconciled with the \$2.82 billion FFGA Budget. 2. FTA has approved the property sale. Escrow on the Gale property has closed. Proceeds from the sale have been reflected in FIS (Financial Information System). 3. Three parcels are in the condemnation phase. 2 settlement proposals have been approved by the MTA Board. Reconciliation remains on going. |
| 675.0 | DBE Participation Goal for Construction. Currently targeted at 17%. | 13 | 1. DB Contractor making good faith efforts to meet DBE goals. |
| 676.0 | Subcontractor ability to get the required resources to perform work. | 13 | 1. Actively manage schedule and resource needs. |
| 677.0 | Resource (Labor) shortage (Direct and Indirect). | 13 | 1. Actively manage schedule and resource needs. |
| 668.1 | Gas may travel into adjacent properties or utilities and result in incident. | 9 | 1. Metro has strict safety requirements in place, which are part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on Geotechnical/Environmental investigations. 2. The Gas Task Force has been reassembled. MOD 72 has been issued to conduct additional gas testing and assessment along Reach 3. 3. Pilot well drilling is underway. Testing is anticipated by end of May with the final report expected in July/August. |

PROJECT COST

Project Cost Analysis – 865518

DOLLARS IN THOUSANDS

| SCC CODE | DESCRIPTION | ORIGINAL BUDGET | CURRENT BUDGET | | COMMITMENTS | | EXPENDITURES | | CURRENT FORECAST | | CURRENT BUDGET / FORECAST VARIANCE |
|--|--|------------------|----------------|------------------|--------------|------------------|---------------|------------------|------------------|------------------|------------------------------------|
| | | | PERIOD | TO DATE | PERIOD | TO DATE | PERIOD | TO DATE | PERIOD | TO DATE | |
| 10 | GUIDEWAY & TRACK ELEMENTS | 388,294 | - | 388,294 | 59 | 386,598 | 9,842 | 184,468 | - | 387,938 | (356) |
| 20 | STATIONS, STOPS, TERMINALS, INTERMODAL | 440,621 | - | 440,621 | - | 468,455 | 662 | 172,462 | - | 489,322 | 48,701 |
| 30 | SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | 43,323 | - | 43,323 | 433 | 42,031 | 1,000 | 40,708 | - | 43,352 | 29 |
| 40 | SITWORK & SPECIAL CONDITIONS | 751,566 | - | 754,491 | 2,384 | 785,937 | 4,524 | 561,683 | - | 814,446 | 59,956 |
| 50 | SYSTEMS | 113,574 | - | 113,574 | - | 101,033 | 680 | 27,767 | - | 115,199 | 1,625 |
| CONSTRUCTION SUBTOTAL (10-50) | | 1,737,378 | - | 1,740,303 | 2,877 | 1,784,054 | 16,707 | 987,088 | - | 1,850,257 | 109,954 |
| 60 | ROW, LAND, EXISTING IMPROVEMENTS | 175,634 | - | 175,634 | - | 202,980 | 1,957 | 182,578 | - | 202,980 | 27,346 |
| 70 | VEHICLES | 160,196 | - | 160,196 | - | 98,118 | 1,307 | 15,914 | - | 108,302 | (51,893) |
| 80 | PROFESSIONAL SERVICES | 412,710 | - | 414,785 | 5,431 | 377,160 | 3,190 | 331,163 | - | 510,504 | 95,719 |
| SUBTOTAL (10-80) | | 2,485,918 | - | 2,490,918 | 8,308 | 2,462,312 | 23,162 | 1,516,744 | - | 2,672,044 | 181,126 |
| 90 | UNALLOCATED CONTINGENCY | 248,592 | - | 248,592 | - | - | - | - | - | 111,871 | (136,721) |
| 100 | FINANCE CHARGES | 375,470 | - | 375,470 | - | - | - | - | - | 331,065 | (44,405) |
| TOTAL PROJECTS 465518 & 865518 (10-100) | | 3,109,980 | - | 3,114,980 | 8,308 | 2,462,312 | 23,162 | 1,516,744 | - | 3,114,980 | - |
| ENVIRONMENTAL/PLANNING - 405518 | | 8,505 | - | 8,505 | - | 8,505 | - | 8,505 | - | 8,505 | - |
| ENVIRONMENTAL/PLANNING - 465518 | | 30,865 | - | 30,865 | - | 30,865 | - | 30,852 | - | 30,865 | - |
| TOTAL PROJECTS 405518 & 465518 (ENV / PLAN'G) | | 39,370 | - | 39,370 | - | 39,370 | - | 39,357 | - | 39,370 | - |
| TOTAL PROJECTS 405518, 465518 & 865518 | | 3,149,350 | - | 3,154,350 | 8,308 | 2,501,682 | 23,162 | 1,556,101 | - | 3,154,350 | - |

Original Budget:

The Original Budget of \$3.2 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of \$0.4 billion.

Current Budget and Current Forecast:

The Current Budget and Current Forecast remains the same this period at \$3.2 billion.

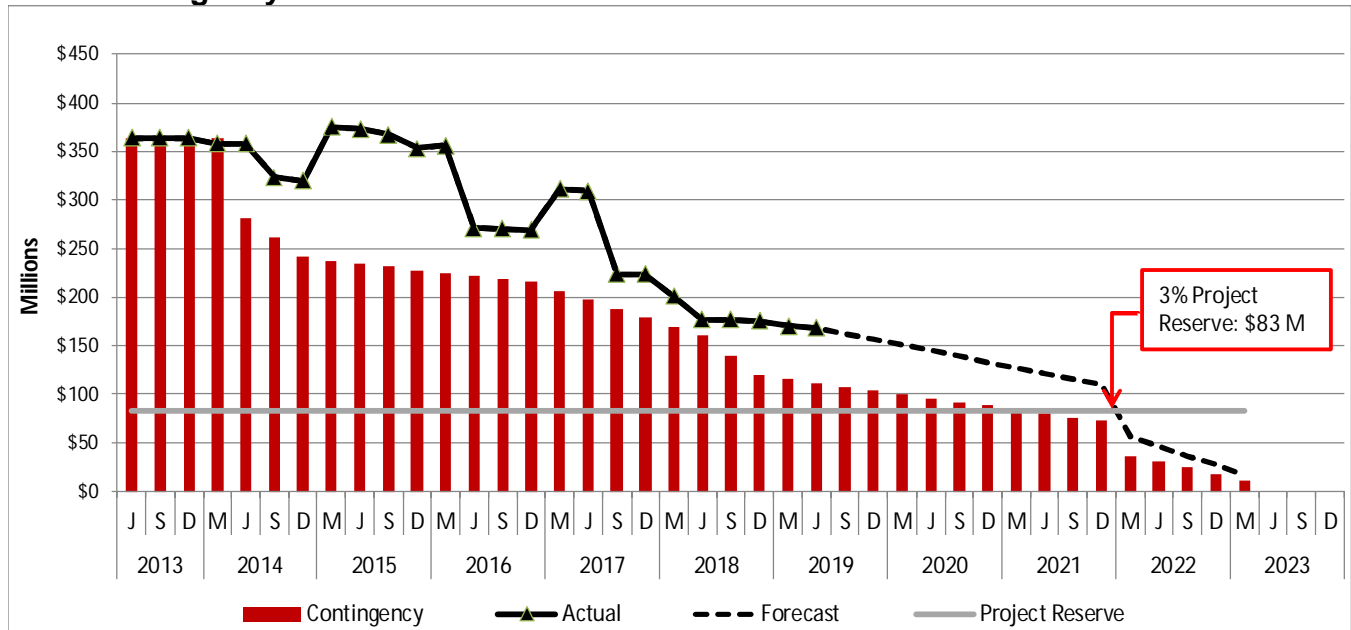
Commitments:

The Commitments increased by \$8.3 million primarily due to executed Contract Modifications for the Design/Build Contracts C1045 & C1078, and for continued services by the Vehicle Consultants, Third Party Utility and Environmental Companies. The \$2.5 billion in Commitments to date represent 79.3% of the Current Budget.

Expenditures

The Expenditures increased by \$23.2 million primarily for costs associated with the Design/Build Contracts C1045 & C1078, Real Estate Acquisitions, Heavy Rail Vehicle Procurement, Engineering Management Support Services, Construction Management Support Services, and Metro Project Administration. The \$1.6 billion in Expenditures to date represent 49.3% of the Current Budget.

Cost Contingency Drawdown



Cost Contingency Drawdown Analysis

The Original Budget of \$3.2 billion (plus Finance Charges of \$0.4 billion) includes a project cost contingency of \$320.6 million or 10.2% of the total project. The project cost contingency of \$320.6 million is based upon the Life of Project (LOP) Budget that was approved by the Board in July 2014. The LOP Budget also included an allocated contingency amount of \$72.0 million. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro where applicable to specific contracts within each Standard Cost Category (SCC).

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

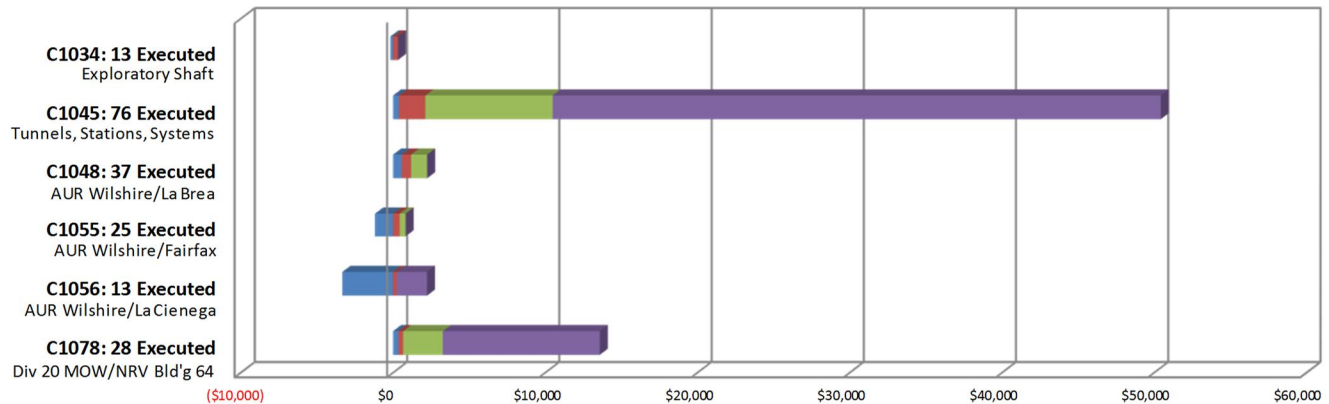
The project cost contingency drawdown curve is based on a fall 2023 Revenue Service date.

The allocated contingency decreased this period by \$1.8 million due to executed Contract Modifications for the Design/Build Contracts C1045 & C1078.

| PROJECT COST CONTINGENCY | | | | | |
|--------------------------|-------------------------------|------------------|----------------|------------------|----------------------------------|
| DOLLARS IN THOUSANDS | | | | | |
| | Original Contingency (Budget) | Previous Period | Current Period | To-Date | Remaining Contingency (Forecast) |
| Unallocated Contingency | 248,592 | (136,721) | - | (136,721) | 111,871 |
| Allocated Contingency | 71,963 | (13,701) | (1,752) | (15,453) | 56,510 |
| Total Contingency | 320,555 | (150,422) | (1,752) | (152,174) | 168,381 |

Summary of Contract Modifications

Contract Modifications (MODs) by Cost Level
 Dollars in Thousands



| | C1034 13 Executed | C1045 76 Executed | C1048 37 Executed | C1055 25 Executed | C1056 13 Executed | C1078 28 Executed | Total |
|------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------|
| Under \$100K | (164) | 390 | 574 | (1,179) | (3,325) | 353 | (3,351) |
| \$100K to \$250K | 321 | 1,739 | 617 | 436 | 245 | 312 | 3,670 |
| \$250K to \$1M | - | 8,355 | 1,051 | 391 | - | 2,605 | 12,402 |
| Over \$1M | - | 39,955 | - | - | 1,983 | 10,309 | 52,247 |
| Total Contract MODs | 157 | 50,438 | 2,242 | (352) | (1,097) | 13,579 | 64,967 |
| Contract Award Amount | 6,487 | 1,636,419 | 6,181 | 14,430 | 20,250 | 52,830 | 1,736,597 |
| % of Contract MODs | 2.4% | 3.1% | 36.3% | -2.4% | -5.4% | 25.7% | 3.7% |

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

Thirteen Contract MODs with a total value of \$0.2 million have been executed since the award of Contract C1034 – Exploratory Shaft Construction by Innovative Construction Solutions (ICS). The contract has been completed and is closed out.

Seventy-six Contract MODs with a total value of \$50.4 million have been executed since the award of Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing by Skanska - Traylor - Shea, a Joint Venture.

Thirty-seven Contract MODs with a total value of \$2.2 million have been executed since the award of Contract C1048 – Advanced Utility Relocations at Wilshire/La Brea by Metro Builders & Engineering Group, LTD. The contract has been completed and is closed out.

Twenty-five Contract MODs with a total value of (\$0.4) million have been executed since the award of Contract C1055 – Advanced Utility Relocations at Wilshire/Fairfax by W. A. Rasic Construction Company, Inc. The contract has been completed and is closed out.

Thirteen Contract MODs with a total value of (\$1.1) million have been executed since the award of Contract C1056 – Advanced Utility Relocations at Wilshire/La Cienega by Steve Bubalo Construction Co. The contract has been completed and is closed out.

Twenty-eight Contract MODs with a total value of \$13.6 million have been executed since the award of Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

(Reported Data as of March 2019)

| | |
|--|--------------------|
| DBE Goal – Design The percentage of funds apportioned to Design Contracts | 20.25% |
| Current DBE Commitment Design Total DBE Committed Dollars divided by Total Contract Value for Design | \$13.1 M 20.25% |
| Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime: | \$12.5 20.4% |

Sixteen (16) 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 | \$110.07M 14.00% |
| Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime: | \$109.5M 14.17% |

One hundred-eighteen (118) Construction DBE sub-contractors have been identified to date.

PROJECT LABOR AGREEMENTS (PLA)

As of April 2019:

| | |
|--|--------|
| Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Areas in the United States | 40.00% |
| Targeted Worker Current Attainment | 63.71% |
| Apprentice Worker Goal Construction work to be performed by Apprentices | 20.00% |
| Apprentice Worker Current Attainment | 17.74% |
| Disadvantaged Worker Goal Construction work to be performed by disadvantaged workers | 10.00% |
| Disadvantaged Worker Current Attainment | 10.45% |

FINANCIAL/GRANT

Status of Funds by Source

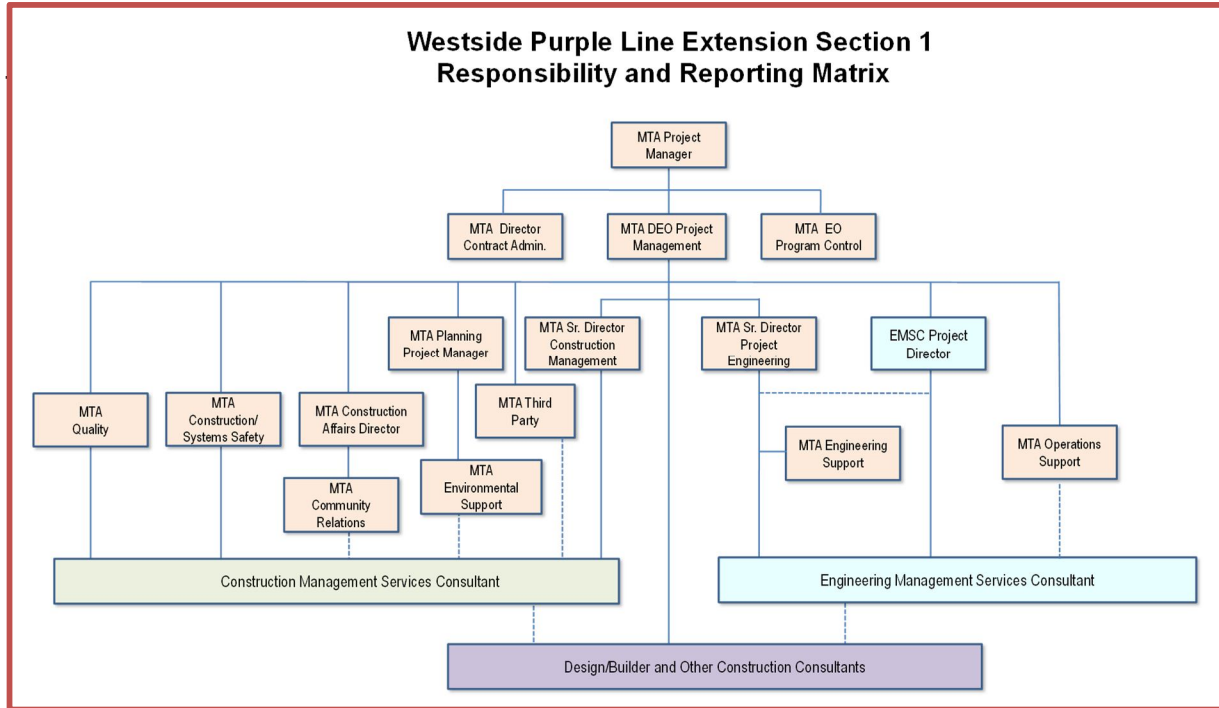
| SOURCE | (A) | (B) | (C) | (D) | (D/B) | (E) | (E/B) | (F) | (F/B) |
|--|--------------------|-------------------------------|-----------------------------|--------------------|--------------|--------------------|--------------|--------------------|--------------|
| | ORIGINAL BUDGET | TOTAL FUNDS ANTICIPATED | TOTAL FUNDS AVAILABLE | \$ | % | \$ | % | \$ | % |
| FEDERAL - SECTION 5309 NEW STARTS | \$1,250.000 | \$1,250.000 | \$465.000 | \$1,250.000 | 100% | \$465.000 | 37% | \$462.994 | 37% |
| FEDERAL CMAQ | \$12.171 | \$12.171 | \$12.171 | \$12.171 | 100% | \$12.171 | 100% | \$12.171 | 100% |
| FEDERAL SECTION 5339 - ALTERNATIVES ANALYSIS | \$0.512 | \$0.512 | \$0.512 | \$0.512 | 100% | \$0.512 | 100% | \$0.512 | 100% |
| MEASURE R - TIFIA LOAN | \$856.000 | \$856.000 | \$340.644 | \$340.644 | 40% | \$340.644 | 40% | \$340.644 | 40% |
| MEASURE R 35% | \$869.178 | \$874.178 | \$700.000 | \$810.849 | 93% | \$650.268 | 74% | \$500.582 | 57% |
| STATE STIP RIP | \$2.568 | \$2.568 | \$2.568 | \$2.568 | 100% | \$2.568 | 100% | \$2.568 | 100% |
| STATE CAPITAL PROJECT LOANS - OTHERS * | \$83.648 | \$83.648 | \$83.648 | \$83.648 | 100% | \$83.648 | 100% | \$52.686 | 63% |
| CITY OF LOS ANGELES | \$75.273 | \$75.273 | \$1.290 | \$1.290 | 2% | \$1.290 | 2% | \$1.290 | 2% |
| TOTAL | \$3,149.350 | \$3,154.350 | \$1,605.833 | \$2,501.682 | 79.3% | \$1,556.101 | 49.3% | \$1,373.447 | 43.5% |

EXPENDITURES ARE CUMULATIVE THROUGH APRIL 2019.
 ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

* OTHERS INCLUDE TDA ADMINISTRATION (\$4.1M), LTF GENERAL REVENUES (\$1.8M), AND LEASE REVENUES (\$37.8M)

PROJECT ORGANIZATION AND STAFFING

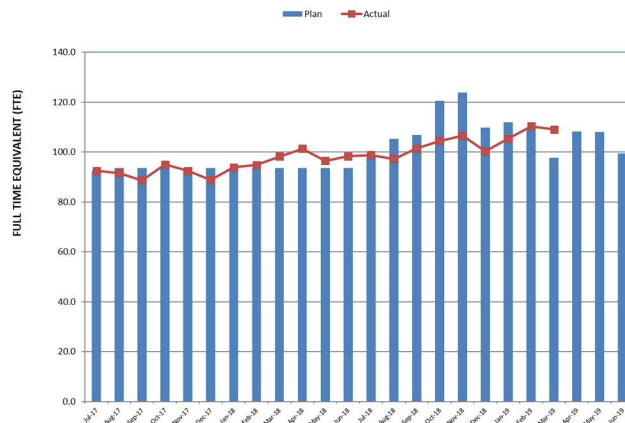
The design-build contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



The overall FY19 Total Staffing Plan averages 108.3 FTEs per month.

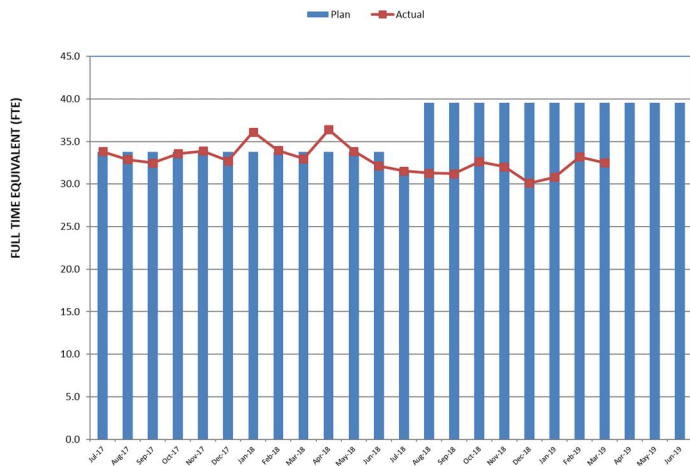
For March 2019, there were a total of 32.5 FTEs for MTA's Project Administration Staff and 76.6 FTEs for Consulting Staff. The total project staffing for March 2019 was 109.1* FTEs. The downward-trending shortfall in Metro staffing has not impacted Metro's ability to effectively manage the Project. Review of staffing plans is on-going to ensure staffing needs are appropriately managed.

Total Project Staffing – Metro and Consultants

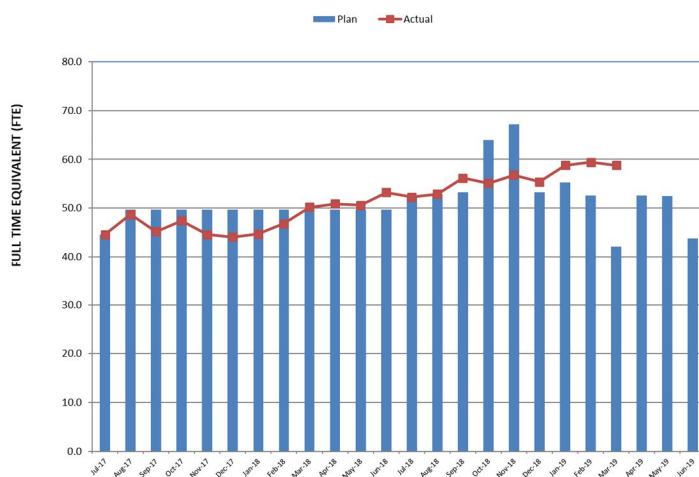


*Actuals include 2.8 FTEs related to Project Management Support Services (PMSS).

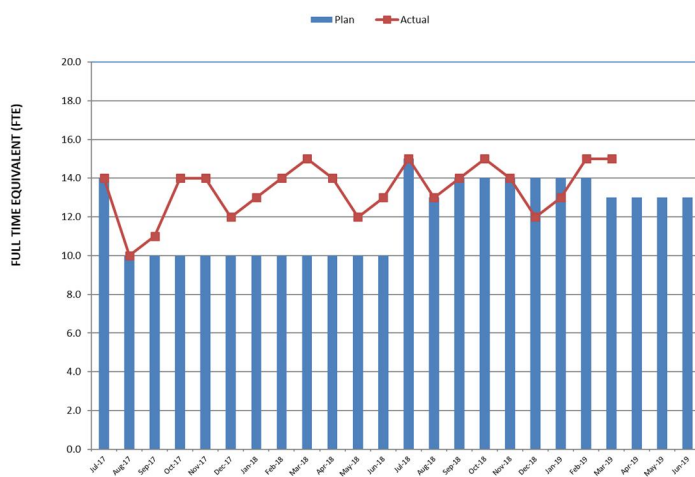
Metro Staff



CM Support Services Staff (Consultant)



Engineering Services Staff (Consultant)



All above data through March 2019

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

Purple Line Extension Section 1 - Real Estate Status Summary

| Description | Number of Parcels | Certified | Appraisals Completed | Offers Made | Agreements/Settlements Signed | Relocations | | Parcels Available |
|----------------------|-------------------|-----------|----------------------|-------------|-------------------------------|-------------|------------|-------------------|
| | | | | | | Required | Completed | |
| Full Takes | 9 | 9 | 9 | 9 | 8 | 109 | 109 | 9 |
| Part Takes | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 6 |
| TCE | 4 | 4 | 4 | 4 | 2 | 0 | 0 | 4 |
| Total Parcels | 19 | 19 | 19 | 19 | 16 | 109 | 109 | 19 |

Metro has possession of all the parcels by either acquisition, possession and use agreements or stipulations. The C1045 contractor has possession of all properties along the alignment needed to construct the Project.

There had been three parcels at the Wilshire/Fairfax Station location in the condemnation phase. Settlement proposals for two of the three parcels were approved by the MTA Board in January 2019. *Final payment for these settlements have been made and both cases are in the process of being closed.*

QUALITY ASSURANCE

C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

- Reviewed daily inspection reports from the Contractor/Field Technician and CMSSC oversight inspection personnel. Inspections show that the work is predominately compliant.
- Reviewed and provided comments on quality related submittals construction work plan, project specifications, product data and quality manuals.
- Engaged in oversight for the excavation and installation of structural steel members for the Wilshire/La Cienega Station SOE.
- Engaged in Wilshire/Fairfax Station oversight for HDPE and protection slab installation.
- Engaged in Wilshire/La Brea Station oversight for rebar placement of the concourse structural member.
- *Processed 29 surveillances, 19 Quality Action Requests and 21 Nonconformance Reports and 1 Corrective Action Request.*

C1078 – Division 20 MOW and NRV Building Location 64

- Reviewed and provided comments on quality related submittals.
- Reviewed daily inspection reports from Contractor's quality assurance inspection team. Inspections show that the work is predominately compliant.
- Metro Systems personnel onsite to witness various systems commissioning HVAC, electrical, fire alarm and civil items.
- *Processed 2 surveillances, 11 Quality Action Requests (All Closed), 17 Nonconformance Reports and 1 Corrective Action Request.*

ENVIRONMENTAL

- Ongoing review of noise and vibration levels, including groundborne impacts attributed to TBM operations and additional targeted mitigation measures at Wilshire/La Cienega Station yards.
- *Conducted field environmental monitoring and spot inspections for construction noise, vibration, stormwater BMPs, dust and cultural resources for the C1045 and C1078 contracts, and third-party work activities.*
- *Cogstone is continuing laboratory preparation of the backlog of recovered fossil specimens.*
- *Issued 24th Quarter MMRP report to PMOC on April 24, 2019.*
- *Continued evaluation of noise impacts during late night ventilation and excavation activities.*
- *Cogstone paleo monitors found/recovered portions of a suspected skull, mandible, scapula (shoulder) and toes of western horse from the Wilshire/La Cienega Station excavation.*
- *Ongoing commissioning for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078). Pre-functional testing is completed for most equipment and noted deficiencies are being addressed. Testing-and-balancing work has been completed and functional performance testing is in progress.*

CONSTRUCTION AND COMMUNITY RELATIONS

Construction Relations

- *Produced and distributed ten construction work notices for construction activities.*
- *Conducted one Wilshire/La Brea Station tour for stakeholders.*
- *Produced and distributed weekly construction lookahead emails to construction stakeholders and monthly look ahead for the City of Beverly Hills.*
- *Held meetings and made Project Presentations at the following: Mid-City West Community Council, Wilshire Center Koreatown Neighborhood Council, Elected Officials Deputies, Beverly Hills City Hall, Greater Wilshire Neighborhood Council, Construction Community Meetings and various stakeholders.*
- *Continued additional business mitigations including: alternative parking options, business signage, street signs and print ads at no cost to the businesses.*
- *Updated website, Facebook, Twitter as needed. Published monthly PLE (Purple Line Extension) newsletter to email list.*
- *Continued with the “Eat, Shop, Play Spotlight” campaign to advertise and promote businesses that participate in ESP Wilshire and Beverly Hills.*

CREATIVE SERVICES

Community Relations

- *Continued design development for Wilshire Customer Center artwork relocation.*
- *Continued artist design coordination for eight locations within the stations.*
- *Ongoing Artwork fabrication for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078) with delivery and installation expected to start in mid-June 2019.*
- *Planning underway for artist led community engagement at the Project Halfway Event on Sunday, June 2, 2019.*
- *MOW Building Location 64 Design Advisory Group visited the artist studio for a key fabrication milestone and to learn about various methodologies being employed for the artwork assembly.*

SAFETY & SECURITY

- *There was one recordable injury during the month of April 2019.*
- *Metro Construction Safety hosted Monthly All Hands Safety Meeting for all Westside-Purple Line Extension Contractors on April 25, 2019.*
- *March 2019 Contractor Work Hours (Design & Construction): 75,978*
- *Contractor - Project to Date Work Hours (Design & Construction) (through 3/31/2019): 3,020,472*
- *Total Project to Date Work Hours (Contractor & the IPO Staff) (through 3/31/2019): 3,676,976*
- *Project to Date Recordable Injury Rate: 1.4 (Twenty Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.5)*
- *Project to Date Total Days Away (DART) Injury Rate: 0.7 (37 Days Away from Work Injuries) (National Rate: 1.5)*
- *Project to Date Total Days Away Rate: 33.6 (630 Days Away from Work) (No National Rate Published)*
- *National Rates for Heavy and Civil Construction (NAICS Code 237) are for Calendar Year 2017, published by USBLS in November 2018.*

APPENDIX CHRONOLOGY OF EVENTS

| | |
|----------------|--|
| June 2007 | Began Alternatives Analysis study |
| January 2009 | Board approval of Alternatives Analysis study and next phase |
| February 2009 | Began Draft Environmental Impact Statement / Report (EIS / EIR) |
| October 2010 | Board approval of Draft EIS / EIR and selection of locally preferred alternative |
| January 2011 | FTA approval to enter Preliminary Engineering |
| May 2011 | Began Preliminary Engineering |
| April 2012 | Board certification of Final EIS / EIR and adoption of project |
| July 2012 | Completion of Exploratory Shaft final design |
| August 2012 | FTA Record of Decision |
| September 2012 | Began Real Estate Acquisition |
| November 2012 | Began Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea |
| November 2012 | Began Final Design - C1055 - Advanced Utility Relocations contract – Wilshire/Fairfax |
| November 2012 | Issued RFQ for C1045 Design / Build contract |
| December 2012 | Began Final Design - C1056 - Advanced Utility Relocations contract – Wilshire/La Cienega |
| January 2013 | Began C1034 Exploratory Shaft construction |
| February 2013 | Received RFQ responses for C1045 Design / Build contract |
| June 2013 | Issued RFP for C1045 Tunnels, Stations, Trackwork, Systems and Systems Integration Testing |
| June 2013 | Beginning of C1055 AUR Wilshire/Fairfax Bid Period |
| July 2013 | Submitted draft FFGA application |
| July 2013 | Completed Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea |

| | |
|----------------|---|
| July 2013 | Submitted TIFIA loan application |
| August 2013 | Began C1048 Advanced Utility Relocations contract – Wilshire/La Brea |
| August 2013 | NTP for Construction Management Support Services Contract |
| January 2014 | Submitted application to FTA requesting an FFGA |
| January 2014 | Received RFP Proposals for Contract C1045 |
| February 2014 | Beginning of C1056 AUR Wilshire/La Cienega Bid Period |
| May 2014 | FTA awarded FFGA |
| May 2014 | Received TIFIA Loan |
| June 2014 | Began C1055 Advanced Utility Relocations at Wilshire/Fairfax |
| July 2014 | Metro Board approved staff recommendation to award Contract C1045 and approved Life-of-Project Budget |
| September 2014 | Issued Invitation to Bid for Contract C1078 |
| October 2014 | Issued C1056 Contract Award |
| November 2014 | Issued C1045 Contract Award |
| January 2015 | Issued C1045 Contract Notice to Proceed |
| January 2015 | Issued C1056 Contract Notice to Proceed |
| February 2015 | Received Contract C1078 Bids |
| August 2015 | Issued C1078 Contract Award |
| September 2015 | Issued C1078 Contract Notice to Proceed |
| October 2015 | Contract C1055 achieved Substantial Completion |
| December 2015 | Began piling operations for Wilshire/La Brea Station |
| June 2016 | Began deck beam and decking operations for Wilshire/La Brea Station |
| August 2016 | Began piling operations for Wilshire/Fairfax Station |
| August 2016 | Contract C1056 achieved Substantial Completion |
| February 2017 | Began deck beam and decking operations for Wilshire/Fairfax Station |

| | |
|----------------|--|
| March 2017 | Began piling operations for Wilshire/La Cienega Station |
| June 2017 | Decking operations for Wilshire/Fairfax Station are complete |
| September 2017 | Began utility relocation work at the Wilshire/Western site |
| October 2017 | Began street decking for Wilshire/La Cienega Station |
| November 2017 | Began concreting activities for Wilshire/La Brea Station |
| December 2017 | Structural steel erection commenced at the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 |
| January 2018 | Decking operations for Wilshire/La Cienega Station are complete |
| February 2018 | Began invert slab concrete placement at the Wilshire/La Brea Station |
| April 2018 | Wilshire/Fairfax Station excavation cleared the Paleo Zone (Elevation 105') |
| June 2018 | Concrete wall pours needed to support TBM assembly at Wilshire/La Brea Station have been completed |
| July 2018 | Began delivery of TBM components to the Wilshire/La Brea Station site |
| October 2018 | The Reach One (1) mining operation commenced with the launch of TBM #1 from Wilshire/La Brea Station. |
| November 2018 | TBM #2 was launched from Wilshire/La Brea Station. |
| December 2018 | The bottom of excavation was reached at the Wilshire/Western TBM Retrieval site. |
| January 2019 | The temporary concrete slab at the Wilshire/Western TBM Retrieval site was placed. |
| February 2019 | Reached the bottom of excavation at Wilshire/Fairfax Station. |
| March 2019 | Completed mud mad placement at Wilshire/Fairfax Station. |
| April 2019 | <i>HDPE protection slab placement commenced at Wilshire/Fairfax Station.</i> |